

GK'S NOTES 3.0

MARCH 2026
EDITION



VOLUME 1

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All cases, scenarios, clinical discussions, and teaching content in this book are **entirely original works** created independently by the author(s). They are:

- Based on common UK clinical practice scenarios and consultation structures
- Informed by publicly available NHS, NICE, BNF, and GMC Good Medical Practice guidelines
- Designed to teach clinical reasoning, communication skills, and management planning in a UK healthcare context
- Written using original phrasing and independently constructed case designs

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Users are strongly encouraged to consult official NHS, NICE, and BNF guidelines regularly, as clinical recommendations evolve over time.

Patient Scenarios

All patient cases are entirely fictional. Any resemblance to real persons, living or deceased, is purely coincidental. No real patient data or identifiable clinical encounters have been used.

For updates, revision tools, and additional resources, visit: www.gksplab2.com

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This textbook gives you the consultation scripts, the frameworks, and the exact words to say in every PLAB 2 station.

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- **OSCE Practice Stations** - Full exam-format stations with candidate briefs, marking schemes, actor scripts, and case notes that show you exactly where marks are won and lost. Practise each one as many times as you want.

Free access to Practice Lounge - A Partner in 30 Seconds, Not 3 Days

You know the drill. You post in the WhatsApp group: "Anyone free to practise tonight?" Three people say yes. One cancels. One doesn't show. The third wants to do a different system. By the time you actually practise, you've wasted a week.

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Free accounts get 9 sessions per day - 3 as Doctor, 6 as Patient. That's more daily practice than most candidates do in a week. Resets at midnight UK time, every day.

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12 essential tools - from £12.

PREPARE - Walk Into Every Station With Confidence

1. **Clinical Concept Refreshers**

Guidelines change between editions. Examiners don't tell you which ones. These refreshers keep your clinical knowledge aligned with current best practice for every system - so you never lose marks on something you could have looked up the night before.

Read the chapter in this textbook for how to consult. Use the refresher to make sure the clinical facts behind your consultation are still correct.

2. **Summary Notes - 500+ Cases On Your Phone**

The entire PLAB 2 syllabus condensed into high-yield notes across all 18 systems. Each one pulls the essentials from the corresponding GK's Notes chapter into something you can revise on the bus, in a queue, or in bed at midnight.

Not a replacement for reading. A replacement for flipping back through 1500 pages trying to find that one management step you can't quite remember.

PRACTICE - Because Reading About Consultations Doesn't Pass the Exam

3. **Practice Hub with 560+ OSCE Stations and patient scripts -**

Every station built to mirror the real PLAB 2 format. Candidate brief. Actor script. Case notes explaining precisely where marks are gained and where they're lost.

Stop wondering if you're ready. **Start knowing.**

4. **OSCE Evaluation Checklists - See Exactly Where Your Marks Go**

This isn't vague "practice questions." This is you sitting down, reading the brief, doing the case, then checking the marking scheme to see whether you'd have passed. Across all systems. Mapped directly to the cases in this textbook.

5. **AI Patient - An Examiner Who Never Sleeps***

You speak. The AI listens. It responds - naturally, in character, based on the clinical scenario. You have 8 minutes. The clock is running. There's no pause button, no hint, no "show me the answer." Just you, consulting, exactly like the real exam.

When time runs out, you get a **detailed feedback report** across all three PLAB 2 marking domains. Not generic encouragement - specific, actionable feedback on what you said, what you missed, and what you should have done differently.

Practise at 2 AM. The AI doesn't care. **Practise the same case six times.** It won't get tired of you. **Practise on the bus with earphones.** Nobody needs to know.

Your subscription includes 3 sessions.

Less than a cup of coffee per session. For feedback that used to require booking a tutor.

*Tech Preview - Full AI Practice packs and mocks coming soon.

6. **Unlimited Practice Partners - No Caps, No Excuses**

Premium removes the daily limit entirely. Practise 5 times. Practise 20 times. Morning, afternoon, midnight - as many sessions as you want, in any role, across any system.

The week before your exam, this is what makes the difference. The ability to just keep going.

7. **8-Minute Timer - Every System, Every Case**

The exam clock, available everywhere. Warning bell at 6 minutes. End bell at 8. Use it on every single case until you stop thinking about time - because the candidates who run out of time aren't the ones who know less. They're the ones who didn't train under the clock.

REVISE - The Part Where Everything Finally Sticks

8. **Rapid Review Notes - What You Actually Need to Remember**

You've read the chapter. You've practised the case. Now strip away everything except what you need to walk into the station knowing. Key points. Critical differentials. Management steps. Nothing else.

Open these the night before your exam. Refresh an entire system in minutes. This is the revision tool you'll wish you'd had for every exam you've ever taken.

9. **Visual Mindmaps - One Glance, One Entire System**

Every clinical system laid out as a single connected map - cases, differentials, management plans, all linked together. Scan it. Find the branch you can't recall. That's your revision target for the next hour.

Perfect for:

Refreshing an entire system in one sitting

Seeing how similar presentations differ (migraine vs. cluster vs. tension)

Discovering gaps you didn't know existed

10. **Management Flashcards - 570+ Cards That Refuse to Let You Forget**

Spaced repetition, done properly. Every major management plan in the PLAB 2 syllabus, tracked by an algorithm that learns what you know and what you don't. Cards you struggle with come back sooner. Cards you've mastered space out further.

This isn't re-reading your notes and hoping it sticks. This is **active recall** - the single most effective study technique research has ever identified - applied to every management plan you need to know. The app does the scheduling. You just show up and answer.

11. **AI Learning Trends - See What the Crowd Is Doing**

Which cases are trending this week? Which systems are getting the most practice? What are other candidates focusing on right now? Use real-time platform data to make sure you're not ignoring the topics everyone else is drilling.

12. **Medical Image Library - Train Your Eyes, Not Just Your Ears**

Clinical images - dermatological findings, clinical photographs - for the visual diagnoses that appear in PLAB 2 stations.

Use it until you can glance at an image and know. That's the standard.

The exam doesn't wait. Neither should you.

gksplab2.com

A Note Before You Begin

To every doctor reading this,

You already did something remarkable. You studied medicine, you qualified, and you chose one of the hardest paths a doctor can take - proving yourself all over again in a system that wasn't built with you in mind.

I won't sugarcoat what 2026 looks like for international medical graduates. The exam has changed - realigned to the MLA content map, demanding sharper clinical reasoning and deeper UK-specific thinking. PLAB 2 pass rates sit below 66%. Fees have risen. The validity window has tightened. And beyond the exam, the landscape has shifted dramatically. Over 47,000 doctors are now competing for roughly 13,000 specialty training posts. The UK Government has fast-tracked the Medical Training (Prioritisation) Bill - legislation that explicitly prioritises UK graduates for foundation and specialty training offers ahead of IMGs.

These are facts. You deserve to know them clearly.

But here's the other side of that story: over 138,000 internationally trained doctors are currently licensed and working in the UK - 42% of the entire medical workforce. The NHS doesn't just welcome international doctors. It depends on them. That hasn't changed, and it won't.

What sets you apart isn't where your degree is from. It's how you show up. The way you think through a consultation. The way you communicate with a patient. The way you safety-net, share decisions, and manage uncertainty. That's what this exam tests. And that's exactly what this book is built to teach you.

GK's Notes 3.0 is a complete rebuild from the ground up - every case, framework, and clinical discussion independently created, rooted in NHS, NICE, and GMC guidance, and designed to help you think the way this exam demands.

In the past eight months, over 4,000 candidates have used GK's PLAB 2 Study Centre to prepare - and passed. What started as a small project has grown into a community that spans countries, time zones, and exam cohorts. Doctors helping doctors. Strangers becoming study partners. People celebrating each other's passes like their own.

That community is you. And I owe you more than I can say.

To everyone who sent a message after passing, who recommended us to a friend, who showed up again after a setback - thank you. You built something far bigger than a set of notes.

Take your time with this edition. Read slowly. Think deeply. Practise out loud. And after every attempt, pause - not to judge yourself, but to learn.

The system may not be fair. But you can still be exceptional.

Trust the work. Trust yourself.

- GK

How to Use This Book

Let's get one thing out of the way.

DO NOT MEMORISE THESE NOTES.

If your plan is to highlight every line, cram fifty cases in a weekend, and walk into your station reciting someone else's words - this book isn't going to help you. Not because the content isn't good enough, but because that's not how PLAB 2 works.

This exam doesn't reward memory. It rewards thinking. It rewards doctors who can listen, respond, explain, and make decisions in real time - clearly, calmly, and with empathy. That's what this book is designed to train.

Every case is written in a natural, conversational style - not so you can repeat it word for word, but so you can absorb the rhythm of a safe, structured UK consultation and learn to speak in your own voice with confidence.

What This Book Is

This is a structured, station-by-station guide to PLAB 2. Every case is built around realistic clinical scenarios, aligned with current NHS, NICE, and GMC guidance, and designed to help you develop three things: clinical reasoning, consultation structure, and the language to tie them together. It's a resource that trains your logic, sharpens your communication, and prepares you to make sound decisions under time pressure.

What This Book Is Not

It is not a script bank. It is not a shortcut. It is not a rehash of academy slides or lecture transcripts. And it is not something to read cover to cover in silence the night before your exam.

How to Get the Most Out of It

- 1. Speak it out loud.** Every single time. Set a timer. Record yourself. Practise with a partner or solo - but never just read silently and move on. PLAB 2 is a spoken exam. Your preparation should be too.
- 2. Learn the structure, not the sentences.** Every case follows a logical consultation flow - opening, history, screening, ICE, explanation, plan, safety netting. These are your anchor points, not your script. Understand the steps, then express them in your own words.
- 3. Don't try to say everything.** The cases here are written in detail so you can understand the full picture. You are not expected to cover every point in an eight-minute station. In the exam, clear and focused communication will always beat trying to say it all. If you need a quicker revision pass before your exam, the **summary notes and rapid review notes on gksplab2.com** are built for exactly that - distilling each case down to what matters most.
- 4. Don't be overwhelmed by the size.** This is a comprehensive book - deliberately so. The detail exists to deepen your understanding, not to burden your memory. Take it one case at a time. Quality over quantity, always.
- 5. Repeat before you move on.** Master a few cases deeply. Then come back to them. Repetition builds fluency. Your goal isn't to finish the book - it's to learn from it.
- 6. Pair it with active revision tools.** Reading alone isn't enough. The most successful candidates combine spoken practice with visual and active recall methods. The **management flashcards, mind maps, and image library on gksplab2.com** are designed to work alongside this book - reinforcing key decisions, counselling phrases, and clinical patterns so they stick under exam pressure.

7. Test yourself with real station practice. Once you're comfortable with a case, try it under timed conditions. The **companion OSCE cases on gksplab2.com** give you a chance to simulate the exam experience - complete with candidate briefs and marking guidance - so you can identify gaps before exam day does it for you.

8. Use it however you study best. Whether you're attending a course, working with a study group, or preparing independently, these notes are built to give you a clean, solid foundation. They'll help you cut through the noise and focus on what actually matters in a station.

Staying Up to Date

PLAB 2 is a constantly evolving exam. Core stations reappear frequently, but new scenarios are introduced regularly - often with different angles, emotional tones, or ethical dimensions.

GK's Notes 3.0 is built to evolve with it.

This resource is updated multiple times a year, incorporating new case patterns, refined phrasing, and structural improvements. Always ensure you are working from the latest version. All updates, new cases, and the full suite of revision tools - including summary notes, rapid reviews, flashcards, mind maps, OSCE companions, and the image library - are available at www.gksplab2.com.

A Note on Accuracy

This book is the product of considerable time, care, and clinical attention - with the goal of helping as many candidates as possible prepare with confidence. Every case has been written with close attention to accuracy and alignment with current guidance.

That said, medicine evolves. Guidelines are updated. And despite every effort, no resource is immune to the occasional error.

If something seems unclear, outdated, or inconsistent - please verify it against trusted sources such as NICE, NHS CKS, or BNF. These should always be your primary reference for clinical reasoning and management decisions.

And if you do spot an error, I'd be genuinely grateful if you let me know directly. Every correction strengthens the next edition - and helps every candidate who comes after you. Email at gksplab2@gmail.com

Thank you for being part of making this resource better.

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Chapter 1: Introduction to PLAB 2

PLAB 2 is the final step between you and GMC registration. It's not like PLAB 1, where you can rely on good memory and MCQs. This one is different. It's a practical, performance-based exam that tests how well you apply what you know in real-life scenarios.

What is PLAB 2?

PLAB 2 is an OSCE-style exam held in the UK.

- It has **16 stations**
- Each station lasts **8 minutes**
- You'll be interacting with trained actors (role players), not real patients
- The setups are realistic-GP clinics, A&E, wards, telephone consultations, etc.
- The exam takes approximately **3 hours** to complete
- There are at least **2 rest stations** built in for breaks

At each station, you may be asked to:

- Take a focused history
- Explain a diagnosis in simple terms
- Handle a follow-up or test result discussion
- Counsel someone about a concern or decision
- Manage an emergency or prescribe safely
- Perform a clinical examination or practical procedure
- Handle an ethical dilemma or colleague scenario

Your goal is to behave like a **safe, sensible FY2 doctor**.

PLAB 2 and the MLA Content Map

Since **May 2024**, PLAB 2 has been compliant with the UK Medical Licensing Assessment (MLA) requirements. This is an important change that affects how you should prepare.

The questions and stations are now based on the **MLA content map**, which outlines:

- Core knowledge, skills, and behaviours needed for UK practice
- 217 clinical presentations and 315 conditions
- 24 areas of clinical practice
- Clinical and professional capabilities (such as assessing risk and safeguarding)
- Practical skills and procedures

What this means for you:

- The exam format hasn't changed, but the content framework has
- Ensure your preparation resources align with the MLA content map rather than older PLAB blueprints
- The MLA content map is available on the GMC website (gmc-uk.org/education/medical-licensing-assessment)

Both UK medical graduates and international medical graduates applying to practise in the UK will now take assessments that draw from the same topics and meet the same standards.

How Is PLAB 2 Different from PLAB 1?

PLAB 1	PLAB 2
Written exam (MCQs)	Practical, face-to-face OSCE
Tests memory and guidelines	Tests application and communication
No need for IPS skills	IPS skills are critical
You pass by knowing answers	You pass by behaving safely

PLAB 1 checks what you know.

PLAB 2 checks what you would actually do.

What PLAB 2 Is NOT Testing

Understanding what the exam isn't looking for helps you avoid common traps:

- **Memorised scripts** – Examiners can tell when you're reciting rehearsed phrases. Speak naturally, in your own words.
- **Perfect medical knowledge** – You passed PLAB 1; they know you have the knowledge. They want to see you **APPLY** it safely.
- **Being "nice"** – Politeness is baseline behaviour, not a scoring criterion. They're assessing safe, structured, patient-centred care.
- **Perfection** – You don't need 16 perfect stations. You need to demonstrate safe, competent doctoring across enough stations to pass.

What to Expect: Station Types

While the exact mix varies each exam, you'll typically encounter:

- **History-taking stations** – These make up the bulk of the exam
- **Counselling/Explanation stations** – Explaining a diagnosis, treatment options, or lifestyle advice
- **Clinical examination stations** – Performed on actors or manikins (e.g., cardiovascular, respiratory, abdominal, neurological, musculoskeletal)
- **Practical procedure stations** – IV cannulation, male/female catheterisation, suturing, venepuncture, inhaler technique, etc.
- **SimMan station(s)** – Managing acutely unwell patients using a talking manikin with vital signs
- **Telephone consultation stations** – Remote consultations where you cannot see the patient
- **Ethics/Colleague scenarios** – Colleague in distress, handling complaints, safeguarding concerns, consent issues
- **Prescription writing station(s)** – Safe prescribing and drug chart completion

Note: Telephone consultations have become more common since COVID-19. Be prepared for stations where you cannot physically see or examine the patient.

Understanding the PLAB 2 Scoring System

PLAB 2 is not just about getting the diagnosis right - it's about performing like a safe, professional FY2 across multiple domains. That's why understanding how you're scored is crucial.

The Three Marking Domains

You are marked out of 12 in three major domains (4 marks each):

1. **Data Gathering, Technical & Assessment Skills (4 marks)**
 - Did you ask all relevant, focused questions?

- Did you perform the correct examination if applicable?
- Did you identify appropriate investigations?
- Did you arrive at a safe, logical differential?

2. Clinical Management Skills (4 marks)

- Did you explain clearly and formulate a safe plan?
- Did you give proper advice aligned with UK guidelines?
- Did your plan follow FY2-level expectations?
- Did you include appropriate safety netting and follow-up?

3. Interpersonal Skills (IPS) (4 marks)

- Did you listen well and respond appropriately?
- Did you show empathy, respect, and cultural awareness?
- Did you use simple, everyday language (not jargon)?
- Did you involve the patient in decision-making?

The PLAB 2 Scorecard: What "Y" Really Means

Each station is also scored across **10 sub-domains** on a separate sheet. If the examiner feels you didn't meet a standard in any area, they tick it with a "Y" (Yes – needs improvement). Too many Ys can fail the station - even if your diagnosis or plan was right.

Scorecard Domain	What They're Looking For
1. Language	Clear, simple, fluent English
2. Listening	Letting the patient speak, responding naturally
3. Rapport	Respectful tone, kindness, cultural awareness
4. Diagnosis	Safe and evidence-based reasoning
5. Management	Structured plan, FY2-appropriate decisions
6. Examination	Correctly performed and verbalised (if required)
7. Findings	Understood and explained clearly
8. Time Management	Smooth, efficient flow within 8 minutes
9. Patient Concerns	ICE (Ideas, Concerns, Expectations) and symptom impact explored
10. Overall Consultation	Safe, professional, confident behaviour

How Examiners Use These Statements

After each station, the examiner indicates which of these pre-set feedback statements apply to your performance:

- Examiners **must** provide this feedback if they judge your performance as Unsatisfactory or Borderline
- They **may also** provide it for Satisfactory or Good performances
- You will be told which feedback statements were indicated as applying to you in each station

This qualitative feedback helps you understand where to improve, even if you passed.

Final Tip

Even if you "say everything right," you can lose marks if:

- Your tone is robotic or rehearsed
- You skip red flags or ICE
- You rush or forget to involve the patient
- You use medical jargon the patient doesn't understand
- You don't acknowledge the patient's emotional state

That's why this book is structured not just for medical accuracy - but for **scoring excellence**.

How Passing is Determined

The GMC uses the **borderline regression scoring method** to ensure fairness. Here's how it works:

1. Each station has its own pass mark, which varies based on station difficulty
2. The pass marks for all stations are added together
3. One standard error of measurement is added to create the minimum total score
4. You must meet or exceed this total score

Important Change (November 2024):

From November 2024, the GMC **removed the fixed minimum of 10 stations to pass**. Instead, the minimum number of stations you need to pass is now **calculated separately for each exam** using a regression method.

- You won't be told exactly how many stations were required to pass your specific exam
- This calculation is applied automatically to your results
- The methodology is designed to keep the level of challenge consistent between exams

Key points:

- The examiner does not know the passing score when marking you - it's calculated after the exam
- Each test centre operates independently with different stations and distinct passing criteria
- Candidates taking the test on the same day at different venues may see different passing marks
- As part of quality assurance, the GMC may exclude individual stations from your results - the pass mark is recalculated accordingly

PLAB 2 vs UKMLA – What's the Difference?

Let's keep it simple:

- **PLAB 2** is the current clinical skills exam for international medical graduates (IMGs) seeking GMC registration in the UK.
- **UKMLA** (UK Medical Licensing Assessment) is the new two-part licensing exam for UK medical graduates:
 - AKT (Applied Knowledge Test)
 - CPSA (Clinical and Professional Skills Assessment)

If you are taking PLAB, you do not take the UKMLA.

The two routes are separate, depending on where you got your primary medical qualification.

However, since 2024, **PLAB is now compliant with MLA requirements**:

- PLAB 1 meets the requirements for the MLA Applied Knowledge Test (AKT)
- PLAB 2 meets the requirements for the MLA Clinical and Professional Skills Assessment (CPSA)

This means both UK graduates and IMGs are now assessed against the **same standards**, giving patients and employers greater confidence in all doctors new to the UK, regardless of where they trained.

Eventually, PLAB may be phased out and fully replaced by the UKMLA for IMGs, but as of 2025,

PLAB 2 remains the required exam for international applicants.

Important Exam Information

Exam Fee (As of April 2025)

- The PLAB 2 exam fee is **£998** (previously £981 in 2024)
- Refugee doctors may qualify for a **50% fee reduction** on their first two attempts
- Fees are reviewed annually - check the GMC website for current pricing

Exam Location

- PLAB 2 is held **only in Manchester, UK** at the GMC's Clinical Assessment Centres
 - 3 Hardman Square, M3 3EB
 - 3 Hardman Street, M3 3AW
- You'll receive the exact centre address in your booking confirmation email

Attempt Limits

- You have a maximum of **4 attempts** to pass PLAB 2
- After 4 failed attempts, you may apply for **one final (5th) attempt**
- To be granted a 5th attempt, you must demonstrate:
 - 12 months of clinical practice, OR
 - A completed postgraduate qualification since your last attempt
- If you fail the 5th attempt, you are **no longer eligible** to take PLAB 2

Important Timelines

- You must pass PLAB 2 **within 2 years** of passing PLAB 1
 - Your pass date is when you **sat** the test, not when results were issued
- After passing PLAB 2, you must have your GMC registration application approved **within 2 years**
- If your PLAB 2 pass is more than 2 years old, you'll need to provide additional evidence of your knowledge and skills

Reading Time

You have **1 minute 30 seconds** between stations. This time is for:

- **Moving** to the next station
- **Reading** the candidate instructions and patient information outside the cubicle

The timer begins when you're outside the cubicle - every second counts. Don't waste this time.

Good Medical Practice 2024 – The Foundation of PLAB 2

Good Medical Practice is the GMC's core guidance on the standards expected of all doctors. It was significantly updated on **30 January 2024**, and these updated standards underpin everything examiners look for in PLAB 2.

The Four Domains

The guidance is structured around **4 domains**:

1. Knowledge, Skills and Development

- Be competent and keep your knowledge up to date
- Provide safe care in face-to-face and remote consultations
- Participate in quality improvement and training
- Reflect on your practice and respond constructively to feedback

2. Patients, Partnerships and Communication

- Treat patients with kindness, courtesy, and respect
- Communicate sensitively and considerately
- Listen to patients - don't interrupt or assume
- Don't make assumptions about what a patient will consider significant
- Work in partnership to support informed decisions
- Treat patients as individuals with diverse needs

3. Colleagues, Culture and Safety

- Treat colleagues with kindness, courtesy, and respect
- Contribute to a positive working environment
- Raise and act on concerns about safety
- Support those who raise concerns

4. Trust and Professionalism

- Act with honesty and integrity
- Maintain professional boundaries
- Be open if things go wrong
- Don't let personal interests affect professional judgement

Key Themes Emphasised in 2024

The updated guidance has a stronger focus on:

- Creating **respectful, fair, and compassionate workplaces**
- Promoting **patient-centred care**
- Tackling **discrimination** (including harassment and bullying)
- Championing **fair and inclusive leadership**
- Supporting **continuity of care and safe delegation**

These values are woven throughout PLAB 2. When you demonstrate respect, empathy, and safe practice, you're demonstrating Good Medical Practice.

How to Practise and Manage Time Effectively in PLAB 2

Why Timing Matters

PLAB 2 is not just about what you know - it's about whether you can gather key information, respond to the patient, and deliver a safe management plan **in under 8 minutes**.

That means you must practise with intention, not just repetition.

Always Use a Timer – 7 min 30 sec

- Every single case you practise should be timed
- Set a countdown for **7 minutes and 30 seconds**
- When time runs out, **stop immediately**

Don't keep going - review your performance instead.

After Each Case, Ask Yourself:

1. Did I reach a working diagnosis?
2. Did I reach management?
3. Which section took more time than expected?
4. What could I structure better next time?

5. Did I explore ICE (Ideas, Concerns, Expectations)?
6. Did I include safety netting?

This step trains your **clinical prioritisation and flow**, not just speed.

Ideal Timing Breakdown for Standard Cases

Segment	Suggested Time
Introduction	20–30 seconds
History + ICE	4.5 to 5.5 minutes
Management + Plan	Start by 5:30–6:00 mark

In practice: Aim to start management by 5:30.

In the exam: Start by 6:00 (warning bell), no matter what.

You do not need to rush or cut your history - but you do need to stay on track. Recognise when to wrap up gently and move forward.

For Examination & Procedure Stations

Timing must be tighter and more deliberate. Your goal here is clarity, not over-explaining.

Segment	Suggested Time
Focused History	~2 minutes
Examination/Skill	~4 minutes
Management	~2 minutes

Focused history = just enough to understand the problem and rule out red flags. Don't neglect rapport or clarity - just keep it purposeful.

Practise with Focused Goals

In addition to full-case practice, include short drills:

- **5-minute history-only drills** (e.g., red flag extraction)
- **3-minute management-only drills** (e.g., structuring shared plans)

This builds both fluency and timing instinct without rushing your full-case learning.

Reflect and Improve

Create a simple log to track progress:

- What case did I practise?
- Did I finish on time?
- Where did time run out?
- What can be phrased better or quicker?

This is how you gradually improve not just content but delivery.

Making the Most of Your 90 Seconds (Before You Enter)

This reading time is critical. Here's a systematic approach:

First 30 seconds: Read the candidate instructions carefully

- What's my role? (FY2 in GP, A&E, ward?)
- What's my task? (History, examination, counselling, procedure?)
- What am I told about the patient?

Next 30 seconds: Generate a mental framework

- What differentials am I considering?
- What red flags should I screen for?
- What's my opening line?

Final 30 seconds: Plan your structure

- If history → SOCRATES? FODPARA? ICE?
- If counselling → CARE? TAEC?
- If examination → Core steps + modifications
- If SimMan → ABCDE approach

Key reminders:

- The timer starts when you're outside - don't waste this time
- Take a breath before entering - calm confidence matters
- Have your opening line ready in your mind

Final Advice on Timing

- Always use a timer - even in solo practice
- Practise finishing history efficiently, not skipping it
- If the bell rings at 6 minutes and you haven't started management - move on immediately
- Learn to transition smoothly from history to summary and plan, even if a few questions remain
- In examination stations, don't over-introduce or over-explain - be calm, clear, and methodical

You don't need to be fast.

You need to be structured, focused, and ready to act when the bell rings.

Official GMC Resources for Preparation

The GMC recommends these resources to prepare:

1. **MLA Content Map** – The definitive guide to what the exam covers
 - Sets out core knowledge, skills, and behaviours
 - All topics and skills needed to pass are covered here
2. **Foundation Programme Curriculum** – Describes the level expected of an FY2 doctor
 - All topics in the MLA content map match what FY2 doctors typically face
3. **Good Medical Practice (2024)** – Core professional standards
 - You'll be expected to demonstrate these values in the exam and in practice
4. **GMC Sample OSCE Station** – Available on the GMC website
 - Shows the format, marking domains, and expectations
5. **PLAB 2 Overview Video** – Shows what to expect on the day

All of these are available at: [GMC official site](https://www.gmc-uk.org)

Chapter 2: Structure of the Consultation

As soon as you walk up to the station door, you'll see a prompt card. This is your station briefing - it gives you the basic scenario setup and your role in the case.

Important:

Whatever is written on the briefing card outside the cubicle will also be placed inside the cubicle. So don't waste time trying to memorize the exact wording. You can always recheck it once you're in.

You've got 90 seconds. Use them smartly.

What the Station Card Tells You

Look for these 4 elements:

1. **Setting** – Where are you? (GP clinic, hospital ward, A&E)
2. **Your Role** – FY2? ED Doctor? GP?
3. **Patient Info** – Name, age, reason for attendance
4. **Your Task** – What you're expected to do (e.g., take history, explain diagnosis, counsel, manage an emergency)

90 Seconds to Strategy

What to Think in These 90 Seconds

This isn't just reading time - it's planning time. Here's a step-by-step mental checklist to guide you:

1. Diagnose the Case Type

Quickly figure out what type of station this is:

- History-taking?
- Follow-up / Test result discussion?
- Counselling / Explaining a condition?
- Angry/Anxious patient?
- Emergency / SimMan?
- Colleague scenario?
- Telephone consultation?

Knowing the type determines your opening lines and mental flow.

2. Predict Key Differentials / Topics

From the brief, think:

- What are the 2-3 likely diagnoses?
- What red flags do I need to rule out?
- What NICE/NHS-based management is likely to come up?

Example:

"Patient with chest pain in A&E" → Think MI, PE, GORD → Prepare to rule out red flags, offer ECG, troponin, escalate if needed.

3. Mentally Plan Your Route

Visualize how you'll run this case:

- How will I start the consultation?
- What screening questions will I ask?

- What explanations or diagrams might I need to give?
- What safety netting points might come up?

4. Calm & Focus

Lastly:

- Take a deep breath.
- Roll your shoulders. Reset your face.
- Smile gently. Step in confidently.

→ You're not being marked outside, but you are being watched inside.

Common Pitfall to Avoid

DON'T MEMORIZE A SPEECH.

PLAB 2 isn't about scripts. It's about natural, safe, confident communication.

Use this time to prepare your mind, not cram your mouth.

How to Begin Any PLAB 2 Station

First Impressions Matter

Your first few lines set the tone for the entire station. Whether you're entering a room, speaking to a relative, or consulting by phone, your approach must be calm, respectful, and structured.

Inside the Cubicle: Starting a Face-to-Face Consultation

Once the buzzer goes off and you enter the room, follow this exact flow:

Step 1: Knock and Enter

- Knock gently and walk in - don't wait for a "come in."
- Stand tall and appear confident but kind.

Step 2: Greet the Examiner

- Smile, then say: "Good morning / Good afternoon."
- Introduce yourself clearly: "I'm Dr. [Last name]." (Or first name, last name without Dr.)
- Say your GMC number: "My GMC number is [XXXXXXX]."
- Walk to your chair and sit down - don't wait for a reply.

Step 3: Greet the Patient

- Smile warmly.
- Say: "Hello / Good morning / Good afternoon."
- (Never say "Hi" - too casual.)

If they say "Hi," respond politely with: "Hello, nice to meet you."

Step 4: Introduce Your Role

Say: "I'm Dr. [Last Name], one of the doctors here today."

Adapt your wording to the setting:

- GP setting: "GP surgery," not "department."
- Hospital setting: "department" is fine.
- Community setting: "clinic" or "community team."

Step 5: Confirm Identity

- If clear: "Are you Mr./Mrs. [Full Name]?"
- If unclear: "Can I confirm your full name, please?"

Step 6: Ask for Preferred Name

- If calm: "What would you like me to call you today?"
- If distressed or unwell: "Is it okay if I call you [first name]?"

Use exactly the name the patient replies with.

Step 7: Confirm Age

"Could you kindly confirm your age for me?"

Step 8: Build Rapport

- If relaxed: "Nice to meet you, [Name]."
- If distressed: Don't say "Nice to meet you."
 - Say: "Let me know if I can do anything to make you more comfortable."

Common Mistakes to Avoid

Don't Say	Instead Say
"Hi"	"Hello" or "Good morning"
"You must be John"	"Are you Mr. John Smith?"
"Dr. Raha"	"Dr. Khan" (Use surname)
"Name and age, please"	Ask each separately
"Mrs. Rebecca"	Use title + surname properly

Summary Flow

Moment	What to Say
Enter	"Hello, I'm Dr. Smith. My GMC number is 1234567."
To patient	"Hello, I'm Dr. Smith, one of the junior doctors here today."
Name	"Can I confirm your name please?"
Preferred name	"What would you like me to call you today?"
Age	"And could you kindly confirm your age for me?"
Rapport (if calm)	"Nice to meet you."

When You're Speaking to a Relative or Carer

Sometimes the person in front of you is not the patient. Here's how to begin respectfully:

Step-by-Step:

1. **Greet:** "Good morning / afternoon."
2. **Introduce yourself:** "I'm Dr. [Last Name], one of the doctors here today."
3. **Ask for their name:** "Can I kindly get your name?"
4. **Ask preferred name:** "Is it okay if I call you [first name]?"
5. **Confirm relationship:**
 - "I understand you're related to [Patient's Name]. Could you confirm your relationship with them?"
 - Or: "I understand you brought your son to the hospital. Could you confirm his name?"
6. **Confirm patient's age:** "Could you kindly confirm his age as well?"
7. **Acknowledge situation empathetically:**

- "I understand you brought [Name] in because of [concern], unfortunately."
 - Don't say: "I hear you have some concerns."
8. **Open the discussion:**
- "Can you tell me more about what's been going on?"
 - "So, what happened next?"

Telephone Consultations: The PCC Method

Clue: A telephone on the desk + printed details = phone consultation.

You're always the one calling. Never touch the phone prop.

Read everything before beginning.

The PCC Flow: Purpose – Consent – Check Identity

Step	What to Say
1. Confirm person	"Hello, am I speaking to Mr. Ahmed?"
2. Introduce yourself	"I'm Dr. Khan, one of the doctors calling from the GP surgery."
3. State purpose	"I'm calling because I understand you phoned us earlier / about your results."
4. Ask for consent	"Is now a good time to talk?" (Don't ask this in emergencies)
5. Ask preferred name	"Is it okay if I call you Mr. Ahmed?"
6. Confirm ID	"Before we go ahead, I'd like to confirm a few details."
7. Confirm age	"Can you kindly confirm your age?"
8. Confirm address	"And the first line of your address, please?"
9. Call-back permission (if emergency)	"If this call drops, is it okay to call you back on this number?"

Common Errors in Phone Consults

Don't	Instead
Say "This is just between us"	Say "This will remain confidential."
Ask DOB/address from a nurse/colleague	Skip ID check in staff conversations
Start call without reading stem	Always read before speaking
Say "Hi"	Always use "Hello"

Additional Considerations for Telephone Consultations

Since you cannot see the patient:

- **Ask explicitly about visual signs:** "Are you breathing comfortably? Any visible rash or swelling?"
- **Check understanding more frequently:** "Does that make sense so far?"
- **Be extra clear with safety netting:** Ensure they know exactly when and how to seek help
- **Document that consent was obtained verbally** (mention this if appropriate)

First Presentation Conversations

How to Begin Based on What the Patient Says

PLAB 2 doesn't reward robotic intros. It rewards situational awareness - how well you adapt your tone, questions, and phrasing to what the patient brings to you. This section teaches you how to begin when the presentation isn't straightforward.

A. When the Patient Comes With "Some Concerns"

Often seen in the stem: "A patient has come in with some concerns."

Don't just repeat that line. Instead:

- "I understand you're having some concerns."
- "How can I help you today?"

Use open body language, face the patient, and offer space to talk.

B. If the Patient Says: "I Have an Embarrassing / Private Problem"

These phrases are common in cases involving ED, STI, contraception, abuse, or genital symptoms.

Respond by normalizing the issue:

"Ms. [Name], let me reassure you - we're all medical professionals. We see a wide range of personal and social issues every day, and we always try our best to understand. You're in a safe space here."

Then invite the conversation gently:

"So what would you like to talk to me about today?"

C. If the Patient Prefers a Male or Female Doctor

This comes up in cases like erectile dysfunction, pelvic exams, intimate issues, or rape/abuse history.

Say:

"That's completely okay. May I ask if there's any particular reason for the preference?"

(Patient may say: "I feel it's embarrassing / a female would understand better.")

Reassure gently:

"Absolutely. Just to let you know, we're all trained to handle sensitive situations with full professionalism. If it's okay, we can begin - and if needed, I'll help arrange someone else to continue later."

D. If the Patient Was Asked to Come by Someone Else

Common in dementia, mental health, safeguarding, or subtle cases.

Ask: "Okay, I see. Can I ask - did they say why they were worried?"

If they mention a concern:

"And do you feel the same way?"

If they're unsure or dismissive:

- "Apart from your daughter, has anyone else noticed the same thing?"
- "What exactly did they mention to you?"

If the patient lacks insight (e.g., dementia), gather collateral history gently.

E. If the Patient Is Angry or Upset

Common intro line: "Finally someone is here" / "No one is helping me."

Use calm control:

- "Ms. [Name], I can see you're really upset. I'm very sorry about the delay. I'm here now and I'll do my best to help."

Then smoothly begin:

- "Before we continue, can I confirm your name and age, please?"
- "Okay - can you tell me what's been going on?"

Don't say: "You're angry / frustrated."

Use: "Upset" or "not happy" - more empathetic, less triggering.

F. If the Patient Appears Withdrawn, Hesitant, or Afraid

Common in rape, abuse, sick note cases, or mental health.

Start normally but stay observant.

If they say something vague (e.g. "I want a sick note"):

1. **Acknowledge:**
 - "It seems something's bothering you. Are you okay?"
2. **Reassure:**
 - "Of course, you can take your time. I'm here to help."
3. **Offer confidentiality:**
 - "Whatever you share today will stay completely confidential. You can try to speak freely."

Don't say "This is just between you and me" - it sounds casual.

Use formal reassurance: "Everything we discuss will remain confidential."

G. If You Notice Concerning Body Language

Observation	What to Say
Fidgeting, shaking	"You seem a little anxious. Is there anything you'd like to share?"
Looking down	"It seems like something might be on your mind. Would you like to talk?"
Low voice, avoiding eye contact	"I can see you're not feeling your best. Would it help to talk about what's going on?"

Never describe the behaviour directly (e.g., "You're not making eye contact.")

Name the emotion, not the action.

H. Doctor's Plan vs Patient's Plan

Doctor's Plan (Follow-up / GP Referral / Routine Result Review)

You initiated the meeting. Don't ask "How can I help you?"

Use:

- "I understand you're here for your follow-up."
- "You've been referred by your GP, and we're seeing you regarding that today."
- "You've been asked to come in by one of our doctors - I'd like to go through things with you."

Patient's Plan (They booked it or requested to speak)

Use:

- "How can I help you today?"
- "I understand you wanted to speak to one of the doctors - what would you like to discuss?"

Example:

Scenario: Patient previously had a sigmoidoscopy, polyps removed, and now wants to ask about colonoscopy.

Start with: "I understand you've had a recent procedure, and today you wanted to speak to one of the doctors. Is there anything specific on your mind?"

Initial Approach Toolbox

Situation	What to Say
Generic concern	"How can I help you today?"
Embarrassing issue	"We're all medical professionals. You're in a safe space."
Gender preference	"Would it be okay if we talk for now, and I can help arrange someone else if needed?"
Referred by someone	"Do you know why they asked you to come?"
Angry	"I can see you're upset. I'm here for you now."
Withdrawn	"I can see you're not okay. Take your time - I'm here to listen."
Confidentiality needed	"Everything you say will remain confidential."

Follow-up (Doctor's plan)	"I understand you're here for your follow-up today."
Patient-initiated visit	"What would you like to discuss today?"

History Taking Made Simple

A well-structured, empathetic history is the backbone of almost every PLAB 2 consultation. It is what guides your diagnosis, builds rapport, and demonstrates your ability to think safely and clearly. In this section, we'll break down the full process using simple, natural questions - backed by NHS and GMC communication standards.

A Note on Signposting

Signposting is the act of clearly introducing what you're about to do or ask next. It improves patient comfort, builds rapport, and helps you score higher in interpersonal skills (IPS). Use it sparingly and purposefully - especially when shifting from one section of the consultation to another.

Common Signposting Phrases

- "To help me understand better, I'll ask a few more detailed questions now."
- "Now that I understand the main concern, I'll check for anything serious that we shouldn't miss."
- "I'll now ask about your general health and background."
- "Before we finish, I'll ask a couple of quick questions about your lifestyle."

Signposting in Challenging Situations

When redirecting an angry patient:

- "I can see this is really frustrating for you. Before we discuss that, I just want to make sure I understand everything properly. Would that be okay?"

When time is running short:

- "I want to make sure we cover the most important points. Let me quickly summarise what we've discussed, and then I'll explain the plan."

When the patient is emotional:

- "I can see this is difficult. Take your time - there's no rush. When you're ready, I'd like to understand more about what's worrying you most."

Presenting Complaint

Start open and gentle:

- "Can you tell me more about what's been going on?"
- "When did you first notice something was wrong?"

If they are in visible discomfort:

- "I can see you're uncomfortable. I'll do my best to help - could you tell me more about it?"

Once the patient finishes explaining their symptoms, your next step depends on whether the issue involves pain or not.

What If the Patient Demands a Painkiller Immediately?

This is a common exam trap. Acknowledge their pain, but avoid prescribing until you've safely completed your history.

- "I'm really sorry to see you in this much discomfort. I want to understand fully what's causing it so I can treat it properly - is that okay?"
- "I will definitely help you feel better today. But before giving anything, I need to ask a few questions to make sure it's safe. Would that be alright?"

Once acknowledged, continue with SOCRATES or FODPARA based on their complaint.

Pro Tip: You are being assessed on safe prescribing and prioritising clinical reasoning. Giving painkillers early may miss red flags or even worsen an underlying condition.

If Pain: Use SOCRATES

Letter	Focus	Sample Questions
S	Site	"Where exactly is the pain? Can you point to it?"
O	Onset	"When did it start? Was it sudden or gradual?"
C	Character	"What does it feel like - sharp, throbbing, dull?"
R	Radiation	"Does the pain travel anywhere else?"
A	Associated symptoms	"Any other symptoms with it, like nausea or fever?"
T	Time course	"Is it constant or does it come and go?"
E	Exacerbating/Relieving	"What makes it worse? Anything that helps?"
S	Severity	"On a scale of 1 to 10, how bad is it right now?"

If Not Pain: Use FODPARA

FODPARA is a high-yield structure used for non-pain symptoms like tiredness, dizziness, diarrhoea, weight loss, sleep issues, confusion, and urinary symptoms.

Letter	Focus	Sample Questions
F	Frequency	"How often do you feel tired?" / "How frequently do you pass stools?"
O	Onset	"When did this begin?"
D	Duration	"How long does each episode last?" / "Is the dizziness brief or does it last hours?"
P	Progression	"Has it been getting better, worse, or staying the same?"
A	Aggravating	"Does anything bring it on or make it worse?"
R	Relieving	"Is there anything that helps - like lying down or drinking fluids?"
A	Associated symptoms	"Any other issues you've noticed alongside this?"

Example: Tiredness

- F: "Do you feel tired all the time, or more in the mornings or evenings?"
- O: "When did this start?"
- D: "How long does it usually last when you feel this way?"
- P: "Would you say it's getting worse or about the same?"
- A: "Does it get worse after activity or stress?"
- R: "Does resting or sleeping help?"
- A: "Any other symptoms - like feeling down, gaining weight, or poor concentration?"

Example: Vomiting

- F: "How many times have you vomited in the past day?"
- O: "When did the vomiting begin?"

- D: "Do episodes last a few minutes or longer?"
- P: "Is it becoming more frequent or severe?"
- A: "Does it get worse after eating?"
- R: "Does anything help - like medication or lying down?"
- A: "Any tummy pain, diarrhoea, or fever with it?"

Moving Forward: Why We Ask Differentials and Systemic Review Next

Once you've explored the presenting complaint, the next two steps - differential screening and systemic review - help you rule out dangerous or related diagnoses. These are not just memory tricks; they show the examiner that you're thinking like a safe NHS doctor.

Use a soft transition:

- "Just before we move on, I'd like to check a few things to make sure we're not missing anything important."

Differential Screening (Red Flags)

Ask relevant red flag questions to rule out serious causes. This depends on the symptom but often includes:

- "Have you had any fevers, weight loss, or night sweats?"
- "Any blood in your urine, stool, or phlegm?"
- "Any chest pain or shortness of breath?"
- "Any recent travel, long journeys, or surgeries?"

Brief Systemic Review (if needed)

If the case is unclear, or could involve more than one system, ask 1–2 questions across other systems.

- **Neuro** – "Any headaches, weakness, or visual problems?"
- **Respiratory** – "Any cough or shortness of breath?"
- **Gastrointestinal** – "Any changes in appetite or bowel habits?"
- **Genitourinary** – "Any burning when passing urine?"
- **Skin/Joints** – "Any joint pain or rashes?"

PMAFTOSA (Background History)

P – Past and Current Conditions

"Now I'll ask a few questions about your general health background."

- "Do you have any long-term conditions like high blood pressure, asthma, diabetes, or thyroid issues?"
- "Have you ever had surgery or been admitted to hospital for anything before?"
- "Have you ever had anything like this in the past?"

M – Medications

- "Do you take any regular medications?"
- "Have you started or stopped anything recently?"
- "Do you use any over-the-counter remedies or supplements?"

A – Allergies

- "Are you allergic to any medications or foods?"
- "What kind of reaction do you get?"

F – Family Conditions

"Sometimes health issues can run in families, so I'll just ask a quick question about that."

- "Any family members with heart disease, stroke, diabetes, cancer, or similar conditions?"
- "Anyone in your family ever had anything like what you're experiencing now?"

T – Travel

- "Have you travelled abroad or anywhere unusual in the past few weeks or months?"
- "Any long journeys or flights recently?"

O – Occupation

- "What kind of work do you do?"
- "Has this problem affected your work in any way?"
- "Any exposure to stress, chemicals, dust, or physical strain?"

S – Social Background (DESSA)

"Now I'll ask a few brief questions about your lifestyle."

Category	Sample Question
Diet	"Would you say your diet is fairly balanced?"
Exercise	"Do you get any regular movement, even walking or chores?"
Smoking	"Do you smoke? How many per day and for how long?"
Stress	"Has anything been particularly stressful lately?"
Alcohol	"Do you drink alcohol? How often and how much roughly?"

Also ask:

- "Who do you live with?"
- "Do you drive?" (important for seizures, blackouts, vision problems)

A – Anything Else?

- "Before we move on, is there anything else you think I should know about?"
- "Any other concerns you had in mind when you came in?"

This final question shows thoroughness and empathy.

Summary Tips for History Taking

- Stay flexible but complete - adapt the depth based on time and case.
- Use transitions naturally (especially when moving between complaint and background).
- Build rapport by showing curiosity, warmth, and safety.
- Use patient-friendly words: condition, treatment, testing - not history, management, or investigations.

This isn't just a structure for exams - it mirrors how safe doctors think and how good doctors connect. Master this style and the rest will follow.

ICE (Ideas, Concerns, Expectations)

Once you've understood the background (PMAFTOSA) and how the condition is affecting the patient's daily life, it's time to explore their personal thoughts and emotional responses. This makes your consultation more patient-centred and complete.

Why ICE Matters

- Helps uncover fears or misunderstandings
- Clarifies what the patient wants from the visit

- Builds trust and emotional safety

When to Ask

- After PMAFTOSA and after effect of symptoms
- If the patient brings up concerns early, you can say:
 - "That's a really important question - I'll come back to that in a moment after I ask a few more things."

How to Ask Naturally

Element	Purpose	Sample Questions
Ideas	Find out what the patient thinks is going on	"Do you have any thoughts about what might be causing this?" / "What do you think this could be related to?"
Concerns	Explore hidden worries or fears	"Is there anything in particular you're worried this might be?" / "Anything about this that's been bothering you?"
Expectations	Clarify what they hope will happen	"Was there anything in particular you were hoping we could do today?" / "Any expectations from today's consultation?"

Tip: Ask with warmth. Don't sound robotic - make it a conversation.

Examples

Patient with headache:

- Idea: "I think it's just stress, doctor."
- Concern: "But I was worried it could be something serious, like a tumour."
- Expectation: "I just want to be sure it's nothing dangerous and maybe get something for the pain."

Patient with chest discomfort:

- Idea: "Maybe it's just acidity."
- Concern: "But my dad had a heart attack at my age - so that's been on my mind."
- Expectation: "I wanted to get it checked properly - maybe an ECG?"

Once you complete ICE, you can say: "Thanks for sharing that. It really helps me understand where you're coming from."

Effect of Symptoms on Daily Life

Understanding how a symptom is affecting the patient's life is a key part of building rapport and shaping a realistic, compassionate management plan. It helps demonstrate that you're not just treating a symptom - you're treating a person.

When to Ask

- After completing PMAFTOSA and ICE

How to Explore the Effect

- "How has this been affecting your daily life?"
- "Has it impacted things like sleep, work, appetite, or relationships?"
- "Is it stopping you from doing anything you normally enjoy?"
- "How are you coping with this day to day?"

React to answers with empathy: "That must be difficult to manage every day - thank you for sharing that."

Examples

- **Chest pain:** "Has this affected your ability to go to work or even walk short distances?"
 - **Headaches:** "Do you find it hard to concentrate or look at screens when this happens?"
 - **Tiredness:** "Are you still able to take care of the children or manage housework?"
 - **Joint pain:** "Is it making things like walking, cooking, or dressing more difficult?"
-

Specialty History Frameworks

This section outlines the key modifications or additions to your core PMAFTOSA-based history structure when approaching specialty cases. Use this as a revision sheet or when you're unsure how a case might differ. Full versions will follow within their respective chapters.

ENT (Ear, Nose, Throat)

Use PMAFTOSA, but focus on:

- **Ear Symptoms:** pain, discharge, hearing loss, tinnitus, balance issues
- **Nose:** obstruction, bleeding, discharge, sinus pressure
- **Throat:** voice changes, pain while swallowing, foreign body sensation
- **Red Flags:** prolonged hoarseness, dysphagia, unilateral symptoms, weight loss
- **Effect of Symptoms:** speech, eating, work (e.g. teachers, singers)

Ophthalmology (Eye)

Structure Focus:

- Vision loss (sudden/gradual), eye pain, redness, discharge, photophobia, floaters, flashing lights
- Monocular vs binocular symptoms
- Use "Was the eye red or painful first, or did the vision go first?" to triage urgent cases
- Always ask: contact lens use, trauma, chemical exposure
- **Red Flags:** sudden painless vision loss, painful red eye, photophobia + reduced vision

Gynaecology

History Base: PMAFTOSA → Menstrual → Sexual → OB/GYN history

- **Menstrual:** LMP, duration, regularity, flow, clots, pain, intermenstrual/postcoital bleeding
- **Sexual:** partners, protection, STI risk, discomfort during intercourse
- **Past OB/GYN:** pregnancies, miscarriages, terminations, pelvic surgeries, smears
- Always consider pregnancy in reproductive-age females

Antenatal / Obstetric

Use a modified SOAP structure:

- **S:** Gestational age, scans, fetal movements, symptoms
- **O:** Obstetric history (GTPAL, complications)
- **A:** Antenatal issues (diabetes, hypertension, infections)
- **P:** Plan for delivery, current follow-up
- Confirm booking, scans, blood group, rhesus status

Paediatrics

History from Parent/Carer.

- Ask age, gestational age, birth method, feeding, milestones, immunisation

- Ask: "What's worrying you the most as a parent today?"
- Screen: fever, rash, eating, urine, bowel, behaviour
- If very young: check feeding, wet nappies, crying patterns

Psychiatry

Use a dedicated format (detailed in psych section):

- Explore presenting symptom deeply (low mood, anxiety, hallucinations)
- Ask risk (suicide, harm to others, self-neglect)
- Past psych history, substance use, social support, forensic history
- Impact on daily functioning, occupation

SimMan / Emergency

- Use ABCDE approach in emergencies
- Prioritise presenting complaint + red flags
- PMAFTOSA can be streamlined if patient is unconscious

Note: These are only short structural overviews. Full detailed breakdowns, phrasing, and red flag checklists will be provided within their appropriate chapters.

Physical Examination: Core Principles

This section provides a structured approach to physical examination in PLAB 2 stations, including phrasing, patient-friendly language, and the types of examinations you may encounter.

Examination Summary: Step-by-Step Flow

1. Politely inform the patient and ask for permission.
2. Clearly state what part of the body or system you are examining.
3. Mention the purpose (if needed) in simple terms.
4. If it is an intimate examination, explain that a chaperone will be present.
5. Request any bedside tests relevant to your findings so far.
6. If findings are handed to you, pause to read and then explain clearly.
7. Avoid requesting blood tests or imaging too early - these are part of management.

1. When and How to Start an Examination

Always inform the patient first:

- "Ms. Jones, I'd like to examine you now - would that be alright?"
- "I'd like to do some physical checks to better understand what's going on - is that okay?"

If observing vitals, explain:

"That includes checking your blood pressure, temperature, oxygen level, breathing rate, and pulse."

Avoid:

- "I'm going to examine you now" (can sound forceful)
- Using the word "vitals" (use descriptive terms instead)

2. Say Exactly What You're Examining

In PLAB 2, the examiner gives you findings only if you clearly say what you're examining. If you're vague (e.g., "I want to examine you"), you may not receive findings at all.

Symptom / Scenario	What to Say
Headache	"I'd like to check the nerves in your head and neck, and also examine your eyes."

Chest Pain / SOB	"I'd like to examine your chest and listen to your heart and lungs."
Abdominal Pain	"I'd like to examine your tummy."
Testicular Pain	"I'd like to do a testicular examination."
Vaginal Bleeding	"I'd like to do a speculum exam to check the neck of the womb."
Back Pain / Weakness	"I'd like to examine your lower back and legs."
Jaundice	"I'd like to examine your eyes and feel your tummy, especially your liver."

3. Mannequin Stations

If a mannequin is present in the station:

- It signals that you are expected to verbalise or simulate an examination.
- Say each step out loud: "I'm checking the chest," "I'm palpating the abdomen."
- The examiner will hand over findings only for what you say.

4. Consent and Chaperone

Obtaining consent and offering a chaperone are vital for both safety and professionalism.

How to Ask for Consent:

Use polite, clear phrases:

- "I'd like to examine your abdomen now - is that alright with you?"
- "Would it be okay if I check your leg now?"

This shows respect and gives the patient control, even in simulated scenarios.

When and How to Mention a Chaperone:

Always mention a chaperone for intimate examinations (e.g. breast, genital, or vaginal exams).

Example:

"As this is an intimate examination, I'll have a staff member - a chaperone - present with us. Would that be okay with you?"

If they decline the chaperone, say:

"That's absolutely fine. I'll note that you're comfortable proceeding without one."

Even if a chaperone is not physically in the room, offering one is part of ethical best practice in PLAB 2.

5. Bedside Tests You Can Request

These are considered part of your physical examination in PLAB 2, but you must clearly say them out loud.

Scenario	What to Say
Suspected UTI	"I'd like to check your urine using a dipstick test."
Missed period	"I'd like to do a quick pregnancy test."
Chest pain or palpitations	"I'd like to perform an ECG to check your heart rhythm."
Suspected diabetes / low sugar	"I'd like to check your blood sugar with a finger-prick test."

Always request bedside tests during your physical examination segment - before findings are given.

6. Explaining the Findings

If the examiner hands you written findings after your verbalised exam:

1. Pause and take a moment to read them.
2. Use calm, non-technical language when explaining to the patient.

Finding	What to Say
High temperature	"You seem to have a high temperature today."
Crackles in lungs	"There are some abnormal sounds in your chest."
Neurological signs	"You have some stiffness and slowness in your movements."
Hearing loss (acoustic neuroma)	"It looks like your hearing is reduced on the right side."

Avoid complex clinical words like "crepitations," "rhonchi," or "saturation." Use language the patient can easily understand.

7. Don't Confuse With Investigations

Physical Examination	Investigations
Listening to chest, reflex check	Blood tests, X-ray, CT, MRI
ECG, urine dip, pregnancy test	Liver/kidney function, sputum culture

Don't request blood tests or imaging before completing your history and physical exam.

8. Interacting with the Examiner

- Once the station begins, treat the examiner as invisible - they do not interact with you unless giving you paper findings.
- Don't look at them for validation or cues. They will not nod, smile, or prompt you in any way.
- If you're handed a finding or document:
 1. Take it respectfully.
 2. Read it carefully.
 3. Thank them quietly if needed.
- Never engage in casual or meta conversation (e.g. "Am I doing this right?" or "Shall I proceed now?").

Just stay in character and maintain professional communication with the simulated patient only.

9. When Physical Examination Isn't Possible

Some stations involve telephone consultations or scenarios where examination isn't appropriate. In these cases:

- **Clearly state what examination you WOULD do:** "If you were here with me, I would examine your chest and listen to your heart and lungs."
- **Ask the patient to describe relevant findings:** "Can you tell me if you notice any swelling in your ankles?"
- **Acknowledge limitations:** "Based on what you've told me, and without being able to examine you, I think the most likely explanation is..."

This is your core, consultation-safe exam guide. Detailed system-based exams (e.g. Obstetric, abdominal, eye, ear, etc.) will be provided inside each relevant case chapter.

Communicating Diagnosis and Management

This section details how to deliver a diagnosis and formulate a complete management plan in a patient-centered, examiner-friendly manner aligned with NICE, NHS, and GMC principles.

Step-by-Step Framework

1. Deliver diagnosis using TAEC
2. Explain condition (definition)
3. Check understanding
4. Build a management plan using ASIS
5. Include safety netting and follow-up
6. Offer patient information
7. Respond to patient concerns with confidence
8. Know when to escalate to a senior
9. Close the consultation naturally

1. Delivering the Diagnosis (TAEC Approach)

T = Tell

State the condition clearly:

- "Based on what we've discussed, this could be a condition called..."
- Avoid summarizing symptoms again or saying "suspecting."

A = Ask

Engage the patient:

- "Have you heard about this before?"
- "Do you know anything about it?"

E = Explain

Use a simple lay explanation covering:

- Where the problem is
- What's going wrong
- Any known triggers or risk factors

C = Check Understanding

- "Is that clear?"
- "Would you like me to explain it again in a different way?"

2. Management Plan – ASIS Format

A = Admit / Emergency / Ambulatory / Not an Emergency

- **Emergency:** "This is something that needs urgent attention, so we'll admit you to the hospital."
- **Not Emergency, but Needs Action:** "This doesn't need admission, but we should treat it without delay and monitor your progress."
- **Ambulatory/Specialist Referral:** "We'll arrange a clinic review. It's not dangerous, but it's best to have a specialist take a look."
- **Mild/Monitoring:** "It's manageable at home for now. We'll support you with medications and follow-up."

If the patient resists referral or hospital care, acknowledge concerns and gently clarify the reasons, then re-offer the plan.

S = Symptom Relief

- "We'll offer something to help with your symptoms, like pain relief or anti-sickness medication."

I = Investigations

- Done after diagnosis to confirm severity or plan next steps.
- Use patient-friendly terms:
 - "We'll do a chest X-ray to see your lungs."
 - "We'll test your urine and take a blood sample to check for infection."

(Note: bedside tests like urine dipstick, ECG, pregnancy test are part of examination but may be referred here again as part of planning)

S = Specific Treatment / Specialist Referral

Initiate appropriate medical or non-medical therapy:

- "We'll start antibiotics to treat the infection."
- "We'll begin physiotherapy and lifestyle advice."

- "We'll refer you to ENT/neurology/psychiatry/dermatology as needed."

How to Say: "It Could Be Cancer"

Use this structure in suspected cancer stations where you're referring the patient under the 2-week wait pathway. It helps you be clear, kind, and clinically justified.

Suggested Phrasing (Standard Format)

"Unfortunately, based on what you've told me-[e.g. the weight loss and the ongoing change in bowel habits]-and what we've found on examination today, one of the possibilities we have to consider is that this could be something serious, including cancer."

"I want to be clear-we don't know that yet. But because of these features, I'd like to refer you urgently to a specialist for further tests. This is called the two-week wait pathway. It's used whenever we're concerned about cancer, so that people are seen quickly."

"This doesn't mean you definitely have cancer-many people referred this way turn out to have other causes. But I don't want to miss anything important, and early testing gives us the best chance of managing whatever we find."

Examples Based on System

- **Breast lump:** "Unfortunately, because of the new lump you noticed and the changes on examination, we do have to consider that this could be breast cancer. I'd like to refer you urgently to the breast clinic."
- **Rectal bleeding + weight loss:** "Unfortunately, when someone your age has rectal bleeding, especially along with weight loss, we have to rule out bowel cancer as one of the possibilities."
- **Persistent cough + haemoptysis:** "Unfortunately, a persistent cough with blood in the phlegm is something we don't take lightly. One possible cause could be lung cancer, and we'll need to do further imaging to be sure."

What to Say Next

- "I'll make the referral today, and you should hear from the hospital within two weeks."
- "We'll keep supporting you while you wait."
- "If you have any new or worsening symptoms in the meantime, please let us know immediately."
- "Do you feel okay with what we've discussed? Would you like anything repeated or written down?"

Key Principles

- Be honest, not dramatic
- Use "could be" not "is"
- Say "unfortunately" only once to open, and then shift toward supportive language
- Focus on urgency, not panic

3. Safety Netting

Explain what to look out for and when to seek help:

- "If you get worse - like high fever, chest pain, or trouble breathing - come back immediately or call 999."
- "If this doesn't improve in the next few days, please get in touch again."

Don't reinforce patient anxieties by safety-netting things they're concerned about unless medically valid.

4. Follow-Up Guidance

Specify when and why to follow up:

- "We'd like to see you again in a few weeks to check how you're doing."
- "If things don't improve by then, we may adjust your treatment."

Condition	Recommended Follow-Up
Hypothyroidism	3 months
Parkinson's Disease	3–6 months
Depression <30 years	1 week
Depression >30 years	2 weeks
Postpartum Depression	1 week
Acute Otitis Media	Return if no better after 4 days
Meniere's Disease	1–2 weeks
Suspected Abuse	1–2 weeks

5. Senior Escalation: When to Involve

Escalate if:

- There is a red-flag or life-threatening condition (e.g., meningitis, suicidal ideation)
- You are concerned about domestic abuse or safeguarding issues
- You are clinically uncertain and it involves high-risk consequences

Phrasing:

- "In situations like this, we usually involve a senior doctor to make sure everything is safe."
- "Let me just run this by my supervising doctor to ensure we're covering all the right steps."

Avoid escalating in minor cases - it may affect marks negatively by showing a lack of confidence.

6. Offer Leaflets and Patient Resources

- "We'll give you a leaflet with more details."
- "You can read more on the NHS website if you'd like."
- "For phone consults, we'll email or text you a trusted NHS resource."

A leaflet isn't physically handed in the exam but must be offered verbally.

7. Handling Patient Concerns

Concern Type	Suggested Response
Yes	"That should be fine."
No	"That's very unlikely given your symptoms."
Uncertain	"It's hard to say at this point - we'll know more after some tests."
Serious	"We're taking this seriously - that's why we're acting now."

Don't guess - stick to safe, professional reassurance.

8. Checking Patient Understanding

- "Does that all make sense so far?"
- "Would you like me to go over anything again?"
- "Are you okay with what we've discussed?"

9. Closing the Consultation

- Thank the patient warmly
- Offer reassurance and continuity of care
- Example: "Thanks for your time today. We'll support you through this. If anything changes, don't hesitate to come back."

Maintain eye contact, be kind, and don't rush the ending.

10. Helpful Phrasing for Management Steps

Step	Example Phrase
Admission	"We'll admit you under the medical team to monitor this closely."
Clinic Management	"This doesn't need admission. We'll manage you here with medication."
Lifestyle Advice	"It's better to switch to a balanced diet and try to walk regularly."
Medication	"We'll start a tablet called ___ to help with your symptoms."
Driving Advice	"We'd advise avoiding driving until you feel better or the tests are done."
Specialist Referral	"We'll refer you to a specialist who deals with this condition."

Final Notes on TAEC and ASIS:

- TAEC = Tell → Ask → Explain → Check.
- ASIS = Admit/emergency or not → Symptom relief → Investigations → Specific treatment.
- Follow-up, safety netting, patient info, and clear phrasing are all crucial.
- Avoid vague or overly technical terms.
- Be confident, empathetic, and clear - the examiner is watching for safe, competent patient-centered care.

PLAB 2 Consultation – 18-Step Rapid Framework

1. Knock & Enter

- Greet the examiner, smile, and enter confidently.

2. Greet the Patient

- "Hi, I'm Dr. [Name], one of the doctors here today."

3. Confirm Identity

- "Can I confirm your full name and age?"
- "Is it okay if I call you [First Name]?"

4. Open the Consultation

- "How can I help you today?" (or paraphrase if it's a follow-up)

5. Explore Presenting Complaint

- Use SOCRATES for pain or FODPARA for non-pain complaints.

6. Rule Out Differentials

- Ask focused, red-flag-based questions.
- Systemic review only if needed.

7. PMAFTOSA History

- P: Past conditions
- M: Medications
- A: Allergies
- F: Family conditions
- T: Travel
- O: Occupation
- S: Lifestyle – DESSA
- A: "Anything else I should know?"

8. Effect of Symptoms

- "How is this affecting your life, work, or sleep?"

9. ICE

- I: "Any thoughts on what might be causing this?"

- C: "Anything you're worried about?"
- E: "Is there anything you were hoping we'd do today?"

10. Physical Examination

- Ask consent
- Mention chaperone if relevant
- Be specific: "I'd like to check your chest, pulse, and oxygen levels."

11. Diagnosis (TAEC)

- T: Tell
- A: Ask if they've heard of it
- E: Explain simply
- C: Check understanding

12. ASIS Management

- A: Admit / Refer / Outpatient / Reassure
- S: Symptom relief
- I: Investigations (bedside + further tests)
- S: Specific treatment or specialist input

13. Safety Netting

- "If things worsen or new symptoms develop, please call 999 or come back."

14. Follow-Up

- "We'll review you in [X time]. If you're not improving, reach out sooner."

15. Offer Leaflet or Resources

- "We'll give you a leaflet / NHS website link to read more."

16. Address Patient Concerns

- Use confident phrases:
 - Yes → "That should be fine."
 - No → "That's very unlikely."
 - Unsure → "We'll know more once results come in."

17. Senior Escalation (If Needed)

- Mention only in red flag/safeguarding/critical uncertainty:
 - "I'll discuss this with a senior to ensure we do the safest thing for you."

18. Close the Consultation

- "Thanks for your time - we'll work through this together. Please reach out if anything changes."

Follow-Up Consultation – Core Structure

Use this framework when a patient returns for review of a known condition, response to treatment, or monitoring of a chronic illness. This structure is flexible for both GP and hospital-based stations.

1. Set the Scene – Acknowledge and Anchor

Begin by clearly stating the purpose of today's visit.

Examples:

- "I understand you're here today for a follow-up regarding your [condition]."
- "You were recently diagnosed with [condition], and we're reviewing how things are going."
- "You've been living with [condition] for some time, and this is part of your routine check-up. Is that right?"

2. Understand Their Knowledge – Clarify & Educate

Explore what the patient already knows.

Ask:

- "Just to check-what have you been told about this condition so far?"
- "Did anyone explain how this affects the body or what it means in the long term?"

Fill in any gaps briefly and clearly, using patient-friendly language.

- Offer to show diagrams or write things down if needed.
- Confirm understanding: "Does that make sense so far?"

3. Review the Treatment – What's Been Done So Far?

Clarify current and past management:

- "Can you tell me what treatment or medications you've been taking?"
- "Do you know the dose or how often you take it?"
- "Have you been able to take it regularly?"

If they stopped or missed doses:

- "Can I ask what made you stop or miss it?"

Ask about side effects directly:

- "Have you had any cough/tiredness/headache since starting this?" (Condition-specific)

4. Assess Progress – What's Changed Since Then?

Symptom comparison:

- "Before starting the treatment, what symptoms did you have?"
- "How are you feeling now? Any improvement?"
- "Are those symptoms completely gone, or just better?"

Check for complications:

- Diabetes – Ask about vision, foot changes, tingling
- Epilepsy – Seizure control, injuries, tongue biting
- PMR – GCA symptoms (e.g. headache, scalp tenderness)
- Hypertension – Headaches, visual symptoms, chest pain

Re-screen for side effects if necessary.

5. Explore the Background – Compliance, Lifestyle & ICE

Include a focused background check:

- **Medical History** – Any new diagnoses or admissions?
- **Allergies**
- **Family History** – Any relatives with similar conditions?
- **Occupation & Travel** – Relevance to compliance or exposure
- **Social History** – Smoking, alcohol, support system

ICE:

- "What are your thoughts about how things are going?"
- "Any specific concerns or worries now?"
- "What are you hoping we can do today?"

This step often reveals barriers to progress (e.g., stress, cost, misunderstanding).

6. Move the Case Forward – Decide and Act

End with a clear plan based on what you found. There are usually 3 pathways:

1. **Adjust the current treatment**
 - e.g. Increase dose, switch medication, refer to specialist.
2. **Continue current management**
 - e.g. Patient is improving-reassure and plan next review.
3. **Identify a new issue**

- e.g. New symptoms → investigate or treat accordingly.

Clearly explain next steps:

- "Based on how you're doing, I think the best thing now would be..."
- "We'll also arrange [follow-up/monitoring/referral] to ensure things stay on track."

Bonus: Wrap-Up and Safety Netting

- "I'm glad you came back today. It's good that we're keeping track."
- "If anything changes-new symptoms, side effects, or concerns-please don't wait. Just give us a call."
- "We'll review this again in [X weeks/months], or sooner if needed."
- Offer a leaflet or summary if appropriate.

Test Result Discussion Structure

Use this for results like:

- Blood tests (e.g. raised PSA, positive TTG, low Hb)
- Imaging (e.g. chest X-ray, US, CT)
- Biopsy (e.g. skin punch, endoscopic histology)
- Screening (e.g. cervical, AAA, bowel)

1. Introduction & Consent

- "Hello, I'm one of the doctors here at the clinic today. Thank you for coming in."
- "I believe you had some tests done recently, and today's appointment is to go through the results together-would that be alright?"

Optional check:

- "Before we begin-how have you been feeling since the test?"
- "Were you expecting to be called in today?"

2. Focused History & Context

Re-anchor yourself in the case, especially if the patient is unaware of the specific reason for review.

- "Could I just quickly ask-do you remember what the test was for?"
- "Any changes in symptoms since then?"
- "Have you had any concerns since we last saw you?"

This allows you to:

- Clarify the clinical picture
- Check if the condition is worsening/improving
- Understand if the result is expected/unexpected

3. Explore ICE (Ideas, Concerns, Expectations)

Uncover what the patient thinks or fears about the result.

- "What have you been thinking this might be?"
- "Is there anything in particular you've been worried about?"
- "Is there something you were hoping these results would tell us?"

Tailor your delivery based on their emotional tone and expectations.

4. Clear Result Disclosure

Be confident, clear, and direct. Avoid vague reassurances like "your results are fine" unless they truly are.

- "I've reviewed your results, and here's what we found."

- "Your [test type] showed [positive/negative/elevated/normal] findings."

Give a specific number or phrase if possible:

- "Your PSA came back slightly elevated at 5.2."
- "The X-ray showed a small area of scarring in the lungs."
- "The biopsy confirmed a benign growth."

Then pause briefly to let the patient absorb.

5. Lay Explanation of the Condition

Explain clearly and calmly, with simplified analogies where helpful.

- "This means that..."
- "Let me explain what this result tells us in simple terms."
- "In your case, this suggests..."
- "This condition is when..."

Cover:

- What the result means
- If it confirms or excludes a condition
- Whether it's temporary, treatable, chronic, or incidental
- If it requires further action (e.g. repeat tests, referrals, treatment)

Always speak in lay language.

6. Structured Management Plan

Now lay out the next steps, clearly and with rationale:

Include the following as applicable:

- **Any confirmatory tests**
 - "To confirm this, we'll need to arrange [e.g. endoscopy/colonoscopy/biopsy]."
- **Referral**
 - "We'll refer you to a specialist in [field] who will guide further care."
- **Treatment or monitoring**
 - "At this stage, you don't need medication, but we'll monitor every 6 months."
 - "We'll start a tablet called [name] that helps control this condition safely."
- **Public health/screening advice**
 - "This is not infectious. No precautions are needed for your family."
- **Driving, work, travel if relevant**

Explain clearly what you will do as the FY2, and what the specialist will do.

e.g., "I'll refer you today, and they'll likely arrange further tests to plan the treatment."

7. Safety Netting

Cover what could go wrong or what to watch for.

- "If you notice any new or worsening symptoms-like [insert red flags]-please come back immediately."
- "If you don't hear from us or the hospital within [X days], call us."
- "We'll keep monitoring this closely to make sure things don't change."

8. Follow-Up Plan

Give a clear follow-up pathway:

- "We'll see you again in [X weeks/months] to review progress."
- "You'll get a letter from the specialist team-if not, reach out to us."
- "We'll repeat this test in 6 months to check for changes."

9. Offer Leaflet & Final Check

End supportively, check understanding, and offer resources.

- "Would you like a leaflet or link with more information about this?"
- "Do you feel clear about what this means and what happens next?"
- "Is there anything you'd like me to explain again?"

The CARE Framework for PLAB 2 Counselling Stations

A new, structured approach introduced in GK's Notes

Counselling stations in PLAB 2 often feel vague and open-ended. Many candidates struggle to strike the right balance between clinical accuracy, empathy, and practical advice. That's where CARE comes in.

This 4-step approach helps you deliver counselling that is structured, confident, and high scoring- without sounding scripted or robotic.

What is CARE?

CARE stands for:

- **C** – Clarify the Concern
- **A** – Assess the Background
- **R** – Reassure and Explain
- **E** – Engage in Shared Plan

Use this framework when a patient (or relative) comes in with a worry, request, or concern-including topics like vaccines, medication risks, refusal to undergo treatment, online misinformation, lifestyle fears, or ethical dilemmas.

Step 1: Clarify the Concern

"Why is the patient here?"

Before offering advice, understand the true nature of their worry.

- "Can I check-what made you want to discuss this today?"
- "Has someone said something that made you worried?"
- "What are your thoughts about [the issue] at the moment?"
- "Is there something you read, or were told, that's made you unsure?"

Your goal:

- Identify the trigger (e.g., internet article, friend, past experience)
- Understand what the patient believes and what they're afraid of
- Avoid jumping to explanation before hearing them fully

Anchor Phrase: "Let's start with what's on your mind."

Step 2: Assess the Background

"What clinical details or context matter here?"

Gather focused information that affects the safety or relevance of your advice.

Ask specific questions depending on the case:

- **Pregnancy concern:** Gestational age, complications, scan history
- **Medication refusal:** Current dose, compliance, side effects
- **Vaccine refusal:** Eligibility, allergies, past reactions
- **Child concern:** Age, milestones, previous infections or admissions
- **Lifestyle worry:** Weight/BMI, comorbidities, activity level

Also ask:

- "Do you have any existing conditions?"
- "Are you on any regular medications?"
- "Any family history related to this?"

Your goal:

- Gather enough info to tailor your advice safely
- Spot red flags, risk factors, and any clinical misunderstandings

Anchor Phrase: "Can I check a few things just to guide us better?"

Step 3: Reassure and Explain

"Now give clear, calm, confident advice."

Use balanced explanations that acknowledge the concern, correct misconceptions, and provide trusted information.

Avoid "You don't need to worry" or "It's nothing"-instead, say:

- "I can see why that would be worrying. Let me explain how this works."
- "There's a lot of information out there, but I'll walk you through what we know from NHS guidance."
- "This is actually a common concern-here's what we usually do."

Explain:

- What the condition/test/treatment is
- Why it's recommended
- How it works and what to expect
- Risks vs. benefits, explained simply
- What evidence and guidance supports your advice (e.g., NHS, NICE, WHO)

Use analogies or examples if needed.

Use gentle phrasing:

- "Instead of thinking of this as dangerous, I'd think of it as protective."
- "Most people tolerate this well, and we're always here to monitor."

Anchor Phrase: "Let's break this down step by step."

Step 4: Engage in Shared Plan

"Let's make a decision together that respects the patient's autonomy."

Offer clear next steps, invite questions, and support follow-up.

Always say:

- "I'll guide you through your options, and you can let me know what feels right for you."
- "We'll take this at your pace-you don't need to decide everything right now."
- "If you'd like more time, reading, or even a second opinion, we support that."
- "What matters most is that you feel informed and comfortable with the plan."

Always include:

- What you recommend and why
- What else is available if they decline
- What happens next (e.g., referral, test, repeat appointment)

- Offer a leaflet or official NHS source
- Safety net: "If anything changes or you're unsure later, just contact us."

Anchor Phrase: "We'll decide this together."

When to Use the CARE Framework?

Use CARE for counselling scenarios like:

- Medication concerns or refusals (e.g., ACE inhibitors, steroids, isotretinoin)
- Vaccination hesitancy (e.g., flu, MMR, COVID)
- Public health concerns (e.g., screening, transmission risks)
- Ethical requests (e.g., "Don't tell my mum", "Refusing colonoscopy")
- Parent concerns (e.g., autism, regression, infection fears)

The SUPPORT Framework for Colleague-Based Scenarios

(Struggling FY1s, distressed nurses, unsafe behaviours, complaints, or emotional breakdowns)

In PLAB 2, you're not just tested on patient communication-but also on how you speak to colleagues, especially when they're under pressure, upset, or involved in complaints or errors. These are high-stakes, emotional scenarios where empathy, professionalism, and calm leadership matter more than clinical facts.

That's why GK's Notes introduces a dedicated framework for these stations: **SUPPORT**.

What is SUPPORT?

- **S** – Set the Stage
- **U** – Understand Their Side
- **P** – Probe for Causes
- **P** – Provide Empathy
- **O** – Offer Solutions
- **R** – Reassure
- **T** – Take Forward Actions Together

SUPPORT gives you a clear way to stay grounded, hit all communication marks, and support your colleague with clarity, kindness, and structure-without overstepping your FY2 role.

S – Set the Stage

Open gently, maintain privacy, and acknowledge context.

- "Hi, I'm one of the doctors on the team. I saw you looked a bit upset earlier-would it be okay if we had a quick chat?"
- "You've just come out of a tough situation, and I wanted to check how you're doing."
- "This is a safe space-please feel free to be honest."

Tip: Don't ask permission to "support" them-just initiate with warmth.

U – Understand Their Side

Let them speak. Don't jump in with solutions.

- "Would you like to tell me what happened from your point of view?"
- "That sounds really stressful-how did it make you feel?"
- "What's worrying you the most about the situation?"

Your goal: Give them emotional space, show you're listening, and avoid judgement.

P – Probe for Causes

Explore practical or systemic factors gently.

- "Do you feel this could've been avoided, or was it just one of those moments?"
- "Have you been under extra pressure lately?"
- "Are you getting enough support from the team?"
- "Any ongoing worries about work, sleep, or wellbeing?"

This step shows maturity: You're trying to understand root causes, not blame.

P – Provide Empathy

Now validate and support them emotionally.

- "It's completely understandable to feel that way."
- "I can see this has affected you deeply, and that shows how much you care."
- "You're not alone-many of us have been through something similar."

Keep your tone gentle and non-judgmental.

O – Offer Solutions (within FY2 remit)

Now suggest practical, appropriate support, such as:

- "Would it help to speak to your supervisor or clinical lead?"
- "We can debrief this together or with a senior, if you'd like."
- "You might find occupational health or the wellbeing service helpful-they're completely confidential."

Avoid saying "You should..." or "Just get over it"-always suggest options, not commands.

R – Reassure

Let them know they are valued, safe, and supported.

- "One difficult situation doesn't define your ability as a doctor."
- "You've done the right thing by speaking up."
- "This shows insight and maturity, not failure."

Avoid false promises like "No one will ever complain again" - instead focus on growth, support, and moving forward.

T – Take Forward Actions Together

End with clear shared steps and follow-up.

- "Let's speak to [name] together after this, if that feels okay."
- "Would you like me to help arrange a meeting with your supervisor?"
- "I'll check in with you again tomorrow-just to see how you're doing."

Offer practical next steps and show ongoing availability.

When to Use SUPPORT?

Use for stations like:

- FY1 after a complaint or medical error
- Nurse or midwife in distress (e.g. staffing, abuse, burnout)
- Colleague struggling with workload, family stress, or emotional impact of a case
- Ethical dilemmas where a colleague seeks advice (e.g. confidentiality, reporting)

Note on Specialty-Specific Structures

While this section outlines the general communication and consultation structures, please note that specialty-specific guidance-including how to handle sensitive conversations, patient education, and tailored counselling-will be provided within each individual chapter.

Chapters such as Psychiatry, Paediatrics, Obstetrics & Gynaecology will include their own focused strategies, preferred phrasing, and scenario-based examples relevant to that system. These sections will help you adapt your communication naturally to the clinical and emotional context of each specialty-without relying on rigid templates.

A Quick Note on Structure Used in This Book

Individual cases may not always repeat the full consultation format in detail. Unless stated otherwise, you should follow the core structure outlined in this guide-for introductions, history, explanations, and management. The phrasing may vary, but the underlying structure stays the same. Stick to it. Practise it. Make it your own.

Interpersonal Skills

How to Demonstrate Excellent IPS Without Being Robotic

Interpersonal Skills (IPS) are one of the most crucial scoring domains in PLAB 2. It's not about acting or memorising scripts - it's about coming across as empathetic, safe, natural, and patient-centred.

What IPS Really Means (According to GMC)

GMC expects you to:

- Listen actively and let the patient speak.
- Show empathy and respect for the patient's feelings and background.
- Respond to verbal and non-verbal cues.
- Communicate clearly in everyday terms (no jargon).
- Share decision-making and respect patient autonomy.

GMC Good Medical Practice 2024 – IPS Expectations

The January 2024 update to Good Medical Practice emphasises these specific behaviours:

- Communicate **sensitively and considerately**
- **Listen** to patients – don't interrupt or assume
- **Don't make assumptions** about what a patient will consider significant
- **Explain options** and any recommendations about their care
- Work in **partnership** with patients to support informed decisions
- Treat patients as **individuals with diverse needs**

Key Components of High-Scoring IPS

1. Tone & Manner

- Calm, gentle voice.
- Don't rush the patient.
- Don't sound scripted or mechanical.
- Smile where appropriate - not when patient is in pain or distress.

2. Body Language

- Sit slightly forward to show interest.
- Maintain eye contact without staring.
- Nod to show active listening.
- Don't fold arms or tap feet.

3. Verbal Acknowledgement

- "I'm really sorry to hear that."
- "That must be difficult for you."
- "Thank you for sharing that."
- "Let me try to help you the best I can."

4. Lay Language

- Say "long-term condition" instead of "chronic disease".
- Say "tests" instead of "investigations".
- Say "blood pressure" instead of "BP".
- Avoid complex medical explanations unless asked.

5. Empathy Phrases (Use when patient shares emotional or difficult information)

- "That sounds really upsetting."
- "You've been through a lot."
- "It's completely understandable to feel this way."
- "You're not alone in this."

When & How to Show IPS Throughout the Station

Station Stage	IPS Actions
Introduction	Smile, greet warmly, confirm name and age, ask preferred name
History Taking	Active listening, validate concerns, mirror language if appropriate
Presenting Complaint	Acknowledge pain/discomfort, don't dismiss embarrassing problems
Exploring ICE	Respect their ideas, even if incorrect; don't dismiss their concerns
Examination	Explain what you're doing, ask for consent, use gentle tone
Diagnosis	Say it gently, check understanding, avoid medical fear words
Management Plan	Be collaborative, avoid ordering, use "we" instead of "I"
Safety Netting	Reassure without alarming, give clear red-flag advice
Closing	Thank patient, check if they have questions, reassure availability

Common IPS Mistakes (And How to Fix Them)

Mistake	Better Approach
Rushing through history	Slow down and show genuine interest
Ignoring emotions	Acknowledge distress: "You seem quite upset about this."
Using jargon	Convert terms into simple language
Over-apologising	Say "I'm sorry to hear that" instead of repeated apologies
Being robotic	Speak like you would to a friend or family member
Interrupting	Let the patient finish; pause before responding
Ignoring non-verbal cues	Respond: "You look a bit uncomfortable. Would you like to pause for a moment?"

Key Phrases to Learn (But Use Naturally)

- "That's completely understandable."
- "Would you like me to explain this again in a simpler way?"
- "I'll try to guide you through this step by step."
- "If it's okay with you, I'd like to ask a few more questions."

- "This must be quite frustrating for you."

IPS in Difficult Scenarios

- **Angry Patient:** "I understand this has been frustrating. I'm here now, and I'll try to help."
- **Embarrassed Patient:** "Many people find this hard to talk about. You've done the right thing coming in."
- **Crying/Low Mood:** Offer tissue, sit quietly for a moment. "It's okay, take your time."
- **Patient in Pain:** "I can see you're in discomfort. I'll do my best to make you feel better."
- **Breaking Bad News:** Speak slowly, pause often. "I'm really sorry to have to tell you this."

Final Note on IPS

You don't need to memorise IPS lines. You need to feel what the patient feels, respond gently, and treat them like a human being - not a checklist. That's what gets full marks.

Common Mistakes Candidates Make (And How to Avoid Them)

You might know your guidelines. You might speak fluent English. But if you make the same mistakes that hundreds of other candidates do - it could still cost you the station. The good news? These errors are easy to avoid once you know them.

1. Treating It Like a Knowledge Test, Not a Performance

PLAB 2 isn't testing what you know. It's testing how you behave. Many candidates focus on memorising information and forget to practise how to deliver it.

Do This Instead:

- Practise aloud with a partner or mirror.
- Work on tone, flow, and confidence - not just content.

2. Rushing Into the Complaint Without Establishing Rapport

Skipping the name, preferred name, age, or building rapport makes the entire consultation feel cold and rushed. Examiners will notice.

Remember:

- Always confirm identity.
- Ask how they'd like to be addressed.
- Start with a gentle, warm greeting.

3. Using Medical Jargon

Words like "hypertension," "saturation," "management," or "investigations" might feel normal to you - but they sound alien to patients.

Use Layman-Friendly Phrasing:

- "High blood pressure" instead of "hypertension"
- "Oxygen level" instead of "saturation"
- "Tests" instead of "investigations"
- "What needs to be done" instead of "management"

4. Failing to Ask About the Patient's Ideas, Concerns, and Expectations (ICE)

ICE is one of the most heavily weighted domains - and often skipped when time runs short.

Always Ask:

- "What do you think might be going on?"

- "Is there anything in particular you're worried about?"
- "What were you hoping we could do for you today?"

5. Jumping to a Diagnosis Too Soon

Many candidates make the mistake of diagnosing or treating before completing their full history or physical examination.

Slow Down and Prioritise Safety:

- Complete the history (especially red flag screening).
- Do an examination (or verbalise it).
- Then move into diagnosis and plan.

6. Ignoring Emotional Cues

If the patient cries, hesitates, or says something distressing - and you just keep asking your next question - that's an IPS fail.

Acknowledge Emotion Immediately:

- "That sounds really tough, I'm sorry to hear that."
- "Would you like a moment or should we continue?"

7. Relying on Scripted Language

You might have the right sentences - but if they sound memorised, flat, or robotic, you'll lose marks.

Speak Like a Human Being:

- Use natural tone and pacing.
- Vary your voice and pause when needed.
- Use your own words - not someone else's script.

8. Forgetting the Physical Examination

Sometimes, candidates go straight from history to diagnosis, especially in phone stations or when there's no mannequin visible.

Always Say:

- "I'd like to examine you now - is that okay?"
- Mention relevant bedside tests before asking for investigations.

9. Asking Yes/No Questions Only

Closed questions can miss the real story. If you only ask "Do you have chest pain?" - you'll get a yes/no, but no depth.

Use Open Starters First:

- "Can you tell me more about that?"
- Then narrow down using SOCRATES or FODPARA.

10. Skipping Safety Netting and Follow-Up

You might give the perfect diagnosis and treatment - but if you forget to say what to do if things get worse, or when to come back, it's an incomplete consultation.

Always Add:

- "If this doesn't improve in a few days, please contact us again."
- "If you feel worse - especially if you have chest pain or fever - call 999 or come back urgently."
- "We'll follow up in 2 weeks to see how you're doing."

11. Not Offering a Leaflet or Checking Understanding

Examiners want to see that you're educating the patient - not just giving instructions.

End With:

- "Would you like some written information to take home?"
- "Was everything clear today, or should I go over anything again?"

12. Escalating to a Senior Too Easily (or Not at All)

Some candidates call for help at the first sign of uncertainty. Others never mention escalation - even in life-threatening conditions.

Only Escalate When Needed:

- Meningitis, suicidal ideation, domestic abuse, uncertainty in critical cases
- Use calm phrasing: "I'll quickly discuss this with my senior to ensure we do the safest thing."

13. Poor Time Management

Some spend 6 minutes on history, then panic through management in 1 minute - where most marks are scored.

Structure Your Time:

- History: 4-5 minutes
- Exam: 1 minute
- Diagnosis + Management: 2-3 minutes
- Practice with a timer regularly

14. Not Addressing Patient Concerns (ICE)

Jumping straight into diagnosis without exploring what the patient actually worries about. This is one of the most common reasons for losing IPS marks.

15. Not Confirming Patient Identity

Always confirm full name and date of birth at the start. This is a patient safety standard.

16. Ignoring Non-Verbal Cues

If the patient looks worried, tearful, or hesitant - acknowledge it.

- "I notice you seem worried about something. Would you like to share what's on your mind?"

How to Study and Prepare for PLAB 2

PLAB 2 isn't a test of how much you know. It's a test of how calmly, clearly, and safely you apply what you know - in the shoes of a junior NHS doctor.

You don't need perfect words. You need structure, empathy, and common sense.

So... How Should You Prepare?

Here's a simple, hopeful guide to studying well - and not burning out in the process.

1. Practice Talking, Not Just Reading

PLAB 2 is spoken. It's performed. Reading isn't enough.

- Use a timer.
- Speak aloud - even if you're alone.
- Practice with a partner if possible.
- Record yourself. Reflect. Repeat.

2. Learn the Structure - Then Personalise It

Every good case has a rhythm:

Introduction → Complaint → Screening → ICE → Explanation → Plan → Safety Net

Don't memorise lines. Learn the flow. Speak in your voice.

3. Quality > Quantity

You don't need to "finish" 200 cases.

Instead:

- Pick 3 stations today. Do them properly.
- Understand the logic behind each one.
- Repeat them a few days later. That's how real progress happens.

4. Prioritise These Station Types

These make up most of the exam:

- History-taking (with unknown concern)
- Follow-up or result explanation
- Counselling and reassurance
- SimMan / emergency
- Angry or anxious patients
- Ethics / safeguarding / colleague concerns

Get comfortable with these early. They come back again and again.

5. Use Smart Resources

You don't need 10 Telegram groups and 4 overlapping courses. What you really need is:

- One clear, structured note system (like this book)
- Realistic mock practice-even at home
- Targeted revision tools like flashcards and one-page summaries
- Up-to-date NICE/NHS guidance

Stick to fewer, smarter resources. Understand more. Remember better.

6. Keep It Real

You're not acting. You're being a real, kind doctor.

- Use normal words ("tests" not "investigations")
- Ask questions with warmth
- Don't sound rehearsed
- Focus on being calm and safe, not dramatic

7. Prepare with a Plan

A simple 4-week plan could look like this:

Week	What to Focus On
1	Learn structures + 4 cases/day
2	Practice common station types
3	Full mocks + targeted feedback
4	Speed, revision, and confidence building

You can stretch or shorten this - just make sure you revise properly before the exam.

8. Mindset Matters

Some days you'll feel behind. Some cases will feel terrible. That's normal.

Just remind yourself:

- Every case you practise is a step forward.

- You don't have to be perfect. Just safe.
- You've made it this far - and that already means something.

Final Thought

PLAB 2 isn't easy. But you are capable.

Speak with clarity. Think with kindness. Act with safety.

And trust that everything you need... is already inside you.

3-Month Roadmap to PLAB 2 Preparation

A structured, strategy-driven plan using GK's Notes

Month 1 – Build Your Foundations

Goal: Understand the consultation structure, start speaking confidently, and cover core systems.

Weeks 1–2: Learn the Language of PLAB 2

- Read the intro sections of GK's Notes 2.0 carefully, including:
 - Consultation format
 - How to use this book
 - CARE and SUPPORT structures
- Start reading cases aloud from Day 1
- Cover 2–3 systems per week (e.g. Cardio, Resp, Gastro, Neuro)
- Practise 8-minute consultations using a timer
- Focus on:
 - Learning the flow (history → ICE → explanation → plan)
 - Using natural, conversational phrasing
 - Understanding FY2-level management clearly

Tip: Don't aim to memorise. Understand the flow and speak in your own words.

Weeks 3–4: Expand & Start Repeating

- Cover next set of systems (MSK, Urology, Endocrine, Paediatrics, OBGYN)
- Begin early practice of:
 - Breaking bad news
 - Counselling cases using CARE
 - Follow-up structure
- Start revisiting earlier cases to build fluency
- Begin using:
 - GK's Flashcards for management recall
 - One-page revision summaries for high-yield conditions
 - Trends list to prioritise trending stations

Checkpoint: By the end of Month 1, you should be able to confidently run 4–5 stations per day aloud, even if solo.

Month 2 – Practise with Purpose

Goal: Improve fluency, develop time control, and handle difficult stations with structure and clarity.

Weeks 5–6: Practise by Category

- Begin focused themes:

- Emergencies & ABCDE
- Ethical & colleague cases (SUPPORT)
- Psychiatry & safeguarding
- SimMan and phone consultations
- Practise 3–6 cases daily using GK's Notes
- Record or do peer feedback weekly
- Use:
 - GK's Management Flashcards daily
 - Trends list weekly
 - One-page reviews to revise rapidly

Focus now on correcting mistakes, improving structure, and ICE handling.

Weeks 7–8: Simulate Exam Rounds

- Start doing back-to-back timed practice (4, 8, or 16 stations at a stretch)
- Focus on:
 - Improving explanation clarity
 - Handling red flag symptoms confidently
 - Using 12-step follow-up and result discussion formats
 - Tightening time usage per station

Optional: Attend a professional mock this month or simulate one with friends for realism.

Month 3 – Final Polishing & Exam Readiness

Goal: Sharpen fluency, refine difficult cases, and simulate exam conditions with confidence.

Weeks 9–10: High-Yield Repetition

- Prioritise the Trends list
- Final review of:
 - Ethics
 - Colleague
 - SimMan
 - Psychiatry
 - Cancer pathways
- Do daily flashcard drills
- Refine:
 - Lay explanations
 - Diagnostic justifications
 - Consultation confidence

Weeks 11–12: Calm Consolidation

- Light but consistent practice (3–5 cases per day)
- Maintain:
 - Flashcard review
 - Optional audio walkthroughs (if available)
 - Daily revision of high-yield differentials
- Prioritise:
 - Sleep, calm mindset, timing
 - Fluency > volume
 - Realistic expectations

Tip: Don't over-cram. Trust your preparation. Stay consistent.

What You Need to Use

Resource	Purpose
GK's Notes 3.0	Structured station guide
GK's Management Flashcards	Daily recall & management
One-page revision summaries	Rapid review
Trends List	High-yield priority
Mock exams / peer sessions	Feedback and fluency

Final Advice

- Speak from understanding, not memory
- Use timers from day 1
- Don't skip ICE, red flags, or safety netting
- Practise deliberately-not just to "cover" the book
- You don't need 16 perfect stations. You need 12 solid ones.

Only Have 2 Months? Here's What to Do

PLAB 2 can still be cleared with 8 weeks of focused prep-if you're consistent.

Week 1-2:

- Read the intro sections (structure, CARE, SUPPORT).
- Cover 1-2 systems per week. Speak aloud from Day 1.
- Use timers and start flashcard revision immediately.

Week 3-5:

- Practise 4-6 stations daily, focusing on weak areas.
- Rotate through: SimMan, angry patients, results, ethical cases.
- Join mock groups or simulate mini-mocks weekly.

Week 6-8:

- Prioritise high-yield trends list, repeat difficult stations.
- Use flashcards + one-page revision summaries daily.
- Do full mock rounds every 3 days (8-12 stations).
- Focus on fluency, clarity, and confidence.

Don't try to do everything-do the right things, often.

Only Have 1 Month? Maximise Strategy

With just 4 weeks, you need to think like the exam from Day 1.

Week 1:

- Learn the consultation structure + start speaking aloud.
- Practise 6+ stations per day, not read-speak.
- Focus on high-yield systems: Cardio, Resp, GI, Paeds, SimMan.

Week 2:

- Rotate through angry patients, results, cancer, ethical, psychiatry.
- Revise using flashcards + one-page plans daily.
- Simulate timed practice every 2 days.

Week 3-4:

- Focus entirely on fluency and safety.
- Run full mocks every 2-3 days.
- Use trends list to catch trending stations.

This is possible. But only if you speak, review, and repeat-every day.

Chapter 3: Headaches

A Note to Learners

The cases in this resource are written in a conversational style to help you become familiar with the natural flow of clinical consultations and the language commonly used in UK healthcare settings.

These dialogues are intended as a learning guide, not a script. Please do not attempt to memorise them verbatim. Examiners assess your ability to think and communicate authentically - not to recite rehearsed phrases.

Use this material to understand the underlying clinical reasoning, then practise in your own words until the consultation feels natural to you.

For Companion OSCE Cases, Practice Scripts, Evaluation Checklists, Summary Notes, Rapid Review Notes, Mindmaps, Management Flashcards and Image Library - visit <https://www.gksplab2.com>

Disclaimer

This material is independent educational content created to help candidates develop clinical reasoning and communication skills for UK medical practice.

All cases and clinical scenarios are based on common presentations encountered in UK primary care and emergency medicine, drawn from publicly available sources including NICE Clinical Knowledge Summaries (CKS), BNF, and other official NHS/UK healthcare guidelines.

No content in this resource is derived from, represents, or claims to replicate actual GMC PLAB 2 examination material.

Introduction to Headache Cases

Headache is one of the most common symptoms seen in general practice and emergency settings. While most cases are benign, it's crucial to identify red flags and serious underlying causes early. The key is a structured approach using SOCRATES, followed by targeted differential screening, and-if the case is unusual or atypical-considering environment, medications, and systemic clues. In PLAB 2, candidates are often misled by non-specific pain descriptions, so building from site, character, duration, and pattern change is essential.

Structure for Headache Cases

This format keeps everything you need, cuts redundancy, and improves diagnostic clarity:

1. Introduction

Hello, I'm Dr [Name], one of the doctors here today. Could I confirm your full name and age please?
Thanks - how can I help you today?

2. Presenting Complaint – SOCRATES

Ask in natural flow:

- Where exactly is the pain?
- When did it start?
- What does it feel like - dull, throbbing, sharp?
- Does it spread anywhere?
- Is there anything that makes it better or worse - like movement, position, or being outside?
- How bad is it, on a scale of 0 to 10?
-

3. Differential Diagnosis Screening

Diagnosis	Rule-Out Questions
Migraine	Do you get nausea, sensitivity to light, or vision symptoms before the headache?
Cyclic (Menstrual) Migraine	Do these headaches come around your periods? Do they improve once bleeding starts?
Tension-Type Headache	Does it feel like a tight band or pressure? Does it come after stress or long workdays?
Sinusitis	Any facial pressure, blocked nose, or green nasal discharge? Worse when bending?
Subarachnoid Haemorrhage	Did the headache come on very suddenly, like a lightning bolt? Is it the worst ever?
Meningitis	Any fever, neck stiffness, rash, or trouble with light or loud sounds?
Giant Cell Arteritis	Any scalp tenderness, jaw pain while chewing, or recent visual loss? (Age >50)
Idiopathic Intracranial Hypertension	Does bending forward or coughing make it worse? Any blurred or double vision?
Carbon Monoxide Poisoning	Is the headache better when you're outdoors? Is anyone else at home unwell?
Hangover Headache	Did this come on after drinking alcohol the night before?
Medication Overuse Headache	Have you been using painkillers more than 2-3 times a week recently?

4. Focused History – PMAFTOSA

- Any previous diagnosis of migraines or similar issues?
- Are you on any medications, including painkillers or contraception?
- Any allergies?
- What do you do for work or study?
- Are you under any stress recently?
- Who do you live with? Anyone else unwell?

5. ICE

- What do you think might be going on?
- Is there anything you're particularly worried about?
- What were you hoping I could help with today?

6. Effect on Life

- How has this affected your ability to work, study, sleep, or enjoy daily activities?

7. Examination

"I'd like to check your vital signs and do a quick neurological exam, including your eyes." → Fundoscopy or mannequin if applicable "Everything looks fine, which is reassuring."

8. Provisional Diagnosis – Tell, Ask, Explain, Check

- **Tell:** "Based on your symptoms and examination, this seems to be [e.g. a migraine/a tension headache/etc]."
- **Ask:** "Have you had this diagnosis before?"
- **Explain:** One-sentence explanation in layman terms
- **Check:** "Does that make sense? Anything you'd like me to explain further?"

9. Management Plan

- Acute management (medication and explanation of how/when to use)
- Consider prevention if frequent
- Discuss lifestyle tips (hydration, triggers, regular sleep, stress management)
- Driving advice if needed (e.g. in IIH)

10. Safety Netting

"If anything changes - like a very sudden, severe headache, confusion, vomiting, or vision problems - please come back immediately or go to A&E."

11. Follow-Up

"Let's review this again if it gets more frequent, or if you need preventive medication."

12. Leaflet

"I'll give you a leaflet about [the condition] with everything we've discussed today."

Common Pitfalls and Clinical Advice

General Consultation Advice

- Follow a clear, structured sequence in your history taking (e.g., SOCRATES + COMAH + PMAFTOSA).
- Avoid combining questions. Asking "Do you smoke or drink?" together is poor practice. Split into separate, clear questions.

- Offer examples when asking about pain features-such as "Is it sharp, dull, or throbbing?"-to help the patient describe their symptoms accurately.
- Be alert to non-verbal cues such as facial grimacing or light sensitivity.
- Always ask about the patient's ideas, concerns, and expectations (ICE). Many headache stations contain red herrings where patient concern is the actual focus.
- Check impact on function: Is the headache affecting work, sleep, or daily routine?

History Pitfalls to Avoid

- Missing serious causes because of relying solely on location or type of pain (e.g., assuming occipital headache is just tension-type).
- Not probing for red flag features like visual disturbance, fever, neck stiffness, vomiting, sudden onset, or altered consciousness.
- Forgetting to screen for menstrual or contraceptive history in females, which may guide migraine management.
- Failing to identify triggers such as alcohol use, late nights, dehydration, or CO exposure.
- Not checking for accompanying neurological symptoms (blurred vision, weakness, seizures, confusion).
- Underestimating the relevance of recent travel, which may point to infections like meningitis.

Examination & Diagnosis Pitfalls

- Not examining the mannequin when one is present-even if verbal findings are offered.
- Forgetting to explain findings clearly: for example, explaining papilledema as "swelling at the back of the eye due to raised pressure in the brain."
- Giving vague diagnoses like "just a headache." Always provide a specific label such as migraine, tension headache, sinusitis, etc.

Management Mistakes

- Offering referrals too early (e.g., neurology for a typical migraine without aura).
- Ignoring patient expectations about scans-patients may demand CTs, but explain when they are or aren't needed based on red flags.
- Missing the need for emergency referral in scenarios like suspected subarachnoid haemorrhage or GCA with vision loss.
- Forgetting to offer pain relief if the patient appears uncomfortable-even in mannequin cases.

Scenario-Specific Reminders

- **Migraine:** Auras may not be textbook; stress can be a trigger. Always consider contraception safety in females. Avoid over-referral.
- **Tension Headache:** Mannequin case, often seen in teachers with end-of-day pain. Give simple explanation and reassurance.
- **Meningitis:** Often in travellers. Ask about travel, fever, neck stiffness. Start treatment urgently if suspected. Remember partner prophylaxis.
- **GCA:** Older patients with headache or sudden vision loss. Start steroids immediately. Mention side effects if prescribing.
- **Pituitary Adenoma:** Subtle vision changes like car accidents. Always ask about hormonal symptoms. Explain bitemporal hemianopia.
- **Medication Overuse Headache:** Ask about daily painkiller use. Explain how frequent analgesia can worsen headaches.
- **CO Poisoning:** Check for poor ventilation, shared symptoms in household. Do not mention electrical heaters or smoke. Oxygen saturation is often normal.

- **Intracranial Hypertension:** Often in younger women with worsening vision and headaches on bending or coughing. Examine for papilledema.

Final Preparation Advice

- Practice headache cases thoroughly, especially recognising red flags versus benign patterns.
- Be ready for subtle presentations and unexpected patient wording-adapt and clarify.
- Always think safety first-offer reassurance, treatment, and urgent escalation where needed.
- Keep explanations simple and relevant to the patient's situation. Avoid overloading with unnecessary technical detail unless asked.

Suspected Meningitis

Scenario: Primary Care Setting | Young Adult Male | Acute Headache with Systemic Features and Recent Travel History

Your Role: FY2 in GP Clinic

1. Introduction

Hello, I'm Dr. [Name], one of the doctors here in the practice.

Could I confirm your full name and age, please?

Nice to meet you. What brought you in today?

If wearing dark shades: "I noticed you're wearing sunglasses - is the light bothering your eyes?"

"I can see the light is quite painful for you. I'll keep the room dim, but I'll just need to check your eyes briefly to see how they're reacting - is that okay?"

2. Presenting Complaint – SOCRATES Pain History

Thanks for sharing that. I'd like to ask a few more questions about your headache to better understand what's going on:

- **Site:** Where exactly do you feel the pain?
- **Onset:** Did it come on suddenly or gradually?
- **Character:** How would you describe the pain - is it throbbing, sharp, dull, or pressure-like?
- **Radiation:** Does it spread to your neck, eyes, jaw, or shoulders?
- **Associated symptoms:** Have you experienced:
 - Have you felt hot or shivery?
 - Have you felt sick or been sick?
 - Any neck stiffness?
 - Any drowsiness or confusion?
 - Any blurred vision or double vision?
 - Any sensitivity to light or sound?
 - Have you noticed any skin rash or spots?
- **Timing:** When did this begin? Has it been constant or coming and going?
- **Exacerbating or relieving factors:**
 - Does anything worsen it - like movement, coughing, or bright light?
 - Have you tried taking anything for it, like paracetamol? Did it help?
- **Severity:** On a scale of 0 to 10, how would you rate the pain at its worst?

If visibly uncomfortable: "I can see this is really bothering you, and I'm so sorry you're feeling this way. You're doing really well - we'll try to sort this out quickly."

3. Differential Diagnosis Screening

To make sure we don't miss anything, I'd like to ask about a few other symptoms:

- **Infection symptoms:** Any recent cough, sore throat, or runny nose? (Sinusitis, flu)
- **Migraine features:** Any visual disturbances or warning signs before the headache?
- **Tension-type:** Have you been stressed lately? Is the pain like a tight band around the head?
- **Trauma:** Any history of head injury or recent fall?
- **Sinus symptoms:** Any facial pain, nasal discharge, or blocked nose?
- **SAH:** Sudden onset "worst-ever" headache?
- **Temporal arteritis:** Any jaw pain when chewing? Any vision changes? (GCA)
- **Carbon monoxide:** Has anyone else at home had similar symptoms? Any new heating systems?

4. Systemic History

- **Fever screen:** When did it start? Has it been on and off or constant? Any chills or night sweats?
- **Other systems:**
 - Any cough or shortness of breath?
 - Any tummy upset or diarrhoea?
 - Any dizziness or feeling drowsy?

5. PMAFTOSA

- **Past medical history:** Any previous episodes like this? Any long-term conditions (like epilepsy, immune problems)?
- **Medications:** Do you take any regular medicines?
- **Allergies:** Any known allergies to medications? How do you react?
- **Family history:** Anyone in the family with neurological issues or immune conditions?
- **Travel history:**
 - When did you return from your trip?
 - Did you seek pre-travel advice or receive any vaccinations?
 - Did anyone else travel with you? Are they well at the moment?
- **Occupation:** What do you do for work or study?
- **Social:** Who do you live with? Any smokers at home? Do you drink or use recreational drugs?
- **Additional:** Has anyone else around you been unwell lately?

6. ICE (Ideas, Concerns, Expectations)

- What do you think might be causing all this?
- Is there anything specific you're worried about?
- What were you hoping we could do for you today?

7. Effect on Life

Has this been affecting your ability to work, concentrate, or sleep?

Is it stopping you from doing normal daily activities?

8. Examination Summary

Thanks for answering all my questions - that was very helpful.

Now, with your permission, I'd like to check a few things:

- We'll check your temperature, pulse, blood pressure, and oxygen levels
- I'll examine your head, neck, and eyes
- I'll check the nerves in your face and neck - including Kernig's sign and Brudzinski's sign (these help us check for meningeal irritation)
- And I'd like to check your skin for any rashes

A chaperone will be present. May I go ahead?

Findings:

- Temperature elevated
- Photophobia
- Neck stiffness
- Purpuric non-blanching rash on trunk

9. Diagnosis Delivery – Tell, Ask, Explain, Check

TELL

"Based on your symptoms and what I've found on examination, I'm concerned that you may have meningitis."

ASK

"Have you heard of meningitis before?"

EXPLAIN

"Meningitis is a serious infection that affects the lining around your brain. Think of it like a protective covering - when bacteria get in there, it becomes inflamed and swollen, which causes your symptoms. Your headache, fever, neck stiffness, and sensitivity to light are all classic signs. The rash you have - which doesn't fade when pressed - is also something we often see in meningitis. And with your recent travel abroad without vaccinations, this adds to the concern."

I know this is a lot to take in, and it's scary to hear. But the important thing is that you're here, we've identified what's likely going on, and we're going to act fast.

This is a medical emergency, but we've caught it early and will begin treatment immediately."

CHECK

"Does that explanation make sense? Is there anything you'd like me to go over again?"

10. Management Plan

Here's what we'll do now:

Immediate Treatment:

"Because this is urgent, I'm going to give you an antibiotic injection right now - **IM benzylpenicillin 1.2g** (or ceftriaxone 2g IM/IV (preferred if available or if penicillin allergy). This goes into your arm or leg muscle and starts fighting the infection immediately."

We'll arrange for you to be taken to hospital without delay for further care."

Important note: If there is no non-blanching rash and ambulance arrival is imminent, prioritise immediate transfer ('scoop and run') - antibiotics should not delay getting the patient to hospital. However, with a rash present, give antibiotics before transfer.

At the hospital, they will:

- Continue with **IV antibiotics** (usually ceftriaxone, given within 1 hour of arrival)
- Give **IV dexamethasone** - this is given to all patients over 3 months with strongly suspected bacterial meningitis to reduce inflammation and improve outcomes. {Note: Dexamethasone should be STOPPED if organism is confirmed as *Neisseria meningitidis* (meningococcal). Continue only for *S. pneumoniae* or *H. influenzae* type b.}
- Give you **pain relief** (such as paracetamol or stronger painkillers if needed)
- Perform tests:
 - Blood tests (to check organ function, infection markers, and clotting)
 - A CT brain scan

- Possibly a **lumbar puncture** - this is where they take a small sample of fluid from your lower back using a needle. It sounds scary, but it's a routine procedure and gives us important information about what's causing the infection.

[Note for candidates: LP should ideally be done within 12 hours of admission. If delayed beyond 12 hours, xanthochromia testing is used to help interpret CSF results.]

Public Health:

Meningitis is a notifiable condition, so **I will notify the local Health Protection Team (HPT) immediately.**

11. Safety Netting & Public Health

- Your girlfriend who travelled with you - is she having any symptoms?

If no: "That's reassuring. However, close contacts should still be offered **preventive antibiotics** - usually a **single dose of ciprofloxacin 500mg** (or rifampicin if ciprofloxacin is not suitable). We'll arrange that today.

For meningococcal B cases, the Health Protection Team may also recommend **MenB vaccination** for close household contacts as part of the public health response."

- It's very important to seek pre-travel medical advice for future trips. This helps you get the right vaccinations or tablets to prevent serious infections.
- If you feel drowsier, develop seizures, or notice worsening symptoms before hospital transfer - let a healthcare professional know immediately.

12. Follow-Up Plan

- I will hand over your care to the acute medical team right away for transfer to hospital.
- After recovery, you will likely be seen in follow-up to check for:
 - Hearing changes (as meningitis can affect hearing)
 - Neurology or infectious disease reviews
- The public health team will also contact you for contact tracing and outbreak control.

Leaflets:

I'll provide you with a leaflet on meningitis and another on travel health advice.

Let me know if there's anything else you'd like me to clarify. We're here to support you throughout this. You're in the right place, and we'll make sure you get the care you need.

Diagnostic Note – How This Diagnosis Was Made

The patient presents with the classic triad of meningitis:

- Headache
- Fever
- Neck stiffness

He also has photophobia, nausea, and a non-blanching rash, all of which strongly support bacterial meningitis, particularly meningococcal.

His recent travel without vaccinations adds further risk.

Other causes of headache (e.g. migraine, sinusitis, SAH) were explored and reasonably excluded based on history and symptom pattern.

Examination confirmed meningeal signs and fever, supporting the diagnosis.

Cyclical (Menstrual) Migraine

Scenario: Primary Care Setting | Adolescent Female | Recurrent Headaches with Temporal Pattern

Your Role: FY2 in GP

1. Introduction

Hello, I'm Dr. [Name], one of the doctors here in the practice.

Could I confirm your full name and age, please?

Thanks. What brings you in today?

2. Presenting Complaint – SOCRATES Pain History

Let's talk more about the headaches:

- **Site:** Where do you feel the pain?
- **Onset:** When did these headaches first start?
- **Character:** Is the pain dull, throbbing, sharp, or pressure-like?
- **Radiation:** Does it spread to your neck, eyes, or jaw?
- **Associated symptoms:** Do you experience any nausea, vomiting, flashing lights, blurred vision, or sensitivity to light or noise?
- **Timing:** How often do the headaches happen? How long do they last?
- **Exacerbating/Relieving factors:** Anything that makes it worse - like movement, light, lack of sleep? What helps - rest, darkness, medications?
- **Severity:** On a scale of 0 to 10, how severe is the pain?

3. Differential Diagnosis Screening

Let's rule out some other possible causes:

- Do you notice any aura or warning signs before the headache begins?
- Any stress, poor sleep, or screen overuse that could be triggering it?
- Have you had any head injuries recently?
- Any changes in vision, muscle weakness, or episodes of confusion?
- Are the headaches completely random, or do they seem to follow a pattern?
- Do you get any nasal congestion or facial pain with these headaches?
- Anyone else in your family suffer from migraines or headaches?

4. Targeted Menstrual & Sexual Health History

Let me ask a few specific questions that might help us spot patterns:

- Are your periods regular?
- Do the headaches seem to happen around the time of your period - before, during, or after?
- Any painful or heavy periods?
- Are you sexually active?
- Are you on any form of contraception?
- **Do you track your periods using an app or calendar? That could really help us spot the pattern.**

If patient mentions headache occurs monthly around periods: "Thanks for sharing that. Just to clarify - does the headache tend to start a few days before your period and stop after it begins?"

Note: At 17, ensure consent/Gillick competence is addressed if sexual health history is taken.

5. PMAFTOSA

- **Past medical history:** Any long-term conditions like epilepsy or hormone issues?

- **Medications:** Are you on any regular medicines or painkillers? **Are you taking any antidepressants?** (*Important: SSRIs/SNRIs can interact with triptans*)
- **Allergies:** Any allergies to medications or food?
- **Family history:** Any family members with migraines or hormonal conditions?
- **Travel:** Any recent travel abroad?
- **Occupation:** Are you in school or college?
- **Social:** Any smoking, alcohol, or recreational drugs?
- **Additional:** Anyone else at home experiencing similar headaches?

6. ICE

- What do you think might be causing these headaches?
- Is there anything you're worried this could be?
- What would you like us to help you with today?

7. Effect on Life

Have these headaches affected your studies, concentration, or social life?

8. Examination Summary

Thanks for answering everything. Now I'd like to:

- Check your vital signs: temperature, BP, heart rate, and oxygen
- Examine your eyes and assess some neurological signs

All findings **normal** – no neurological deficits or visual changes.

9. Diagnosis – Tell, Ask, Explain, Check

TELL

"From everything you've told me - particularly the fact that the headaches consistently happen just before or during your period, and settle afterward - this strongly suggests a condition called **menstrual migraine**, also known as **cyclical migraine**."

ASK

"Have you come across that term before?"

EXPLAIN

"Just before your period, there's a natural drop in a hormone called **oestrogen**. For some people, this hormone change can trigger a migraine. It's like your brain is sensitive to these hormonal shifts - and that's what we call a menstrual migraine.

The good news is that once we confirm the pattern, we can manage it very effectively."

CHECK

"Does that explanation make sense so far? Is there anything you'd like me to clarify?"

10. Management Plan

1. Acute Treatment

[NICE now recommends **combination therapy** as first-line for migraine. For young people aged 12-17, a **nasal triptan** is preferred because it works faster than tablets.]

I'll prescribe a medication called **sumatriptan** - it comes as a nasal spray. Here's how to use it:

- Start taking it **2 days before you expect your period**
- Continue for **3 days after your bleeding begins**
- That covers the window when your hormones are changing

You can also take this with paracetamol or an anti-inflammatory like ibuprofen to boost effectiveness."

Note: Triptans (except nasal sumatriptan) are off-label for under 18s as of June 2025.

Nasal sumatriptan 10mg is licensed from age 12. Zolmitriptan nasal spray also licensed from 12.

2. Diary Keeping

"Please maintain a headache and period diary for the next 2–3 months, recording:

1. Start and end of your headache
2. Start and end of your period
3. Any medications taken

This helps us confirm the diagnosis clearly."

3. Future Planning

"If the diary confirms the pattern and migraines continue, we may consider:

- **Continuous combined oral contraceptive pills (COCPs)** to prevent hormone drops - but **only if you don't have migraine with aura**

Important safety note: Combined oral contraceptive pills should **NOT** be used in patients with **migraine with aura** due to increased stroke risk (UKMEC Category 4). For menstrual migraine **without aura**, continuous COCPs may help by preventing hormone drops.

This would need to be discussed with your regular GP or at a contraception/sexual health clinic, as they'll do a full assessment of your suitability for hormonal contraception.

- Or **oestrogen patches** around your period as hormone support - again, this would be arranged through your GP or a specialist.
- For **prophylaxis**, frovatriptan 2.5mg BD starting 2 days before expected menses for 6 days can also be considered.

11. Advice, Safety Netting & Follow-Up

- During migraines, rest in a dark room, stay hydrated, and avoid bright lights and strong smells
- If the headaches become constant, change in character, or are associated with new neurological symptoms (e.g. limb weakness, visual loss), seek help immediately
- We'll review you in 2–3 cycles with the diary to plan next steps
- I'll give you a leaflet on menstrual migraine and treatment options

Final Check

Is there anything else you'd like to ask me or anything you're still unsure about?

You've done the right thing coming in today. We've got a clear plan, and I'm confident we can get this sorted.

Diagnostic Note – How This Diagnosis Was Made

This patient reports a monthly pattern of headache, consistently beginning just before her period and resolving soon after it starts.

There are typical migraine features (e.g. nausea, photophobia), no neurological red flags, and a normal examination.

No evidence of sinusitis, trauma, or other secondary causes.

Diagnosis of cyclical migraine is based on clear menstrual association and exclusion of other differentials.

Acute Bacterial Sinusitis

Scenario: Primary Care Setting | Older Adult Female | Facial Pain with Nasal Symptoms

Role: FY2 doctor in GP

Introduction

Hello, I'm Dr. [Name], one of the doctors here at the practice.

Could I confirm your full name and age, please?

Nice to meet you. How can I help you today?

Presenting Complaint – SOCRATES Pain History

Let's talk about the headache and facial discomfort:

- **Site:** Where exactly do you feel the pain?
- **Onset:** When did it start? Did it come on gradually or suddenly?
- **Character:** How would you describe the pain - is it pressure-like, throbbing, or sharp?
- **Radiation:** Does the pain move to your jaw, teeth, or eyes?
- **Associated symptoms:** Have you had any fever, blocked nose, green or yellow nasal discharge, or reduced sense of smell?
- **Timing:** Is the pain constant, or does it come and go?
- **Exacerbating/Relieving factors:** Does it get worse when you lean forward or touch your face? Have you tried any medications or remedies that helped?
- **Severity:** On a scale of 0 to 10, how bad is the pain right now?

Differential Diagnosis Screening

To ensure we consider other possible causes:

- Have you recently had a cold or flu-like illness?
- Any facial swelling, redness, or dental pain?
- Any changes in vision, double vision, or eye pain?
- Any nausea, vomiting, or light sensitivity?
- Any weakness, confusion, or morning headaches?
- Any history of migraine or similar headaches?

Systemic and ENT-Specific History

- Are you experiencing sneezing or runny nose?
- Any pressure or fullness in your cheeks or forehead?
- Any ear pain, hearing loss, or sore throat?

PMAFTOSA

- **Past medical history:** Any history of sinus problems, asthma, nasal polyps, or allergic rhinitis?
- **Medications:** Are you on any regular medications? Have you taken anything for this recently?
- **Allergies:** Any allergies, particularly to antibiotics or nasal sprays?
- **Family history:** Any ENT-related conditions in the family?
- **Travel:** Any recent travel or environmental exposure (e.g. dusty areas)?
- **Occupation:** Do you work in an environment that involves dust, chemicals, or temperature extremes?
- **Social history:** Do you smoke or use any nasal decongestants frequently?
- **Additional:** Have you had similar episodes in the past?

ICE

- What do you think might be causing these symptoms?
- Is there anything specific you're worried about?
- What were you hoping we could help you with today?

Effect on Life

How has this affected your daily activities, sleep, or concentration?

Examination Summary

Thanks for explaining everything. I'd now like to examine you briefly:

- I'll check your temperature, blood pressure, and oxygen levels
- Examine your face for tenderness over your sinuses
- Look inside your nose and throat
- Check your ears
- Examine your neck and lymph nodes

Findings: Tenderness over the maxillary sinuses, green purulent nasal discharge noted on nasal inspection. No neurological deficits. No signs of systemic infection or red flags.

Diagnosis – Tell, Ask, Explain, Check

Tell: Based on your history and examination, this looks like a case of **acute bacterial sinusitis**.

Ask: Have you heard of that before?

Explain:

"We all have small air-filled spaces in the bones of our face called **sinuses**. They help filter and humidify air.

These can sometimes get blocked or inflamed, usually after a viral cold. If bacteria get trapped inside, it can lead to an infection - causing the pain, pressure, and green discharge you're experiencing now.

Most acute sinusitis is actually viral and resolves in 2-3 weeks without antibiotics. However, because your symptoms have lasted longer than 10 days and include green discharge and facial pain, this suggests bacterial involvement, so we'll need to treat it."

Check: Does that explanation make sense? Would you like me to clarify anything?

Management Plan

Because your symptoms have persisted beyond 10 days, with worsening or no improvement, we can consider antibiotic treatment. *[Per NICE NG79, the decision depends on symptom severity and likelihood of bacterial cause - not all sinusitis needs antibiotics.]* In your case, given the duration, purulent discharge, and facial pain, I'd recommend:

1. Antibiotics: A 5-day course of **phenoxymethylpenicillin** (500mg four times daily). If you're allergic to penicillin, we'll choose a suitable alternative.

[Alternatively, for less severe cases or if the patient prefer, offer a 'back-up prescription' - this means they take the prescription away but only use it if symptoms haven't improved after another few days, or if they worsen.]

2. Nasal steroid spray: This helps reduce swelling in the sinuses and improve drainage. Consider **high-dose intranasal corticosteroid for 14-21 days** (e.g., mometasone 200mcg BD) for adults/children ≥ 12 years with symptoms >10 days.

3. Pain relief: You can take paracetamol or ibuprofen to relieve discomfort and help reduce any fever.

Additional advice:

- **Saline nasal irrigation** may help clear discharge and relieve symptoms
- Note: There is no strong evidence for steam inhalation or warm face packs, and steam carries a risk of scalding, so we don't recommend these
- Stay well hydrated

- Avoid overusing nasal decongestants - don't use them for more than 7 days as they may worsen symptoms long-term

Safety Netting and Follow-Up

"Most people start to feel better within **2-3 days** of starting the antibiotics. If you're feeling **worse** instead of better, or if there's **no improvement at all after 48 hours**, come back and see us.

If you feel better, you do not need to return.

However, if you develop any new symptoms - such as neck stiffness, very high fever, rash, visual changes, or confusion - please seek urgent care.

I'll also give you a leaflet about sinusitis and ways to manage it at home."

Final Check

Do you have any other questions or concerns you'd like me to go over before we finish?

You've done the right thing coming in today. We've got a clear plan, and I'm confident we can get this sorted.

Diagnostic Note – How This Diagnosis Was Made

The patient presents with a 10+ day history of facial pain, green nasal discharge, and headache that worsens on leaning forward. These features, along with maxillary tenderness and purulent nasal findings on examination, are consistent with acute bacterial sinusitis. Other differentials such as migraine, tension headache, and intracranial causes were considered and excluded through history and examination.

Subarachnoid Haemorrhage

Scenario: Primary Care or Emergency Setting | Middle-Aged Adult | Acute Severe Headache of Sudden Onset

Your Role: FY2 doctor in GP or Emergency

Introduction

Hello, I'm Dr. [Name], one of the doctors here today.

Could I confirm your full name and age, please?

Thank you. I understand you've developed a sudden and very painful headache - is that right? Can you walk me through exactly what happened?

Presenting Complaint – SOCRATES Pain History

Let's explore the headache in more detail to understand what might be going on:

- **Site:** Where exactly do you feel the pain?
- **Onset:** Did it come on gradually or all of a sudden? What were you doing when it started?
- **Character:** Is it sharp, throbbing, or explosive in nature?
- **Radiation:** Does it travel to your neck, jaw, or shoulders?
- **Associated symptoms:** Any nausea, vomiting, light sensitivity, visual changes, weakness, confusion, or neck stiffness?
- **Timing:** What time did it begin? How quickly did it reach maximum intensity?
- **Exacerbating/Relieving factors:** Does anything worsen it - like sneezing, coughing, or movement? Have you tried anything that helped?
- **Severity:** On a scale of 0 to 10, how bad is the pain right now?

If patient says it's the worst headache they've ever had: "I'm really sorry you're going through this - we'll act quickly to get this checked and managed."

Differential Diagnosis Screening

To be thorough, I'd like to rule out a few other possibilities:

- Have you had headaches like this before? Could this feel like a migraine to you?
- Any fever or recent cold symptoms? (Infection, sinusitis)
- Any flashing lights or visual aura beforehand? (Migraine)
- Any stress, poor sleep, or neck tension recently? (Tension headache)
- Have you had any head trauma or fall?
- Any weakness, numbness, or slurred speech?
- Any jaw pain while chewing or changes in vision? (GCA)
- Do the headaches wake you in the early morning?

Risk Factor History

- Do you have high blood pressure, or have you ever been diagnosed with one?
- Any history of bleeding disorders or strokes in the family?
- Are you taking blood thinners or aspirin regularly?
- Do you drink alcohol frequently or in large amounts?

PMAFTOSA

- **Past medical history:** Any previous neurological conditions or similar events?
- **Medications:** Are you currently on any regular medication?
- **Allergies:** Any allergies to medications?
- **Family history:** Any strokes or aneurysms in close relatives?
- **Travel:** Any recent travel or flights?
- **Occupation:** What kind of work do you do? Any recent physical strain?
- **Social history:** Do you smoke or consume alcohol? Who do you live with?
- **Additional:** Anyone else around you notice changes in your behaviour or speech?

ICE

- What do you think is going on?
- Is there anything specific you're worried about?
- What were you hoping I could help you with today?

Effect on Life

Has this impacted your ability to function, work, or communicate today?

Examination Summary

Thank you. I'd like to do a quick examination:

- Vital signs: temperature, blood pressure, heart rate, oxygen saturation
- Neurological screening: limb strength, pupils, balance, coordination
- Neck stiffness and photophobia

Findings:

- Hypertensive
- Photophobic, visibly distressed
- Holding occipital region
- No focal neurological deficit on exam

Diagnosis – Tell, Ask, Explain, Check

Tell

Based on your symptoms and what I've found so far, I'm concerned you may have a condition called **subarachnoid haemorrhage**, or SAH.

Ask

Have you heard of that before?

Explain

"This means there may be bleeding around your brain. Sometimes a blood vessel in the head has a weak spot - a bit like a weak spot in a garden hose - and when it bursts, blood leaks into the space around the brain. That's what causes this sudden, severe headache.

It typically causes a very sudden and extremely severe headache, often during activity, as in your case.

This kind of bleeding affects the brain directly, and it's considered a medical emergency. Early treatment can make a significant difference in outcomes, so we act quickly and carefully.

I want you to know that many people with SAH do recover well, especially when it's caught and treated quickly like we're doing now."

Check

Does that explanation make sense so far? Is there anything you'd like me to go over again?

Management Plan

Here's what we'll do right away:

1. Hospital Admission

You need to be admitted to hospital for urgent investigations and specialist care.

If you're in the GP setting: I'll be arranging for an emergency ambulance to take you in safely and without delay.

If patient says: "I'd rather go with my friend"

"I completely understand you may feel more comfortable going with someone you know - but I'm afraid that's not safe right now.

This condition can worsen very suddenly - even during the journey.

The ambulance team will monitor your vital signs and start treatment if needed.

They also alert the hospital ahead of time, so your scans and care can begin the moment you arrive.

I strongly advise you take the ambulance - it's the fastest and safest way to get the treatment you need."

2. Initial Treatment (in GP setting)

- If you're in severe pain, we can provide initial pain relief while arranging transfer *[strong opioids like morphine need careful consideration as they may affect neurological assessment]*
- The ambulance team will continue to monitor and support you during transfer.

At hospital, you will receive:

- Strong analgesia as needed
- **Nimodipine 60mg orally every 4 hours (6 times daily = 360mg/day) for 21 days. Start within 96 hours of SAH.** It is a medication that protects the brain's blood vessels and reduces complications. This is started after the diagnosis is confirmed by CT scan.
- Blood pressure monitoring and management

3. Investigations

- The first step is an **urgent CT brain scan** to confirm if there is any bleeding.

"The scan is most accurate when done early, so we need to get you there quickly."

[Note for candidates: CT within 6 hours has ~100% sensitivity when reported by experienced radiologist. LP NOT routinely required if CT negative within 6 hours. Sensitivity decreases after 6 hours, which is why lumbar puncture may be needed if CT is negative but suspicion remains high.]

- If the CT is normal but suspicion remains high, we may arrange a **lumbar puncture after 12 hours** to look for subtle signs of blood in the spinal fluid. (Note: LP should be performed **at least 12 hours after symptom onset** to allow xanthochromia to develop. Sample should be analysed by *spectrophotometry* for bilirubin.)

4. Specialist Referral

- If bleeding is confirmed, you'll be reviewed by the neurosurgery team.
- Many cases are treated conservatively with medication and monitoring, but some may need procedures like coiling or clipping to prevent further bleeding.

Safety Netting and Follow-Up

- If at any point your symptoms worsen - such as drowsiness, confusion, vision loss, weakness, or seizure - it's vital you alert a healthcare provider immediately.
- After your initial hospital stay, the stroke or neurology team will typically follow up your recovery and plan any preventive measures.
- If this turns out not to be a bleed, we'll explore other causes of your symptoms thoroughly - but right now, we must act on the serious possibility.

Final Check

Before we proceed, do you have any questions or anything you're still unsure about?

Diagnostic Note – How This Diagnosis Was Made

The patient presented with a sudden onset severe occipital headache, described as 9/10 in intensity and worse with coughing or sneezing. There was no prior migraine history, and the patient exhibited photophobia, hypertension, and distress.

Given the abrupt onset during activity, intensity of symptoms, and absence of alternative red flags for other causes, subarachnoid haemorrhage is the most likely diagnosis.

Other causes such as sinusitis, migraine, tension-type headache, and intracranial mass were excluded based on the sudden onset, pain pattern, and examination findings.

Summary Table

Setting	Immediate Action	Analgesia	Transfer	Investigations	Notes
A&E	Admit + initiate management	Morphine IV	Already in hospital	CT brain ± LP	Full protocol begins on site
GP	Emergency recognition + 999 call	If safe	Emergency ambulance only	None in GP	Do not delay with further GP testing
Telephone	Urgent ambulance advice	No	Advise patient to call 999	Not applicable	Clearly communicate severity and urgency

Giant Cell Arteritis

Scenario: Primary Care Setting | Older Adult | New-Onset Headache with Constitutional Symptoms

Your Role: FY2 in General Practice

Introduction

Hello, I'm Dr. [Name], one of the doctors here at the practice.

Could I confirm your full name and age, please?

Thank you. How can I help you today?

Presenting Complaint – SOCRATES Pain History

Let's talk more about the headache you've been having:

- **Site:** Where exactly is the pain? Is it mainly on one side or over the temples?
- **Onset:** When did it start? Was it sudden or gradual?
- **Character:** How would you describe the pain - is it throbbing, dull, or sharp?
- **Radiation:** Does the pain go down your neck, face, or jaw?
- **Associated symptoms:** Any tenderness over your scalp or temples?
- **Timing:** Has it been continuous or does it come and go?
- **Exacerbating/Relieving:** Does it worsen when brushing your hair, chewing, or lying down?
- **Severity:** On a scale of 0 to 10, how bad is the pain at its worst?

Differential Diagnosis Screening

Let me ask a few more questions to explore other causes:

- Do you have any visual symptoms - like blurred vision, double vision, or partial sight loss?
- Have you had any nausea or vomiting? (raised ICP)
- Any jaw discomfort or cramping while chewing?
- Any generalised fatigue or low energy levels?
- Have you had any stiffness or pain in your shoulders or hips, especially in the morning? (Polymyalgia rheumatica)
- Any fevers, night sweats, or unintentional weight loss?
- Any flashing lights or aura before the headache begins? (Migraine)
- Any jaw clicking or earache? (TMJ or ear pathology)
- Any sinus congestion or facial pressure? (Sinusitis)

Systemic and Risk Factor History

- Have you noticed any recent weight loss?
- Have you felt unusually tired or run down?
- Any history of vascular disease or autoimmune conditions?

PMAFTOSA

- **Past medical history:** Any chronic illnesses like hypertension, diabetes, or autoimmune conditions?
- **Medications:** Are you currently taking any regular medications?
- **Allergies:** Do you have any known medication allergies?
- **Family history:** Any family members with similar symptoms or autoimmune conditions?
- **Travel:** Any recent travel or infections?
- **Occupation:** Are you still working or retired?
- **Social history:** Do you smoke or drink alcohol?
- **Additional:** Have you ever had symptoms like this before?

ICE

- What do you think might be causing the headaches?
- Is there anything you're particularly worried about?
- What were you hoping I could do for you today?

Effect on Life

How has this been affecting your daily life - like sleep, meals, or getting around?

Examination Summary

Thanks for sharing all that. I'd now like to check a few things:

- I'll check your blood pressure and pulse
- Examine your scalp and temples for tenderness or thickened arteries
- Check your vision and jaw movement
- Assess for shoulder stiffness or restricted arm movement

Findings: Tenderness over temporal region on palpation. No acute visual loss. BP within normal range.

Diagnosis – Tell, Ask, Explain, Check

Tell

Based on everything you've described, I'm concerned that you may have a condition called **Giant Cell Arteritis**.

Ask

Have you heard of that before?

Explain

"It's a condition where the blood vessels in certain parts of your body - especially around your temples and eyes - become **inflamed**, which means swollen and irritated.

This inflammation can cause headaches, scalp tenderness, and sometimes jaw pain when chewing. It's more common in people over 50 and can be associated with feeling tired or losing weight.

The reason we take this so seriously is that these inflamed blood vessels can affect the blood supply to your eyes. If we don't treat it quickly, there's a risk of permanent vision loss - which is why we start treatment today, even before all the tests come back.

That's why even if your examination looks normal, we don't wait - we start treatment immediately and refer you to specialists."

Check

Does that explanation make sense? Is there anything you'd like me to repeat or explain further?

Management Plan

1. Immediate Steroid Treatment

- We'll start you today on a high-dose steroid tablet called **prednisolone**.

"I'm going to start you on a high dose - 60mg - to bring down the inflammation quickly and protect your eyesight. We won't wait for blood tests or scans - delaying treatment could risk vision loss."

[Note for candidates: BSR dosing guidance - Uncomplicated GCA (no visual symptoms or jaw claudication): 40-60mg daily. If jaw claudication present: 60mg daily (higher dose due to increased ischaemic risk). If visual symptoms present: see Case 6 for IV methylprednisolone protocol.]

"Steroids are very effective, but they can have side effects when used long-term - things like weight gain, mood changes, or weaker bones. That's why we'll also give you tablets to protect your bones (calcium and vitamin D), and we'll reduce the dose gradually once your condition is under control."

2. Urgent Referral to Two Specialist Teams

You'll be referred urgently to:

- An **eye specialist (ophthalmologist)** to assess your vision
- A **joint and immune system specialist (rheumatologist)** to manage long-term treatment

Fast-track pathways aim for specialist review within **24-48 hours**. Same-day referral if visual symptoms.

3. Hospital-Based Investigations

At the hospital, the team will do:

- Blood tests to check for inflammation (ESR, CRP)

- **Temporal artery ultrasound** - diagnosis is now increasingly made using this scan, which shows a characteristic 'halo sign'. This is non-invasive and can be done quickly. Temporal/axillary artery ultrasound should be performed **within 7 days of starting steroids**, ideally **24-48 hours**, as sensitivity decreases after treatment initiation.
- Possibly a small biopsy from the temple area - a **temporal artery biopsy** may still be done if ultrasound is inconclusive. It's done under local anaesthesia and is very safe.

4. Long-Term Treatment Plan

- If the diagnosis is confirmed, you may need to continue steroids for 12-24 months, gradually reducing the dose under supervision
- You'll likely be given calcium and vitamin D, and possibly medication to protect your bones while on steroids
- **For patients at high risk of steroid side effects or those who relapse**, the rheumatology team may add **tocilizumab** (a biologic medication) as a steroid-sparing agent
- The rheumatology team will monitor your progress and adjust treatment if needed

Safety Netting and Follow-Up

- **If you develop any sudden vision loss, double vision, or pain in one eye, please go straight to the nearest emergency department - this cannot wait**
- If the jaw pain or headache worsens, or you feel generally more unwell, call us back immediately
- I'll arrange a follow-up once your initial specialist assessments are done
- I'll also give you a leaflet on Giant Cell Arteritis, so you can read more about what to expect

Final Check

Do you have any concerns or questions you'd like me to go over before we wrap up?

You've done the right thing coming in today. We've got a clear plan, and I'm confident we can get this managed effectively.

Diagnostic Note – How This Diagnosis Was Made

The patient presents with new-onset headache, jaw claudication, fatigue, and weight loss in the context of age >50. Though examination is normal, these features strongly suggest Giant Cell Arteritis. Given the risk of permanent vision loss, treatment was initiated immediately with high-dose steroids, and urgent referral arranged to ophthalmology and rheumatology for confirmation and ongoing management. Other causes like migraine, sinusitis, and TMJ disorder were excluded based on symptom pattern and systemic features.

Giant Cell Arteritis – When Vision Loss Is Present

Scenario: Primary Care Setting | Older Adult | Acute Visual Loss with Systemic Symptoms

This presentation is a **medical emergency** and differs significantly from GCA without visual symptoms. The management goal shifts from preventing loss to protecting the unaffected eye.

Key Differences in History

In addition to full GCA screening, focus on vision history using FODPARA:

- What sort of problem are you having with your eye?
- When did the vision issue start?
- Was it sudden or gradual?
- Is it affecting one eye or both?
- Any "curtain-like" visual loss or blurring?

- Any recovery or fluctuation since onset?
- Any associated eye pain or scalp tenderness?

Key Differences in Diagnosis Disclosure

Before explaining the diagnosis:

"I know this is devastating news, and I'm truly sorry. It's okay to feel upset - this is a lot to process. But I want you to know we're going to do everything we can to protect your other eye and support you through this."

Explain:

"This condition causes inflammation in the blood vessels supplying the eye. The blood supply to the nerve at the back of your eye has been blocked by the inflammation - leading to sudden, painless loss of vision.

Unfortunately, we cannot reverse the vision changes in this eye. **Our focus now is to protect your other eye from being affected.**"

Key Differences in Management

1. Immediate Emergency Referral

- Arrange **urgent same-day referral** to the eye hospital. Irreversible damage may occur if delayed >48 hours.
- Call ahead to ophthalmology or use designated fast-track GCA pathway
- Also refer to rheumatology for same-day co-management

2. Do not allow the patient to drive

"It's not safe for you to drive - could someone take you to the hospital right away?"

3. Initiate Treatment Immediately

- Start **high-dose oral prednisolone 60mg** before transfer if there will be no delay
- Document time of symptom onset

"At hospital, the eye team will give you a stronger steroid treatment through a drip - this works faster and gives us the best chance of protecting your other eye."

[Note for candidates: IV methylprednisolone 500mg-1g daily for 3 days is the hospital protocol for GCA with visual loss (BSR guidelines). This is specialist-initiated, not started in primary care.]

Safety Net & Prognosis

- Emphasise that vision loss is usually not reversible in the affected eye
- The goal is preserving vision in the unaffected eye
- Reassure that early steroid treatment significantly reduces further risk

Note

The full case of Giant Cell Arteritis with Visual Loss, including red flags, ophthalmic signs, and specialist coordination, is dealt with in detail in the Ophthalmology Chapter. Please refer there for complete assessment, steroid dosing adjustments, and visual prognosis discussion.

Idiopathic Intracranial Hypertension

Scenario: Primary Care Setting | Young Adult Female | Progressive Headaches with Visual Symptoms
| Fundoscopy Station

Your Role: FY2 doctor in General Practice

Introduction

Hello, I'm Dr. [Name], one of the doctors here today.
Could I confirm your full name and age, please?
Thank you. What brings you in today?

Presenting Complaint – SOCRATES Pain History

Let's talk more about the headaches:

- **Site:** Where exactly is the pain?
- **Onset:** When did it begin? Did it start suddenly or gradually?
- **Character:** Is it throbbing, dull, pressure-like?
- **Radiation:** Does it move to your neck, eyes, or shoulders?
- **Associated symptoms:** Any blurred or double vision? Any temporary visual blackouts when standing up? Any nausea or vomiting?
- **Timing:** How often do the headaches occur? Is it worse at any specific time?
- **Exacerbating/Relieving factors:** Does coughing, sneezing, or bending forward worsen it? Does standing or elevating your head relieve it?
- **Severity:** On a scale of 0 to 10, how bad is it at its worst?

Differential Diagnosis Screening

Let me ask a few more questions to rule out other causes:

- Do you get visual flashes, aura, or light sensitivity? (Migraine)
- Any recent fevers or neck stiffness? (Meningitis)
- Any new weakness, speech problems, or confusion? (Stroke, mass)
- Any nasal congestion, facial pain, or sinus tenderness? (Sinusitis)
- Have you noticed any unintentional weight loss?
- Any recent head trauma?

Focused Risk Factor & Medication History

- Are you taking any regular medications - including the contraceptive pill? → (Document response, do not link to diagnosis)
- Have you had any recent changes to weight, activity level, or diet? → (Note any relevant findings respectfully in examination, do not comment on body type)
- Any recent infections or hormonal treatment?

PMAFTOSA

- **Past medical history:** Any thyroid issues, anaemia, or neurological problems?
- **Medications:** Already covered
- **Allergies:** Any known allergies to medications?
- **Family history:** Any relatives with raised pressure conditions, strokes, or visual problems?
- **Travel:** Any long flights or altitude exposure?
- **Occupation:** Do you spend long hours at a desk or screen?
- **Social history:** Do you smoke, drink alcohol, or use caffeine heavily?

ICE

- What do you think might be going on?
- Is there anything you're worried about today - like something serious?
- What were you hoping I could help with?

Effect on Life

Have the headaches affected your ability to work, drive, or carry out daily tasks? Any impact on your sleep or mood?

Examination Summary

Thank you. I'd like to do a quick examination now:

- Check your vital signs, including blood pressure
- Examine the back of your eyes using this ophthalmoscope - I'll use the eye model here
- Check your vision and eye movements briefly

Mannequin Fundoscopy Findings:

Bilateral optic disc swelling with blurred disc margins and pale-yellow appearance - consistent with papilledema.

Diagnosis – Tell, Ask, Explain, Check

Tell

From your symptoms and the findings on your eye examination, I'm concerned this could be a condition called **Idiopathic Intracranial Hypertension**.

Ask

Have you heard of that before?

Explain

"When I looked into your eyes, I saw swelling at the back - specifically at the optic discs, where the nerves from your eyes connect to your brain.

This swelling - called papilledema - tells us that the pressure inside your head is raised.

There's no infection or tumour that we know of right now, but sometimes the fluid that surrounds your brain and spinal cord doesn't drain properly, and that pressure builds up.

This can lead to headaches, visual symptoms, and occasionally, temporary loss of vision.

This condition is more common in younger women, and certain factors can increase the risk - including body weight. **But I want to be clear: this isn't your fault, and it's not something you could have predicted or prevented. What matters now is that we've found it and we can treat it.**"

Check

Does that explanation make sense? Is there anything you'd like me to go over again?

Management Plan

1. Immediate Referral to A&E

I'll arrange for you to be seen in the emergency department today.

You'll be reviewed by:

- A **neurology team** (doctors who specialise in brain and nerve problems)
- An **eye specialist (ophthalmologist)** to closely monitor your vision and optic nerve

2. Driving Advice

Because your vision is affected, I must advise you **not to drive**.

You'll also need to inform the DVLA.

Do you have someone who could take you to the hospital today?

3. Investigations at Hospital

- They'll do a **CT or MRI brain scan** to check for any underlying causes
- They may also do a **lumbar puncture** - a procedure to collect a small sample of spinal fluid to measure the pressure (opening pressure >25 cmH₂O is diagnostic)
- Blood tests will also be done to check your iron levels, kidney function, and hormone balance

4. Initial Treatment

- If confirmed, they'll likely start you on a medication called **acetazolamide** - this helps reduce fluid pressure. **Starting dose 250-500mg BD**, titrate up based on response. **Maximum 4g daily** in divided doses. Warn about common side effects (paraesthesia, taste disturbance, fatigue).
- In some cases, oral tablets or steroids may be used
- If the condition doesn't respond to medication, they might discuss a surgical option called a **shunt** (or optic nerve sheath fenestration), which helps drain the excess fluid - but this is only used when absolutely necessary

5. Long-Term Planning

"One thing that's been shown to really help this condition is **gradual weight loss** - even losing a moderate amount can reduce the pressure significantly. This isn't about crash dieting; it's about sustainable changes. The hospital team can connect you with a dietitian or weight management support if that would be helpful."

Safety Netting and Follow-Up

- If your vision worsens suddenly, or you have a severe headache with vomiting or confusion, go to A&E immediately
- I'll follow up once your hospital reports are back
- You'll be monitored long term by the neurology and ophthalmology teams, with repeated eye checks and possibly repeat scans or lumbar punctures
- I'll also give you a leaflet about Intracranial Hypertension for more information

Final Check

Is there anything else you'd like to ask or anything you're still unsure about before we proceed?
You've done the right thing coming in today. We've identified what's going on, and there are effective treatments available.

Diagnostic Note – How This Diagnosis Was Made

The patient presents with progressive headaches over several weeks, worsened by coughing and bending, associated with visual disturbance. Fundoscopy using mannequin revealed bilateral papilledema, indicating raised intracranial pressure. No red flags for infection or mass effect. Known risk factors include female sex and young age. OCP use was noted but not contributory. A&E referral made for CT/MRI, lumbar puncture, and initiation of treatment. Most likely diagnosis is Idiopathic Intracranial Hypertension.

Tension-Type Headache

Scenario: Primary Care Setting | Adult | Recurrent Bilateral Headaches | Fundoscopy Station

Your Role: FY2 in General Practice

Introduction

Hello, I'm Dr. [Name], one of the doctors here at the surgery.
Could I confirm your full name and age, please?
Thanks. What brings you in today?

Presenting Complaint – SOCRATES Pain History

Let's go through the headaches in a bit more detail:

- **Site:** Where exactly do you feel the pain? → "It's on both sides - like a tight band across my head."

- **Onset:** When did these headaches start?
- **Character:** How would you describe the pain - is it sharp, throbbing, or pressure-like? → "It feels like pressure or tightness."
- **Radiation:** Does it move down to your neck or shoulders?
- **Associated symptoms:** Any nausea, vomiting, flashing lights, sensitivity to light or noise?
- **Timing:** When do these headaches tend to come on? → "Usually toward the end of my workday - sometimes when I get home."
- **Exacerbating/Relieving:** Do rest or time off improve them? Does anything worsen it?
- **Severity:** On a scale from 0 to 10, how bad is the pain when it occurs?

Differential Diagnosis Screening

Let me ask a few extra questions to rule out any other causes:

- Do you ever notice flashing lights, blurred vision, or a visual aura before the headache? (migraine)
- Do the headaches wake you at night or feel worse in the morning? (raised ICP)
- Any recent fever, neck stiffness, or confusion? (infection)
- Any pain in your jaw while chewing, or tenderness on your scalp? (GCA)
- Any blocked nose, facial pain, or recent sinus issues? (sinusitis)
- Any history of head injury or recent trauma?

Contextual Questions

- What do you do for work? → "I'm a teacher."
- Would you say work stress plays a role in triggering these headaches?
- Do you experience headaches on your days off?
- Do you get time to take breaks during the day?

Medication History

- Are you taking any regular medications?
- What do you usually take for these headaches?
- How often are you taking painkillers like paracetamol or ibuprofen?

If frequent painkiller use is revealed: "Thank you. Just to clarify - are you taking them every day or most days of the week?" → This helps screen for medication overuse headache.

PMAFTOSA

- **Past medical history:** Any previous migraines or mental health conditions like anxiety?
- **Medications:** Already discussed above
- **Allergies:** Any known medication allergies?
- **Family history:** Any history of migraines or neurological problems in the family?
- **Travel:** Any recent long-distance travel?
- **Occupation:** Already covered
- **Social:** Do you smoke, drink alcohol, or rely on caffeine heavily?

ICE

- What do you think might be causing these headaches?
- Are you worried this could be something serious?
- What would you like from today's consultation?

Effect on Life

Independent educational content based on publicly available UK clinical guidelines.

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How are these headaches affecting your ability to work, spend time with your family, or rest?

Examination Summary

Thank you. I'd now like to examine your eyes using this ophthalmoscope - it'll only take a moment.

Eye mannequin examination:

- No signs of papilloedema or optic disc swelling
- Normal fundal findings

Other findings:

- Blood pressure normal
- No neurological deficits
- Mild tension noted in neck/shoulders

Diagnosis – Tell, Ask, Explain, Check

Tell

From everything you've described - and what I found on examination - this seems to be a **tension-type headache**.

Ask

Have you heard of that before?

Explain

"It's a very common type of headache that usually presents as a dull, pressing pain on both sides of the head - like a tight band.

It often builds up through the day and is strongly linked to stress, posture, or long periods of concentration - especially in demanding jobs like teaching.

Unlike migraines, it usually doesn't come with flashing lights, nausea, or vomiting.

Here's something important: when painkillers are used **too often** - more than a couple of days a week - they can actually start **causing** headaches rather than curing them. It's a bit like the body gets used to them and then complains when they wear off. We call this **medication overuse headache**, and part of our plan will be to help you avoid that trap."

Check

Does that explanation make sense so far? Would you like me to go over anything again?

Management Plan

1. Symptom Relief – Occasional Use

- You can take paracetamol or ibuprofen during headache episodes
- Do not exceed 4g of paracetamol/day
- **Avoid using painkillers more than two days per week**, to prevent medication overuse headache (*Note: NICE defines MOH risk as: ≥ 10 days/month for triptans/opioids/combination analgesics, ≥ 15 days/month for simple analgesics.*)

2. Stress Management & Triggers

- Consider building in short breaks during your workday

"Could you speak to your supervisor about possibly adjusting your workload if it's becoming unmanageable? I know that's not always easy to do, and work situations can be complicated. But if there's any flexibility, it could make a real difference."

- What do you usually do after work to relax - would activities like walking, music, or deep breathing help?

3. Non-Medication Options

- **Acupuncture** has been shown to reduce frequency of tension headaches - NICE recommends up to 10 sessions
- Physiotherapy or postural exercises may help if there's neck strain

- Regular aerobic exercise is one of the most effective long-term strategies

4. Prophylaxis for Chronic TTH

"If tension-type headaches become **chronic** (occurring ≥ 15 days per month), we may consider a **preventive medication** like low-dose **amitriptyline** (10-50mg at night)."

Safety Netting and Follow-Up

- If the pattern of your headaches changes - if they become more severe, frequent, or wake you at night - please come back immediately
- We'll arrange a follow-up appointment in 4-6 weeks to review how you're doing
- I'll give you a headache diary and an information leaflet to help you track patterns and progress

Final Check

Is there anything else you'd like to ask or talk about before we finish?

You've done the right thing coming in today. We've got a clear plan, and I'm confident we can get this sorted.

Diagnostic Note – How This Diagnosis Was Made

The patient presents with bilateral, pressing headache occurring at the end of the workday, associated with occupational stress. No aura, nausea, visual disturbance, or red flags. Examination (including fundal exam) is normal. History and context are consistent with tension-type headache, possibly complicated by medication overuse. Other causes including migraine, raised ICP, sinusitis, and GCA were ruled out by history and fundoscopy. Management includes reducing analgesic use, lifestyle adjustments, and non-pharmacological therapies.

Hangover Headache

Scenario: Primary Care/University Health Setting | Young Adult | Morning Headache with Relevant Social History

Your Role: FY2 in GP/Student Health

Introduction

Hello, I'm Dr. [Name], one of the doctors here today.

Could I confirm your full name and age, please?

Thanks. What brings you in today?

Presenting Complaint – SOCRATES Pain History

Let's talk a bit more about this headache:

- **Site:** Where exactly is the pain - all over or one specific area? → "It's all over my head"
- **Onset:** When did the headache start? → "I woke up with it this morning"
- **Character:** Is it sharp, throbbing, dull, or pressure-like?
- **Radiation:** Does it go down your neck or into your eyes?
- **Associated symptoms:** Any nausea, vomiting, light sensitivity, or dizziness?
- **Timing:** Has it stayed constant since morning or is it easing off?
- **Exacerbating/Relieving:** Anything that makes it worse or better?
- **Severity:** On a scale from 0 to 10, how bad is the pain right now? → "It's like an 8 - really bad"

Differential Diagnosis Screening

Let me ask a few questions to rule out other serious causes of headache:

1. Subarachnoid Haemorrhage

- Is this the worst headache you've ever had? Did it come on suddenly?
- Did it start while straining, bending, or during physical activity?
- Any neck stiffness or trouble staying awake?

2. Meningitis

- Have you had any fever, neck pain, or sensitivity to bright lights?
- Any recent infections or rashes?

3. Migraine

- Do you usually get headaches like this?
- Any aura, flashing lights, or one-sided pain in the past?

4. Trauma/Concussion

- Did you fall or hit your head at any point yesterday?
- Any dizziness or balance issues since then?

5. Alcohol Poisoning

- Any vomiting, slurred speech, balance problems, confusion, or memory blackouts?
- Any episodes where you lost consciousness?

6. Carbon Monoxide (CO) Exposure

- Are your housemates also experiencing headaches?
- Any recent use of gas heaters or staying in poorly ventilated spaces?

Note: if roommates are mentioned, consider CO exposure but follow through based on history. If no other systemic symptoms or environmental triggers → rule it out confidently.

Contextual History & Red Flag Screening

"Can I ask - did anything happen yesterday or the day before that might've triggered this? A busy day, physical activity, or anything out of the usual routine?"

(our team won the football match - we had a big celebration)

"Ah, congratulations! That sounds like a fun night. Were you part of the team or just supporting them?"
("Just supported")

"Nice! And during the celebration - did you have anything to drink?"

From there, proceed into:

- "What kind of drinks did you have, if you remember?"
- "About how much, would you say?"
- "Do you normally drink much - or was it just for the occasion?"
- "What age did you start drinking?"

Alcohol Poisoning Screening

Just to be safe, I'd like to check a few symptoms to rule out anything serious:

- Have you had any confusion, memory gaps, or blackouts?
- Any slurred speech or trouble speaking?
- Any vomiting or difficulty keeping fluids down?
- Any problems with balance or walking?
- Any breathing difficulties or feeling unusually cold?
- Have you fainted or lost consciousness at any point?

If all negative → no concern for alcohol poisoning.

PMAFTOSA

- **Past medical history:** Any previous history of migraines, epilepsy, or known alcohol sensitivity?
- **Medications:** Are you on any medications - including for mood or sleep?
- **Allergies:** Any allergies to paracetamol or ibuprofen?

- **Family history:** Any family history of migraines or epilepsy?
- **Travel:** Any recent holidays or exposure to new environments?
- **Occupation:** Are you in full-time study? What's your subject or workload like?
- **Social:** Do you live alone or with others? Anyone else experiencing similar symptoms?

If roommates mentioned: "Okay - that's helpful. But from everything you've said, it doesn't sound like a shared environmental cause like CO exposure. I'll still document it."

ICE

- What do you think is causing this?
- Are you worried it might be something serious - like alcohol poisoning?
- What were you hoping I could do for you today?

Effect on Life

Has this headache been interfering with your ability to attend classes or rest?

Examination Summary

Thank you. I'll just do a quick check of your:

- Vitals (BP, pulse, temperature)
- Orientation and balance (observe gait, if relevant)
- Eye examination (fundoscopy mannequin if examiner prompts - normal findings)

Findings: No abnormal signs. Neurological and systemic review clear. No signs of raised ICP or alcohol toxicity.

Diagnosis – Tell, Ask, Explain, Check

Tell

Based on your history and examination, this seems to be a **hangover headache**.

Ask

Have you heard of that before?

Explain

"Alcohol makes you lose water - that's why you need the loo more when you're drinking. When your body gets dehydrated, your brain actually shrinks slightly and pulls away from the skull. That's what causes the throbbing headache.

It's not dangerous, but I can imagine it feels pretty awful."

Check

Does that explanation make sense? Is there anything you'd like me to explain again?

Management Plan

1. First-Line Treatment

- Take over-the-counter **paracetamol** for pain relief
- Drink plenty of fluids - ideally water or soda water

"Have you already tried these?"

→ If patient says yes and symptoms persist...

2. Second-Line Supportive Advice

- Eat something with high sugar content: chocolate bars, biscuits, or sweet drinks like fruit juice
- Eat slow-digesting carbs: pasta, sandwiches, or toast
- Try bouillon soup - a salty vegetable broth that helps replace lost minerals
- Avoid "hair of the dog" (more alcohol): "Some people think having more alcohol helps - but it actually worsens the dehydration and delays recovery."

Prevention Advice

- Don't drink more than you can tolerate
- Avoid drinking on an empty stomach
- While drinking, alternate with water or non-fizzy soft drinks
- Before going to bed, have a pint of water
- Keep some snacks nearby while drinking - this helps stabilise blood sugar

Brief Intervention (AUDIT-C consideration)

"I'm not here to lecture you - you're an adult and celebrations happen. But if you ever feel like your drinking is becoming more than just occasional, we're always here to chat about it without judgment."

Safety Netting

- If the headache worsens, you vomit persistently, feel confused, faint, or have visual changes, please come back immediately
- I'll give you a leaflet with this advice in writing - and you're welcome to contact the clinic again if you're unsure about anything

Final Check

Does that sound okay for now? Is there anything else you're worried about or want me to go over? You've done the right thing coming in today to get checked out.

Diagnostic Note – How This Diagnosis Was Made

The patient is a young adult student with a sudden-onset, generalised headache after a night of alcohol consumption. There were no signs of trauma, infection, or neurological compromise. Alcohol history was consistent with binge use during celebration. No features of alcohol poisoning were present (no slurred speech, confusion, balance loss, or unconsciousness). Examination was normal. Diagnosis of hangover headache made based on timing, alcohol intake, hydration status, and absence of red flags. Managed conservatively with analgesia, fluids, sugar, and prevention counselling.

Migraine

Scenario: Primary Care or Emergency Setting | Adult | Prolonged Headache with Prior History

Your Role: FY2 doctor in GP or Urgent Care

Introduction

Hello, I'm Dr. [Name], one of the doctors here today.

Could I confirm your full name and age, please?

Thanks. What brings you in today?

Presenting Complaint – SOCRATES Pain History

Let's talk about your headache in more detail:

- **Site:** Could you point to where the pain is? → "Here... sort of around the front and sides"
- **Onset:** When did this headache start? → "About two days ago"
- **Character:** Is it dull, throbbing, stabbing, or something else?
- **Radiation:** Does it go down your neck or affect your eyes?
- **Associated symptoms:** Any nausea, light or sound sensitivity, visual problems, or pins and needles?
- **Timing:** Is it constant, or does it come and go during the day?

- **Exacerbating/Relieving factors:** Does anything make it better or worse - like sleep, light, food, or noise?
- **Severity:** On a scale of 0 to 10, how bad is the pain at its worst?

Differential Diagnosis Screening

To be thorough, I'd like to ask about a few other symptoms:

1. Subarachnoid Haemorrhage

- Did this headache come on suddenly, like a thunderclap?
- Is this the worst headache you've ever had?

2. Meningitis

- Any neck stiffness, fever, or sensitivity to light?
- Any skin rashes or recent infections?

3. Tension-Type Headache

- Do you feel pressure or tightness around the head, especially after stress?
- Is the pain milder but lasts long?

4. Cluster Headache

- Is it always on one side? Any tearing of the eye or nose on that side?

5. Medication Overuse

- Are you taking painkillers frequently - more than 2-3 days per week?

6. Visual Aura/Migraine with Aura

- Did you notice any visual symptoms before this headache started? → "Yes, blurry vision"
- Any zigzag lines, flashing lights, speech problems, or tingling?

Focused Contextual Questions

- Have you had headaches like this before? → "Yes - one last month"
- How long do they usually last? → "Usually a whole day or sometimes two days"
- How often are they coming now? → "This is my second this month"

For Female Patients:

- Are you using any contraception at the moment?
- If yes: Is it the combined oral pill? → Important because COCPs can increase risk of stroke with aura migraines.

PMAFTOSA

- **Past medical history:** Any previous diagnosis of migraine? Any mental health conditions?
- **Medications:** What have you taken for this headache - did anything help?
- **Allergies:** Any reactions to medications like triptans or antiemetics?
- **Family history:** Any relatives with migraine or neurological conditions?
- **Travel:** Any recent holidays, changes in routine, or unusual exposures?
- **Occupation:** What do you do for work/study? Does it involve screens, noise, or shift work?
- **Social:** Do you smoke, drink, or use caffeine? Any recent stress at work or in your personal life?

ICE

- What do you think might be causing these headaches?
- Are you worried this could be something serious, like a tumour?
- What would you like me to help with today?

Effect on Life

How is this affecting your ability to work, study, or go about your usual day?

Examination Summary

Thanks for explaining everything. I'll just check a few things:

- Vital signs: BP, temperature, pulse
- Brief neurological screen: coordination, speech, gait, cranial nerves
- Fundoscopy: no signs of papilledema

Findings: No red flags. Alert, oriented, no signs of raised ICP or infection.

Diagnosis – Tell, Ask, Explain, Check

Tell

Based on what you've told me - and what I found on examination - this appears to be a **migraine**.

Ask

Have you had that diagnosis before, or is this the first time someone's mentioned it?

Explain

"Migraine isn't just a bad headache - it's a specific condition where your brain becomes temporarily hypersensitive. That's why you get the throbbing pain, sensitivity to light and sound, and sometimes nausea.

For some people it affects one side of the head; for others, it's more all-over.

Some people get visual symptoms or 'auras' beforehand, like blurry vision, or feel sick or sensitive to light.

It can be triggered by stress, poor sleep, skipping meals, or hormonal changes.

The good news is - it's not dangerous, but it can really interfere with daily life if not managed properly."

Check

Does that explanation make sense? Would you like me to go over anything again?

Management Plan

1. Acute Management – Symptom Relief

"Let's focus on stopping this current attack first.

[NICE recommends combination therapy with an oral triptan + NSAID (e.g., sumatriptan + naproxen) or oral triptan + paracetamol as first-line treatment. This is more effective than either alone]

I'll prescribe **sumatriptan tablets**, which you should take as soon as you feel the headache coming on - you can take this with **naproxen or paracetamol**.

I'll also prescribe **metoclopramide** - this helps with any nausea, and it actually makes the pain medication work better."

→ "Take both tablets together, even if you don't feel sick - they work better that way"

2. Preventive Plan – Prophylaxis Discussion

"You mentioned this is your second attack this month. If in the future you start getting more than one migraine per week, we can offer you preventive medicine to reduce the number of attacks.

Prophylaxis options include:

- **Propranolol** (avoid in asthma)
- **Amitriptyline** (consider if also has tension-type features or sleep issues)
- **Topiramate** - but this requires careful discussion for women of childbearing potential due to pregnancy risks. Topiramate may **reduce efficacy of hormonal contraceptives**. Patients should use LARC (implant, IUS, copper IUD) as primary method."

[Note 1: All three prophylaxis options (propranolol, amitriptyline, topiramate) are now "consider" recommendations - no hierarchy. Choice should be based on patient factors.]

[Note 2: MHRA Pregnancy Prevention Programme (June 2024) requirements for topiramate in women of childbearing potential:

- Pregnancy test negative before starting treatment
- Using highly effective contraception (e.g., LARC - implant, IUS, or copper IUD)
- Note: topiramate can reduce efficacy of hormonal contraceptives
- Signed Risk Awareness Form completed
- Annual review conducted]

"If triptans are ineffective or contraindicated, newer medications like **rimegepant** (a CGRP inhibitor) may be available through the specialist headache team."

[Note for candidates: Rimegepant (NICE TA919) is often initiated by specialists, though some ICBs allow primary care prescribing under agreed local pathways. Eligibility requires failure of ≥ 2 triptans or triptans being contraindicated/not tolerated and NSAIDs and paracetamol were tried but did not work well enough.]

3. Contraception Advice (if applicable)

"You mentioned you're on the combined contraceptive pill. Because you get visual symptoms before your migraines - what we call an 'aura' - there's a small increased risk of stroke if you continue taking that type of pill.

I'd strongly recommend discussing this with your GP or a sexual health clinic to switch to a different type of contraception that doesn't contain oestrogen. This is really important."

4. No Need for Referrals or Scans

"We don't need to do blood tests or a brain scan in your case - it's a typical migraine pattern, and these are usually diagnosed and managed in general practice."

Lifestyle Advice

- Stay well-hydrated and avoid skipping meals
- Try to keep regular sleep and stress patterns
- Keep a migraine diary: note triggers, time of day, food, sleep, and menstrual cycle (if relevant)
- Sit in a dark, quiet room during attacks
- Avoid excessive caffeine or alcohol

Safety Netting

"If anything changes - like if you suddenly get a very severe, explosive headache out of nowhere, or if you feel drowsy, confused, lose consciousness, or develop any weakness or numbness, please don't wait - go straight to A&E or call for help. These aren't typical for migraine, and we'd want to check for something more serious right away."

Otherwise, if migraines become more frequent or interfere with your life, come back so we can start preventive treatment.

Follow-Up

- I'd recommend a follow-up with your GP if you have more than one migraine per week, or if you need regular prescriptions
- I'll also give you an information leaflet about migraines - and tips for identifying triggers

Final Check

Is there anything else you're worried about today? Would you like me to go through any part of the plan again?

You've done the right thing coming in today. We've got a clear plan, and I'm confident we can get this managed.

Diagnostic Note – How This Diagnosis Was Made

The patient presents with a 48-hour history of recurrent, throbbing headache, associated with blurred vision and light sensitivity. This is not the first episode. There is a history of previous similar attacks, and examination is normal. Aura symptoms and stress trigger present. No red flags or signs of raised ICP, meningitis, or SAH. Based on clinical history and NICE criteria, diagnosis of migraine with aura made. Managed with acute treatment (triptan + NSAID/paracetamol combination, metoclopramide), prevention advice, and contraception screening where relevant. No imaging or specialist referral needed.

Carbon Monoxide Poisoning

Scenario: Primary Care Setting | Young Adult | Chronic Headache with Environmental Context

Your Role: FY2 doctor in General Practice

Introduction

Hello, I'm Dr. [Name], one of the doctors here at the practice.

Could I confirm your full name and age, please?

Thanks. What's brought you in today?

Presenting Complaint – SOCRATES Pain History

Let's talk a bit more about your headache:

- **Site:** Where exactly do you feel the pain? → "It's kind of all over."
- **Onset:** When did this headache first begin? → "About a month ago."
- **Character:** How would you describe the pain - is it dull, sharp, throbbing, or something else? → "It feels like a bursting sensation."
- **Radiation:** Does it spread anywhere, like to your neck or jaw?
- **Alleviating factors:** Is there anything that makes the headache better?
- **Aggravating factors:** Does anything seem to make it worse?
- **Severity:** On a scale from 0 to 10, how intense is it at its worst?

Differential Diagnosis Screening

Let me ask you a few extra questions to explore other possible causes:

1. Migraine

- Have you had headaches like this before?
- Do you get nausea, sensitivity to light or sound, or any visual changes like blurriness or flashing lights?

2. Sinusitis

- Any facial pressure or pain? Blocked nose?
- Any coloured discharge from your nose?

3. Tension-Type Headache

- Does it feel like a tight band across your head?
- Have you been under stress lately?

4. Meningitis

- Have you had any fever, neck stiffness, or skin rashes?

5. Raised Intracranial Pressure

- Is the headache worse in the morning or when coughing or straining?
- Have you had any episodes of vomiting?

6. Medication Overuse Headache

- Are you taking painkillers more than two to three days a week?

All responses are negative or non-contributory in this case.

Environmental Risk History – COMAH

Thanks. Since this has been going on for a while and doesn't follow a typical headache pattern, I'd like to ask a few specific questions about your home and environment.

C – Cohabitants

- Who do you live with? → "I live with my boyfriend."
- Has he had any similar symptoms like headaches, tiredness, or nausea?
- Are there any children or pregnant women staying with you?
- Has anyone else who visits or stays overnight had any symptoms?

O – Outdoor Relief

- Does the headache improve when you go outside or leave the building? → "Yes, it gets better when I go out."

M – Maintenance

- Has there been any recent work done in your home? → "Yes, the landlord recently did some repairs."
- Was any of it related to gas appliances, your boiler, or cooker?
- Have you had any indoor barbecues recently?

A – Alarm

- Do you have a carbon monoxide alarm at home? → Make sure they understand this is different from a smoke alarm.

H – Housing/Ventilation

- How's the ventilation in your flat? Are there windows in all the rooms - including the bathroom?
- **Do you own or rent your property?** → (*Important for management - landlords have specific legal duties*)

Additional Symptom Review

Just a few more things that can occasionally be linked to this sort of issue:

- Have you had any chest pain or unusual muscle aches?
- Have you noticed any dizziness or unsteadiness?
- Any changes in mood, memory, or confusion?
- Any facial redness or flushing?
- Any fainting or blackout episodes?

PMAFTOSA

- **Past medical history:** Any known health conditions?
- **Medications:** Are you on any regular medication or taking anything for the headache?
- **Allergies:** Any allergies to medications?
- **Family history:** Any family members with similar complaints?
- **Travel:** Any recent trips or holidays?
- **Occupation:** Are you working or studying - mostly indoors or outdoors?
- **Social:** Do you smoke or use any other substances?

ICE

- What do you think might be causing this?
- Is there anything specific you're worried about?
- What were you hoping I could do for you today?

Effect on Life

Has this been affecting your day-to-day life - like your sleep, focus, or energy levels?

Examination Summary

I'd like to check a few things before we continue:

- Basic observations: temperature, BP, heart rate
- Neurological screen: alertness, coordination, cranial nerves
- Oxygen saturation is normal (not affected in CO poisoning)

Findings: Examination is normal. No neurological deficits. Alert and oriented. No fever or distress.

Diagnosis – Tell, Ask, Explain, Check

Tell

From everything you've told me, and after checking you over, I'm concerned this could be **carbon monoxide poisoning**.

Ask

Have you heard of that before?

Explain

"Carbon monoxide is a poisonous gas that can be released when household appliances - like boilers or gas cookers - aren't burning fuel properly.

The dangerous thing is that it's completely invisible and has no smell, so you wouldn't even know it's there.

Because you've had headaches for a month, they get better when you go outside, and someone else in your house is affected too - this pattern strongly suggests carbon monoxide exposure.

I'm afraid this is a medical emergency, and you need to go to hospital now to get tested and treated.

The good news is that carbon monoxide poisoning is very treatable when caught in time. The oxygen treatment at hospital works quickly, and most people make a full recovery."

Check

Does that make sense so far? Would you like me to explain anything again?

Management Plan – 6-Step Emergency Response

1. Immediate A&E Referral

You need to be assessed at the hospital straight away.

Do you have someone who can take you safely, or should we help arrange this?

2. Confirmatory Testing

They'll do a blood test called **carboxyhaemoglobin** - it measures the level of carbon monoxide in your blood.

3. Hospital Treatment

If the level is high, they'll give you **100% oxygen through a face mask** (high-flow via non-rebreather) - this helps flush out the gas quickly.

[Note: Consider **hyperbaric oxygen** referral for: COHb >25%, loss of consciousness, neurological signs, pregnancy, cardiac involvement, or severe acidosis]

4. Contact Public Health

Carbon monoxide exposure is a **public health hazard**. We will contact the local **Health Protection Team (HPT)** to report this case, as they coordinate responses to environmental health risks and can advise on protecting others who may be at risk.

5. Inform Landlord (if renting)

If you're renting, you should contact your landlord immediately.

*[Under the Gas Safety (Installation and Use) Regulations 1998, landlords have a **statutory duty** to:*

- Ensure all gas appliances are safely maintained
- Arrange an annual gas safety check by a Gas Safe registered engineer
- Provide a copy of the gas safety record to tenants

They're legally responsible for calling out a gas safety engineer (GasSafe) to check and repair the appliance. If they fail to act, you can report them to the Health and Safety Executive.]

6. Household Testing

Everyone in the house - including your boyfriend - should also get checked at the hospital.

Even if they feel okay, the gas affects people differently.

Safety Netting

- Please do not go back to the property until it's been inspected and declared safe
- If you feel worse - like confusion, dizziness, or chest pain - go to A&E or call 999 straight away

Follow-Up

- We'll arrange a follow-up with you in one month to check on your recovery
- I'll also give you an information leaflet on carbon monoxide and what to do next

Final Check

Is there anything else on your mind right now? Any part of this plan you'd like me to go over again?

You've done the right thing coming in today. We've identified what's going on, and we're going to get you the help you need.

Diagnostic Note – How This Diagnosis Was Made

The patient presents with a one-month history of diffuse, bursting headache, which improves outdoors. COMAH history reveals recent maintenance on gas appliances, no CO alarm, poor ventilation, and similar symptoms in a cohabitant. Examination is normal. Differential diagnoses (migraine, sinusitis, tension-type headache, meningitis) were ruled out by structured history and screening. Based on symptom pattern and environmental risk, a diagnosis of carbon monoxide poisoning is strongly suspected. Emergency hospital referral initiated for carboxyhaemoglobin testing and oxygen therapy. Public health notification and landlord contact advised.

Medication Overuse Headache

Scenario: Primary Care Setting | Adult | Chronic Daily Headache with Medication History

Your Role: FY2 doctor in General Practice

Introduction

Hello, I'm Dr. [Name], one of the doctors here today.

Could I confirm your full name and age, please?

Thank you. How can I help you today?

Presenting Complaint – SOCRATES Pain History

Let's talk more about your headache:

- **Site:** Where do you feel the pain? → "It's across my head, like a tight band."
- **Onset:** When did this start? → "About six months ago."
- **Character:** How would you describe the pain - throbbing, dull, sharp? → "It feels like a pressure."
- **Radiation:** Does it spread anywhere?
- **Alleviating factors:** Does anything make it better - rest, food, being outdoors?
- **Aggravating factors:** Anything that worsens it - stress, noise, movement?
- **Timing:** When does it usually start during the day? → "Every day around midday, and it lasts until evening."
- **Severity:** On a scale of 0 to 10, how bad is the pain? → "Around 7 most days."

Differential Diagnosis Screening

Just to explore all possible causes:

- **Migraine:** Do you get nausea, light or sound sensitivity, or visual symptoms like blurring or zigzag lines?
- **Tension-type headache:** Does it feel like a tight band, especially at the end of a stressful day?
- **Cluster headache:** Any one-sided, sharp pain with eye redness or tearing?
- **Raised pressure (IIH):** Worse on bending, coughing, or in the morning? Any visual symptoms?
- **Sinusitis:** Any facial pain or nasal congestion or discharge?
- **CO poisoning:** Does the pain improve when outdoors? Anyone else at home have similar symptoms?
- **Medication Overuse:** Have you been taking painkillers frequently - more than 2–3 times a week?

Focused History

Let me ask a bit more about your background:

- You mentioned you've been taking painkillers - which one exactly? → "Paracetamol, about 8 tablets a day."
- Have you had similar headaches before this began? → "I used to have migraines since my teens, but not daily like this."
- Any triggers you've noticed lately - stress, sleep changes, missed meals? → "I'm going through a separation and court case - it's been a hard few months."
- Do you still get migraine-like symptoms now - or has the headache just changed?
- Are you taking anything else regularly?

PMAFTOSA

- **Past medical history:** Migraine since teenage years
- **Medications:** Currently taking paracetamol daily, previously used sumatriptan
- **Allergies:** Any medication allergies?
- **Family history:** Any family members with migraines or chronic headaches?
- **Travel:** Any recent travel or change in routine?
- **Occupation:** What do you do for work? Any long screen hours or stress?
- **Social:** Any alcohol, smoking, or recreational drug use?

ICE

- What do you think might be causing this?
- Are you worried this could be something serious, like a tumour?

- What were you hoping I could help you with today?

Effect on Life

How is this affecting your ability to work, sleep, or manage day-to-day life?

Examination Summary

Thanks. I'd like to check a few things:

- Vitals (BP, pulse, temp)
- Basic neurological exam (orientation, coordination, reflexes, fundoscopy if prompted)

Findings: All normal. Alert, no focal signs, no signs of raised ICP or infection.

Diagnosis – Tell, Ask, Explain, Check

Tell

From what you've told me and from the examination, I believe you're experiencing something called **medication overuse headache**.

Ask

Have you heard of that before?

Explain

"This happens when painkillers are used too regularly - even something as simple as paracetamol. Your brain gets used to having the medication, and when it wears off, it protests by giving you another headache.

So you take more painkillers, which makes it worse. It becomes a cycle - and **the only way to break it is to stop the painkillers**.

It's especially common in people with a history of migraines who start using daily pain relief."

Check

Does that explanation make sense so far?

Management Plan

1. Withdrawal of Overused Medication

"The best treatment is to stop the overused medication [*current evidence supports abrupt withdrawal rather than gradual reduction*]

I won't lie to you - the first week or two can be tough. Your headaches may actually get worse before they get better. That's your brain adjusting to life without the constant painkillers.

But I promise you, for most people, things improve significantly after that first week or two. And we'll support you through it - you're not doing this alone."

2. Supportive Measures During Withdrawal

"During withdrawal, we can support you with:

- Starting **preventive treatment** (e.g., amitriptyline or propranolol)
- Regular follow-up to monitor progress
- In severe cases, a **short course of prednisolone** may be considered - but this is typically specialist-directed as evidence is mixed

Additional support:

- Relaxation techniques, good hydration, sleep routine, and limited screen time can help
- Consider temporary non-medication strategies like rest or breathing exercises"

3. Preventive Migraine Strategy (After Withdrawal)

"Once this cycle breaks, if your migraines return, we can start a preventive treatment like **propranolol**, **amitriptyline**, or **topiramate** (with appropriate warnings for women of childbearing age), rather than relying on painkillers again.

We'll also review your triggers, including stress management."

Safety Netting

- If your headache worsens suddenly, becomes very severe, or is associated with vomiting, confusion, or vision problems - please seek immediate help
- Also, if you're unable to cope with the withdrawal or headaches don't settle, come back to us

Follow-Up

- Let's review you again in **2-3 weeks** to check how you're doing after stopping the paracetamol
- If migraines return, we'll discuss long-term preventive options

Leaflet

I'll give you an information leaflet about medication overuse headaches and how to manage migraines safely in future.

Final Check

Is there anything else you'd like to ask or anything you're still unsure about?

I know this isn't easy, especially with everything else you're going through. But you've done the right thing coming in today, and we're going to work through this together.

Diagnostic Note – How This Diagnosis Was Made

35-year-old with a six-month history of daily, band-like headache starting midday, worsening with stress, and history of migraine. On review, she has been using paracetamol at high doses (8/day) for several months. Neurological exam is normal. Features are typical for medication overuse headache, as defined by NICE and ICHD criteria. Differential causes (migraine, tension, sinusitis, raised ICP, CO poisoning) ruled out via history. Advised abrupt withdrawal of paracetamol with supportive measures and follow-up, plus preventive strategy planning. MOH develops with regular acute treatment use for **3 months or more**.

Chapter 4: Neurology

A Note to Learners

The cases in this resource are written in a conversational style to help you become familiar with the natural flow of clinical consultations and the language commonly used in UK healthcare settings.

These dialogues are intended as a learning guide, not a script. Please do not attempt to memorise them verbatim. Examiners assess your ability to think and communicate authentically - not to recite rehearsed phrases.

Use this material to understand the underlying clinical reasoning, then practise in your own words until the consultation feels natural to you.

For Companion OSCE Cases, Practice Scripts, Evaluation Checklists, Summary Notes, Rapid Review Notes, Mindmaps, Management Flashcards and Image Library - visit <https://www.gksplab2.com>

Disclaimer

This material is independent educational content created to help candidates develop clinical reasoning and communication skills for UK medical practice.

All cases and clinical scenarios are based on common presentations encountered in UK primary care and emergency medicine, drawn from publicly available sources including NICE Clinical Knowledge Summaries (CKS), BNF, and other official NHS/UK healthcare guidelines.

No content in this resource is derived from, represents, or claims to replicate actual GMC PLAB 2 examination material.

Subdural Hematoma

Role: FY2 Doctor

Setting: Hospital Ward – Collateral History from Care Staff

Patient: Older Adult Female with New-Onset Confusion

Task: Take collateral history from care home staff, identify cause of confusion, communicate plan, and address staff concerns professionally

1. Introduction

"Hello, is this the care home where the patient was staying before being brought in? Thank you. I'm one of the doctors at the hospital. I'm calling about a resident who was admitted earlier today because of a change in her mental state. May I confirm your name and your role in her care?"

(Let the staff respond: e.g., "I'm one of the carers who looks after her regularly.")

"Thank you. Could I please confirm the patient's full name and date of birth so I know we're speaking about the same person?"

(Staff confirms name and DOB)

"Thank you. I'd like to understand more about what led to her admission today - is now a good time to talk?"

2. Presenting Complaint – Clarify the Confusion

"Can you tell me what changes you noticed in her behaviour that concerned you?"

- "What sort of things was she doing or saying that felt unusual?"
- "When did this start?"
- "Has it been getting better or worse?"

(Carer reports: disorientation, forgetting where her room is, mixing up names, trying to leave the home - started 3 days ago and gradually worsened)

"How is she normally? Has she ever been diagnosed with memory issues like dementia?"

- "Is she usually able to manage her own medications or daily routine?"

(Carer: Normally sharp, independent, no history of dementia)

3. Red Flag Screening – Trauma, Neurology, Infection

A. Trauma and Fall History

"Has she had any falls recently?"

- "Can you walk me through what happened before, during, and after the fall?"
- "Did she hit her head, lose consciousness, vomit, or seem confused at the time?"
- "Any weakness or balance problems immediately after?"

Safeguarding Screening (Important for PLAB 2):

- "Who was present when the fall occurred?"
- "Was anybody else involved, or did she fall on her own?"
- "Has she had any other unexplained injuries or falls recently?"
- "Are there any concerns about her care environment or interactions with others?"

(Carer: Fell while standing up quickly 3 days ago, landed on her bottom, no obvious head strike or immediate symptoms. Confusion began slowly afterwards. No safeguarding concerns identified.)

"Has she complained of headaches since then?"

- "Any nausea, visual changes, or trouble with balance?"

(Reported one mild headache yesterday, no nausea or visual issues)

B. Infection Screening

"Any signs of infection - like fever, cough, chest discomfort, painful urination, or change in appetite?"

- "Have her vital signs been stable?"

(Vitals are all normal; no signs of infection)

4. Medication and Allergy History

"What regular medications is she taking?"

- "Any recent changes in her prescription?"
- "Is she allergic to any medications?"

(On antihypertensive, statin, and multivitamin. Allergic to penicillin.)

5. Social & Legal Information

"Who is listed as her next of kin?"

- "Do you know if she has any advance care planning in place, such as a DNACPR form or advance directive?"

(Daughter is next of kin. No known documentation, but carer will check records.)

6. Functional Impact and Risk

"How was she functioning before this episode?"

- "Was she managing independently in the care home?"
- "Has she needed extra supervision since becoming confused?"

(Previously independent; now requires supervision and staff prompting)

7. Summary & Diagnostic Reasoning

"Thanks for sharing that - it's been very helpful. From what you've told me, especially about the fall three days ago and her gradually worsening confusion since, we're concerned she may have developed a condition called a chronic subdural haematoma."

8. Explanation - In Simple Terms

"That's a type of slow bleeding that can happen between the brain and its outer lining after even a minor fall. It can build up gradually and start to press on the brain, leading to changes in memory, behaviour, or alertness. It often doesn't cause symptoms straight away - which is why it may have seemed like everything was fine at first."

(If the carer expresses concern - e.g., "Did we miss something?")

"Please don't blame yourself - these bleeds can happen even when falls seem minor and precautions are in place. Our focus now is to investigate and make sure she gets the right treatment."

9. Investigations and Immediate Management

"We've arranged an urgent CT scan of the brain to look for any bleeding."

- If the scan confirms a subdural haematoma, we'll involve the neurosurgery team.
- Treatment usually involves a small operation where tiny holes are made in the skull to drain the blood - it sounds scary but it's a routine procedure.
- We'll keep a close eye on her condition while we wait for the scan results.

10. Communication & Coordination

"Would you be able to send over her recent medical records, medication chart, and any written notes about the fall or behaviour changes?"

"We'll also be contacting her next of kin to explain the situation. If they call or visit the home, please reassure them she's being looked after and that the hospital team is in touch."

11. Prevention and Discharge Planning

"If this is confirmed and she needs treatment, we'll also refer her to social services before discharge.

They'll help make sure her home or care environment is as safe as possible to prevent future falls."

"We'll also review her medications and plan follow-up support or rehabilitation depending on how she recovers."

12. Closure

"Thank you again for all your help - your observations and prompt action have really made a difference here. If you come across anything else in her records or think of anything that might help, please feel free to call us back."

Diagnostic Note for Student

This case demonstrates a classic presentation of chronic subdural haematoma in an elderly patient:

- Gradual confusion without signs of infection
- Normal baseline cognition
- Recent fall 3 days prior with no initial symptoms
- Reduced GCS (13/15) and normal vital signs
- Suggestive of delayed intracranial bleed - a known complication in older adults, especially after minor trauma

CT scan is the key investigation. Management involves prompt neurosurgical referral if confirmed.

Important not to misattribute the symptoms to dementia or UTI without clear evidence.

DVLA: If treated surgically, patient must not drive for at least 6 months after treatment. Must notify DVLA.

For conservatively managed cases, fitness to drive depends on clinical recovery and specialist assessment.

Transient Ischaemic Attack (TIA)

Station Type: GP Consultation

Patient: Older Adult Male

Scenario: Resolved Neurological Symptoms Noticed by Family Member

Task: Take structured history, provide explanation, assess risk, and initiate guideline-based management

1. Introduction

"Hello, I'm one of the doctors here at the practice. Thank you for coming in today. How can I help you?"

Patient: "My wife saw something strange last night and asked me to come in."

"Of course. Before we go into the details, can I first ask - do you have any symptoms right now, as we speak?"

Patient: "No, everything seems back to normal."

2. Presenting Complaint – ODIPARA for Resolved Episode

"Thank you. Let's go over what exactly happened last night."

- **Onset:** "When did the symptoms start?"
- **Duration:** "Roughly how long did they last?"
- **Intensity:** "Was the weakness severe or mild?"
- **Progression:** "Did it come on suddenly or gradually?"
- **Aggravating/Relieving:** "Did anything make it better or worse?"
- **Associated:** "Did you notice any other symptoms with it?"

Patient: "It started while brushing my teeth. My wife noticed my face was drooping. I looked in the mirror and saw it myself. It lasted about 20 minutes, then resolved."

3. Focused FAST neurological screening

Let me ask some specific questions about symptoms:

- **Face:** "You mentioned your face went to one side. Did you feel any numbness or tingling?"
- **Arms/Legs:** "Did you have any weakness or numbness in your arms or legs during that time? Any trouble walking or falls?"
- **Speech:** "Did you have difficulty speaking or understanding others?"
- **Swallowing:** "Any trouble swallowing?"
- **Vision:** "Any changes in your vision - blurriness, double vision, or temporary loss of vision in one or both eyes?"
- **Time:** "So just to confirm again - when exactly did this happen, and it lasted around 20 minutes?"

4. Differential Diagnosis Screening

Bell's Palsy

- "Was the drooping limited only to your face, or did it affect arms or legs too?"
- "Was the weakness in the entire face - forehead included - or just the lower half?"
- "Any rash around or behind your ear?"

Others

- "Have you ever had repeated weakness episodes or drooping eyes before?" (Myasthenia gravis)
- "Any recent infections, especially diarrhoea or cold symptoms?" (Guillain-Barré)
- "Have the symptoms been slowly worsening over weeks or just came on suddenly?" (Tumour/Other cause)

5. Risk Factor History – PMAFTOSA

P – Past Medical History

"Do you have high blood pressure, diabetes, high cholesterol, or any heart disease?"

M – Medications

"Are you on any regular tablets or medications?"

A – Allergies

"Any allergies to medications?"

F – Family History

"Any family history of stroke, TIA, or heart problems?"

T – Travel

"Have you travelled recently or had any long flights?"

O – Occupation

"You mentioned you drive regularly. Is driving part of your job?"

S – Social History (DATES)

"I'd like to ask about your lifestyle habits."

- **Diet:** "How would you describe your eating habits?"
- **Alcohol:** "Do you drink alcohol? If so, how much?"
- **Tobacco:** "Do you smoke? How many per day and for how long?" (Known smoker)
- **Exercise:** "How physically active are you?"
- **Stress:** "How would you rate your stress levels lately?"

6. Examination

"I'd now like to carry out a brief neurological examination - just to check your face, arms, legs, and some of your nerves."

(Perform focused cranial nerve exam, limb power/sensation, coordination, and gait assessment.)

"Your examination appears completely normal at the moment, which is reassuring."

7. Provisional Diagnosis

"From everything you've described - the brief, one-sided facial weakness that resolved in under 24 hours - it sounds like you may have experienced a Transient Ischaemic Attack, or TIA. This is sometimes called a 'mini-stroke'."

8. Explanation

"A TIA happens when a blood vessel in your brain gets briefly blocked - usually by a small clot. It's like a temporary traffic jam in the blood supply to your brain. This causes sudden symptoms like facial weakness or slurred speech - but the blood flow resumes before any permanent damage is done. That's why your symptoms went away quickly."

"Although it's resolved now, a TIA is a warning sign. People who've had one are at increased risk of a future stroke - which can cause lasting damage. The good news is we can significantly reduce that risk with the right treatment and some lifestyle changes - and we're going to start today."

9. Management Plan

A. Immediate Action – Aspirin

"I'd like you to take aspirin 300 mg right now - unless you've had ulcers, bleeding problems, or an allergy. This thins the blood and reduces your stroke risk."

(If aspirin not in clinic: write prescription, instruct to buy immediately and take 300 mg today.)

B. Urgent Referral to TIA Clinic

"I'm referring you to a specialist stroke team. Since your symptoms occurred in the last 7 days, you should be seen within 24 hours."

If >7 days ago → referral should be within 1 week

C. Investigations at the TIA Clinic

"They'll do a few tests to confirm the diagnosis and guide long-term treatment. These include:

- A CT or MRI brain scan
- A neck artery scan (called Doppler)
- Blood tests for cholesterol, blood sugar, clotting, and more"

D. Long-Term Treatment (Specialist Initiated)

"At the clinic, you'll likely be started on dual antiplatelet therapy:

- Clopidogrel 300mg loading dose, then 75mg daily
- PLUS Aspirin 75mg daily (300mg loading dose already given)
- This dual therapy continues for 21 days After 21 days, you'll continue on clopidogrel 75mg daily alone long-term."

"You may also be given a stomach-protecting tablet while on dual blood thinners."

"Depending on the results, the specialist may also:

- Start a statin if your cholesterol is high
- Add blood pressure tablets like ACE inhibitors, even if your BP is only mildly raised"

E. Driving Advice

"You must stop driving for 1 month - this is a legal requirement after any TIA. You don't usually need to tell the DVLA if you've fully recovered, but you must notify them if you still have any symptoms after a month - such as limb weakness, visual problems, or difficulty with concentration."

F. Lifestyle Changes

"There are several changes you can start today to lower your stroke risk even further:

- Stop smoking - we can help you with this

- Eat a heart-healthy diet - less fat and salt
- Limit alcohol to within recommended limits
- Exercise regularly, at least 30 minutes most days
- Reduce stress where possible"

10. Safety Netting

"If you experience any new symptoms - facial drooping, numbness, weakness, speech difficulty, or vision loss - please call 999 or go to A&E immediately. Don't wait."

11. Follow-Up

"I'll arrange to see you again in about 2-3 weeks to follow up on the TIA clinic findings, support any medication changes, and help with lifestyle goals."

12. Final Check & Closure

"Do you have any questions about what we've discussed so far?"

(Answer all questions patiently. Reassure that acting now significantly reduces long-term risk.)

"Thanks again for coming in today - and please thank your wife too, because her observation may have prevented something much more serious."

Diagnostic Reasoning Note (For Student)

This is a classic case of TIA:

- Sudden focal neurological deficit (facial weakness)
- Duration <24 hours, complete resolution
- No current symptoms or deficits on exam
- Risk factors: age, male sex, smoking, occupational driving

→ Per NICE NG128 and National Clinical Guideline for Stroke 2023:

- Aspirin 300 mg immediately
- TIA clinic referral within 24h
- **Dual antiplatelet therapy (DAPT):** Clopidogrel 300mg loading + 75mg daily PLUS Aspirin 300mg loading + 75mg daily for **21 days**, then clopidogrel 75mg daily alone long-term
- Driving restriction for **1 month** is mandatory (DVLA terminology)

[Note for candidates: In GP settings, aspirin 300mg can be given immediately. Clopidogrel 300mg loading is typically initiated at the TIA clinic or by specialist recommendation.]

No immediate imaging is arranged in GP - hospital team will do CT/MRI and Doppler scan.

TIA – Discharge

Station Type: Relative Communication – A&E Discharge Counselling

Patient: Older Adult Female

Role: FY2 Doctor

Setting: A&E Discharge – Relative Communication

Task: Explain the event, investigations, treatment plan, precautions, and follow-up to the husband

1. Introduction

"Hello, I'm one of the doctors looking after your wife today. Thank you for waiting. Could I just confirm - may I know your name please?"

Relative: "I'm her husband."

"And your wife's age - is that right?"

Relative confirms

"Thanks for confirming. I understand you've had quite a worrying few hours. I've been asked to discuss everything with you so you're fully up to date on her condition and the plan from here. Is that alright?"

2. Event Clarification & History from Relative

"Before I explain everything from our side, can I ask - would you mind telling me what happened today from your perspective?"

(Let him speak and express concern, then guide with focused questions)

T – Time

- "Roughly when did her symptoms start?"
- "And how long did they last?"
- "Has she had any ongoing issues since then - or is she back to normal now?"

Symptoms started 3 hours ago, lasted 2 hours, now resolved.

F – Face

- "Did you notice any facial changes, like drooping on one side?"

Yes, angle of the mouth was drooping.

A – Arms and Limbs

- "Did she mention any numbness or weakness in her arms or legs?"

S – Speech & Swallowing

- "How was her speech during the episode?"
- "Any trouble understanding or swallowing?"

Husband confirms slurred speech and swallowing difficulty.

3. Risk Factor Assessment

"Thanks for explaining what happened. To help us understand your wife's overall health profile, I'd like to ask a few more questions if that's alright."

P – Past Medical History

"Does your wife have any medical conditions - like high blood pressure, diabetes, high cholesterol, or any heart problems?"

"Her blood pressure has been high. No diabetes or heart disease."

M – Medications

"Is she on any regular medications that you know of?"

"Just something for her blood pressure, I believe."

A – Allergies

"Does she have any allergies to medications?"

"No known allergies."

F – Family History

"Has anyone in her family had a stroke, heart disease, or similar conditions?"

"Her father had a stroke in his 70s."

T – Travel History

"Have either of you travelled recently - any long flights or road trips?"

"No recent travel."

O – Occupation

"Is your wife still working, or is she retired now?"

"We're both retired."

S – Social History (DATES)

"I'd also like to ask a few things about her lifestyle, which can influence future risk."

- Diet: "Does she usually eat home-cooked meals, or do you eat out more often?" "We eat out quite a bit, mostly fast food."
- Alcohol: "How much alcohol does she typically drink in a week?" "Just two glasses of wine on the weekends."
- Tobacco: "Does she smoke?" "Yes, she does."
- Exercise: "Would you say she gets much physical activity?" "Not really, she doesn't like exercise."
- Stress: "How would you describe her general stress levels?" "She gets stressed quite easily."

4. Addressing Nervousness if Observed

(If husband appears anxious or fidgety)

"I can see this has been quite an emotional day. Are you feeling a bit overwhelmed by all this?"

(Let him speak. Respond empathetically.)

"It's completely understandable. Seeing someone you care about become unwell like this is very distressing. Please know that your wife is now stable and in safe hands. You did the right thing bringing her in quickly."

5. Summary of Investigations & Findings

"Let me now explain what's been done so far."

- "We did a full neurological examination, which showed no abnormalities at the moment."
- "A CT scan of her brain was performed - it came back normal."
- "Her blood pressure, however, was a bit high - around 150, which we do consider raised."
- "We've also taken some blood tests, and we're currently waiting for those results."

6. Explaining the Diagnosis – TIA

"Based on the symptoms your wife had - the slurred speech, facial drooping, difficulty swallowing, and the fact that they resolved completely - we believe she experienced a Transient Ischaemic Attack, or TIA."

"Have you heard that term before?"

(Let him respond.)

"A TIA is sometimes called a 'mini-stroke'. It happens when there's a temporary blockage in the blood supply to part of the brain. The key word is 'transient' - meaning temporary. The blockage cleared on its own, which is why her symptoms went away."

"But it's still very serious - because it's often a warning sign that a larger stroke could happen in the near future if we don't act."

7. Treatment Plan and Discharge Instructions

"Here's what we've done and what needs to happen next."

1. Aspirin

"We've already given your wife a 300 mg dose of aspirin, which is a blood thinner. This helps reduce the risk of another blockage forming."

2. Urgent TIA Clinic Appointment

"She will be seen tomorrow in a specialist TIA clinic. There, they'll:

- Review all her results
- Likely start her on two blood-thinning medications together – **aspirin 75mg and clopidogrel 75mg** (after 300 mg loading dose)- for the first 3 weeks, as this combination is more effective at preventing another stroke in the early high-risk period
- After 21 days, she'll continue on just clopidogrel 75 mg long-term
- Possibly prescribe blood pressure tablets (like a thiazide)
- Check her cholesterol, and if high, start her on a statin"

3. Driving Advice

"She must not drive for the next 1 month - this is a legal requirement. She doesn't usually need to notify the DVLA if she makes a full recovery, but she must tell them if she still has any residual symptoms after a month - such as weakness, visual problems, or cognitive difficulties."

4. Lifestyle Changes

"Some adjustments can really help lower her future risk:

- Quit smoking
- Cut back on fatty or fast foods
- Reduce alcohol - even though two glasses a week is moderate, cutting down more helps
- Be more active - regular walks are a good start
- Try to manage stress - daily habits like relaxation or hobbies can help"

8. Addressing Common Questions

Husband: "Doctor, can this happen again?"

"Unfortunately, yes. The risk of a full stroke is highest in the days and weeks after a TIA, which is why we're acting quickly. But with treatment and lifestyle changes, we can drastically lower that risk."

Husband: "My wife drinks wine on weekends. Is she an alcoholic?"

"We don't use labels like that. Two glasses of wine per week is within NHS alcohol limits - which is no more than 14 units per week. However, there's no fully safe level, and further reduction is always helpful, especially now."

Husband: "How can we prevent this from happening again?"

"You're already doing the right thing by being here. Prevention involves both medical treatment (like blood thinners and statins) and lifestyle changes - diet, exercise, and quitting smoking. We'll help guide you through all of it."

9. Final Check & Safety Netting

"Do you have any other questions or concerns at this point?"

(Address anything he asks clearly and patiently.)

"I'll make sure the TIA clinic contacts you shortly with details for tomorrow. If your wife experiences any new symptoms - like face drooping, slurred speech, or weakness - please come straight back to A&E or call emergency services."

10. Closure

"Thanks again for taking the time to speak with me today. I understand it's a lot to take in - feel free to ask us anything, anytime. We'll continue to support your wife through this."

Diagnostic Note for Student

- Sudden focal neurological symptoms (drooping, slurred speech, dysphagia)
- Symptoms lasted 2 hours and resolved
- Normal CT and examination
- Raised BP (150 systolic)

→ Diagnosis is Transient Ischaemic Attack (TIA)

Per NICE NG128 and National Clinical Guideline for Stroke 2023:

- Immediate aspirin 300 mg
- Urgent TIA clinic review within 24h
- **Dual antiplatelet therapy for 21 days, then clopidogrel alone long-term**
- Statin, thiazide as guided by specialist
- Driving restriction for **1 month** (DVLA terminology)
- Strong emphasis on lifestyle changes and stroke prevention

Suspected Stroke

Station Type: Telephone Consultation (Remote Emergency Triage)

Patient: Middle-Aged Adult Male

Known Medical History: Hypertension on Treatment

Setting: GP Practice (FY2 Doctor Answering the Call)

Task: Assess urgency, identify stroke red flags, provide appropriate emergency advice, and explain the condition clearly

1. Introduction

"Hello, this is Dr [Your Name] calling from the GP practice. How can I help you today?"

Patient: "I fell down while making breakfast this morning."

"I'm sorry to hear that. Could you tell me more about what happened?"

Patient: "I'm not sure how I fell - but I've had numbness and weakness in my arm since then."

2. Presenting Complaint & Focused Neurological History (FAST + Red Flags)

"Thank you for sharing that. I'd like to ask you some important questions to help me understand what's going on."

F – Face:

"Have you noticed any changes in your face - such as drooping, numbness, or trouble smiling evenly?"

A – Arms:

"You mentioned arm numbness - is this just one arm or both?"

"Can you move both arms equally, or is one side weaker?"

"Have you had any falls or imbalance today?"

S – Speech:

"Have you noticed any changes in your speech - slurring, difficulty speaking, or understanding others?"

T – Time:

"When exactly did you fall and when did the numbness start?"

"How long have you had these symptoms - are they still ongoing?"

Patient: "It started about two hours ago. I still have numbness and weakness in my arm."

Additional Symptoms:

"Any other symptoms - such as headache, blurred vision, dizziness, or trouble with coordination?"

3. Risk Factor Assessment – PMAFTOSA

"Thanks. I'd also like to ask a few more things to get a clearer picture."

P – Past Medical History:

"I can see you have high blood pressure - is that usually well-controlled on amlodipine?"

"Any other long-term conditions like diabetes or heart disease?"

M – Medications:

"Are you taking any medications apart from amlodipine?"

A – Allergies:

"Do you have any known allergies to medications?"

F – Family History:

"Any family history of stroke or similar events?"

T – Travel:

"Have you travelled recently or had any long journeys?"

O – Occupation:

"Are you currently working or retired?"

S – Social History (DATES):

"I'd also like to ask briefly about lifestyle, as it can affect stroke risk."

- Diet: "How would you describe your usual diet?"
- Alcohol: "Do you drink alcohol? If so, how much?"
- Tobacco: "Do you smoke?"
- Exercise: "Do you get much physical activity each week?"
- Stress: "How would you describe your stress levels?"

4. Telephone Functional Assessment (No Imaginary Examination)

"Thanks for that. While I can't examine you in person, could you help me with a few simple checks?"

- "Could you try to smile? Does it feel even on both sides of your face?"
- "Can you try to raise both your arms in front of you - are they level, or does one drift down?"
- "Can you try saying this phrase: 'The sky is blue in Cincinnati' - do you notice any slurring?"

5. Provisional Diagnosis & Explanation

"Based on the information you've provided - including the sudden onset of arm weakness and facial/speech symptoms - I'm very concerned that you might be experiencing a stroke."

"Have you heard of stroke before?"

(Let patient respond)

"Let me explain it simply - a stroke is a serious condition where the blood supply to part of your brain is interrupted. It can happen because of a blood clot blocking a vessel or, less commonly, a bleed. In both cases, brain cells start to get damaged quickly, and symptoms like weakness, speech problems, or confusion can occur."

"Because your blood pressure has been high and the symptoms are still ongoing, we need to act immediately."

6. Emergency Management Plan

"Here's exactly what we need to do now:"

1. Call an Ambulance Immediately

"I strongly advise you to call 999 right now. This is the fastest and safest way for you to get the emergency care you need."

(If the patient cannot call, offer to call on their behalf, if allowed in the exam.)

2. Prepare for Ambulance Arrival

"Once we hang up, please do the following if you can do it safely:

- Go to the front door and unlock it
- Stay nearby so paramedics can reach you quickly
- Keep your phone close by in case they need to call"

3. Hospital Stroke Management (Explain for PLAB 2)

"When you arrive at hospital, the doctors will likely:

- Perform a CT scan or MRI to confirm the diagnosis
- If it's a blood clot, you may be offered a special medicine called tPA - a clot-busting drug - but **only if given within 4.5 hours** of symptom onset. This is why time is so critical.
- In some cases, a procedure called thrombectomy may be used to remove a large clot - this is now available **up to 24 hours** in selected patients when the blockage is in a major artery and brain scans show salvageable tissue
- They may also start aspirin or blood thinners, but this will only be after they've confirmed the type of stroke"

Emphasise Urgency: "Every minute counts. The phrase we use is 'Time is Brain' - the longer the brain is without blood supply, the more brain cells are lost. That's why getting to hospital immediately gives you the best chance of recovery."

4. Do NOT Take Any Medication Now

"It's very important that you don't take aspirin or any other tablets right now. The doctors must confirm the type of stroke before giving any treatment."

7. Safety Netting & Reassurance

"I know this may feel scary, but the fact that you've called and we're acting now is the best thing you can do. Every minute counts with stroke - the sooner you get to hospital, the more of your brain we can save."

"Do you have anyone with you right now?"

(If alone, be especially cautious. Offer to stay on the line until help is on the way, if appropriate.)

"Are you able to call 999 right now, or would you like me to stay on the line while you do?"

8. Final Check & Closure

"Do you have any questions before we end the call?"

(Address any concerns clearly and repeat key information if needed.)

"Alright. Please call 999 now, unlock the front door if you're able, and wait nearby for the ambulance. Take care - I hope you get the help you need quickly."

Diagnostic Reasoning Note (For Student)

- Sudden onset of focal neurological symptoms (arm weakness, numbness, possible facial asymmetry, possible slurred speech)
- Symptoms ongoing at the time of call
- History of hypertension (major risk factor)
- All symptoms consistent with acute ischaemic stroke
- Requires emergency ambulance, no aspirin, urgent hospital imaging

→ Stroke suspected until proven otherwise - manage per NICE CKS.

Key Reminders (Emergency Telephone Scenario)

- Ask about current symptoms early
 - Use FAST + red flag questions
 - Advise calling 999 immediately
 - DO NOT give aspirin pre-hospital
 - Explain urgency and treatment
 - Offer safety instructions (open door, wait near front)
 - No fake exam - use patient-performed tasks
 - Use calm, serious tone - no jargon, no panic
 - Repeat key points if patient seems anxious
 - Document consultation carefully
-

Bell's Palsy

Station Type: GP Consultation

Role: FY2 Doctor

Patient: Young Adult Female, Postpartum Period

Presenting Complaint: Acute Unilateral Facial Weakness

Task: Take detailed history, rule out other causes, explain diagnosis, and initiate appropriate management

1. Introduction

"Hello, I'm one of the doctors here at the surgery. How can I help you today?"

"I've had some weakness on one side of my face since yesterday."

"I'm sorry to hear that. Can you tell me a bit more about it?"

"Also, I understand you've recently had a baby - congratulations! When exactly did you give birth?"

"Two weeks ago."

2. Presenting Complaint – Facial Weakness History

"Let's go through the facial symptoms in more detail."

- "Which side of your face is affected?"
- "Have you noticed any numbness or tingling on that side?"
- "Can you frown or raise your eyebrows on that side?"
- "Are you able to close your eyes completely?"
- "Can you blow out your cheeks?"
- "How about smiling or showing your teeth - does it feel even?"

Symptoms are isolated to one side, patient cannot raise eyebrow or close eye fully

3. Other Cranial Nerve Symptoms

"I'd also like to ask about some other symptoms that may involve different nerves."

- "Any numbness in other parts of your face?" (Trigeminal)
- "Any hearing changes, like ringing or hearing loss?" (Vestibulocochlear)
- "Any problems with your vision - blurred or double vision?"
- "Any difficulty speaking, swallowing, or moving your tongue?" (Glossopharyngeal, Vagus, Hypoglossal)
- "Can you turn your head side to side or shrug your shoulders normally?" (Accessory nerve)

None of these present

4. Other Neurological & Red Flag Screening

- "Have you had any weakness or numbness in your arms or legs?"
- "Any dizziness, imbalance, or difficulty walking?"
- "Have you noticed a rash, especially around your ear or scalp?" (Ramsay Hunt)
- "Any headaches, vomiting, or problems with vision that feel unusual?" (Brain tumour red flags)

5. Eye Symptoms

"You mentioned difficulty closing the eye - have you had any irritation, dryness, or watering in that eye?"

Yes, some irritation and dryness present

6. Obstetric History (Pregnancy and Delivery)

"Let's briefly talk about the pregnancy and delivery."

- "How was your pregnancy overall?"

- "Was the delivery full-term and uneventful?"
- "Are you breastfeeding at the moment?"
- "How is your baby doing?"

Normal pregnancy, full-term vaginal delivery, breastfeeding

7. Background History – PMAFTOSA

P – Past Medical History

"Do you have any other long-term medical conditions?"

No

M – Medications

"Are you currently taking any medications apart from supplements or postnatal vitamins?"

A – Allergies

"Any allergies to medicines that you're aware of?"

F – Family History

"Any family history of neurological conditions, autoimmune problems, or strokes?"

T – Travel History

"Have you travelled anywhere recently?"

O – Occupation

"Are you currently working or on maternity leave?"

S – Social History

- "Do you smoke or drink alcohol?"
- "Are you getting enough support at home?"
- "How has your sleep been recently?"

8. Examination

Findings are provided on paper or image.

"Thank you - I've reviewed the examination findings. Based on what I see, you're unable to frown on one side, you can't close your eye fully on that side, and the smile is uneven. These are signs that the facial nerve is affected, and the rest of your examination appears normal."

9. Provisional Diagnosis

"Based on your symptoms and the examination findings, I believe you may have a condition called Bell's Palsy. Have you heard of this before?"

10. Lay Explanation of Condition

"There's a nerve that runs from your brain, through a narrow bony channel near your ear, to the muscles on one side of your face. When this nerve gets inflamed - perhaps from a viral infection - it swells up and gets squeezed in that narrow channel. That's what's causing your symptoms."

"We don't always know exactly why it happens, but it's often linked to a virus - the same family of viruses that cause cold sores. The good news is it's not contagious and most people recover fully."

"We don't always know the exact cause, but pregnancy and the postpartum period are known risk factors. It usually affects just one side, and the symptoms tend to appear suddenly, as in your case."

"It is not a stroke, and there's no sign that your brain or limbs are involved."

11. Management Plan

1. Medication – Corticosteroids

"We'll start you on prednisolone - 50mg once daily for 10 days. It's most effective when started within

72 hours of symptoms beginning, so the sooner the better. This helps reduce inflammation around the nerve and improves your chances of full recovery."

Note: Antivirals (such as aciclovir or valaciclovir) are NOT routinely recommended for Bell's palsy, as evidence does not show additional benefit when combined with corticosteroids.

2. Eye Protection & Emergency Referral

"Since you're unable to close your eye fully and have irritation, I'd like you to visit the Eye Casualty Department today - it's a walk-in service. They'll check for any dryness or surface damage and may prescribe protective drops."

3. Eye Care at Home

- "During the day, please wear sunglasses to protect your eye from dust and wind."
- "At night, use eye ointment if given and tape the eyelid shut if needed to prevent dryness."

4. Functional Advice

"You may find it harder to eat or drink, especially on that side. Try using a straw or small sips, and consider soft or liquid meals like smoothies and soups."

5. Mental Health Support

"I understand this can affect your confidence or cause distress. If it does, please let us know - we can arrange counselling or talking therapy to support you through it."

6. Follow-Up Plan

"If your symptoms don't improve within 2 weeks, we'll refer you to neurology. Most people begin recovering within a few weeks and fully recover within 6 months."

12. Closing the Consultation

"Do you have any questions about what we've discussed today?"

(Answer clearly and reassure)

"Just to summarise:

- You likely have Bell's Palsy, affecting the facial nerve
- We're starting steroids to help recovery
- You must visit Eye Casualty today for protection
- Most people get better in a few weeks to months
- If you don't improve in 2 weeks, we'll escalate your care"

"Please don't hesitate to contact us if anything changes, or if you develop new symptoms. And congratulations again on your baby - I wish you a smooth recovery."

Diagnostic Note for Student

- Sudden-onset, unilateral lower and upper facial weakness
- Postpartum (high-risk) context
- No limb symptoms, no altered consciousness, no cranial nerve involvement beyond CN VII
- Facial signs: cannot raise brow, close eye, or blow cheek on one side
- → Bell's Palsy

Management per NICE CKS:

- **Prednisolone 50mg once daily for 10 days** (within 72h of onset)
 - Eye protection essential (refer to Eye Casualty)
 - Neurology referral if no improvement by 2-3 weeks
 - Recovery expected in up to 6 months
-

Encephalitis / Meningitis

Setting: Emergency Department (A&E)

Role: FY2 Doctor

Patient: Adolescent Male

Accompanied by: Father

Presentation: Seizure with Altered Consciousness and Fever

Task: Take focused history, interpret lumbar puncture data, explain likely diagnosis, communicate findings, and outline management plan to the father

1. Introduction & Rapport

"Hello, I'm one of the doctors here in A&E. I understand that your son was brought in today after a very frightening episode. I can only imagine how frightening this must have been for you. Seeing your son have a seizure is terrifying, and I want you to know he's in safe hands now. I'd like to ask a few questions to better understand what happened, and then I'll explain what we know so far and the plan going forward. Is that alright with you?"

2. History from the Father

A. Before the Seizures

- "Can you take me through what happened earlier today?"
- "Was your son unwell at all before this episode? Fever, tiredness, runny nose, muscle aches, or headaches?"
- "Did he behave strangely or seem confused before the seizure? Was he speaking oddly, seeing or hearing things that weren't there, or seemed dazed?"
- "Has he had any recent infections, such as colds, flu, or swollen glands?"

B. Description of the Seizures

- "What did the seizure look like? Was it shaking all over (generalised), or limited to one area?"
- "How long did the episode last?"
- "Was there any tongue biting, frothing, or loss of bladder/bowel control?"
- "Did he fall or injure himself?"

C. After the Seizure

- "How was he after the fit? Did he seem confused or sleepy? Did he vomit or have difficulty speaking?"

D. Encephalitis-Specific Questions

- "Has he had trouble speaking or appeared drowsy since the seizure?"
- "Any difficulty moving his eyes or using one side of the body?"
- "Has his personality seemed different lately? Any sudden changes in mood or behaviour?"

E. Meningitis-Specific Questions

- "Has he been sensitive to light? Any neck pain or stiffness?"
- "Any difficulty moving his limbs or sitting up?"

F. Screening for Risks (PMAFTOSA)

- "Any past medical conditions or previous seizures?"
- "Is he on any regular medications or supplements?"
- "Any allergies to medications or anything else?"
- "Any family history of seizures, epilepsy, or brain infections?"
- "Has he travelled anywhere recently, even within the country?"
- "Is he in school? Any contact with unwell classmates?"
- "Has he been exposed to anyone with rashes or flu-like illness?"

- "Do you know if he's ever experimented with recreational drugs? I know it can be a sensitive topic."

3. Examination Summary (based on station data)

- Temperature: 38.1°C (febrile)
- HR: Raised
- GCS: 13 (confused, drowsy)
- Lymphadenopathy noted
- Rash: Present (if provided)
- CT Brain: Normal
- Lumbar Puncture: Elevated lymphocytes (Encephalitis) OR Elevated neutrophils/polymorphs (Meningitis)

4. Explaining the Findings to the Father

"Thank you for explaining all that. I now want to share what we've found so far."

General Summary

- "Your son had a high temperature and has been quite drowsy and confused since the seizure."
- "We did a brain scan (CT), which was normal – that means there is no swelling or bleeding."
- "We also did a test called a lumbar puncture. This involves taking a small amount of fluid from around the spine to check for infection."

CSF Interpretation

- **Encephalitis:** "The fluid showed a high number of white blood cells called lymphocytes. That pattern usually suggests a viral infection, and when it affects the brain tissue itself, we call it encephalitis."
- **Meningitis:** "The fluid showed a high number of white blood cells called neutrophils, which is more common in bacterial infections of the brain's outer lining, called meningitis."

5. Diagnosis and Explanation

Encephalitis "Encephalitis means there is inflammation in the brain itself, typically caused by a viral infection. It can affect behaviour, speech, memory, and coordination."

Meningitis "Meningitis is an infection of the protective lining around the brain - imagine it like cling film wrapped around the brain that's become infected and inflamed. It is usually bacterial and can progress very quickly without treatment."

Both conditions are serious but treatable when caught early.

6. Management Plan

"We are acting quickly to treat him and support his recovery. Here's what we are doing:"

1. Admission "He is being admitted to hospital so we can monitor him closely. We will also involve the neurology specialist."

2. Isolation "He will be in isolation to avoid potential spread of infection to others."

3. Medications

For Encephalitis: "We will start an antiviral drip called aciclovir (10mg/kg every 8 hours). He will need this for 14–21 days, depending on his response and repeat testing."

For Meningitis: "We will start him on strong IV antibiotics - **ceftriaxone** is our first-line treatment - to target the bacteria. Antibiotics **MUST** be given within 1 hour of arrival at hospital for suspected bacterial meningitis. Every minute counts."

[Note for candidates: In this emergency, aciclovir/ceftriaxone would typically be initiated by seniors or with senior approval. FY2 role: recognise the emergency, stabilise, order investigations, escalate to seniors/ID team.]

4. Supportive Care "He will receive:

- Paracetamol for fever
- Pain relief if needed, even morphine for severe discomfort
- A steroid medication called dexamethasone to reduce inflammation
- Fluids and nutrition support"

[Note for candidates: Dexamethasone is given for bacterial meningitis in patients >3 months, with or just before the first antibiotic dose. Steroids are NOT routinely given for meningococcal disease alone (NICE NG240).]

5. Monitoring "We are monitoring his brain function, heart rate, oxygen, and any neurological changes continuously."

7. Addressing Father's Questions**If Encephalitis:**

"Could there be long-term problems?"

"Yes, unfortunately, some children may have speech issues, memory problems, or weakness depending on how much inflammation there is. But some recover fully. We'll do everything we can to minimise long-term effects."

"Can this be prevented in the future?"

"There is no specific vaccine for this virus, but routine childhood vaccinations help prevent other causes of encephalitis like measles or mumps."

If Meningitis:

"Am I at risk? Should I do anything?"

"Close family members like yourself may be offered a single dose of an antibiotic - usually ciprofloxacin (500mg single dose) or rifampicin (600mg twice daily for 2 days) - to reduce any chance of infection. Public Health will arrange this."

8. Closure and Safety Netting

"Do you have any questions or worries I haven't answered?"

Recap:

- "We believe your son has a brain infection. We've started treatment urgently."
- "He is in isolation and under constant monitoring."
- "We will update you as his condition changes."
- "If at any point you feel unsure, please let the staff know. We want to support you through this."

Student Notes / Diagnostic Summary

- **Likely Diagnosis:** Encephalitis (lymphocytosis in CSF) OR Meningitis (neutrophilic CSF)
- **Red Flags:** Seizures, altered mental status, fever, abnormal CSF
- **Immediate Actions:** Admit, isolate, start antivirals or antibiotics, monitor neurovitals
- **Explanation Focus:** Simple terminology, gentle tone, build trust with father

Important Do's and Don'ts for PLAB 2

- DO interpret findings, don't read raw numbers
- DO explain LP and CT clearly and simply
- DO explore encephalitis vs meningitis red flags thoroughly
- DO acknowledge parental concern with calm empathy
- DON'T mention prognosis with certainty
- DON'T use medical jargon or abbreviations
- DON'T repeat tests

- DON'T suggest GP referral – this is a hospital-managed emergency

Clinical Update Note: Per NICE NG240 (March 2024), **ceftriaxone** is now the preferred empirical antibiotic for bacterial meningitis, replacing benzylpenicillin as first-line. Pre-hospital antibiotics are no longer routinely recommended unless significant delay in transfer.

Epilepsy Follow-Up Consultations

Scenario 1 – Routine Follow-up

Setting: Neurology Outpatient Clinic

Role: FY2 Doctor

Patient: Young Adult Student | Recently Diagnosed Epilepsy

Task: Review follow-up, identify issues with treatment, explain the condition and lifestyle adjustments, and counsel on safety and compliance

1. Introduction & Context

"Hello, I'm one of the doctors here in the neurology clinic. I understand you're here for a follow-up review following a recent diagnosis. I also understand that you were diagnosed with epilepsy not long ago. I'd like to check how you've been doing and go over your treatment and any concerns you might have. Is that alright with you?"

2. Clarify the History

"Before we go further, can I ask what you were told about your condition so far?"

"I know I have epilepsy."

"Could you tell me what happened that led to the diagnosis?"

"I had fits six weeks ago, went to hospital and was diagnosed with epilepsy."

"Has anyone explained what epilepsy actually is?"

If no: "Epilepsy is a condition where certain brain cells occasionally become overactive and fire off electrical signals all at once - like a power surge. When that happens, it causes a seizure. When the exact cause isn't identified, we call this 'idiopathic epilepsy', which is the type you've been diagnosed with."

"Is that explanation clear so far?"

3. Medication History

"You were started on a medication – do you know the name of it?"

"Sodium valproate"

"Have you been taking it regularly?"

"Yes, I take it every day."

"How many times a day do you take it?"

"Only once in the morning."

"Did anyone explain to you how many times you were supposed to take it?"

"Yes, but I didn't understand."

"I'm really sorry to hear that – we'll go through it together now."

4. Symptom Review: Post-Treatment Control

"Since starting the medication, have you had any more seizures or fits?"

"Yes, I still get them."

"I'm sorry to hear that. Can I ask:

- How often are you having fits now?

- Are they the same as before, or milder or worse?
- What were you doing when you had these episodes?
- What happens afterwards – do you feel confused, tired?"

"If I get a fit, I take the medication and then I feel better."

5. Complication Screen

"During any of the fits, have you had injuries? For example:

- Head injury?
- Bleeding from the ears?
- Tongue or lip biting?
- Broken bones or sprains?"

6. Side Effects Screening (Sodium Valproate)

"Have you noticed any new symptoms since starting the medication? For example:

- Hair thinning or loss?
- Weight gain?
- Tremors?
- Nausea or upset stomach?
- Changes in mood or sleep?"

(If not volunteered, explain key side effects later.)

IMPORTANT SAFETY INFORMATION - MHRA 2024 UPDATE:

"You're taking a medication called sodium valproate. There's some important safety information I need to discuss with you. Recent research has shown this medication may affect male fertility - it can reduce sperm count or quality. There's also a possible small increased risk that if you father a child while taking this medication, the child could have a developmental disorder."

"As a precaution, we recommend that you and your partner both use effective contraception - that means condoms plus another form of contraception - while you're taking valproate and for at least 3 months after stopping it. If you're planning to start a family, please let us know so we can discuss alternative treatment options with the neurology team."

"You should also not donate sperm while on this medication or for 3 months after stopping."

[Note for candidates: MHRA September 2024 guidance for MALE patients on valproate:

Counsel about male fertility risk (reduced sperm count/motility)

Counsel about possible small increased risk of neurodevelopmental disorders in offspring

Recommend effective contraception (condoms + partner contraception) during treatment and for 3 months after stopping

If planning a family, refer to specialist for alternative treatment options

Advise not to donate sperm during treatment and for 3 months after

Two-specialist rule applies to men STARTING valproate under 55 (per Jan 2024 regulations)

Feb 2025 update: Two-specialist review NOT required for men already on valproate

Risk Acknowledgement Form for males exists (separate from female ARAF/PPP)]

7. MAFTOSA – Functional and Lifestyle History

M – Medical History: Already covered under epilepsy diagnosis.

A – Alcohol: "Do you drink alcohol?"

"Yes."

F – Functional & Social: "Who do you live with? What do you do currently?"

"I live alone in the university campus. I'm studying computer science."

"Do you feel safe managing things day to day on your own?"

T – Triggers:

- "Do you attend clubs, musical events, or anywhere with flashing lights?"
- "Do you sleep regularly? Do you get enough rest each night?"
- "Do you eat at regular times?"
- "Do you spend long hours on the computer or screen?"

O – Occupation / Activities: "Are you involved in any extreme sports or dangerous activities like rock climbing, bungee jumping, or swimming alone?"

"Planning a trip to Kenya for mountain climbing."

S – Safety (Driving): "Do you drive or are you learning to drive?"

"Yes, learning."

8. Explanation of Issues and Management

"Let me explain why you might still be getting fits. According to your records, you were prescribed sodium valproate to be taken twice a day. At the moment, you're only taking it once a day, which likely means your medication levels drop below the protective range. That can leave your brain vulnerable to seizures."

"You need a steady level of medication in your body all day. So, we'll now ensure you start taking 600 mg twice a day, morning and evening."

9. Trigger and Lifestyle Management

"There are some known triggers that can bring on seizures, including:

- Alcohol
- Flashing lights
- Irregular sleep or skipped meals
- Long hours of screen time

Since you study computer science and use screens regularly, take a break every 30 minutes, close your eyes briefly, and consider using a matte screen protector. If possible, try to print out notes to reduce screen exposure."

"Many people find it helpful to link taking their medication to something they already do every day - like having breakfast or brushing their teeth. Would a pill organiser or phone reminder help?"

10. Safety and Restrictions

Extreme Activities: "Because seizures can be unpredictable, we advise avoiding extreme sports for now - especially things like mountain climbing. We'd recommend postponing your Kenya trip until you've been stable for 12 months."

Driving: "Regarding driving: legally, you must be seizure-free for **12 months** before you can drive. That means you'll need to stop driving lessons for now and inform the DVLA. Once you've been seizure-free for that period, you can reapply for your licence."

11. Medication Side Effects

"Sodium valproate can occasionally cause:

- Hair thinning
- Weight gain
- Tremors
- Nausea
- Rarely, mood changes or liver issues

If you notice anything concerning, please let us know early so we can review it."

12. Final Summary and Safety Netting

"If any fits happen again or you feel unsafe, contact us or attend A&E immediately."

"Do you have any other questions or anything you'd like me to explain again?"

Address concerns and thank the patient for their honesty and effort to improve.

Scenario 2 – Non-Compliant Patient

Brief Note: In contrast to the first case, this version involves a young male patient who is not taking his sodium valproate at all and continues to have seizures. He appears to prioritise his social lifestyle, mentioning frequent partying and spending time with his girlfriend. His attitude towards treatment is more casual, and he lacks insight into the seriousness of his condition.

This case differs in that:

- The core issue is complete non-compliance, not misunderstanding.
 - There is no misunderstanding about dosage - he knowingly chooses not to take the medication.
 - Lifestyle choices are more prominent as contributing factors (alcohol, sleep disruption, stimulation).
 - Communication focus shifts toward explaining risks of non-compliance, reinforcing urgency, and motivating behaviour change through collaborative discussion and risk framing.
-

Scenario 3: Seizure Relapse due to Missed Medication

Setting: GP Surgery

Role: FY2 Doctor

Patient: Young Adult Male | Works at Heights, Holds Driving Licence

Context: Diagnosed with epilepsy 6 years ago, currently on sodium valproate. Has been fit-free for 2 years but recently missed doses and had a seizure. Works as a scaffolder (at height) and drives.

1. Introduction & Consent

"Hello, I'm one of the doctors here at the surgery. I understand you're here today for your annual epilepsy review. Thanks for coming in. Is it okay if we go through how you've been doing with your epilepsy and any concerns you might have?"

2. Focused History & Context

Confirm timeline and stability

- "Just to check, how has your epilepsy been over the last year or so?"

"I've been doing fine, no seizures until recently."

Medication compliance

- "Are you still taking sodium valproate?"
- "Have you been taking it every day without missing any doses?"

"I've been busy the last couple of weeks and forgot a few doses."

Recent seizure details

- "I see. Can I ask when exactly did the seizure happen?"
- "Can you describe what happened? Was it similar to your previous fits?"
- "Were you injured during the episode?"
- "Did you go to the hospital afterwards?"

3. Explore ICE (Ideas, Concerns, Expectations)

- "What do you think may have triggered the recent fit?"
- "Is there anything in particular you're worried about after this episode?"
- "Is there something you were hoping to discuss or get advice on today?"

4. Medication Review

- "Let's go over your current prescription. What dose of sodium valproate are you on?"
- "Do you remember if it's once or twice a day?"
- "Have you experienced any side effects since you started it?"

Ask about: hair loss, weight gain, tremor, nausea, mood changes.

5. PMAFTOSA Screening

P – Past History

- Confirm epilepsy duration: "You were diagnosed 6 years ago, is that right?"
- "Any history of other medical conditions?"

M – Medications

- Confirm sodium valproate, dose, compliance

A – Allergies

- "Do you have any allergies?"

F – Family History

- "Any family members with epilepsy or similar conditions?"

T – Travel/Triggers

- "Have you travelled recently or had any infections or stress that might have affected your sleep?"
- "Do you drink alcohol or use any recreational substances?"

O – Occupation

- "What do you do for work?" "Scaffolding – so working at heights?"

S – Social History

- "Do you live alone or with others?"
- "Do you drive?"

Confirm that patient has a full licence and is currently driving.

6. Examination

This is a history-based follow-up. If required, perform or summarise:

- General observations: stable
- Neurological examination: normal
- Blood pressure, weight check (if part of review)

7. Diagnosis Summary

"Thanks for explaining everything. Based on what you've told me, it seems like your recent seizure was most likely due to missed doses of your medication. Sodium valproate needs to be taken consistently to work properly. If the level drops in your body, you become vulnerable to seizures again."

8. Lay Explanation of Risks

- "The problem is, even though you were seizure-free for a while, missing doses for just a few days can be enough to lower the protection from the medication."
- "When that happens, the brain can become overactive again and cause seizures."

[Note for candidates: For male patients on valproate - counsel about MHRA 2024 guidance: male fertility risk, possible small increased risk to offspring, recommend contraception (condoms + partner contraception) during treatment and 3 months after. If planning a family, refer for specialist review of alternatives.]

9. Management Plan

A. Medication

- "I'd strongly recommend restarting your sodium valproate regularly, twice daily as prescribed."
- "We can also arrange a repeat prescription or review your dose if needed."

B. Driving

- "Because you've had a seizure, the law requires you to stop driving immediately, even if you feel well now."
- "You'll need to inform the DVLA and remain seizure-free for **12 months** before reapplying for your licence."

C. Work Restrictions

- "Your job involves working at heights, which puts you at serious risk if you have another seizure. Even a minor episode could lead to a fall and serious injury."
- "Until you're stable and reviewed by a specialist, I'd advise you not to return to work involving heights."
- "If needed, I can provide a letter for your employer or refer you to occupational health."

D. Neurology Referral

- "I'll also refer you back to the neurologist for a review of your current treatment and stability."

E. Lifestyle Advice

- "Try to maintain a regular sleep schedule, avoid alcohol, and minimise stress where possible. These can also trigger seizures."
- "Many people find it helpful to link taking their medication to something they already do every day - like having breakfast or brushing their teeth. Would a pill organiser or phone reminder help?"

10. Safety Netting

- "If you have another seizure, get urgent help. If it lasts longer than 5 minutes, or you're injured, call 999 or go to A&E."
- "Let us know if you feel unwell, miss doses again, or notice any medication side effects."

11. Follow-Up Plan

- Refer to neurology
- Offer DVLA support letter
- Book GP follow-up in 4-6 weeks
- Offer occupational health referral

12. Closing

"Do you have any other questions or anything you'd like me to go over again?"

Thank the patient, reinforce support, and document the full discussion clearly.

Epilepsy – Paediatric Discharge

Setting: Neurology Inpatient Ward

Role: FY2 Doctor

Task: Discharge Discussion – Adolescent Female with New Epilepsy Diagnosis, Speaking with Parent

1. Introduction & Rapport

"Hello, I'm one of the doctors from the neurology team. I've been asked to speak with you today before we discharge your daughter. I'll go through everything that's happened, explain what this means, and answer any concerns you might have. Would that be alright?"

2. Clarify History & Parent Understanding

"Before I explain everything, could I ask - what was it that brought her in to the hospital three days ago?"
Let the mother describe the episode.

Explore relevant details if not volunteered:

- Was this her first ever fit?
- Did it involve the full body or one part?
- How long did it last?
- Was there tongue-biting, incontinence, or injury?
- Was there any warning beforehand?
- What was she like afterwards - tired, confused, vomiting?

"Has anything like this happened before?"

"What had she been doing just before it started - was she unwell, tired, watching TV, or on any gadgets?"

3. Medical & Social Background

"Does she have any ongoing medical problems or take any other medications?"

"Any known allergies?"

"Do any family members have epilepsy or a similar condition?"

"What school does she go to? What does she enjoy doing in her free time - any hobbies like swimming, dancing, gaming, or outdoor sports?"

"How is her sleep and eating pattern generally?"

"Any recent illnesses, fever, or infections?"

4. Summarise What Happened In Hospital

"Thank you for sharing all that. Let me now summarise what happened in hospital:"

"Your daughter had a generalised tonic-clonic seizure, meaning she lost consciousness and had full-body shaking. We admitted her for observation and did a series of tests."

"We also performed an EEG - a test that looks at brain electrical activity - and it showed abnormal signals consistent with a condition called epilepsy."

5. Explain the Diagnosis in Simple Terms

"Epilepsy is a condition where the brain occasionally sends out abnormal electrical activity. When this happens, it can cause sudden events like fits or seizures."

"Epilepsy in children is not uncommon and, in most cases, it can be well controlled with daily medication. With the right treatment and precautions, your daughter can live a completely normal life - going to school, having fun, and doing most things other children do."

6. Check Understanding and Medication Recap

"Has someone already explained the medication she's been started on?"

If yes: "That's great. Do you feel comfortable with the dosage and when to give it?"

If no or unsure: Briefly explain again.

"This medication helps reduce the abnormal signals in the brain and prevent seizures from happening again. It's important that it's taken regularly every day, even if she feels completely well. Additionally, as a precaution, we recommend all girls and women who could potentially become pregnant take high-dose folic acid - 5mg daily (requires prescription, NOT the 400mcg OTC dose). This helps reduce certain risks."

[Note for candidates: If the medication is valproate and patient is female - CRITICAL MHRA 2024

WARNING: Valproate must NOT be used in females of childbearing potential unless enrolled in the Pregnancy Prevention Programme, due to serious risks of birth defects and developmental problems. Even in young girls, this conversation must happen early. Discuss alternative medications with the neurology team if appropriate.]

What to say to the parent: "If your daughter has been started on sodium valproate, there's something important I need to mention for the future. This medication carries significant risks if taken during pregnancy - it can cause birth defects and developmental problems in babies. While this isn't an immediate concern right now, as she grows up, we'll need to have ongoing discussions about this. The neurology team will review her medication regularly, and as she gets older, we may consider switching to alternative medications. PPP/ARAF will be required as patient approaches reproductive age. It's just important you're aware of this from the start."

7. Address Parental Concerns (Mother-Initiated Questions)

"Can she dance?"

"Yes, she can continue dancing. Just be careful to avoid situations with flashing lights or risky dance settings like on elevated platforms or stages where she could fall."

"Can she swim?"

"Swimming is fine, but it must always be supervised. Please inform the lifeguards so they're aware of her condition. Never allow her to swim alone."

"Do I need to go with her everywhere?"

"Not at all. She can and should have independence as much as possible. Just make sure any adult supervising her - teachers, coaches, family friends - are informed about her epilepsy and what to do if she has a fit."

"Will her siblings get this too?"

"The majority of cases are isolated, but there is a small chance that siblings may have a similar condition. It's not very common, but we'll keep an eye if anything ever seems unusual."

"What should I do if she has another fit?"

"That's an excellent question. Here's what to do:

- Make sure she's in a safe area, away from stairs or sharp objects.
- Lay her on her side, and place something soft under her head.
- Do not restrain her, and do not put anything in her mouth.
- If the seizure lasts more than 5 minutes - time it on your phone - call 999 immediately. Also call if she has trouble breathing, injures herself, or doesn't start to recover within 10 minutes of it stopping.
- Afterwards, let her rest. Try to think if there was a trigger like tiredness, missed medication, or flashing lights."

8. Practical Home & School Advice

- Give medication at the same time each day - use a reminder system if needed.
- Let her teachers and school nurse know she has epilepsy and how to respond.
- Avoid long screen time, tiredness, dehydration, and flickering lights when possible.
- Keep a seizure diary to track any patterns or triggers.

9. Safety Advice

- No baths unattended - always shower instead.
- Avoid cycling on roads unsupervised until stable on medication.
- Avoid high-risk sports (climbing, gymnastics) without medical clearance.
- No solo swimming or diving.

10. Follow-Up Plan

- You'll get an appointment in the paediatric neurology outpatient clinic in the next few weeks.
- If there are any problems in the meantime - more seizures, trouble taking the medication, or side effects - please contact your GP or come back to hospital.

11. Safety Netting

"If she has another seizure that's prolonged, if her behaviour changes, or if you're ever unsure - don't hesitate to call us or come back to hospital. You're never wasting our time. It's always better to check - that's what we're here for."

12. Final Check & Closing

"Do you have any other concerns you'd like to talk about? Anything else you'd like me to explain or go over again?"

Reassure, thank the mother, and offer leaflets if available.

Epilepsy in Pregnancy Counselling

Setting: Primary Care (Telephone)

Patient: Adult female with epilepsy

Presenting concern: Pre-conception counselling regarding anti-seizure medication

C - Clarify the Concern

Introduction

"Hello, am I speaking to Ms X?"

"This is Dr ____, one of the GPs. I'm calling for our scheduled consultation. Can I confirm it's a good time to talk and that you're in a private place where you feel comfortable discussing health matters?"

"Before we begin, could you confirm your full name and age?"

"How can I help you today?"

Open questions to elicit agenda

"You mentioned you wanted to discuss your epilepsy tablets - can you tell me more about what's on your mind?"

"What are your current thoughts about pregnancy and your health?"

"Is there something about your medication that worries you?"

(Planning pregnancy, currently on valproate, and feels strongly about staying on it)

A - Assess the Relevant Background

Epilepsy history

"When were you diagnosed with epilepsy?"

"What type of seizures do you have?"

"When was your last seizure?"

"Before starting this medication, how frequent were your seizures?"

"Do you experience any auras or warning signs?"

"Have you ever needed hospitalisation for seizures, or had injuries during one?"

Medication history

"What dose of sodium valproate are you taking, and how regularly?"

"Any side effects that you notice?"

"Have you ever tried other anti-seizure medicines - lamotrigine, levetiracetam, carbamazepine?"

"How did you find those - did they control your seizures or cause problems?"

Pregnancy / contraception

"Are you pregnant now, or is there a chance you could be?"

"When are you planning to try for pregnancy?"

"Are you currently using contraception? If so, what type?"

"Any past pregnancies, miscarriages, or children?"

Safety & social

"Do you drive currently, and are you aware of DVLA guidance if seizures occur?"

"Do you live with a partner or family who can support you if seizures happen?"

"What do you do for work - anything involving machinery, heights, or driving?"

ICE

Ideas: "What do you understand about valproate and pregnancy?"

Concerns: "What worries you most - risk of seizures, or risk to the baby?"

Expectations: "What outcome would feel best for you right now?"

R - Reassure & Explain

Start empathetically

"I can see that being seizure-free is very important to you, and I want to support both your health and a safe pregnancy."

Explain the facts

"Valproate is very effective for seizures, but in pregnancy it carries serious risks:

About **1 in 10 babies** exposed will have a major birth defect such as spina bifida, heart, or facial problems.

About **3 to 4 in 10 children** will have lasting developmental difficulties, such as delayed speech, learning disability, or autism."

"These risks are much higher than with other anti-seizure medicines."

"Other medicines - **lamotrigine and levetiracetam** - are considered much safer in pregnancy and are usually the first choice for women planning pregnancy."

"Stopping valproate suddenly on your own is dangerous - it can cause seizures or status epilepticus, which is life-threatening for you and a baby."

"The priority is keeping you safe, keeping you seizure-free, and giving your baby the best chance."

"I appreciate this news can be very upsetting to hear, especially when you've found a treatment that works so well for you. How are you feeling about all of this?"

Reassure

"You won't be left without medication. If we change, it would be done gradually and carefully under a neurologist."

"Many women are successfully switched and have safe pregnancies with specialist guidance."

E - Engage in Shared Plan (Management)

Immediate steps

Check pregnancy status now - urine hCG if any chance.

Start folic acid 5 mg daily before conception and continue through early pregnancy.

Do not stop or change valproate abruptly.

Specialist involvement

Urgent referral to neurology for pre-conception counselling and safe medication plan.
"This is something that needs a neurologist's input - they can guide a safe switch if possible."

Pregnancy Prevention Programme (PPP)

Explain requirements:

- Must be in PPP to continue valproate.
- Must sign an **Annual Risk Acknowledgement Form**.
- Must use **highly effective contraception** until specialist plan made.
- Must carry **valproate alert card**.

MHRA update:

- For NEW patients (initiation):** No patient under 55 can be **started** on valproate unless **two specialists independently consider and document** that there is no other effective or tolerated treatment.
- For EXISTING female patients:** At the **first** annual review after January 2024, two specialists must sign off if she is to continue. **Subsequent annual reviews** require only **one specialist** unless her situation changes.
- For EXISTING male patients (February 2025 update):** Two-specialist review is **not** required for men already taking valproate, though reproductive risk counselling still applies.
This applies to both males and females (male fertility concerns also identified).

If she refuses change / referral

- Respect autonomy but:
 - Clearly re-state quantified risks.
 - Document that she understands and refuses.
 - Ensure PPP is in place with contraception and annual form.
 - Provide written patient leaflet (Epilepsy Society / NHS valproate guidance).
 - Arrange follow-up in 2-4 weeks.

If pregnancy occurs while on valproate

- Do not stop tablets.
- Urgent referral to neurology and obstetric team.
- Early anomaly scans and close monitoring.

Lifestyle & safety

- Seizure safety (showers not baths, cook safely, avoid ladders/heights).
- Driving rules (DVLA notification if seizures recur).
- Support network and partner education.

Male partner advice

- If your partner is male and also on valproate, they should also discuss this with their specialist as there are emerging concerns about effects on male fertility.

Follow-up

- "If you have a partner and you feel it would be helpful, we could arrange a follow-up appointment for you both to speak with me or the neurologist. Sometimes it helps to have someone else hear the information and support you."

Safety Netting

- "If you think you might be pregnant, call us the same day - don't wait."

"If you have a seizure lasting longer than 5 minutes, or repeated without recovery, call 999."
Provide leaflets and helpline contacts.
Book follow-up in 2–4 weeks.

Requesting Sodium Valproate Refill

Setting: Primary Care

Patient: Middle-aged Woman

Presenting Complaint: Request for repeat prescription of anti-epileptic medication

Epilepsy - stable, on long-term sodium valproate

1. Introduction & Paraphrase

"Hello, I'm Dr [Name]. Nice to meet you. Could I confirm your full name and age?"

"Thanks for coming in today. I understand you've recently moved to the area - that can be quite a big change. Welcome to our practice."

→ "Yes."

"And this is your first time seeing us here at this practice?"

→ "Yes."

"You've come today for a repeat prescription of sodium valproate - is that correct?"

"Before I arrange that, I'd like to do a quick review to make sure everything's up to date and you're getting the best care - is that okay?"

2. Check & Explain (Understanding of Condition)

Ask:

"Can I check what you understand about your condition?"

→ "I have epilepsy."

"Has anyone explained to you why that happens or how the treatment works?"

→ "Not really."

Brief Lay Explanation:

"Epilepsy is a condition where electrical signals in the brain sometimes misfire, leading to seizures.

Sodium valproate works by calming that activity to prevent seizures. It doesn't cure epilepsy but helps reduce the risk of attacks."

"Let me know if you'd like more detail, or I'm happy to keep it brief."

"Does that explanation make sense to you?"

3. Treatment Review

Ask:

"What dose of sodium valproate are you taking?"

→ [Patient responds accurately]

"How often do you take it?"

→ "Twice a day."

"Are you taking it regularly without missing doses?"

→ "Yes."

"Have you experienced any side effects from it - things like tiredness, hair loss, weight changes, or tremors?"

→ "No."

"When was your last seizure?"

→ "About 18 months ago."

"Do you know why that one happened?"

→ "No."

"When was your last specialist review?"

→ "A few months ago."

"Do you have any letters or reports from your previous GP or neurologist?"

→ "No, not yet."

4. Symptom-Related Check

Ask:

"Have you had any warning signs or unusual sensations recently?"

→ "No."

"Any falls, tongue biting, or confusion episodes?"

→ "No."

"Any seizures during sleep that you're aware of?"

→ "No."

"Any new or unusual symptoms since then?"

→ "No."

5. MAFTOSA & ICE

M - Other health issues: None reported

A - Allergies: None

F - Family history: Not discussed unless patient volunteers

T - Travel: Not recent

O - Occupation: "May I ask what kind of work you do?" (To assess safety risk)

S - Social: "Do you live alone or with family?"

A - Alcohol/smoking: "Do you drink alcohol or smoke?"

Ideas: "I have epilepsy" - no deeper understanding

Concerns: "No"

Expectations: "Just need a refill"

6. Management

A. Prescription - ARAF/PPP REQUIREMENTS

CRITICAL: Under the Valproate Pregnancy Prevention Programme (PPP), a GP cannot authorise a standard repeat prescription for women of childbearing potential if the Annual Risk Acknowledgement Form (ARAF) is expired or missing. The ARAF requires specialist signatures - the GP cannot sign this alone.

If ARAF is valid and available:

Safe to re-prescribe sodium valproate:

Long history of epilepsy

Seizure-free for 18 months

No adverse effects

Good adherence

If ARAF is missing, expired, or patient is new to practice:

Issue **emergency supply only** (14–28 days maximum) to prevent withdrawal seizures

Generate **urgent referral to Neurology** for PPP review and ARAF completion
Do NOT give the impression that GP can simply "take over" care without this paperwork
Document clearly: "Emergency supply pending specialist PPP review"
Request records from previous GP/neurologist urgently

B. Blood Monitoring

Arrange:

FBC - risk of bone marrow suppression

LFTs - risk of hepatotoxicity (check before starting AND during first 6 months, then annually)

U&Es - baseline renal function

These are recommended **annually**

Check if any previous bloods done - repeat if uncertain

C. Reproductive Safety - CRITICAL UPDATE (MHRA 2024-2025)

Two-Specialist Rule (Initiation under 55): Since January 2024, valproate must NOT be started in ANY new patient - male OR female - under 55 years old, unless TWO specialists independently agree and document there is no other effective or tolerated treatment.

Continuation Rules (February 2025 MHRA Clarification):

Women of childbearing potential: First annual review after the new measures requires two specialists to sign off continuation. Subsequent annual reviews require only ONE specialist (with ARAF completion).

Men already taking valproate: Two-specialist review is NOT required for continuation (CHM advice, February 2025). However, they should be asked at each review if they are planning a family within the next year, and if so, referred to a specialist to discuss treatment options.

Ask:

"Can I check - are you currently using contraception?"

"Is there any chance of pregnancy now or in future?"

If at risk:

Explain clearly:

"There's something really important I need to discuss with you. Valproate, while effective for epilepsy, can cause serious problems for an unborn baby if taken during pregnancy. I know this might be a lot to hear, but it's really important that you have all the information."

"It's part of something called the Pregnancy Prevention Programme."

"We can refer you to a neurologist to review your options, or if you're happy with the medication, we can discuss contraception here."

Specify that "highly effective contraception" means LARC (implant, IUS, IUD) or sterilisation - not just "reliable contraception"

Folic Acid - IMPORTANT:

All women on valproate who could become pregnant should take HIGH-DOSE folic acid 5mg daily (prescription required - NOT the 400mcg OTC dose)

This should be prescribed preconceptionally and continued through first trimester

5mg dose is specifically recommended for women on AEDs due to increased neural tube defect risk

Asking About Contraception (IPS tip): Rather than asking "Are you using contraception?" use a softer, regulatory-framed approach:

"Because of the strict safety rules regarding this medication and pregnancy, I need to document exactly what form of contraception you are using today. Could you tell me about that?" This frames it as a requirement rather than an intrusion.

Actions:

Provide latest MHRA Valproate Patient Guide

Document reproductive discussion in notes

Refer for medication review or contraception advice if appropriate

D. Male Fertility Risks (September 2024)

"Men taking valproate should be informed that some research suggests potential risks to children conceived while fathers are taking valproate. Effective contraception (condoms plus partner contraception) is recommended throughout treatment and for 3 months after stopping."

Key question at review: "Are you planning to father a child within the next year?" If yes → refer to specialist to discuss treatment options.

E. Bone Health Advice

"Valproate is associated with decreased bone mineral density. Recommend vitamin D supplementation and discuss bone health, particularly in patients with risk factors for osteoporosis."

F. Neurology Communication

Request records from previous GP and/or neurologist

If no recent review → offer referral

Inform patient: "We'll contact your old surgery to get your previous notes and ensure everything is consistent."

G. Education & DVLA Guidance

Driving:

"You can drive if you've been seizure-free for 12 months. If you have another seizure, you must stop driving and inform the DVLA."

Seizure First Aid:

"If you or someone sees you having a seizure, they should time it, protect you from injury, and call 999 if it lasts over 5 minutes or happens again before recovery."

Written Resources:

Epilepsy Society leaflet

Latest MHRA Valproate and Pregnancy leaflet

7. Safety Netting

"If you have another seizure, experience any side effects, or have trouble taking your medication - please let us know immediately."

"If you notice any mood changes, confusion, or feel unwell, book in as soon as possible."

"If there's any chance you might become pregnant, or if you're planning a family in the future, please contact us before stopping anything - we'll work together to find the safest option for you."

8. Follow-Up Plan

Book follow-up appointment in **4–6 weeks** to review test results and records

Repeat blood tests annually

Schedule routine **epilepsy review** (every 6–12 months)

Refer to neurology if no recent review

Refer for **contraception** or **medication counselling** if applicable

9. Offer Leaflets & Final Check

Provide:

Epilepsy leaflet, Latest MHRA Valproate Pregnancy Prevention leaflet

"Is there anything you'd like me to clarify?"

"Do you feel comfortable with the plan we've made today?"

First Fits/Seizure

Setting: GP Consultation

Role: FY2 Doctor

Patient: Middle-Aged Adult Male

Presenting Complaint: First Witnessed Seizure

Task: Full history, examination, differentials, explanation, and referral

1. Introduction & Consent

"Hello, I'm one of the doctors here at the surgery. I understand you've come in today after something that happened yesterday - I'd like to ask some questions to understand the event better and then we'll talk through next steps. Would that be alright?"

2. Presenting Complaint: Fit History – Before, During, After

BEFORE the fit:

- "Can you remember how you were feeling before it happened?"
- "Were you sitting, standing, or lying down?"
- "Any recent illnesses - fever, headache, flu-like symptoms?"
- "Did you feel dizzy, lightheaded, or experience any warning signs like flashing lights, visual changes, odd smells, or sensations before it started?"
- "Had you eaten and slept normally that day?"

DURING the event (witnessed by partner):

- "Has anyone told you what they saw when it happened?"
- "Did they say your body was stiff or shaking?"
- "Were your arms and legs jerking rhythmically?"
- "Did you bite your tongue, froth at the mouth, or wet yourself?"

AFTER the event:

- "What's the next thing you remember after it happened?"
- "Did you feel drowsy or confused?"
- "Any weakness in your limbs, trouble speaking, or blurred vision afterwards?"
- "How long did it take for you to feel like yourself again?"

3. Red Flag Screening & Differentials

- "Have you had any fever, rash, or neck stiffness recently?" (→ meningitis, encephalitis)
- "Any recent head injury, fall, or accident?" (→ trauma / bleed)
- "Any weakness, numbness, or visual changes?" (→ stroke, tumour)
- "Any confusion or memory issues?" (→ encephalopathy)
- "Any recent travel abroad?" (→ cerebral malaria, infections)
- "Do you have diabetes?" (→ hypo/hyperglycaemia)
- "Do you drink alcohol regularly or had any binge recently?" (→ withdrawal seizure)

4. PMAFTOSA – Risk Factor History

P – Past Medical History "Have you been diagnosed with any medical conditions - like high blood pressure, stroke, diabetes, or cancer?"

M – Medications "Are you currently taking any medications or supplements?"

A – Allergies "Do you have any allergies to medications?"

F – Family History "Any family history of seizures, stroke, or brain conditions like tumour or aneurysm?"

T – Travel "Have you travelled abroad recently, especially to areas with malaria or other infections?"

O – Occupation "What sort of work do you do? Does it involve machinery, working at heights, or driving?"

S – Social History "Do you drink alcohol? How much and how often?" "Do you use any recreational drugs?" "Do you live alone or with family?"

A – Additional Triggers "Have you been under a lot of stress lately?" "How has your sleep been? Any disruptions recently?"

5. ICE – Ideas, Concerns, Expectations

- "What do you think might have caused this?"
- "Is there anything you're particularly worried this could be?"
- "What were you hoping we could do for you today?"

6. Examination (Summary)

- Vitals: Stable
- General: Alert, oriented, no signs of head injury
- Neuro: Cranial nerves intact, normal motor and sensory tone, reflexes normal, gait steady
- No neck stiffness or rash

7. Provisional Diagnosis

"This sounds like your first seizure. While seizures can occur for many reasons, because this is your first ever episode and you're over 50, we want to do a brain scan to rule out anything serious. In most cases, we don't find anything worrying, but it's important to check."

8. Explanation

"A seizure is a sudden burst of abnormal electrical activity in the brain. That's what caused the shaking and loss of control. Seizures can be caused by many things - sometimes epilepsy, but also conditions like low blood sugar, infections, or - in a small number of cases - things like a brain tumour or old stroke damage. But please don't assume the worst - most people don't have anything like that, and we're checking to be safe."

"For some people, we never find a clear cause - but we always investigate properly to be sure."

9. Management Plan

A. Urgent Referral – First Fit Clinic "I'll refer you urgently to our First Seizure Clinic, where you'll see a neurologist within 2 weeks."

B. Investigations

- CT or MRI brain to rule out tumour, stroke, or structural changes
- Bloods today at the GP surgery:
 - Full blood count
 - U&Es (especially sodium)
 - Random glucose

- Liver and kidney function

C. Medications "We don't usually start long-term anti-seizure medication until we confirm the cause. This will be done by the specialist."

10. Safety & Lifestyle Advice

Until the cause is confirmed:

- **Do not drive** - "You must stop driving now and inform the DVLA. The standard rule is no driving for 6 months (12 months if risk factors) after a first unprovoked seizure."
- **Bathing** - "Please avoid baths - take showers with the bathroom door unlocked."
- **Avoid risky activities** - "No swimming alone, cycling without a helmet, or climbing."
- Avoid heights, machinery, or working alone in risky environments
- **Inform people around you** - "If you're at risk of another seizure, it's good to let those around you know how to help."
- Sleep well, avoid alcohol or drug triggers, reduce stress.

11. Safety Netting

"If you have another episode, please come back or go to A&E. If a seizure lasts more than 5 minutes, or if you don't recover fully, call 999."

"If you develop any new symptoms - such as headache, weakness, or confusion - let us know right away."

12. Follow-Up Plan & Final Check

"I'll send the urgent referral to neurology now. They'll get in touch with your appointment. Meanwhile, please get the bloods done today."

"Do you have any other questions or anything you'd like me to explain again?"

STUDENT NOTE: Diagnostic Approach

Why was "brain tumour" considered first?

- In patients over 50, a first seizure raises concern for a space-occupying lesion (e.g., tumour, metastasis), making urgent imaging essential.
- NICE guidance recommends urgent brain imaging in older patients presenting with first seizure.

Why no AED started yet?

- NICE CKS states that AEDs (anti-epileptic drugs) should not be started until after neurology review, unless there's recurrent seizures or status epilepticus.

What ruled out infection or metabolic causes?

- No fever, rash, or neck stiffness → meningitis/encephalitis unlikely
 - No travel history → malaria unlikely
 - Normal general health, no medication misuse → low suspicion for metabolic causes
-

Homonymous Hemianopia due to Post-Chiasmal Lesion

Setting: Primary Care

Patient: Older adult male

Presenting complaint: Unilateral visual field loss with functional impact

1. Introduction

"Hello, I'm Dr _____. I understand you've been having some difficulty seeing on one side of your vision. Before we begin, could I confirm your full name and age? Is it okay if I ask you some detailed questions to understand what's been happening?"

2. Focused History & Context

"Can you describe exactly what you've noticed about your vision?"

"How did you first realise something was wrong?"

"Was it sudden or gradual in onset?"

"Which side seems affected - or do you tend to bump into things on one side more than the other?"

"Do you ever completely lose sight on that side or does it just seem reduced?"

Character & Extent

"Do you see people or objects clearly when they're right in front of you?"

"Do you sometimes miss things coming from the side?"

"Is your reading affected - like missing the beginning or end of lines on a page?"

"Do you have any blurring, double vision, flashes, or curtain-like shadows?"

Associated Ocular Symptoms

"Any pain, redness, watering, or discharge from the eyes?"

"Any loss of colour vision or trouble seeing at night?"

Systemic / Neurological Screening

"Have you had any headaches, nausea, vomiting, or dizziness?"

"Any weakness, numbness, speech difficulty, or facial droop?"

"Any fits or episodes of loss of consciousness?"

"Any change in balance or coordination?"

"Have you had any head injury recently?"

"Any history of increasing shoe or ring size?" (screens for pituitary pathology)

Past Medical History

"Do you have high blood pressure, diabetes, or high cholesterol?"

"Any heart disease, stroke, or transient ischaemic attack in the past?"

"Any history of cancer or brain tumour?"

Medications & Allergies

"What medicines are you currently taking?"

"Any blood thinners or cholesterol tablets?"

"Any known allergies?"

Functional & Social Impact

"Do you drive or operate machinery?"

"Have you had any accidents or near misses because of this?"

"Does it make it hard to get around safely?"

"Do you smoke or drink alcohol?"

3. Explore ICE

Ideas: "What do you think might be causing this?"

Concerns: "Are you worried this might mean something serious or permanent?"

Expectations: "Were you hoping for any particular test or treatment today?"

4. Examination Findings

Visual acuity: Normal central vision

Colour vision: Intact

Pupils: Normal, no RAPD

Fundoscopy: Normal optic discs and retina

Visual field: Homonymous hemianopia (loss of one side in both eyes)

Cranial nerves & motor system: Normal

5. Result Disclosure

"From your examination and the visual field test, it looks like you've lost one half of your field of vision in both eyes. That's why you bump into things on that side. We call this a *homonymous hemianopia*."

6. Explanation of the Condition

"Your eyes and the nerves behind them are healthy, but the part of your brain that interprets what the eyes see - specifically the visual centre at the back of your brain - seems affected."

"Each side of your brain is responsible for processing what you see on the opposite side of the world. So if the right side of your brain is affected, you might miss things coming from the left - even though both your eyes are working perfectly."

"This kind of problem is most often due to a small stroke affecting the visual centre, but sometimes a mass or other pressure in that area can also cause it."

"You can still read and recognise faces because your central vision is supplied by a different area that's intact."

7. Management Plan

FY2 Role in Primary Care: Recognise suspected stroke, arrange urgent imaging/referral, advise on driving, and safety-net. The stroke pathway is **specialist-led** - do not independently initiate secondary prevention medications in primary care.

Immediate Steps (Same Day / Urgent Pathway)

Treat as a suspected stroke until proven otherwise.

Arrange urgent brain imaging (ideally **MRI brain with diffusion-weighted imaging**, or CT head if MRI unavailable) - within 24 hours, immediately if any acute neurological deficit.

Refer urgently to stroke/TIA services - they will manage imaging, diagnosis, and treatment.

Exclude haemorrhage BEFORE giving any antiplatelet therapy.

Stroke team management (for candidate knowledge - not FY2 independent decision in primary care):

If ischaemic stroke confirmed (haemorrhage excluded on imaging):

Aspirin 300 mg immediately AFTER imaging confirms no bleed.

CRITICAL: Do NOT give aspirin until CT/MRI has excluded intracerebral haemorrhage - aspirin in haemorrhagic stroke is harmful (NICE NG128).

Continue aspirin 300 mg daily for 14 days, then switch to clopidogrel 75 mg daily (first-line) for long-term secondary prevention.

These decisions are made by the **stroke team**, not FY2 in primary care.

Blood & vascular investigations (can be initiated by FY2 while arranging referral):

FBC, U&E, glucose/HbA1c, lipid profile.

ECG (to detect AF).

BP measurement.

Lifestyle & risk factor management:

Stop smoking, moderate alcohol, healthy diet, weight control.

Control hypertension, diabetes, and lipids (consider atorvastatin 20–80 mg).

Driving & Safety:

Must **stop driving immediately** and **inform the DVLA**.

Explain that driving with visual-field loss is unsafe and legally restricted.

Functional Rehabilitation:

Refer urgently to **Low Vision / Occupational Therapy services** for mobility and visual-scanning training given the functional impact.

Advise patient to consciously scan to the affected side when moving or crossing roads.

Assess home safety (corners, edges, clutter).

If imaging shows a space-occupying lesion

Urgent referral to neurology/neurosurgery for definitive management.

Further investigations (contrast MRI, tumour markers, etc.) guided by specialists.

8. Safety Netting

"If you notice sudden worsening of vision, new weakness, speech problems, severe headache, or confusion, please go straight to A&E or call 999."

"If you develop any new eye pain, redness, flashes, or shadow over your vision, seek emergency eye care immediately."

9. Follow-Up Plan

Neurology/Stroke clinic: Within days, for imaging review and secondary prevention plan.

Ophthalmology: For visual-field confirmation and low-vision support.

GP review: To monitor BP, glucose, cholesterol, and medication adherence.

DVLA paperwork: Patient to complete and send; document advice given.

10. Offer Leaflets & Resources

RNIB (Royal National Institute of Blind People) leaflet on field-loss adaptation.

Stroke Association booklet on visual problems after stroke.

DVLA guidance on vision standards and fitness to drive.

11. Final Check & Closure

"Mr ____, this condition is due to a problem in the part of your brain that processes vision, most likely from a small stroke. We'll arrange urgent imaging and specialist review today. Please remember not to drive until cleared, and seek immediate help if symptoms change or worsen. Do you have any questions or anything you'd like me to go over again?"

Trigeminal Neuralgia

Setting: GP Consultation

Role: FY2 Doctor

Patient: Middle-Aged Adult Male

Presenting Complaint: Paroxysmal Facial Pain

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Thanks for coming in today. I understand you've been having some pain around your face - would it be alright if I ask a few questions to understand what's going on, and then we'll talk through what we can do about it?"

2. Presenting Complaint – SOCRATES Pain History

"Let's go through the pain you've been having in detail."

- **Site:** "Where exactly is the pain located?" → "Left cheek and jaw"

- **Onset:** "When did this first start?"
- **Character:** "Can you describe the pain - is it dull, sharp, or something else?" → "Sharp, electric shock-like"
- **Radiation:** "Does it travel anywhere else?" → "No"
- **Associated symptoms:** "Any numbness, tingling, hearing issues, visual changes, or rashes?"
- **Timing:** "How long does each episode last?" → "Less than a minute, comes and goes"
- **Exacerbating triggers** (not aggravating):
 - "Have you noticed anything that brings it on - like brushing your teeth, shaving, touching your face, wind or air exposure?"
 - "Does it happen more in the morning?"
- **Severity:** "How bad is the pain on a scale of 1 to 10?" → "7 out of 10"

3. Red Flag & Differential Screening

To rule out other causes or secondary trigeminal neuralgia:

- "Any vision problems, double vision, or pain around the eyes?"
- "Any weakness or numbness on the face?"
- "Any hearing loss, tinnitus, or balance problems?"
- "Any recent skin rashes or painful blisters, especially near the ear or scalp?"
- "Any oral ulcers or dental infections?"
- "Is the pain only on one side, or both sides?"
- "Have you had any recent facial injuries or trauma?"

4. PMAFTOSA

P - "Any medical conditions like diabetes, stroke, or MS?" → "No"

M - "Are you currently taking any regular medications?" → "No"

A - "Do you have any allergies?" → "No"

F - "Anyone in the family with similar pain or neurological conditions?" → "No"

T - "Any recent travel, illness, or infections?"

O - "What kind of work do you do?" (Note: some occupations may affect medication selection due to sedation)

S - "Do you smoke or drink alcohol?"

A - "Do you live with someone or have support at home in case you need help?"

5. DESA & Impact on Life

D - "Do you use any recreational drugs or stimulants?"

E - "How is your sleep - is the pain affecting it?"

S - "Has this been affecting your mood or causing anxiety?"

A - "How much is this interfering with your daily activities - like eating, brushing teeth, or going outside?"

6. ICE - Ideas, Concerns, Expectations

- "Do you have any idea what might be causing this pain?"
- "Is there anything you're particularly worried about?"
- "What were you hoping we could do for you today?"

Patient may ask: "Can I have some painkillers for this?"

7. Examination

"I'd now like to examine you - particularly the nerves in your face and around your jaw. Is that alright?"

- Observation: No rash or skin lesions

- GPE: Alert, oriented, no signs of distress
- Neurological exam:
 - Cranial nerve V – light touch and pinprick over forehead, cheek, and jaw
 - Facial symmetry, motor strength (to exclude facial palsy)
 - No corneal reflex abnormality
 - No sensory loss or bilateral symptoms
- Oral cavity: No ulcers or dental pathology
- ENT: Ears and TM normal
- Neck: No lymphadenopathy

All findings are reported normal.

8. Diagnosis & Explanation

"Based on your history and my examination, this sounds like a condition called Trigeminal Neuralgia."

Lay Explanation:

"The trigeminal nerve is like an electrical wire that carries sensation from your face to your brain. In your case, this wire has become hypersensitive - so even gentle touch sends a powerful pain signal. Think of it like a smoke alarm that goes off when you make toast."

"That's why you're experiencing these electric-shock like bursts. It often happens on one side, and we usually don't need any scans unless there are red flags, which I haven't found today."

9. Management Plan

"Here's what we'll do to help:"

A. First-line treatment:

"We treat this with a medication called carbamazepine. Interestingly, it's also used for epilepsy - but don't worry, that doesn't mean you have epilepsy. It just happens to be very effective at calming down overactive nerves."

- Start at 100 mg twice daily
- Titrate by 100-200 mg every 2 weeks, depending on response
- Usual effective dose is 200 mg three to four times a day
- Maximum is 1600 mg per day

"I'll start you on a low dose and we'll increase it gradually to avoid side effects like dizziness or drowsiness."

"We'll do blood tests before starting and periodically while on the medication to check your blood cells and sodium levels."

[Note for candidates: For patients of Asian ancestry, there is a risk of severe skin reactions (Stevens-Johnson syndrome) associated with HLA-B1502 - consider HLA testing before starting carbamazepine. This should be discussed sensitively if relevant.]

B. If no improvement or not tolerated:

"I'll refer you to a neurologist, who may suggest:

- Other medications (like oxcarbazepine, lamotrigine, or baclofen)
- Local nerve block injections
- Rarely, surgery to decompress the nerve"

C. Trigger avoidance advice:

- Avoid sudden cold air (e.g., wind, open windows)
- Use lukewarm water for face washing
- Use soft-bristled toothbrush and avoid strong chewing
- Use scarf/mask in cold weather
- Hairdryer on low speed or avoid if painful

D. Self-care & support:

- Warm compress on affected area
- CBT (Cognitive Behavioural Therapy) if chronic
- Signpost to Trigeminal Neuralgia Association UK (support group)

10. Addressing Patient's Concern (Painkillers)

"Can I have painkillers for this?"

"I completely understand why you'd ask that. Unfortunately, regular painkillers like paracetamol or ibuprofen don't work for this type of nerve pain. That's why we use specific medications like carbamazepine - they're much more effective for this kind of condition."

11. Safety Netting

- "If you develop any new symptoms like visual changes, facial numbness, or weakness - please come back immediately."
- "If the pain becomes unbearable, or the medication isn't helping even after a few weeks, let us know - we can adjust the treatment or refer to neurology."

12. Follow-Up Plan & Final Check

- "I'll start you on the first prescription today and schedule a follow-up in 2 weeks to check how you're responding and to review the dose."
- "I'll also provide you with a patient leaflet about trigeminal neuralgia."

"Do you have any other questions or worries you'd like me to go over?"

Diagnostic Approach

- **Pain description:** Sudden, sharp, electric shock-like pain in the cheek and jaw - classic for trigeminal neuralgia.
- **Triggers:** Brought on by light touch (e.g. shaving, brushing teeth), with no continuous background pain.
- **Duration:** Brief episodes lasting seconds to minutes, multiple times a day.
- **Distribution:** Unilateral, affecting V2-V3 divisions of trigeminal nerve.
- **Red flags absent:** No sensory loss, no bilateral symptoms, no rash, no other cranial nerve involvement.
- **Normal neuro exam** confirms primary (idiopathic) TN.
- **Diagnosis is clinical** - no imaging needed unless red flags are present.

Conclusion: Classic presentation + absence of red flags = clinical diagnosis of primary trigeminal neuralgia. Start carbamazepine as first-line treatment.

Essential Tremor

Setting: Primary Care

Role: FY2 Doctor

Patient: Middle-Aged Adult Male

Presenting Complaint: Upper Limb Tremor Affecting Fine Motor Activities

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. I understand you've been having some shakiness in your hands - thanks for coming in. I'd like to ask some questions to understand what might be causing this and then go over what we can do to help. Is that okay?"

2. Presenting Complaint – ODIPARA for Tremor

O – Onset

"When did you first notice this tremor? Did it start gradually or suddenly?"

D – Duration

"Is it present all the time, or does it come and go?"

I – Intensity

"How bad would you say the shaking is? Does it stop you from doing daily tasks?"

P – Progression

"Has it been getting worse over time, or staying about the same?"

A – Associated symptoms

"Any weakness, numbness, problems with your balance, vision changes, or headaches?"

"Any changes in your voice, jaw, or head movement along with the hand tremor?"

R – Relieving factors

"Does anything make the tremor better - like rest, medication, or even alcohol?"

A – Aggravating factors (triggering activities)

"When is it most noticeable? While writing, eating, or during fine motor tasks?"

"Does stress or tiredness make it worse?"

"Do you drink coffee or caffeinated drinks regularly?"

3. Red Flags & Differential Diagnosis Screening

To rule out other causes:

- **Parkinson's disease:** "Do you ever feel stiff or slow when moving? Any balance problems or facial stiffness?"
- **Stroke or TIA:** "Have you ever had a stroke, facial drooping, or sudden weakness on one side of your body?"
- **Thyroid disease:** "Do you feel overly hot, have palpitations, weight loss, or a racing heart?"
- **Hypoglycaemia:** "Are you diabetic or ever experience shaking when you haven't eaten?"
- **Medication-induced tremor:** "Are you taking inhalers like salbutamol, lithium, antidepressants, or antipsychotic medications?"

4. PMAFTOSA History

P – Past medical conditions

"Have you been diagnosed with any long-term health problems like high blood pressure, thyroid problems, or mental health conditions?"

M – Medications

"Are you currently taking any regular medications, including inhalers or herbal supplements?"

A – Allergies

"Do you have any allergies to medications?"

F – Family history

"Has anyone in your family ever had similar tremors or been diagnosed with Parkinson's disease?"

T – Travel history

"Have you travelled recently or been exposed to any toxins or heavy metals?"

O – Occupation

"What kind of work do you do? Do you use your hands for fine work regularly?"

S – Social history

- "Do you drink alcohol? Have you noticed any change in the tremor when you do?"
- "Do you smoke or use any recreational drugs?"
- "How has your sleep been recently?"
- "Has this affected your day-to-day life, confidence, or mood?"

A – Additional history

"Do you feel this has affected your ability to eat, drink, write, or perform fine motor tasks?"

5. ICE – Ideas, Concerns, Expectations

- "Do you have any idea what might be causing the tremor?"
- "Is there anything specific you're worried this might be?"
- "What were you hoping I could help with today?"

6. Examination

Introduction & Consent

"Thank you for answering my questions earlier. I'd now like to perform a physical examination to assess your movement and tremor more closely. This will help us understand what might be causing your symptoms.

It won't be painful, but some parts might feel a little uncomfortable. I'll need you to remove your jacket and roll up your sleeves. I'll ensure your privacy throughout, and a chaperone will be present during the examination. Would that be okay?"

(Wait for verbal consent before continuing)

Examination Steps

1. Inspection – At Rest and on Action

Verbalisation:

"First, I'm just going to observe your hands while they are resting in your lap."

- Look for:
 - Resting tremor (absent in essential tremor)
 - Postural tremor: Ask the patient to stretch both arms out in front, fingers splayed.

"Could you please stretch your arms straight out in front of you like this?"

- Observe for:
 - Bilateral, symmetrical tremor
 - Fine or coarse amplitude
 - Head tremor (yes-yes or no-no)
 - Voice tremor if present when speaking

2. Postural Stability & Enhancement Tests

- Wing-beating posture: Arms outstretched, elbows flexed, palms down.

"Now bring your elbows up and keep your hands near your face, like this."

- Distraction maneuvers:
 - Ask patient to perform mental task (e.g., spell "world" backwards).
 - Look for change in tremor (typically persists in essential tremor; may reduce in psychogenic tremor).

3. Kinetic Tremor – Action-Based Testing

A. Finger-to-Nose Test (Unilateral then Bilateral)

"Now, using your right index finger, touch your nose and then reach out to touch my finger. Repeat this a few times."

- Look for:
 - Intention tremor (worsens toward target - cerebellar)
 - Consistent fine tremor during movement - suggestive of essential tremor

B. Writing Test

"Could you write your full name here for me?"

- Look for:
 - Large, wavy handwriting (in contrast to micrographia in Parkinson's)

C. Spiral Drawing Test

"Can you please draw a spiral like this?"

- Look for:
 - Irregular, tremulous spiral with no directional bias

4. Tone – Rule Out Parkinsonism

"Now I'd like to check the movement of your arms."

- Move each arm passively at the elbow and wrist while the patient is relaxed
- Lead-pipe or cogwheel rigidity (absent in essential tremor; suggests Parkinsonism)

5. Rapid Alternating Movements

"Please turn your hands rapidly back and forth on your lap."

- Bradykinesia absent in essential tremor

6. Gait and Balance (if relevant to case)

"If you feel safe, I'd like to observe your walking for a few steps."

- Look for:
 - Normal gait pattern (unlike shuffling in Parkinson's)
 - Check for head tremor when walking
 - Assess balance and turning

7. Verbalised Completion

"I would now complete the examination by performing:

- A full cranial nerve exam
- Lower limb coordination testing
- Sensory testing of all limbs
- Examination of speech and voice if tremor is suspected in those areas"

Findings Likely in Essential Tremor

- Bilateral postural and action tremor (often worse with movement or holding position)
- Absent tremor at rest
- No bradykinesia, rigidity, or gait disturbance
- Spiral drawing and handwriting typically tremulous but not progressively smaller
- Often runs in families (autosomal dominant)

7. Provisional Diagnosis

"Based on your history and my findings, this sounds most likely to be a condition called Essential Tremor."

8. Explanation

"Essential tremor is a common condition that causes shaking when you're trying to do something with your hands - like writing, eating, or performing fine motor tasks. Think of it as your nervous system being slightly 'overly responsive' during movement."

"This is different from Parkinson's disease - with essential tremor, your hands are steady when they're resting in your lap but shake when you try to use them. With Parkinson's, it's often the other way around."

"This type of tremor can sometimes run in families and often gets worse with movement or stress, but it's not dangerous. Many people with this condition can continue most of their activities with a bit of support."

9. Management Plan

A. First-Line Treatment - Propranolol (GP can initiate)

"If your tremor is affecting your daily life, I can start you on a medication called propranolol. It's a beta-blocker that's very effective at reducing tremor - about 50-70% of people find it helpful."

- Start at propranolol 40mg twice daily (or propranolol MR 80mg once daily if compliance is an issue). Titrate gradually based on response. Can increase up to 160-320mg daily depending on response and tolerability
- Monitor for side effects: fatigue, dizziness, slow heart rate, cold hands

"We'll start with a low dose and see how you get on. If it works well and you tolerate it, we can adjust the dose. If it doesn't suit you or doesn't help enough, there are alternatives we can try."

[Note for candidates: Per NICE NG127, GPs SHOULD initiate first-line treatment (propranolol or primidone) for essential tremors. Neurology referral is only needed if symptoms are disabling AND first-line treatment is ineffective or not tolerated. Propranolol is contraindicated in asthma, heart block, uncontrolled heart failure - use primidone as alternative.]

B. Alternative First-Line - Primidone

"If propranolol isn't suitable for you - for example, if you have asthma - there's another medication called primidone that works equally well."

Start at 25-50mg at night

Titrate slowly over 4-6 weeks (patients often have initial side effects)

Maximum 750mg/day in divided doses

Neurology Referral (if needed)

"If the medication doesn't help enough or causes problems, I'll refer you to a neurologist. They can consider other options like topiramate, or in severe cases, surgical treatments."

[Note for candidates: Only refer to neurology if first-line treatment fails or is not tolerated. Second-line options (topiramate, gabapentin, clonazepam) are typically specialist-initiated.]

C. Lifestyle & Symptom Support

- "Try to avoid triggers like caffeine or emotional stress."
- "Sleep well - fatigue can worsen symptoms."
- "Some people find small amounts of alcohol help briefly, but it's not a long-term solution. Don't exceed 14 units per week."

D. Functional Adjustments

- "Use heavier cutlery or weighted mugs to help with daily tasks."
- "Try a thicker pen or digital devices for writing or music notation."
- "Occupational therapy can offer helpful tools for fine motor adjustments."

E. Safety & Risk Advice

- "Avoid activities where a sudden tremor could be dangerous - like climbing ladders or carrying hot liquids."
- "Let people around you know, especially if you perform or play publicly."

F. DVLA Advice

"Essential tremor doesn't usually affect driving, but if tremor affects ability to control steering or operate vehicle controls safely, you should inform the DVLA."

10. Safety Netting

- "If you notice any new symptoms like slowness, stiffness, facial changes, or balance issues, please come back immediately."
- "If the tremor becomes disabling or affects other body parts suddenly, we may need to reconsider the diagnosis."
- "Please contact us if you need support managing day-to-day tasks."

11. Leaflet

- "In the meantime, I'll provide a leaflet about essential tremor, and you're welcome to call us if anything changes."

12. Final Check & Close

"Do you have any other questions or worries you'd like me to go through again?"

Student Note: Diagnostic Reasoning

Why Essential Tremor?

- Action-related tremor (present during voluntary movement, not at rest)
- Bilateral upper limb involvement with fine motor impact
- Triggered by stress, relieved by alcohol
- No red flags: No bradykinesia, rigidity, resting tremor, cerebellar signs, or stroke history
- Normal neurological examination

Diagnosis is clinical. No imaging or blood tests required unless atypical features are present. NICE CKS supports routine neurology referral for functional assessment and first-line treatment discussion.

Malaria

Setting: Emergency Department

Role: FY2 Doctor

Patient: Middle-Aged Adult Male

Presenting Complaint: Febrile Illness with Rigors and Recent Travel History

Examination Findings: Pyrexia, Splenomegaly

1. Introduction & Consent

"Hello, I'm one of the doctors here in the emergency department. I understand you've not been feeling well for the past few days - I'd like to ask a few questions, examine you, and then we'll talk about what might be going on and what we'll do next. Is that okay?"

2. Presenting Complaint – ODIPARA for Fever

- **O – Onset:** "When did the fever start?"
- **D – Duration:** "Has it been continuous or coming and going?"
- **I – Intensity:** "How high has your temperature felt?"
- **P – Progression:** "Is it getting worse, better, or staying the same?"
- **A – Aggravating:** "Is there anything that seems to make it worse?"
- **R – Relieving:** "Have you taken any medication for it - like paracetamol?"
- **A – Associated symptoms:**
 - "Any chills or rigors?"
 - "Any headache, body pain, joint aches, or abdominal discomfort?"

- "Any nausea, vomiting, or diarrhoea?"
- "Any cough, sore throat, or breathing difficulty?"
- "Any rash or bleeding under the skin or gums?"
- "Any neck stiffness or sensitivity to light?"
- "Have you noticed any yellowing of the skin or eyes (jaundice)?"

3. Red Flag Screening – Cerebral Malaria and VHF

- "Have you felt confused, very drowsy, or had any unusual behaviour?"
- "Have you had any seizures or blackouts?"
- "Any trouble breathing or chest tightness?"
- "Any bleeding from your gums, urine, or under the skin?"
- "Any dark or tea-coloured urine?"

4. PMAFTOSA History

- **P:** "Any other medical conditions like diabetes, liver, kidney, or immune system problems?"
- **M:** "Are you on any regular medications or recent antibiotics?"
- **A:** "Any allergies to medicines?"
- **F:** "Does anyone in your family have similar symptoms?"
- **T:** "Have you travelled anywhere recently?"
 - Patient: "Yes, I just returned from sub-Saharan Africa for work two weeks ago."
 - Follow-up: "Was this a planned trip or an emergency one?"
 - "Did you take any malaria prevention tablets?"
 - "Any mosquito bites, camping, or outdoor activity while there?"
- **O:** "What do you do for work? Do you travel often to similar places?"
- **S:** "Do you live alone or with family?"
 - Patient: "I live with my girlfriend. Is she at risk of getting this?"

5. DESA History

- **Diet:** "Have you been eating and drinking normally?"
- **Exercise:** "Any recent physical stress or fatigue?"
- **Sleep:** "How has your sleep been during this illness?"
- **Alcohol/Drugs:** "Do you consume alcohol or any other substances?"

6. ICE – Ideas, Concerns, Expectations

- **Ideas:** "Have you had anything like this before? Any idea what might be going on?"
- **Concerns:** "Are you worried this could be something serious?"
- **Expectations:** "What were you hoping I could help with today?"

7. Verbalised Examination

"Let me explain what I'd like to check now. I'll take your vital signs, examine your abdomen, check your skin for any rash or bleeding, and assess your hydration and mental status."

On exam paper:

- Temperature: 39°C
- Splenomegaly present
- No rash or neck stiffness reported
- GCS normal

8. Provisional Diagnosis

"Based on your recent travel to sub-Saharan Africa, the fever with rigors, and examination findings, the most likely cause is Malaria."

9. Lay Explanation to Patient

"Malaria is a serious infection that's passed to humans through mosquito bites - specifically a type called Anopheles mosquitoes. The infection gets into your red blood cells and causes the fever and chills you've been experiencing. It's common in many parts of Africa and Asia."

"Based on your symptoms and travel history, we suspect this may be malaria, but we need tests to confirm it."

"I know this sounds worrying, but I want to reassure you - we see and treat malaria regularly, and with the right treatment, most people make a full recovery. You did the right thing coming in today."

10. Management Plan

Immediate Actions

- Admit for urgent assessment and close monitoring
- Notify the Infectious Diseases (ID) team immediately
- Start antipyretics (paracetamol) and IV fluids if dehydrated
- Take full vitals and monitor for deterioration (NEWS chart)

[Note for candidates: Routine isolation is NOT required - malaria is mosquito-borne and not transmitted person-to-person in UK settings.]

Investigations

- Thick and thin blood films (malaria smear)
 - If first smear is negative, repeat every 12–24 hours × 3
- Rapid diagnostic test (RDT) (antigen test, if available)
- FBC, U&E, LFT, CRP, ESR
- Lactate, glucose
- Blood cultures
- COVID test (screening)
- Clotting profile (if bleeding suspected)

Treatment (ID team to initiate)

"The Infectious Diseases team will decide on the specific antimalarial treatment once they've reviewed you."

- **If severe malaria suspected:**
 - IV artesunate is first-line - if unavailable, IV quinine with doxycycline or clindamycin
- **If uncomplicated malaria confirmed:**
 - Artemether-lumefantrine (Riamet) is first-line for uncomplicated *P. falciparum* malaria. Dose: 4 tablets initially, then 4 tablets at 8, 24, 36, 48, and 60 hours (total 24 tablets).
 - Chloroquine for non-falciparum species, primaquine for radical cure of *P. vivax*/*P. ovale*.

[Note for candidates: FY2 role is to stabilise (fluids, antipyretics, oxygen), order investigations, and hand over to ID team for antimalarial treatment decisions.]

- Antiemetics, antipyretics, fluids, oxygen as needed

Notification "By law, malaria is a notifiable disease. We will inform the Health Protection Team who will report the case to Public Health authorities."

11. Addressing Patient Concerns

On transmission:

"Your girlfriend is very unlikely to catch this from you. Malaria spreads through mosquito bites, not from one person to another."

On treatment:

"We will treat this aggressively with the appropriate medications once confirmed. Most people recover fully with proper care."

On future travel:

"Since you travel frequently, it's important you get pre-travel advice before your next trip. We can give you information on vaccines and malaria tablets depending on where you go."

On blood donation:

"After having malaria, you'll be temporarily excluded from donating blood for a while. I'll write this in your discharge summary and explain the rules later."

12. Follow-Up Plan

- "You'll remain in hospital for monitoring and treatment under the ID team."
- "Once your tests come back and we confirm the diagnosis, we'll start the most appropriate medication."
- "We'll also repeat blood smears if needed and monitor your temperature, urine, kidney, and liver function daily."

Student Note: Diagnostic Reasoning (Malaria)

This patient presents with:

- High fever, rigors, systemic symptoms
- Recent travel to sub-Saharan Africa (malaria-endemic region)
- No prophylaxis taken
- Splenomegaly on examination
- No localising signs for respiratory, urinary, or GI infections
- No rash or photophobia (rules out meningitis, dengue, VHF)

→ In a traveller from sub-Saharan Africa with fever and rigors, malaria is the most important diagnosis to consider until proven otherwise. Clinical suspicion is enough to start workup and treatment urgently.

Gold standard diagnosis = thick and thin blood films × 3

Management = Admit + ID referral + start antimalarial + notify PHE

Clinical Update: IV artesunate is now **FIRST LINE** for severe malaria. Quinine is backup only if artesunate unavailable.

Head Injury in a Child

Setting: Emergency Department (Paediatrics)

Role: FY2 Doctor

Patient: Toddler

Accompanied by: Parent

Presenting Complaint: Minor Fall with Head Impact

On Arrival: Child is awake, alert, playing with nurse (GCS 15/15)

Visible Injury: Small bruise ≤5cm over head

1. Introduction & Identity Confirmation

"Hello, I'm one of the doctors here in the emergency department. I understand your little one had a fall earlier today. Is it okay if I ask a few questions first to understand what happened?"

2. History of Presenting Complaint – Full Trauma Assessment

Parent's account:

"Can you tell me what exactly happened?"

- **Mechanism:** Child was left on the sofa while parent was briefly occupied; fell off onto the floor
- **Height:** Less than 1 metre
- Landed on side of head

Injury-related questions:

- "Did your child lose consciousness at any point?" → No
- "Did your child have any seizure-like activity or jerky movements?" → No
- "Was there any bleeding from the head, ears, nose, or mouth?" → No
- "Have you noticed any watery fluid from the nose or ears?" → No
- "Did they vomit afterwards?" → Yes, once
- "Did they appear drowsy, disoriented, or difficult to wake?" → No, active since
- "Any changes in their behaviour?" → No, playful and talking normally
- "Was the bruise large?" → No, small bump about 3cm diameter

3. Full PMAFTOSA Screening

- **P** – No medical conditions
- **M** – Not on any medications
- **A** – No allergies
- **F** – No similar episodes or family history of seizures/head injury
- **T** – Normal growth and development
- **O** – Not attending nursery yet
- **S** – Lives with both parents and two siblings
- **A** – Up to date with vaccinations

4. ICE – Ideas, Concerns, Expectations

- **Ideas:** "I think she just bumped her head, but I'm worried."
- **Concerns:** "I'm really scared about brain injury - what if it's serious?"
- **Expectations:** "I came to get a CT scan. That's what people say you should do."

5. Verbalised Examination

"Thanks for answering my questions. I've had a look at your daughter and from what I've seen:"

- GCS is 15/15 (alert, oriented, playing)
- No signs of skull fracture
- No bleeding or fluid discharge
- Small, non-tender bruise less than 5 cm
- Neurological signs normal
- No signs of increased intracranial pressure or drowsiness

6. Diagnosis

"Based on the history you've provided and the examination findings, your child appears to have had a minor head injury with no red flag features."

7. Lay Explanation

"Bumps and falls are really common at this age - toddlers are still learning to balance and they fall a lot! The good news is that children's skulls are designed to handle minor bumps. Your child has remained alert and playful throughout - and there's no vomiting more than once, no loss of consciousness, and no seizure activity, which are the signs we look for to detect something serious."

"You did exactly the right thing bringing her in - it's always better to check."

8. Addressing the CT Scan Request

Mother: "Why aren't you doing a CT scan?"

Doctor's response:

"I completely understand your concern, and I'd like to reassure you that we follow national safety guidelines based on evidence. A CT scan isn't done for every bump because:

- A CT scan uses a type of radiation to take pictures. While it's very safe when needed, we try to avoid unnecessary radiation in children because their brains are still developing. It's a bit like being careful about how much sun exposure children get.
- We look for certain red flags - like loss of consciousness, vomiting 3 or more times, seizures, or large bruises over 5 cm for children UNDER 1 year
- In your daughter's case, none of these features are present - she has just one episode of vomiting, a small bruise, and is fully alert
- So, a scan would not change our management but could do more harm than good"

9. Management Plan

- "We will observe your daughter here in A&E for the next 4 hours to make sure everything stays stable."
- "You can give her paracetamol if she complains of any pain or becomes irritable."
- "If she remains well, we'll then discharge her home with clear safety advice."

10. Safety Netting Advice

"Once you go home, please watch out for the following:

- Vomiting more than twice
- Seeming drowsy, confused, or difficult to wake
- Seizures, fits, or unusual jerky movements
- Weakness in limbs, slurred speech, or walking difficulty
- Any bleeding from ears or nose
- Severe headache not settling with pain relief

If you notice any of these, come straight back to A&E."

11. Follow-Up

"Usually, no follow-up is needed for minor head injuries, but if you have any worries at all - even if you're unsure - please don't hesitate to contact us or your GP."

12. Final Check & Leaflet

"Do you feel more reassured now? Is there anything else you're worried about or would like me to explain again?"

Provide a Head Injury in Children – NHS Leaflet with home advice and red flag warning signs.

Student Note: Diagnostic Reasoning in Paediatric Head Injury

- GCS 15/15, playing → no altered consciousness
- One episode vomiting, no seizures → no red flags per NICE

- Small bruise <5cm, low-impact fall → low risk of fracture or bleed
- No loss of consciousness, fluid leak, neuro symptoms → CT not needed

→ NICE NG232 recommends observation without CT scan if none of the following are present:

- 3 vomits
- LOC
- Seizures
- Suspicion of NAI
- High-impact trauma
- Skull fracture signs
- Bruise ≥5 cm in <1-year-old
- Abnormal behaviour

Criteria requiring CT within 1 hour - GCS <14, suspicion of NAI, basal skull fracture signs, post-traumatic seizure.

Adult Head Injury

Setting: Emergency Department

Role: FY2 Doctor

Patient: Middle-Aged Adult Male

Presenting Complaint: Head Injury Following Fall with Red Flag Features

1. Introduction & Identity Confirmation

"Hello, I'm one of the doctors in the emergency team. I understand you were brought in after a fall. Before we continue, could I please confirm your full name and date of birth?"

2. Paraphrasing and Open-Ended Exploration

"I understand this happened after you were out with your wife. Can you tell me what exactly happened from your point of view?"

3. Focused History: Before, During, and After the Fall

Before the fall:

- "Do you remember what happened just before the fall? Did you feel dizzy, faint, or blackout?"
- "Did your wife or anyone else say you looked unwell before the fall?"

During the fall:

- "Do you recall hitting your head? If so, which part hit the ground or surface?"
- "Did anyone witness any jerky movements or convulsions?"

After the fall:

- "Did you lose consciousness? Do you remember waking up in the ambulance?"
- "Have you vomited? If so, how many times?"
- "Have you had any headaches, confusion, or drowsiness since?"
- "Do you recall what happened right before and after the fall, or is there a memory gap?"
- "Any fluid leaking from your nose or ears? Any blood?"
- "Have you had any visual disturbances or fits since the incident?"

4. Differential Screening Questions

- **Stroke/TIA:** "Have you had any numbness, weakness, or speech difficulties?"
- **Seizures:** "Have you ever had any seizures or fainting spells in the past?"
- **Alcohol use:** "Did you have any alcohol before the fall? How much?"

5. Systemic History (PMAFTOSA)

- **Past Medical History:** Any history of head injuries, epilepsy, hypertension?
- **Medications:** "Are you on any medications like blood thinners?"
- **Allergies:** Any known allergies?
- **Family history:** Any neurological illnesses in the family?
- **Travel:** No relevance
- **Occupation:** "What do you do for work?"
- **Social History:** Smoking, alcohol intake, living situation
- **Attendance:** Any recent hospital visits?

6. ICE

- **Ideas:** "What do you think caused this?"
- **Concerns:** "Is there anything you're particularly worried about?"
- **Expectations:** "What were you hoping we could do for you today?"

7. Physical Examination

"I would now like to perform a head-to-toe examination to look for any signs of serious injury."

Observations:

- Vitals: BP, HR, RR, Temp, SpO2
- GCS: 15/15 currently

Focused Physical Exam:

- Head: Bruising, swelling, lacerations
- Battle sign (bruising behind ears)
- Raccoon eyes (periorbital bruising)
- CSF leak from nose or ears
- Neck stiffness or tenderness
- Neurological exam: power, tone, reflexes, coordination, sensation – normal

Findings: Patient is alert and oriented, no obvious skull base fracture signs, but vomiting, amnesia, and loss of consciousness noted.

8. Diagnosis & Risk Explanation

"Based on your symptoms – especially the fact that you lost consciousness, vomited multiple times, and have some memory loss – we are concerned that you may have a serious head injury. These are considered red flags based on national guidelines."

9. Lay Explanation

"Sometimes after a head injury, there can be bleeding inside the skull - and the tricky thing is, it doesn't always cause symptoms straight away. You might feel fine now, but the bleeding can slowly build up pressure. That's why we need to check with a scan."

10. CT Scan Recommendation

"Because of the symptoms you've described, NICE guidelines recommend we do a CT scan of your head urgently. This is a special type of X-ray that helps us detect any bleeding or swelling inside the brain."

11. Response to Refusal of CT

"I understand you feel fine and want to leave. But I have to be honest with you - if there is bleeding and we don't catch it, it could get worse over hours and become very serious. I'd really recommend staying for the scan so we can rule that out and give you peace of mind."

12. Management Plan

- Immediate admission for monitoring
- **CT head urgently** according to NICE NG232 criteria (within 1 hour when high-risk features present - e.g., GCS ≤ 13 , signs of basal skull fracture, focal neurological deficit, post-traumatic seizure, or vomiting >1 episode)
- Neurology/neurosurgery referral if bleed is confirmed
- Paracetamol for pain (avoid NSAIDs)
- Nil by mouth until CT results are known
- Documentation and senior escalation if patient insists on discharge
- **Driving restriction:** No driving for 24 hours after a minor head injury, longer if significant findings
- **Tranexamic acid 2g IV bolus** indicated if:
 - (a) intracranial bleeding on CT, OR
 - (b) GCS ≤ 12 AND CT cannot be done within 2 hours.

13. Safety Netting

"If you experience any worsening headache, drowsiness, vision problems, vomiting, or confusion, please alert us immediately. If discharged, return immediately if these occur."

14. Follow-Up Plan

- Reassess after CT scan and observation period
- If stable and scan is normal, discharge with written head injury advice
- Provide leaflet
- Advise GP review in 48 hours if symptoms persist

Student Note: Diagnostic Reasoning

This patient meets multiple NICE criteria for urgent CT:

- Loss of consciousness
- Amnesia
- Vomiting more than once

These indicate high risk of intracranial haemorrhage, even if the patient currently appears well. Hence, urgent neuroimaging is both appropriate and necessary.

Intraventricular Meningioma

Setting: Outpatient Follow-Up

Role: FY2 Doctor

Patient: Young Adult with Known Brain Lesion on Surveillance

New Finding: Incidental Cerebral Infarct on Routine Imaging

1. Introduction & Consent

- Greet the patient and confirm identity.

- Explain purpose of consultation: "We've reviewed your follow-up brain scan and I'd like to go through the results with you. Before we do that, may I ask a few quick questions to better understand how you've been feeling?"

2. Detailed Focused History – Stroke Screening

A. New or Missed Neurological Symptoms

- "Have you had any weakness in the arms or legs recently - even for a few seconds?"
- "Any changes in your ability to speak - like slurring or word-finding difficulty?"
- "Any numbness, tingling, or changes in sensation?"
- "Any problems with your vision - blurriness, double vision, or loss of field?"
- "Have you had sudden dizziness, loss of balance, or falls?"
- "Any severe or sudden-onset headaches?"
- "Any episodes of confusion, memory lapses, or moments of 'blacking out'?"

If all negative → confirms this is likely a clinically silent infarct.

B. Vascular Risk Assessment

- "Do you have high blood pressure or diabetes?"
- "Have you ever been told you have high cholesterol?"
- "Do you smoke or vape?"
- "Do you drink alcohol - how often and how much?"
- "Do you use any recreational drugs (like cocaine or amphetamines)?"
- "Has anyone in your family had a stroke or heart attack at a young age?"

C. Cardioembolic Risk Factors

- "Have you ever been told you have an irregular heartbeat - like atrial fibrillation?"
- "Do you ever feel palpitations or skipped heartbeats?"
- "Have you had any recent infections or episodes of chest pain?"

D. Additional Stroke Considerations in Young Patients

- "Do you get migraines with visual auras?"
- "Have you ever had blood clots or miscarriages?"
- "Any history of autoimmune disease or conditions like lupus?"
- "Are you on any hormonal contraception or hormone therapy?" (if female)

3. ICE

- **Idea:** "Were you expecting anything to change on this scan?"
- **Concern:** "Are you worried the tumour might have worsened?"
- **Expectation:** "Were you hoping we'd just continue monitoring?"

4. Result Disclosure

- "Your scan shows that the intraventricular meningioma remains stable, which is excellent - it hasn't grown or caused any new compression."
- "However, we also found a small area of damage in the brain, which looks like a stroke. This type of stroke likely happened quietly - you haven't had typical symptoms like weakness or speech problems - so we call this a silent or incidental infarct."

5. Explanation of the Condition

"A stroke happens when blood flow to part of the brain gets blocked - usually by a small clot. It's a bit like when a pipe gets blocked and water can't get through. Even though you didn't feel anything, the scan shows a small area was affected."

"This matters because even silent strokes tell us that your body might be at risk of future events - and we now have a chance to prevent anything more serious."

"This doesn't appear to be caused by the meningioma - it's a separate issue."

6. Structured Management Plan

A. Immediate Preventive Measures (discuss with senior/stroke team)

Given this patient has a known brain lesion under neurosurgical surveillance, treatment decisions should be discussed with seniors before initiation.

- **Antiplatelet:**
 - Aspirin 75 mg daily is typically indicated (unless contraindicated)
 - Discuss with consultant given complexity of case
 - If AF or cardiac source found → may need anticoagulation (specialist decision)
- **Statin if not already on:**
 - Atorvastatin 80 mg (secondary prevention) - confirm with stroke team
 - Check LFTs at baseline, then at 3 and 12 months

B. Further Investigations

"We'll now look into what caused the stroke."

- Bloods: FBC, U&E, LFT, HbA1c, Lipids, ESR/CRP
- ECG & 24-hr Holter → to check for atrial fibrillation
- Echocardiogram → assess for PFO or valve abnormalities
- Carotid Doppler (if anterior circulation stroke)
- Thrombophilia screen (young patient, no clear cause)
- Autoimmune screen (if red flags or family history)

[Note for candidates: Thrombophilia screen and echo may be deferred to stroke team depending on local protocol.]

Specialist Referrals

- Stroke/TIA clinic or Neurology for full secondary prevention plan
- Continue with neurosurgical follow-up for meningioma as per protocol
- Consider neuropsychology referral if subtle cognitive symptoms arise

7. Lifestyle Advice – Specific

- Stop smoking (if applicable) – offer NHS cessation services
- Limit alcohol to <14 units/week
- Exercise: moderate activity ≥150 min/week
- Diet: low salt, high-fibre, low saturated fat
- Manage weight and blood pressure → target <140/90 mmHg
- Control diabetes or prediabetes if present

8. Safety Netting

- "Please seek emergency help if you develop symptoms like weakness, slurred speech, facial droop, confusion, or sudden visual changes."
- "Even though you didn't have symptoms this time, strokes can sometimes recur - so we want to act early."

9. Follow-Up Plan

- Refer to stroke clinic or neurology
- Repeat BP checks and lifestyle monitoring
- Coordinate with neurosurgical team to continue meningioma surveillance

10. Leaflet & Final Reassurance

- Provide NHS leaflet on minor stroke/silent stroke and prevention

- "You asked whether this would affect you - the good news is that we caught this early, and there are no signs of lasting damage. With some medication and lifestyle changes, we can significantly reduce the risk of anything worse happening in the future."

Guillain-Barré Syndrome

Setting: Primary Care

Role: FY2 Doctor

Patient: Young Adult Female

Presenting Complaint: Progressive Bilateral Weakness Following Recent Viral Illness

1. Introduction

"Hello, I'm one of the doctors here at the practice. Thanks for coming in today. Could I confirm your full name and age, please?"

Great, thank you. I understand you've been feeling increasingly weak lately. Could you tell me a bit more about what's been going on?"

2. Presenting Complaint – ODIPARA for Weakness

- **Onset:** "When did the weakness first start?"
- **Duration:** "Has it been constant since it began or coming and going?"
- **Intensity/Progression:** "Has it been getting worse?" "Is it moving upward?"
- **Position:** "Which part of the body did it start in?" "Did it begin in your feet or legs?"
- **Aggravating/Relieving:** "Do rest or activity make it better or worse?"
- **Associated symptoms:** "Any numbness, tingling, or pain in the limbs?"

3. Differential Diagnosis Screening

- **Multiple sclerosis:** "Has the weakness ever come and gone before?"
- **Myasthenia gravis:** "Does the weakness get worse as the day goes on?"
- **Stroke:** "Any slurred speech, facial droop, or sudden change in vision?"
- **Botulism:** "Any recent food poisoning or canned food exposure?"
- **GBS specific:**
 - "Have you had any infections or fevers in the last few weeks?"
 - "Any recent diarrhoea or flu-like illness?"
 - "Any vaccinations or surgeries recently?"

4. Targeted Risk History – PMAFTOSA

- **Past Medical History:** "Do you have any long-term conditions like diabetes or autoimmune disorders?"
- **Medication:** "Are you on any regular medications?"
- **Allergies:** "Any drug or food allergies?"
- **Family History:** "Anyone in your family with neurological or immune conditions?"
- **Trauma:** "Any recent injury to your spine or neck?"
- **Occupation:** "Do you work in a desk job or active role?"
- **Social:** "Do you smoke or drink?" "Any recent travel?"
- **Activities/Function:** "Are you able to get up from a chair or climb stairs?"

5. ICE

- **Idea:** "What do you think might be going on?"

- **Concern:** "Is there anything in particular you're worried about?"
- **Expectation:** "Were you hoping for any specific tests or treatments today?"

6. Effect on Life

- "Is the weakness affecting daily activities like dressing, using cutlery, walking around the house?"
- "How is it affecting your work?"
- "Any difficulty driving - especially using pedals?"

7. Examination Summary (verbalised findings)

- Vitals: Normal
- Neurological Examination: Symmetrical weakness of both arms and legs. No facial droop, no sensory level.
- No bladder/bowel involvement reported.

8. Provisional Diagnosis

"This sounds like a neurological condition called Guillain-Barré Syndrome, or GBS for short. It's a rare but serious condition where the body's immune system starts to attack the nerves, often after a recent infection like flu or diarrhoea."

9. Lay Explanation

"GBS typically starts in the legs and works its way up the body - it's a bit like the weakness is climbing a ladder. In some cases, it can affect the muscles you use for breathing, which is why we need to monitor you closely in hospital."

"It's not contagious, and it's treatable - but needs to be managed urgently in hospital, because it can progress quickly."

"Most people recover fully, though it can take weeks to months."

10. Management Plan

A. Immediate Action

"I know this is scary, but I want to be completely honest with you - this is something we need to treat urgently. I'm going to arrange for you to go straight to hospital today. The good news is that with treatment, most people recover well."

"I'd advise against driving - we'll organise an ambulance if needed, or you can call someone you trust to take you."

B. GP-Level Investigations (to accompany referral)

- Routine bloods: FBC, U&E, RBS, CRP, ESR

C. Hospital Investigations

- Electromyography (EMG) and nerve conduction studies → to confirm impaired nerve signal transmission
- Lumbar puncture → looking for elevated protein with normal white cells (called albuminocytologic dissociation)
- Spirometry or bedside FVC → assess breathing capacity
- ECG for autonomic function

D. Treatment (explained gently to patient) - Treatment should begin within 2 weeks of symptom onset for maximum benefit.

- **Immunoglobulin (IVIG):** antibodies from donor blood to block the harmful ones your body is making
- **Plasma exchange (plasmapheresis):** filters your blood to remove harmful antibodies - equally effective
- Most people stay in hospital for several weeks, and we start physiotherapy early
- Feeding tube, urinary catheter, or blood thinners may be used as needed

E. Driving Advice "You should stop driving immediately and inform the DVLA. It's a legal requirement when there's a condition affecting movement or reflexes."

11. Safety Netting

- "If you develop any shortness of breath, trouble speaking, worsening weakness, or if you feel your heart racing - please don't wait. Call emergency services immediately."
- "GBS can progress fast, but if we act early, we can prevent serious complications."

12. Follow-Up & Leaflet

- "You'll be assessed by the neurology team today. They'll guide your treatment and longer-term recovery."
- "Would you like me to print an NHS leaflet explaining Guillain-Barré Syndrome in simple terms?"
- "Do you feel okay to contact your mother now to arrange getting to the hospital?"

Student Note: Diagnostic Reasoning Summary

The diagnosis of GBS was based on:

- Progressive, symmetrical weakness starting in the lower limbs, spreading upward
- Recent flu-like illness, a known trigger
- Absence of fluctuating weakness (rules out myasthenia gravis)
- No sensory level (rules out spinal cord lesion)
- Bilateral limb involvement without facial signs (rules out stroke)

The urgency comes from the risk of respiratory compromise and autonomic dysfunction, hence hospital admission and early IVIG or plasmapheresis are required.

Parkinson's Disease

Setting: Primary Care

Role: FY2 Doctor

Patient: Older Adult Male

Presenting Complaint: Difficulty Initiating Movement and Tremor

Task: Focused history and structured examination

1. Introduction & Identity Confirmation

"Good morning. I'm one of the doctors here at the surgery. Could I confirm your full name and age, please?"

Thank you. I understand you've been having some trouble starting to walk. Would it be alright if I asked a few questions and then examined you to understand what might be going on?"

2. Focused History – Movement Difficulty

Presenting Complaint – ODIPARA:

- **O:** "When did you first start noticing this difficulty starting to walk?"
- **D:** "Has it been getting gradually worse over time?"
- **I:** "Is it worse at certain times of day or after periods of rest?"
- **P:** "Has anything made it better or worse?"
- **A:** "Any pain or stiffness associated with it?"
- **R:** "Do you feel the difficulty spreads to your arms or hands?"
- **A:** "Have you noticed anything else - like a tremor, slowness, or changes in posture?"

Red Flags & Differentials Screening:

- **Stroke:** "Have you had any facial drooping, slurred speech, or sudden weakness?"
- **MS:** "Has the problem ever come and gone or been associated with vision changes?"
- **Myasthenia gravis:** "Do your symptoms worsen toward the end of the day?"
- **Drug-induced Parkinsonism:** "Have you recently taken medications like prochlorperazine, haloperidol, or metoclopramide?"
- **Other neurological conditions:** "Any recent changes in memory, mood, or balance?"

Tremor History:

- "Do you have a tremor?"
- "Is it present when your hands are at rest, or when you're trying to do something?"
- "Which side is more affected?"

Function & Impact:

- "Are you able to get up from chairs or bed without help?"
- "Any difficulty feeding yourself, brushing teeth, dressing?"
- "Have you had any falls?"
- "Have you noticed changes in your handwriting?"
- "Has anyone noticed changes in your facial expression or voice?"

PMAFTOSA:

- **P:** Past neurological or psychiatric illness?
- **M:** Any current medications? Levodopa, antipsychotics, etc.?
- **A:** Allergies?
- **F:** Family history? "Did anyone in your family have similar symptoms?" (Father had Parkinson's)
- **T:** Any recent trauma or surgeries?
- **O:** Any ongoing health conditions?
- **S:** Smoking status?
- **A:** Alcohol use?

ICE

- **I:** "What do you think is going on?"
- **C:** "Is there anything you're particularly worried about?"
- **E:** "Is there anything you were hoping I could do for you today?"

(Patient concern: Wants to continue playing piano)

3. Examination

Transition Statement:

"Thanks for sharing all of that. I'd now like to perform a physical examination focused on your movement, balance, and coordination. It won't be painful, but some parts may be a little

uncomfortable. I'll ensure your privacy throughout, and a chaperone will be present. Is that okay with you?"

Preparation

- Gain verbal consent
- Ask patient to remove jacket, roll up sleeves, remove shoes if needed
- Ensure safe space for walking

Step-by-Step Parkinson's Neurological Exam

A. General Inspection

- Observe facial expression: reduced blink rate, masked facies
- Watch for resting tremor (pill-rolling, typically unilateral)
- Assess posture: stooped?
- Check spontaneous movement: facial animation, gestures, arm swing

B. Gait Assessment

- Ask patient to stand and walk across the room, turn, and walk back
 - Look for:
 - Start hesitation (freezing)
 - Shuffling gait
 - Reduced arm swing (typically asymmetrical)
 - Festination (short, accelerating steps)
 - Difficulty turning (en bloc)

C. Bradykinesia Tests

- Finger tapping: "Tap your thumb and index finger together quickly"
- Foot tapping: "Tap your toes on the floor as quickly as you can"
- Hand opening/closing: "Open and close your hand quickly"

Look for slowing, hesitation, and decreasing amplitude - key signs of bradykinesia

D. Rigidity

- Move patient's relaxed upper limbs at elbow and wrist
 - Feel for:
 - Lead-pipe rigidity (uniform resistance)
 - Cogwheel rigidity (jerky resistance during movement)

E. Handwriting

- Ask: "Could you please write your name on this paper?"
- Look for micrographia (progressively smaller handwriting)

F. Speech

- Ask them to speak a few sentences
- Listen for hypophonia (soft, monotone speech)

G. Postural Stability (Only if safe and patient is ambulatory)

- Pull test: Stand behind, warn patient, give a sharp backward pull on shoulders
- Observe for postural reflexes and risk of falling

H. Additional Tests (Verbalised) "I would also perform a full cranial nerve examination and assess tone, reflexes, and sensation in all limbs to exclude other neurological causes."

4. Provisional Diagnosis

"From the history - especially your difficulty initiating walking, resting tremor, and stiffness - and from the examination findings like reduced arm swing, cogwheel rigidity, and bradykinesia, this is highly suggestive of Parkinson's Disease."

5. Lay Explanation

"Parkinson's is a long-term condition where a part of the brain involved in movement becomes gradually affected. It happens when cells that produce a chemical called dopamine stop working properly. Dopamine is like the oil that keeps your movement system running smoothly. When there's less of it, movements become stiff and shaky - a bit like a machine that needs lubricating."

"It's a condition that changes gradually over time, but I want you to know - many people with Parkinson's continue doing the things they love for many years. And importantly, you mentioned playing piano - that kind of activity is actually really good for you."

6. Management Plan

Specialist Referral "I'll refer you to a neurologist who specialises in movement disorders for further assessment."

Investigations "They may do brain imaging (like an MRI) to rule out other causes - especially if the symptoms are atypical."

Treatment Options

- "There are medications - like **levodopa** - that replace or mimic dopamine. These can help reduce tremors and improve mobility."
- "The neurologist may also consider dopamine agonists or enzyme inhibitors."

Impulse Control Disorder Warning: "Some Parkinson's medications - particularly dopamine agonists - can cause changes in behaviour that are more common than you might expect. These include:

- Compulsive gambling
- Compulsive shopping
- Binge eating
- Hypersexuality (increased sexual thoughts or urges) These can be distressing and have serious consequences. Please let us know immediately if you or your family notice any of these behaviours."

Multidisciplinary Support

- **Physiotherapy:** Improve balance and mobility
- **Occupational therapy:** Help with daily activities
- **Speech and language therapy:** For soft voice or swallowing issues
- **Specialist nurse:** For ongoing support

7. Lifestyle and Safety Advice

- "Exercise like walking or tai chi can help with balance and stiffness."
- "A healthy, fibre-rich diet helps avoid constipation - a common issue in Parkinson's."
- "It's important to avoid driving until the neurologist assesses your reflexes and coordination. DVLA notification is REQUIRED."

8. Safety Netting

"If you notice a sudden worsening - like more frequent falls, confusion, or trouble swallowing - please contact us urgently."

9. Follow-Up

"We'll review you again in 1-2 weeks to ensure the referral is moving forward and support you with any adjustments you need in the meantime."

10. Leaflet and Support

"I'll give you a leaflet from Parkinson's UK. They offer excellent support for both patients and families."

Student Diagnostic Note

Diagnosis: Parkinson's Disease Made based on:

- History of motor symptoms: difficulty initiating movement, slowness, and tremor at rest
- Classical examination findings: asymmetric resting tremor, cogwheel rigidity, reduced arm swing, bradykinesia
- Excluded other causes: drug-induced, stroke, cerebellar or cognitive syndromes
- NICE and NHS CKS recommend neurology referral as first step - diagnosis is clinical but often supported by imaging in atypical cases

Parkinson's Disease Follow-up

Setting: Primary Care Follow-Up

Role: FY2 Doctor

Patient: Older Adult Male with Known Parkinson's Disease on Treatment

Task: Medication Review and Symptom Assessment

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. It's nice to see you again. I understand you were seen by a neurologist a few months ago. Is it alright if I ask you a few questions about how you've been doing since then, and also go through your medications and any concerns you may have?"

2. Focused History

a. Medication Review

- "Can I confirm what medication you're currently taking?"
- "Have you been taking it regularly?"
- "Any side effects you've noticed-nausea, dizziness, drop in blood pressure, or unusual movements?"

b. Symptom Monitoring

- "How have your symptoms been over the past 3 months?"
- "Any improvement in the tremors or difficulty starting to walk?"
- "Have you noticed any new issues-more stiffness, trouble with coordination, or falls?"

c. Function & Mobility

- "Are you able to do daily tasks like dressing, eating, and bathing?"
- "Can you walk around at home safely? Do you use a walking aid?"
- "Any trouble getting out of chairs, or buttoning clothes?"

d. Behavioural Changes (Impulse Control Monitoring)

"Have you noticed any new urges or behaviours that feel difficult to control?"

- Any urge to gamble?
- Increased spending or shopping?
- Changes in eating habits, like binge eating?
- Any changes in sexual thoughts or behaviour?"

e. Social History

- "How are you coping at home?"
- "Do you live alone or with someone?"
- "Do you have any help around the house?"

f. Driving

- "Do you still drive?"
- "Has the neurologist given any advice about driving?"

(If driving – advise must inform DVLA and avoid driving if symptoms affect control)

3. ICE – Ideas, Concerns, Expectations

I: "Do you have an idea about what Parkinson's disease is?"

C: "Is there anything you're particularly worried about-side effects, worsening symptoms, or how this affects your future?"

E: "What would you like us to focus on during today's review?"

4. Examination

"Thank you for sharing that. With your permission, I'd now like to check a few things to see how you're doing."

Vital Signs: BP, pulse, O2 saturation (esp. important if on dopaminergic meds that can lower BP)

Focused Neurological Exam:

Inspection

- Pill-rolling tremor at rest
- Masked facies
- Lack of arm swing when walking
- Signs of drooling

Gait

- Ask patient to walk 10 feet and turn:
 - Shuffling steps
 - Festination
 - Hesitant start
 - Freezing
 - Reduced arm swing
 - Unsteadiness or postural instability

Upper Limb Assessment

- Tone: Assess for cogwheel rigidity
- Bradykinesia: Ask patient to tap thumb and finger repeatedly
- Fine movement: "Pretend you're playing a piano"
- Writing (if needed): Look for micrographia

Lower Limb

- Tone
- Heel tapping on the floor
- Balance with Romberg (if safe)

5. Provisional Diagnosis

"Based on your history and examination today, your condition appears to be consistent with mild to moderate Parkinson's disease that is being medically managed."

6. Lay Explanation

"As we discussed before, Parkinson's affects the cells in your brain that produce dopamine - that chemical that helps control movement. Over time, as these cells slow down, the symptoms can change, which is why we check in regularly.

The condition tends to progress slowly over time, and while there is no cure, we have good treatments that help control the symptoms."

7. Management Plan

Continue current medication "It's important to keep taking your **levodopa** regularly. If you feel it's not helping enough or causing side effects, we may need to discuss adjusting it with your neurologist."

Multidisciplinary team "Parkinson's management is not just about medication. A team usually helps, including a specialist nurse, physiotherapist, occupational therapist, and speech & language therapist if needed."

Driving "You need to inform the DVLA about your diagnosis. You may still be able to drive, but they'll assess your fitness to continue safely."

Support & Services "Are you aware of local Parkinson's support groups? I can share details if you'd like."

8. Safety Netting

"If you notice new symptoms like frequent falls, changes in speech, swallowing difficulty, or if you feel more drowsy or unsteady than usual, please contact us or your neurologist urgently."

9. Follow-Up Plan

"Let's schedule a follow-up in 3 months. If any issues arise before then, feel free to contact us earlier."

10. Leaflet & Final Check

"Before you go, I'll get you a leaflet on Parkinson's that explains more about the condition and available support."

"Is there anything else you'd like to ask or talk about today?"

Student Note – Diagnostic Summary

This is a known case of Parkinson's Disease on treatment. The follow-up assesses symptom progression, treatment adherence, side effects, and patient adaptation. Bradykinesia, tremor, and rigidity were evaluated to determine ongoing control. There were no red flags today. Patient education, multidisciplinary support, and driving advice were provided per NICE guidance.

Hyponatraemia - Confusion

Setting: Emergency Department

Role: FY2 Doctor

Patient: Elderly Male with Acute Confusion

Collateral History from: Family Member

Key Investigation Finding: Severe Hyponatraemia

1. Introduction & Initial Approach

"Hello, I'm one of the doctors here. I understand your father has been brought in because he's recently become confused - I can imagine how stressful that must be for you. If it's okay, I'd like to ask you some questions to get a clearer picture of what's going on."

2. Focused History of Presenting Complaint

ODIPARA for Confusion:

- "Could you tell me what made you bring him in today?"
- "When did the confusion start?"
- "Has it been getting worse over the last few days?"
- "Is he able to recognise familiar people like yourself?"

- "Has he been talking to himself, or acting unusually?"
- "Was he managing his daily activities before this episode?"

Screening for Common Triggers:

- "Has he had a fall recently?"
- "Any recent fever, cough, or urine problems?"
- "Any constipation, diarrhoea, or reduced appetite?"
- "Has he seemed drowsy or sleepy during the day?"

3. Medication & Background (PMAFTOSA)

- "Does he have any long-term conditions?" (HTN, renal disease, diabetes, cognitive issues)
- "Can you list the medications he's currently on?" (Furosemide and Amlodipine)
- "Has there been any recent change in dose or new medications?"
- "Any over-the-counter pills or herbal products?"
- "Any allergies?"

4. Social History & Functional Background

- "Does he live alone or with someone?"
- "How often does the care worker visit?"
- "How independent was he with things like shopping, cooking, and bathing before this started?"
- "Does he normally use any mobility aids?"

5. ICE – Ideas, Concerns, Expectations

- "What do you think might be causing this?"
- "Are you worried it could be dementia?"
- "Is there anything in particular you were hoping we'd do today?"

6. Effect on Life

- "Has this affected how much he eats or drinks recently?"
- "Has he been more withdrawn or difficult to manage at home?"
- "Any recent hospitalisations or infections?"

7. Examination (Verbalised)

"I'll now check his vitals and carry out a brief neurological examination."

Vitals: BP, pulse, oxygen saturation, temperature, respiratory rate

Neurological signs:

- Level of consciousness (GCS)
- Orientation to time/place/person
- Speech, response to commands

Hydration status:

- Skin turgor, capillary refill
- JVP (if visible)
- Peripheral oedema

Signs of overload or dehydration

8. Provisional Diagnosis

"Based on his blood test results and your description, the most likely cause of his confusion is hyponatraemia - meaning the sodium level in his blood is too low. This is not the same as dementia, and in most cases, once the sodium is corrected, the confusion improves."

9. Lay Explanation

"Sodium is one of the essential salts in your body - it's a bit like the battery charge that keeps your brain running properly. When it drops too low, it can affect how the brain works, causing confusion and drowsiness.

His kidneys aren't clearing fluid properly, and that, combined with the water tablet (Furosemide), may have diluted the sodium too much. We also saw that his kidney numbers (urea and creatinine) are raised, which supports this."

10. Management Plan

Admission and Monitoring:

- "We'll admit him to hospital for close monitoring."
- "We'll correct his sodium levels gradually to prevent complications like seizures."

IV Fluids and Sodium Correction

[Note for candidates: Fluid management in severe hyponatraemia requires senior input due to risk of osmotic demyelination syndrome if corrected too rapidly. FY2 role: Admit, monitor closely, consider fluid restriction if euvolaemic, and escalate to seniors/renal team for sodium correction strategy. Hypertonic saline is a consultant-level decision. Target: Sodium rise of no more than 8–10 mmol/L in 24 hours.]

"We'll give him fluids carefully and correct his sodium levels gradually to prevent complications."

Medication Review:

- "We'll temporarily stop his Furosemide and check if any other medications are affecting his salt balance."

Renal Referral:

- "We'll involve a kidney specialist to assess how best to support his kidney function."

Investigations:

- Repeat electrolytes every 4–6 hours
- Urine sodium/osmolality (if syndrome of inappropriate ADH suspected)
- CT brain if no improvement or if focal signs
- We may also check thyroid function and cortisol levels to rule out other causes

Addressing Anaemia:

- "We've also noticed mild anaemia - we'll investigate that further once he's stable."

Falls Risk:

- Assess falls risk and delirium management (1:1 nursing if needed)

11. Safety Netting & Reassurance

- "The confusion may take a few days to resolve, but we expect significant improvement with treatment."
- "We'll keep you informed daily, and if at any point his condition changes, we'll act quickly."
- "If anything like this happens again - sudden confusion, change in consciousness - bring him in immediately."

12. Addressing the Concern: "Is this dementia?"

"No, this is not dementia. His sudden confusion is more likely due to his low sodium and dehydration. Dementia is a long-term progressive condition, but this looks like a short-term medical issue which we can treat. Once we fix the sodium, we expect him to return to his usual self."

Summary for Student – Diagnostic Reasoning

- Elderly patient with acute confusion and history of diuretic use → triggered suspicion of hyponatraemia.
- Sodium 110 raised urea/creatinine, and no signs of infection or trauma strengthened this.

- Differentiated from dementia by:
 - Acute onset
 - Fluctuating symptoms
 - Reversible cause (electrolyte imbalance)
 - No prior significant memory complaints or personality change
- NICE guidelines stress gradual correction and monitoring to avoid osmotic demyelination.

Dementia

Setting: Primary Care

Role: FY2 Doctor

Patient: Older Adult Female

Presenting Complaint: Memory Concerns (brought in by family member)

MMSE Score: 22/30 (Mild Cognitive Impairment)

1. Introduction & Opening Statement

"Hello, I'm one of the doctors here at the practice - thank you for coming in today. I understand your daughter helped book this appointment. Could I ask, how are things going for you recently?"

(→ Patient replies she feels fine and doesn't know why she's here.)

"Of course - I appreciate you letting me have a quick chat anyway. If it's okay with you, I'd like to ask a few questions about how things have been recently, just to get a clearer picture."

2. Presenting Complaint (ODIPARA for Forgetfulness)

- "When did you or your family first notice any changes in your memory or thinking?"
- "Have things stayed the same or gotten worse over time?"
- "Do you find yourself forgetting names or misplacing items more often than before?"
- "Have you ever gotten lost in a familiar area recently?"
- "Any issues remembering appointments or conversations?"
- "Do you still manage daily tasks like cooking and paying bills as before?"
- "Has there ever been a time you forgot to turn off appliances, like the stove?"

3. Targeted Cognitive and Safety History

- "Has anyone mentioned changes in your personality or behaviour?"
- "Have you had trouble making decisions or planning day-to-day activities?"
- "Do you ever feel confused about what day it is, or where you are?"
- "Have you felt unusually anxious, down, or withdrawn lately?"
- "Any problems with your sleep, appetite, or mood?"
- "Have you noticed any hallucinations, or felt suspicious without cause?"
- "Have you had any recent illnesses, infections, head injuries, or new medications?"

4. PMAFTOSA – Background and Risk Assessment

- Past medical problems? (e.g., strokes, hypertension, diabetes, depression)
- Medication review - any recent changes or new prescriptions?
- Alcohol intake or smoking?
- Family history of dementia or similar concerns?
- Allergies?
- Functional status: "Do you live alone or with someone?"
- "Are you currently driving? Any difficulties with navigation or decision-making while driving?"

5. ICE – Ideas, Concerns, Expectations

- "What do you think may have prompted your daughter to be concerned?"
- "Is there anything about your memory that's been worrying you personally?"
- "What would you like to happen after this consultation?"

6. Effect on Life

- "Has this affected your confidence in doing things like shopping or handling finances?"
- "Do you find yourself needing more help with day-to-day activities recently?"

7. Examination

"I'd now like to check a few basic things - your blood pressure, heart rate, and general physical signs."

- Check vitals (BP, pulse, RR, temp), frailty signs, gait/balance, basic neuro exam.
- MMSE already performed → Score: 22/30 (Mild cognitive impairment)

8. Provisional Diagnosis

"Based on your memory concerns, the symptoms described by your daughter, and your MMSE score, we're seeing signs of early-stage cognitive changes. That said, we still need to rule out other possible causes and confirm this with a specialist."

9. Lay Explanation – Breaking the News Gently

"I can see this might be difficult to hear, and I want you to know I'm here to support you through this. What we've found today suggests some mild memory changes. These may represent an early stage of a condition called dementia, which affects how the brain works over time.

This doesn't mean you're helpless or losing your independence. There are many types of dementia, and it's important we understand what kind you may have and how best to support you moving forward.

I'd also like to reassure you - this is not your fault. Memory changes can affect many people and getting help early often leads to better outcomes."

10. Investigations and Specialist Referral

"Before we confirm anything, we'll arrange blood tests and a referral to a specialist team who deal with memory and cognition."

Tests to arrange:

- FBC, ESR/CRP
- U&E, calcium, LFTs
- HbA1c, thyroid function (TFT), vitamin B12/folate
- ECG
- Consider CT/MRI brain - as advised by memory clinic

"These tests help us rule out other causes like thyroid problems, vitamin deficiencies, or infections - some of which can be reversible."

11. Management Plan

Referral to Memory Clinic: For full cognitive assessment and confirmation

Driving Advice: "You're still allowed to drive at this point, but if the diagnosis is confirmed, we'll need to inform the DVLA. They may request further tests to decide if driving is safe to continue."

Medication Options (if dementia confirmed):

- Acetylcholinesterase inhibitors (such as donepezil, rivastigmine, or galantamine) or Memantine may be offered for Alzheimer's-type dementia to help with symptoms
- These don't cure dementia, but can help maintain function for longer

Practical Support:

- "I'll connect you with local dementia support services."
- "Your daughter may want to consider Lasting Power of Attorney (LPA) for health and finance decisions while you're still able to make those arrangements."
- "Social services referral can provide practical home help if needed."

Family & Carer Support:

- "It's also important we support your daughter. Caring for someone with memory problems can be emotionally difficult."
- "Carers UK and Alzheimer's Society offer excellent support."

12. Safety Netting

- "If you notice sudden worsening - severe confusion, falls, or difficulty with basic tasks - please contact us urgently."
- "If there are concerns about safety at home, let us know so we can arrange extra support."

13. Follow-Up

- "We'll bring you back after the memory clinic appointment to discuss results and next steps."
- "In the meantime, don't hesitate to call if you have any questions."

14. Leaflet and Closing

- Provide Alzheimer's Society leaflet or NHS dementia information
- "Do you have any questions for me today?"
- "Would you like your daughter to come in so we can go through this together?"

Student Note – Diagnostic Reasoning**Key features suggesting early dementia:**

- Gradual onset of memory difficulties
- Impact on daily function (forgetting appointments, stove incidents)
- MMSE score 22/30 (mild cognitive impairment range)
- No acute triggers like infection, medication change, or metabolic cause
- Family member concerned - often the first to notice

Differentials ruled out:

- Delirium: No acute onset, no fluctuation, no infection
- Depression: Mood appears stable, no pseudodementia features
- Reversible causes: Will be excluded with bloods (B12, TFT, etc.)

Frontotemporal Dementia

Setting: Primary Care / Memory Clinic **Patient:** Older Adult (Present) **Accompanying:** Family Member/Carer **Presentation:** Gradual Personality and Behavioural Changes **Station Focus:** Collateral History and Initial Management Discussion

Introduction & Rapport Building

Greet the caregiver respectfully and introduce yourself: "Hello, I'm one of the doctors here. Thank you for coming in today."

Confirm:

The patient's full name and age

The caregiver's name and relationship to the patient

Paraphrase the concern: "From what I understand, you've been seeing some recent changes in [patient's name]'s behaviour - and you're hoping we can explore this further today."

Acknowledge caregiver's efforts: "Thank you for looking out for them - I understand this can be difficult, and I appreciate you taking the time to come in."

History - Data Gathering (from Caregiver)

Presenting Complaints - Explore in Detail

Onset: "When did you first start noticing changes? Was it sudden or gradual?"

Specific behavioural or personality changes: Ask open and targeted questions:

"Have they done or said anything that seems inappropriate in social situations?"

"Have they seemed more emotionally flat or withdrawn lately?"

"Any new repetitive behaviours, habits, or routines?"

"Have they lost interest in others' feelings or become less caring?"

"Have you noticed them eating more - especially sweets - or eating things they normally wouldn't?"

"Any issues with speech - like struggling to find words, mixing up names, or not understanding what's being said?"

Impact on Daily Life:

"How have these changes affected their daily activities or independence?"

"Have their relationships or routines changed noticeably?"

"Any recent safety concerns - like wandering off, getting lost, or making risky decisions?"

Red Flag / Associated Symptoms

"Have you noticed any memory loss or confusion?"

"Any hallucinations or seeing things that aren't there?"

"Any movement issues, such as tremors or stiffness?"

"Has their sleep pattern changed - for example, being awake at night and sleepy during the day?"

Medical & Psychiatric History

"Do they have any previous psychiatric or neurological diagnoses?"

"Any history of head trauma, stroke, or seizures?"

"Could I check their regular medications - including over-the-counter or herbal ones?"

"Any known allergies?"

Family History

"Is there any family history of early-onset dementia or psychiatric illness?"

Social History

"Where are they currently living - alone, with family, or in a care home?"

"Who looks after them day to day?"

"How are you managing with caring for them?"

"Do you work or have other responsibilities that make this more difficult?" → Screens for carer strain and caregiver availability

ICE - Ideas, Concerns, Expectations

"What do you think might be going on with them?"

"Is there anything in particular that you're worried about?"

"What were you hoping I could help with today?"

Explanation - Frontotemporal Dementia (FTD)

Gently introduce the possibility:

"Based on what you've described, one of the conditions we're considering is called **Frontotemporal Dementia**. It affects the front part of the brain - which controls behaviour, emotions, and speech."

Clarify key points:

"This is different from Alzheimer's - in fact, memory is often not the first thing affected."

(IPS tip for relatives who confuse with Alzheimer's): "This type of dementia **changes who he is** before it **changes what he knows**."

"These changes are caused by the illness affecting their brain - they're not choosing to behave this way, and it's not about being difficult or not trying."

"Caring for someone with this condition can be incredibly hard - both emotionally and practically - and it's completely understandable if you're feeling overwhelmed."

"There isn't a specific medication to slow down this type of dementia, but there's a lot we can do to support both your [family member] and you through this."

Management Plan

Referrals

Neurology or **Memory Clinic** for formal assessment

Cognitive testing and **MRI brain scan** to confirm diagnosis

Investigations

Blood tests to **rule out reversible causes** (e.g., B12, thyroid)

Imaging (e.g., **MRI**) to assess frontal and temporal lobe changes

Multidisciplinary Involvement

Occupational therapy and **social worker** to assess daily function and safety

Psychiatrist (if behavioural disturbance present)

GP follow-up and regular dementia care reviews

[Note: NICE cautions against antipsychotics in dementia unless significant distress or risk is present.]

Support for the Caregiver

Provide written information and **leaflets** about the condition

Offer access to **support groups**, **respite care**, or **counselling**

Screen for and **address carer strain** or mental health issues

Consider referral to **Adult Social Services** for needs assessment

Advance Planning (if appropriate)

Lasting Power of Attorney - "It's important to think about advance planning while your [family member] still has capacity to make decisions about their future care."

Driving status - **MUST notify DVLA**: "You must inform the DVLA about this diagnosis. Usually, a diagnosis of dementia means driving must stop immediately while investigations happen." *FTD patients often lack impulse control, making them particularly dangerous drivers.*

Future care options and planning discussions

Safety Netting

"If [patient's name] shows signs of sudden deterioration, starts wandering, becomes aggressive, or you feel unsafe or overwhelmed, please don't hesitate to reach out."

Provide:

Contact number for GP/dementia team

Emergency services or 111 as needed

Follow-Up

"We'll send a referral to the memory clinic - you should hear from them shortly."

Offer:

Interim follow-up with GP

Contact with the **community dementia nurse or support team**

Information & Resources

Leaflets:

Frontotemporal Dementia (FTD) overview

Alzheimer's Society or Dementia UK resources for caregivers

Recommend websites for reliable reading:

www.dementiauk.org

www.alzheimers.org.uk

MMSE (Mini-Mental State Examination)

Station Type: Cognitive Assessment (SimMan)

Setting: Acute Medicine Ward

Role: FY2 Doctor

Patient: Older Adult Male, admitted with MI, being discharged today

Task: Nurses have raised concerns about memory. Perform a Mini-Mental State Examination (MMSE).

1. Introduction & Consent

"Hello, I'm one of the doctors on the team - thanks for speaking with me today. May I confirm your full name and date of birth, please?"

(Wait for response)

"I've been asked to carry out a brief check of your memory called the Mini-Mental State Examination. It involves answering some short questions - nothing too complicated - just to get a general sense of how your memory and thinking are working today."

"Some of the questions might sound a little odd or be hard to answer. That's absolutely fine. Just try your best - and if you don't know something, feel free to say so."

Ask Before Proceeding:

- "Are you able to read and write comfortably?"
- "Do you have any problems with your vision?"
- "Do you normally wear glasses or hearing aids?"

2. Conducting the MMSE (30 points total)

Section A: Orientation (10 points)

1. "What is the year?"
2. "What season are we in?"
3. "What month is it?"
4. "What is today's date?"
5. "What day of the week is it?"
6. "Can you tell me where we are right now?"
7. "What is the name of this hospital?"
8. "Which floor are we on?"
9. "What city or town are we in?"
10. "What country are we in?"

Mark 1 point per correct answer. Do not correct mistakes.

Section B: Registration (3 points)

"I'm going to say three words. Please repeat them after me, and try to remember them because I'll ask you again later."

Say slowly: "Ball. Car. Dog."

→ Wait for them to repeat all 3.

→ You can give up to 3 tries.

Section C: Attention and Calculation (5 points)

"Now, I'd like you to subtract 7 from 100. And keep subtracting 7 until I say stop."

Start:

- "What is 100 minus 7?" (93)
- "And 93 minus 7?" (86)
- "And 86 minus 7?" (79)
- "And 79 minus 7?" (72)
- "And 72 minus 7?" (65)

→ Award 1 point for each correct subtraction.

(Alternative: Spell "WORLD" backwards if requested)

Section D: Recall (3 points)

"Now, can you tell me the three words I asked you to remember earlier?"

→ "Ball, Car, Dog"

→ 1 point per word remembered.

Section E: Language (9 points)

Naming (2 points)

- Show them a pen: "What is this?"
- Show them a watch or stethoscope: "What is this?"

Repetition (1 point) "Please repeat after me: 'No ifs, ands, or buts.'"

Three-Stage Command (3 points) "Please take this piece of paper in your right hand, fold it in half, and place it on the floor."

→ 1 point per instruction followed correctly.

Reading (1 point) Write "Close your eyes" in large letters on a paper and show it.

Ask: "Can you read this and do what it says?"

→ 1 point if they read and follow correctly.

Writing (1 point) "Please write a sentence - any sentence - on this paper."

→ 1 point if the sentence has a subject and verb and makes sense.

Copying (1 point) Show them two intersecting pentagons drawn on paper.

"Can you copy this drawing?"

→ 1 point if they copy with clear intersection.

3. Handling Patient Behaviour During MMSE

- **If the patient asks for the answer:** "That's okay - just try your best." (Do not give the answer.)
- **If they say something off-topic:** "Yes, it's a lovely day! Let's continue with the next question if that's okay."
- **If patient gets up,** you also stand politely and continue.
- **If they throw paper or object:** Stay calm. Smile and say, "No worries, let me help you with that."

4. When the 6-Minute Bell Rings – Turn to Examiner

"I have conducted a Mini-Mental State Examination on this patient. He is an older adult admitted with an MI and is planned for discharge today."

"I have completed up to the [e.g., Recall/Language] section. So far, he has scored [e.g., 17 out of 30], which suggests significant cognitive impairment."

"This raises concern for possible dementia or acute cognitive decline, and further assessment is warranted."

Important: The MMSE provides a snapshot of cognitive function at a point in time. A low score could reflect:

- **Delirium** (acute, fluctuating) - which is **reversible**
- **Dementia** (chronic, progressive) - which requires long-term management

This distinction is critical. We should establish whether this is a new finding or represents the patient's baseline.

5. Immediate Management (Examiner Discussion)

"In terms of management, I would:"

- Cancel discharge due to new cognitive concern
- Refer to psychiatry or memory team for further cognitive assessment
- Arrange blood tests: FBC, U&E, LFTs, glucose, B12, folate, TFTs, ESR/CRP
- Consider neuroimaging (CT/MRI) to rule out structural causes
- Review current medications - check for deliriogenic drugs (e.g. opioids, anticholinergics)
- Inform family and involve social worker if needed for support
- **Establish baseline:** Contact family or review previous notes to determine if this is new or pre-existing

Student Summary – Diagnostic Reasoning

This elderly patient with recent MI is now showing short-term memory impairment. MMSE confirms cognitive decline (score <24/30). Differential includes:

- **Delirium** due to infection, medications, metabolic disturbance
- **Vascular or Alzheimer's dementia**
- **Depression-related cognitive symptoms**

A structured workup and specialist review are warranted before discharge.

High-Yield Tips to Memorise the MMSE Questions

1. Break It Into 6 Sections (O-R-A-R-L-C)

Use this simple mnemonic to remember the order:

O-R-A-R-L-C

- Orientation
- Registration
- Attention & Calculation
- Recall
- Language
- Copying (Pentagons)

2. Memorise as a Story

Make a quick mental narrative that links the questions together:

Orientation (10 points) You wake up disoriented →

1. What year is it?

2. What season?
3. What month?
4. What date?
5. What day?

You check your surroundings → 6. What building? 7. What floor? 8. Which city/town? 9. What county/country? 10. Where exactly are you?

Registration (3 points) You see a Ball, a Car, and a Dog → Repeat after me.

Attention (5 points) You count backwards from 100 by 7 (just 5 steps: 100-93-86-79-72-65)

Recall (3 points) Do you remember what you saw? Ball? Car? Dog?

Language (9 points)

- Name pen & watch
- Repeat phrase: "No ifs, ands, or buts"
- Follow 3-step command: Take, fold, place
- Read & obey "Close your eyes"
- Write a sentence
- Copy pentagons

3. Practice With Flashcards or a Checklist

Create a laminated cheat sheet or Anki deck to test yourself repeatedly.

You can also try:

- Writing all 30 items by hand daily
- Practising with friends (One acts as patient, one as examiner)
- Recording yourself asking all questions and listening during walks

4. Use Anchor Phrases

Say these out loud every time to train recall:

- "Year, season, month, date, day - where, building, floor, city, country"
- "Ball, car, dog"
- "100 minus 7, five times"
- "Name, repeat, command, read, write, copy"

Multiple Sclerosis (MS) with Optic Neuritis

Setting: Primary Care

Patient: Young adult female

Presenting complaint: Episodic neurological symptoms with visual disturbance

Introduction & Consent

Wash hands, confirm name/DOB.

"I'd like to ask detailed questions about your balance, sensation and vision to understand why you've been falling. Is that okay?"

Focused History

A. Symptom chronology & falls

"You mentioned falls-how many times, and when did they happen?" (She had falls 4 weeks and 1 week ago.)

"Did you trip, feel your legs give way, or feel dizzy/blackout?"

"Any loss of consciousness or head injury?" (No LOC.)

"Any **pattern**-worse with heat, tiredness, infection?" (MS often worsens with heat - **Uhthoff's phenomenon**)

"Since the first episode, have symptoms **improved then come back**, or steadily worsened?"
(Relapsing pattern supports MS.)

B. Sensory & motor screen (spinal cord/brain pathways)

"Where exactly is the **numbness/tingling**? **Both legs**? To what level? Does it **move** or **spread** over days?"

"Any **weakness** when standing from a chair, climbing stairs, or foot drop?"

"Any **spasms, stiffness, or cramps**?"

"Any **electric-shock** sensation down the back when you bend the neck (Lhermitte)?"

"Any **band-like tightness** around the trunk? Any **asymmetry**?"

C. Vision & optic neuritis screen (crucial-often missed unless asked)

"Any **blurred or dim vision** in one eye?"

"Is **red** looking washed-out compared with the other eye (**colour desaturation**)?"

"Does it **hurt when you move the eye**?" (Yes-key for optic neuritis.)

"Any **central scotoma, flashes, or double vision**?"

"Which eye? Did it worsen over **hours-days**, then start to recover?"

"Any previous episodes of visual loss or diplopia?"

D. Brainstem/cerebellar symptoms

"Any **double vision, vertigo, slurred speech, or facial numbness**?"

"Any **unsteady gait, clumsiness, or intention tremor**? Do you **veer** to one side?"

"Have you noticed any issues with memory, concentration, or 'brain fog'? How has this been affecting your mood?"

E. Autonomic & sphincters

"Any new **urgency, frequency, incontinence, hesitancy or retention**?"

"Constipation or bowel incontinence?"

"Sexual function changes (reduced sensation, erectile lubrication issues as applicable)?"

F. Pain/Fatigue

"Any **neuropathic pain** (burning/tingling)?"

"Troublesome **fatigue** out of proportion to effort?"

G. Red flags (for emergency same-day action)

"**Rapidly worsening weakness, new severe leg weakness, saddle anaesthesia, urinary retention, or both-eye vision loss**?"

"**Fever, severe headache, confusion, or new seizures**?"

H. Exposures & differentials

"Any recent **viral illness, vaccines, or new medicines**?"

"B12 risk: **vegan/vegetarian, metformin, nitrous oxide use**?" (Diet reported balanced.)

"Alcohol excess, diabetes, thyroid disease, toxin exposure?"

I. Past, Family, Social

"Any prior **neurological episodes** (numbness, diplopia, weakness) that got better?"

Family history of **autoimmune** or demyelinating disease? (None.)

Driving/occupation: "Do symptoms affect driving or work tasks?"

Pregnancy/contraception (planning/future DMT implications).

J. ICE

"What's worrying you most?"

"What are you hoping we could do today?"

"Any particular concerns about your vision or risk of disability?"

Focused Examination (what you'd do/say)

General/Obs: temperature, vitals, gait on entry.

Cranial nerves: acuity (Snellen if available), **colour vision** (Ishihara or "Is red equally bright?"), visual fields, pupils for **RAPD**, eye movements (pain & diplopia), nystagmus, facial sensation/power, speech & swallow.

Motor: tone, **power** (note given LL 5/6), reflexes (often **brisk** in UMN), plantar responses, clonus.

Cerebellar: finger-nose, heel-shin, dysdiadochokinesis, truncal/gait ataxia, Romberg.

Sensory: light touch, pin-prick, vibration, proprioception; check for **non-dermatomal** pattern (given).

Coordination/gait: tandem walk; assess falls risk.

Working Diagnosis & Key Differentials (Not to tell patients)

Most likely: Multiple Sclerosis with **optic neuritis** (young adult, episodes separated in time; legs + optic nerve = **dissemination in space**; eye pain on movement classic for optic neuritis).

Differentials to exclude: B12 deficiency, thyroid disease, diabetes neuropathy, **functional neurological disorder**, compressive myelopathy, transverse myelitis, vasculitis/infection.

Explanation

"I know this must be a worrying time, and I want to explain what I think is happening so we can get you the right care quickly.

Your symptoms suggest **inflammation of the nerve coverings** - we call this myelin - in parts of the brain and spinal cord. This condition is called **Multiple Sclerosis**.

The eye pain when you move the eye fits **optic neuritis**, where the **optic nerve** becomes inflamed- this can cause **blurred or dim vision** and **washed-out colours**, especially red. Many people **recover vision over weeks**, but we still take it seriously."

"MS often comes in **attacks ('relapses')**-symptoms build over **hours-days**, then improve over **weeks**. Treatment can **speed recovery** from a relapse, and specialists can offer **disease-modifying therapies** to **reduce future attacks**."

"We need **urgent specialist assessment** and an **MRI** scan to confirm the diagnosis and rule out other causes."

Investigations (what you order / arrange)

Do not delay referral. In primary care, arrange screening to rule out mimics and coordinate urgent specialist tests.

Urgent referral to Neurology for suspected MS (not a 2-week cancer pathway). Neurology will confirm with **MRI brain ± spinal cord (with gadolinium)**, possibly **visual evoked potentials** and **lumbar puncture** for CSF oligoclonal bands.

If acute optic neuritis with significant visual loss: **urgent** ophthalmology or neuro-ophthalmology input.

Baseline bloods (to exclude mimics): FBC, B12/folate, TFTs, glucose/HbA1c, U&E/LFT, CRP/ESR ± infection screen as guided.

Management in Primary Care

A. Who needs same-day hospital care?

Rapid **progressive weakness**, **new sphincter dysfunction/retention**, suspicion of **transverse myelitis** or **spinal cord compression**, **bilateral** or **severe visual loss**, **severe ataxia**, or **systemic illness** → **A&E same day**.

Important distinction: **Bilateral leg weakness** with a sensory level suggests **spinal cord compression** (surgical emergency) rather than typical MS relapse. Ask: "Is the weakness in both legs equally, or just one side?"

B. Suspected MS / optic neuritis (stable)

Urgent neurology/neuro-ophthalmology referral placed today.

Optic neuritis: urgent specialist assessment; steroids mainly **speed visual recovery** but **don't change final vision**-specialist will advise on dose/formulation.

C. Relapse treatment (functional impact within ~ 14 days)

FY2 role: Recognise relapse, exclude infection, and **contact neurology/MS nurse for guidance** before initiating steroids.

After excluding infection and **with neurology/MS team agreement** (as per local MS relapse protocol), **high-dose oral methylprednisolone 500 mg once daily for 5 days** (no taper) may be prescribed. If oral not tolerated/ineffective or severe relapse, specialist may give **IV methylprednisolone 1 g daily for 3–5 days**.

Gastroprotection: Prescribe a **PPI (e.g., omeprazole 20mg)** during the steroid course to reduce GI bleeding risk.

Warn about insomnia, mood change, hyperglycaemia. **Avoid low-dose steroids or taper packs.**

Do NOT provide a home supply of methylprednisolone for patient self-administration. Each relapse requires clinical assessment.

D. While awaiting neurology

Falls risk: advise home safety, avoid ladders/baths alone; consider stick/rail if needed.

Sick note / work adjustments if balance/vision impaired.

Driving: Avoid driving **until vision and limb strength are clearly safe**. **On confirmed MS diagnosis, the patient must notify DVLA**. Visual conditions affecting standards may also require DVLA notification; ensure insurer is informed.

Lifestyle: regular gentle exercise/physio, sleep hygiene, stop smoking, balanced diet.

Pregnancy/contraception: flag early discussion with neurology before conception (DMTs/pregnancy planning).

E. Long-term (specialist-led)

Disease-modifying therapy options (e.g., interferons, ocrelizumab, etc.) decided by MS team.

Disease-modifying therapy discussion should happen within 6 weeks of diagnosis per NICE service standards.

Symptom services: **neuro-physio/OT**, spasticity clinic, bladder/bowel clinic, pain clinic, fatigue management.

Safety-Net

"If you notice **worsening weakness**, **new bladder retention**, **new severe numbness up to the tummy/chest**, **worsening vision**, or **new double vision**, go to A&E today."

"If you get **fever/UTI** features while on steroids, contact us urgently."

Follow-Up Plan

Urgent Neurology referral placed **today**; ophthalmology/neuro-ophthalmology if visual loss is significant.

GP review in 1–2 weeks (earlier if deterioration) to check falls risk and referral progress.

After diagnosis, ensure **post-diagnosis MS expert review within ~6 weeks** (service standard) and ongoing structured reviews.

Patient Resources

NHS/NICE MS overview and **relapse treatment** info (plain English).

MS Trust (steroid regimens, driving guidance, practical support).

Chapter 5: Cardiovascular

A Note to Learners

The cases in this resource are written in a conversational style to help you become familiar with the natural flow of clinical consultations and the language commonly used in UK healthcare settings.

These dialogues are intended as a learning guide, not a script. Please do not attempt to memorise them verbatim. Examiners assess your ability to think and communicate authentically - not to recite rehearsed phrases.

Use this material to understand the underlying clinical reasoning, then practise in your own words until the consultation feels natural to you.

For Companion OSCE Cases, Practice Scripts, Evaluation Checklists, Summary Notes, Rapid Review Notes, Mindmaps, Management Flashcards and Image Library - visit <https://www.gksplab2.com>

Disclaimer

This material is independent educational content created to help candidates develop clinical reasoning and communication skills for UK medical practice.

All cases and clinical scenarios are based on common presentations encountered in UK primary care and emergency medicine, drawn from publicly available sources including NICE Clinical Knowledge Summaries (CKS), BNF, and other official NHS/UK healthcare guidelines.

No content in this resource is derived from, represents, or claims to replicate actual GMC PLAB 2 examination material.

Chest Pain Differential Diagnosis – Screening Table

Condition	Key Questions to Rule In/Out
Myocardial Infarction (MI)	Central crushing pain? Radiates to arm/jaw? SOB? Sweating? Nausea? Risk factors?
Unstable Angina	Chest pain at rest or with minimal exertion? Multiple episodes? Risk factors?
Stable Angina	Triggered by exertion? Relieved by rest?
Musculoskeletal Pain	Localized pain? Tender on touch? Worse with movement or deep breath? Trauma history?
Pericarditis	Central chest pain? Worse when lying down? Better leaning forward? Recent viral illness?
Pulmonary Embolism (PE)	Pleuritic chest pain? Sudden SOB? Recent travel/surgery/OCP use? Leg swelling? Tachycardia?
Shingles	Any rash? Pain in band-like pattern? Tingling before rash?
Gastro-oesophageal Reflux	Burning pain after meals or lying down? Relief with antacids? Bitter taste?
Pneumothorax	Sudden sharp pain and SOB? History of trauma or asthma? Decreased breath sounds on one side?
Aortic Dissection	Sudden tearing pain radiating to back? BP difference between arms? History of hypertension?
Anxiety/Panic Attack	Chest tightness with palpitations, dizziness, numbness? Recent stressor?

Cardiovascular Cases – Common Pitfalls and Clinical Advice

Things to Avoid

1. **Do not overlook vague or downplayed symptoms** Patients may minimize or hide key symptoms, especially if chronic or intermittent. Be proactive in asking.
2. **Avoid assuming full disclosure** Always ask targeted follow-up questions; some patients may not mention key symptoms like exertional chest pain unless prompted.
3. **Don't skip anemia screening** Breathlessness and fatigue may be due to anemia-especially in elderly or menstruating females. Ask about tiredness, tongue soreness, pallor, heavy periods, or diet.
4. **Do not use unexplained medical jargon** Terms like "ischemia," "stenting," "ejection fraction," or "NSTEMI" should be explained in simple, patient-friendly language.
5. **Avoid underplaying the urgency of chest pain or heart failure** If there are red flags (e.g., rest pain, orthopnoea, pink frothy sputum), emphasize that the condition is serious and needs immediate hospital care.
6. **Don't rush through history of angina** Duration of symptoms is important. Stable angina usually has a pattern for ≥ 6 months. Ask about duration clearly.
7. **Don't ignore the patient's description of pain relief** Relief with rest is a classic sign in stable angina. Its absence may suggest unstable angina or MI.
8. **Avoid assuming chest pain is cardiac without full differentials** Ask about features that could suggest GI, MSK, respiratory, or anxiety causes. This shows safe and thorough practice.
9. **Do not neglect lifestyle factors** Smoking, diet, activity, and medication adherence are crucial in CVS cases. Always explore and address them in your plan.
10. **Avoid fast or vague explanations of key terms** For example, explain "stable angina" clearly as "a type of heart pain that happens with activity but settles with rest, and hasn't changed over time."

Important Clinical and Exam Tips

1. **Always assess exact timing of symptoms** For chest pain, ask how long it lasts, how often it comes, and what brings it on. This helps classify angina vs. MI vs. MSK.
2. **Don't miss Zoster or immunosuppression clues in elderly cardiac patients** If patient had recent shingles, consider post-herpetic neuralgia. If rash is recent, clarify timing for antiviral use.
3. **Be thorough when assessing PE risk** Especially in females with chest pain, explore contraception, recent immobilization, travel, and calf symptoms.
4. **For IV drug users, screen for infective endocarditis and DVT/PE** Ask about fever, skin changes, breathlessness, and any swelling or pain in the limbs.
5. **Address social barriers to care** Homelessness, addiction, caregiving responsibilities, or distrust of healthcare may delay care-explore these gently and provide solutions.
6. **Use ambulance referral language appropriately** If urgent care is needed, explain the benefits: continuous monitoring, early treatment, hospital preparation, and quicker access.

Follow-Up and Management Advice

1. **Always compare symptom severity before and after treatment** For example, in post-angina or heart failure follow-ups, ask: "How has your breathlessness changed since starting the tablets?"
2. **Be ready to escalate or adjust therapy** If pain or breathlessness persists, suggest appropriate changes like switching pain control (e.g., from co-codamol to gabapentin) or reviewing diuretic doses.
3. **Never skip discussing treatment understanding** Explanation is part of management. If the patient doesn't understand their medication or condition, the consultation is incomplete.
4. **Avoid complex drug explanations without simplification** For example: "This medicine helps reduce the strain on your heart so it can pump better," instead of listing mechanisms.
5. **Always offer a leaflet and confirm understanding** This shows safe practice, supports shared decision-making, and helps the patient review at home.

Myocardial Infarction

Scenario: Emergency Department | Middle-Aged Adult Male | Acute Central Chest Pain

Your Role: FY2 doctor in the Emergency Department

1. Introduction

Hello, I'm Dr. [Name], one of the doctors here in the Emergency Department.

Could I confirm your full name and age, please?

Nice to meet you.

I understand you're experiencing chest pain - are you still feeling the pain right now?

"Yes"

[Immediate action if severe/unstable:] Given you're having active chest pain; I'm going to get some help right away. I'll call for senior support, and we'll start monitoring you immediately while I ask some quick questions. *(This demonstrates decisive, safe-doctor behaviour)*

2. Presenting Complaint – SOCRATES

Let me ask a few questions to understand the pain better:

- **Site:** Where exactly are you feeling the pain? → "Right in the centre of my chest."
- **Onset:** When did the pain start? → "About two hours ago - while I was having breakfast."
- **Character:** What does the pain feel like? → "It's heavy and crushing - like someone is pressing down hard."

- **Radiation:** Does it go anywhere else - like your arm, jaw, back, or neck? → "Yes, into my left arm and a little into my jaw."
- **Associated symptoms:**
 - Any shortness of breath? → "Yes."
 - Feeling sick or lightheaded? → "I feel a bit sick."
 - Sweating? → "Yes, I'm sweating a lot."
 - Palpitations or dizziness? → "A bit dizzy."
- **Timing:** Has the pain been constant since it started, or has it come and gone? → "It's been there constantly."
- **Exacerbating/Relieving factors:** Did anything make it better or worse? → "Nothing seems to help."
- **Severity:** On a scale of 0 to 10, how bad is the pain? → "It was a 9 earlier, maybe a 6 or 7 now."

After completing SOCRATES, before PMAFTOSA, say something like:

"Thanks for explaining that. Given what you've described, I'd like to get an ECG done straight away to check your heart's rhythm and electrical activity. While that's being arranged, I'll ask you a few more questions to help guide us further."

3. Differential Diagnosis Screening

Just to rule out other possibilities:

- Have you had chest pain after eating or while lying down? (→ GORD)
- Does it hurt more when you move or press on your chest? (→ Musculoskeletal)
- Have you had any flu-like illness recently? (→ Pericarditis)
- Any tingling or rash on your chest or back? (→ Shingles)
- Any recent long travel, leg pain, or swelling? (→ PE)
- Was the pain very sudden and tearing in nature? (→ Aortic dissection)

4. PMAFTOSA

Thank you. I'd now like to ask a few background questions:

- Have you ever had any chest pain like this before?
- Do you have any long-term conditions - high blood pressure, diabetes, or high cholesterol?
- Are you on any regular medications?
- Any allergies to medicines?
- Any family history of heart problems or strokes? → "Yes - my father had a heart attack, and my brother too."
- What kind of work do you do?
- Do you smoke or drink alcohol? → "Yes, I smoke daily."
- Who do you live with at home?
- Do you drive?

5. ICE

- What do you think might be going on? → "I was scared it might be something serious with my heart."
- Is there anything specific you're worried about?
- What would you like me to help you with today?

6. Effect on Life

(Not applicable - this is an acute emergency.)

7. Examination & Early Investigations

Thanks for sharing all that. Based on your symptoms, I'd like to act quickly.

I'll check your vital signs: heart rate, blood pressure, oxygen levels, temperature.

I'll examine your heart and lungs, and check for any chest tenderness.

I'll also request an ECG straight away to look at your heart's electrical activity, and take blood tests, including one called troponin, which checks for heart muscle damage.

I'll place a cannula now so we're ready to give you any treatment needed.

(Findings are not usually verbalized in PLAB 2 unless examiner prompts.)

8. Provisional Diagnosis – Tell, Ask, Explain, Check

Tell: Mr. [Name], based on everything you've told me - especially the nature of the pain, where it's going, and your family history - I'm concerned this could be coming from your heart.

Ask: Have you ever heard of the term "heart attack" before?

Explain: The heart has its own blood vessels, and sometimes one of them can get suddenly blocked. That cuts off blood flow to part of the heart muscle - and that's what causes this pain.

We call this a myocardial infarction, or heart attack.

It's a medical emergency, but you're in the right place, and we're going to start treatment straight away.

Check: Does that make sense? Would you like me to explain it again?

9. Management Plan – Immediate A&E (Aspirin + Dual Antiplatelet + ECG + Referral)

We're going to begin emergency treatment right away:

- **Aspirin 300 mg** - I'll give you this now to chew. It helps thin the blood.
- **A second antiplatelet** - We'll also give you another blood-thinning tablet. For most patients, we use ticagrelor - a loading dose of 180 mg (two tablets), followed by 90 mg twice daily. Alternatively, if ticagrelor isn't suitable, we use clopidogrel with a 300 mg loading dose. Together with aspirin, these medications work to prevent further clots forming.
- **Pain relief:** GTN spray under the tongue may provide initial relief. If pain persists, we give IV morphine with metoclopramide for nausea.

[Note: Use morphine judiciously - ESC 2023 advises it can delay oral antiplatelet absorption.]

- **Oxygen:** Only if your oxygen levels are low - we'll check this with a monitor on your finger.

[Note: Only give O₂ if SpO₂ <94%, target 94-98%. Routine O₂ in normoxic MI causes coronary vasoconstriction and may increase infarct size (NICE CG95, BTS).]

- ECG and bloods already arranged

Once your blood test results are back - particularly the troponin - we'll know for certain if it's a heart attack. If confirmed, the heart specialists will take over your care.

I'm also going to inform my senior colleague straight away, so we have the whole team looking after you.

10. Safety Netting

If you feel the pain getting worse, feel faint, short of breath, or dizzy, please let us know immediately - just press the call button. You're not alone - we're here with you.

11. Follow-Up

If the tests confirm a heart attack, the next step is usually a scan of the heart vessels (called an angiogram). If a blockage is found, they may treat it by placing a small tube called a stent.

In more complex cases, a heart bypass surgery might be needed.

The cardiology team will take over your care once confirmed.

DVLA Advice (Group 1 - Car/Motorcycle):

- **After successful PCI with EF ≥40% and no urgent revascularisation planned:** 1 week off driving
- **Without PCI, or EF <40%, or further intervention needed:** 4 weeks off driving
- **Group 2 (HGV/Bus):** 6 weeks with functional testing required
- DVLA notification not required for Group 1 unless ongoing symptoms

I'll give you written information about this.

12. Leaflet

I'll also give you a leaflet about heart attacks - what they are, what tests we're doing, and what to expect next.

Diagnostic Note – How the Diagnosis Was Made

Middle-aged man with acute central crushing chest pain radiating to the left arm and jaw, onset at rest while eating, ongoing for 2 hours. Associated with SOB, nausea, and sweating. History of smoking and strong family history of premature coronary artery disease. ECG requested (may be normal in early MI). GORD, MSK, pericarditis, and PE ruled out by history. Immediate working diagnosis: acute myocardial infarction (NSTEMI/possible STEMI). Aspirin and dual antiplatelet initiated. Awaiting ECG and troponin. Referred to cardiology once confirmed.

Unstable Angina

Scenario: Primary Care Setting | Older Adult with Episodic Chest Pain and New Rest Symptoms

Your Role: FY2 doctor in General Practice

1. Introduction

Hello, I'm Dr. [Name], one of the doctors here at the surgery today.

Could I confirm your full name and age, please?

Thank you. Nice to meet you.

I understand you've been experiencing some chest pain recently. Are you having any pain right now?

"No"

2. Presenting Complaint – SOCRATES

Let me ask you a few questions to understand the nature of the pain you had:

- **Site:** Where exactly did you feel the pain? → *"In the centre of my chest."*
- **Onset:** When did it first start? → *"I've had episodes over the past few weeks."* (Prompt gently): "Did you notice anything this morning?" → *"Yes, now that you ask - I had some pain while reading the newspaper."*
- **Character:** What did the pain feel like? → *"Tightness, like pressure on my chest."*
- **Radiation:** Did it go anywhere else - your arm, neck, or jaw? → *"Yes, down my left arm."*
- **Associated symptoms:** Any breathlessness, dizziness, or sweating? → *"A bit breathless, yes."*
- **Timing:** Was the pain constant or did it come and go? → *"It lasted a few minutes and then went away."*
- **Exacerbating/Relieving factors:** Did it happen during activity or at rest? → *"Today it happened while I was resting. Other times, it came on while walking."*
- **Severity:** On a scale of 0 to 10, how bad was it at its worst? → *"Around 7."*

3. Differential Diagnosis Screening

To rule out other causes of chest pain:

- Any history of acid reflux, or pain after eating? (→ GORD)
- Any pain with movement, coughing, or touching your chest? (→ Musculoskeletal)
- Any recent flu-like illness or viral symptoms? (→ Pericarditis)
- Any tingling or rash over the chest wall? (→ Shingles)

- Have you felt unusually tired, lightheaded, or experienced breathlessness on exertion? (→ Anaemia)
- Any recent long travel, leg swelling, or immobility? (→ PE)

4. PMAFTOSA

Let me ask you a few background questions:

- Have you ever had this kind of pain before? → *"Yes, but it used to happen only when walking quickly."*
- Any long-term conditions - like high blood pressure, diabetes, or cholesterol problems?
- Are you on any regular medications?
- Do you have any allergies?
- Any family history of heart disease or strokes? → *"Yes, my father died of a heart attack."*
- What do you do for work or are you retired?
- Do you smoke or drink alcohol?
- Who do you live with at home?
- Do you drive?

5. ICE

- What do you think might be causing the pain?
- Is there anything specific you're worried about?
- What were you hoping I could help with today?

6. Effect on Life

Has this been affecting your daily routine or stopping you from doing anything?

7. Examination and Initial Test

Thank you. Based on your answers, I'd like to:

- Check your heart rate, blood pressure, temperature, oxygen levels
- Listen to your heart and lungs
- I'll also request a 12-lead ECG - this gives us a snapshot of your heart's electrical activity

→ *"The ECG today looks normal, but that doesn't rule out heart-related causes, especially given your symptoms."*

8. Provisional Diagnosis

Tell: Based on the pain pattern, your family history, and the fact that it happened even while resting, this could be a condition called unstable angina.

Ask: Have you heard of that term before?

Explain: Angina is chest pain that happens when the heart doesn't get enough blood - usually during physical activity. When it starts to happen without exertion - like while sitting, resting, or even sleeping - we call it unstable angina.

It's a sign that the heart is under strain and may be at risk of a heart attack if not addressed early.

Check: Does that explanation make sense?

9. Management Plan (GP Setting – Urgent Referral)

Urgent Referral to Hospital:

- I'm arranging for you to be seen urgently in hospital today.
- The hospital team will do more sensitive blood tests, especially troponin, which detects heart damage.
- They'll also calculate something called a **GRACE score** to assess your risk level and guide how quickly you need certain tests and treatments.

- You may also have a repeat ECG, as early changes can evolve over time.
- Based on these tests, they'll determine if your chest pain is due to unstable angina or early-stage heart attack.

What Happens at the Hospital:

Once you arrive, the cardiology team will:

- Monitor you continuously - including heart rhythm, oxygen levels, and blood pressure.
- Run serial blood tests, particularly troponin at 0 and 1–3 hours.
- If your ECG and bloods still suggest unstable angina, they may offer:
 - A coronary angiogram - a special scan to look at the blood vessels of your heart.
 - Based on that, they might do:
 - Angioplasty - inserting a stent to open up any blocked arteries.
 - Or medication-only treatment, depending on the severity and risk level.

Immediate Treatment:

Even before these investigations, the hospital will likely start:

- **Aspirin** - to thin your blood and prevent clots.
- **Other blood thinners** like ticagrelor (preferred) or clopidogrel (antiplatelet medications), plus an anticoagulant - usually fondaparinux unless immediate angiography is planned or there is significant renal impairment (creatinine $>265 \mu\text{mol/L}$), in which case unfractionated heparin is used.
- **GTN** - either as a spray or IV to relieve chest pain.
- **Beta-blockers** to reduce heart strain.
- **Statins** to protect your heart long term.

Handling Refusal

"I don't want to go to the hospital. My father died there of a heart attack."

"I'm really sorry to hear that - it must have been a painful experience, and I completely understand why you're feeling anxious.

At the same time, I'm quite concerned about your current symptoms. From a medical point of view, this could be something serious, and staying here without proper tests could put you at real risk.

In fact, since your father had a heart attack, that slightly increases your own risk too."

"I'm still not sure..."

"I know this is difficult to process, and you have every right to feel uncertain.

But right now, the safest thing we can do is get you assessed in the hospital - they can do specialised tests like blood markers, ECGs, and scans to check your heart properly. If needed, they can start treatment to prevent things from getting worse.

You're not alone in this - I'll make sure the hospital team knows your background and concerns. Let's focus on keeping you safe."

In Case of Active Pain or Change in Symptoms

If at any point your pain becomes ongoing or severe before reaching the hospital, please call 999 immediately. That would no longer be angina - it could be a heart attack - and you'd need ambulance care straight away.

Follow-Up After Hospital Discharge

- If confirmed as unstable angina, the hospital will keep you in for monitoring and start long-term medications.
- After discharge, you'll have:
 - A cardiologist follow-up
 - Lifestyle advice and smoking cessation support
 - Possibly cardiac rehabilitation

- We'll also see you back here at the practice to monitor your medications and recovery.

DVLA Advice: You'll need to inform the DVLA and stop driving for at least 4 weeks after an unstable angina diagnosis. I'll provide you with written information about this.

12. Leaflet

I'll give you a leaflet about unstable angina so you can read more about it. It includes signs to watch for and what the hospital tests involve.

Diagnostic Note – How the Diagnosis Was Made

Older adult with episodic central chest pain, radiating to left arm, occurring at rest (this morning while reading) and previously during exertion. Pain lasts several minutes and improves with rest. No signs of MI on ECG. Risk factors: positive family history of premature CAD, likely progression from stable angina. Differential causes (GORD, MSK, PE, anaemia) ruled out by history. Provisional diagnosis: unstable angina. Urgent same-day referral made for cardiology assessment and cardiac enzyme testing. GRACE score to be calculated at hospital.

Stable Angina

Scenario: Primary Care Setting | Older Adult Male with Chronic Exertional Chest Pain

Your Role: FY2 doctor in General Practice

1. Introduction

Hello, I'm Dr. [Name], one of the doctors here today.

Could I confirm your full name and age, please?

Thanks. I understand you've been experiencing chest pain - would it be alright if I asked you a few questions to understand it better? Are you having any pain right now?

"No"

2. Presenting Complaint – SOCRATES

Let me start by asking a few structured questions about the pain:

- **Site:** Can you show me exactly where you feel the pain? → *"Here, in the middle of my chest."*
- **Onset:** When did it first begin? → *"It's been going on for about six months now."*
- **Character:** How would you describe the pain - dull, tight, heavy? → *"It feels tight, like a pressure."*
- **Radiation:** Does the pain travel anywhere else - your arm, neck, or jaw? → *"Sometimes into my left arm."*
- **Associated symptoms:** Do you feel short of breath, sweaty, dizzy, or sick when it comes on? → *"A little out of breath, but not sick."*
- **Timing:** How long does the pain usually last? → *"A few minutes - it stops when I rest."*
- **Exacerbating/Relieving factors:** What brings it on or makes it worse? → *"It always comes when I walk uphill or do anything strenuous."* What makes it better? → *"As soon as I sit down or rest, it eases off."*
- **Severity:** On a scale of 0 to 10, how bad is it at its worst? → *"Maybe 6 out of 10."*

3. Differential Diagnosis Screening

I'd like to ask a few more questions to rule out other causes of chest pain:

- Do you ever get the pain when you're just sitting or lying down - like reading or watching TV? → *"No, only when walking."*
- Any burning feeling in your chest or acid coming up after eating? (→ GORD)

- Does the pain worsen when you press on the chest or move your arms? (→ Musculoskeletal)
- Have you been unwell recently with any fever, cough, or flu-like symptoms? (→ Pericarditis)
- Any rash or tingling around the chest? (→ Shingles)
- Do you ever feel unusually tired, weak, or short of breath even without pain? (→ Anaemia)

4. PMAFTOSA

Now I'd like to ask you a few questions about your health background:

- Have you ever had anything like this before?
- Do you have any other health conditions - like diabetes, high blood pressure, or high cholesterol?
- Are you on any regular medication?
- Any allergies to any medication or anything else?
- Any family history of heart attacks or strokes? → *"Yes - my father died of a heart attack."*
- What do you do for work or are you retired now?
- Do you smoke or drink alcohol? → *"Yes, I smoke a few cigarettes a day."*
- Who do you live with?
- Do you drive?

5. ICE

- What do you think might be causing this pain?
- Is there anything in particular that's been worrying you?
- What were you hoping I could help with today?

6. Effect on Life

Has this chest pain been affecting your ability to do your daily activities - like shopping, gardening, or walking around?

7. Examination & ECG

Thanks for answering all of that. I'd now like to do a quick examination:

- I'll check your pulse, blood pressure, oxygen level, temperature, and your heart and lungs
- I'll also request a 12-lead ECG - a test that looks at the electrical activity of your heart

→ *"Your ECG looks okay for now, but that doesn't rule out all heart conditions."*

8. Provisional Diagnosis – TAC (Tell–Ask–Explain–Check)

Tell: From everything you've described - the chest pain coming on with walking uphill and easing off with rest, happening consistently for months - I think this may be a condition called stable angina.

Ask: Have you heard of that before?

Explain: Stable angina is a type of chest pain that happens when the heart muscle doesn't get enough oxygen - usually during physical activity like walking quickly or climbing a hill.

It's caused by narrowing in the small blood vessels that supply your heart.

Because it's predictable - comes with effort and settles with rest - we call it "stable." It doesn't mean it's harmless, but it means we can manage it well with treatment and monitoring.

Check: Does that explanation make sense so far?

9. Management Plan

Here's what we'll do next:

Immediate Treatment:

- **GTN spray** - I'll give you a GTN spray (400 micrograms per spray). When you feel the pain starting, sit down, spray once under your tongue, and wait 5 minutes. If it's not better, spray

again. If the pain hasn't gone after using 2 doses (that's 10 minutes from the first dose), call 999 - don't wait for a third spray. You can also use GTN before activities you know bring on your angina.

- **Aspirin 75 mg daily** - this helps prevent clots and protect your heart.
- **Beta-blocker or calcium channel blocker** - For preventing angina symptoms, I'll start you on either a beta-blocker (such as bisoprolol) or a rate-limiting calcium channel blocker (such as diltiazem or verapamil). Both are effective first-line options. If one doesn't control your symptoms adequately, we can add or switch to the other.
- **High-intensity statin** - I'll prescribe atorvastatin 80mg once daily. This is the recommended dose for people with established heart disease to lower cholesterol and protect your blood vessels.

Investigations:

We'll arrange blood tests to check for:

- Anaemia
- Blood sugar (for diabetes)
- Cholesterol
- Kidney function (before long-term medications)

Referral:

I'll refer you to the **Rapid Access Chest Pain Clinic (RACPC)** - this is a specialist clinic where they will do more tests. The first test they'll likely do is a **CT coronary angiogram** - a special scan that takes detailed pictures of your heart's blood vessels. It's non-invasive and gives us a very clear picture of whether there's any narrowing.

Based on these results, they may recommend:

- Additional treatments to keep your heart healthy
- Or further interventions if significant narrowing is found

10. Safety Netting

If you ever notice the chest pain getting worse, coming on at rest, lasting longer, or not improving with the spray - that could be a warning sign.

When stable angina becomes unstable (seek emergency care immediately):

- Pain starts happening at rest (not just with exertion)
- Episodes last longer than usual (more than 15-20 minutes)
- You need more GTN sprays than normal to relieve the pain
- Pain is more frequent or more severe than before

In that case, don't wait - go straight to A&E or call 999. This could mean your angina has become "unstable" and needs urgent treatment.

Let me show you how to use the GTN spray before you go.

11. Follow-Up

We'll follow up after your chest pain clinic appointment to review their findings and plan your long-term care.

We'll also support you in cutting down on smoking, as it's a key risk factor for heart disease.

12. DVLA Advice

"You can continue driving as long as your symptoms are controlled. However, if you ever get chest pain while driving or from the stress of driving, you must stop and let the DVLA know. You don't need to notify them otherwise."

[Note: DVLA Group 1 - May drive if symptoms controlled. Must not drive if symptoms occur at the wheel or with emotion. No notification required unless symptomatic while driving.]

13. Leaflet

I'll give you a leaflet about angina - it explains how to recognise symptoms, how to use the GTN spray, and what steps you can take to reduce future risk.

Diagnostic Note – How the Diagnosis Was Made

Older adult male with central chest pain for 6 months, consistently triggered by exertion (walking uphill) and relieved by rest. No pain at rest, no red flags. ECG normal. Risk factors include smoking and family history of premature coronary artery disease. Differential diagnoses including GORD, MSK, pericarditis, and anaemia were considered and excluded based on history. Diagnosis: Stable Angina. Initiated GTN, aspirin, beta-blocker, and high-intensity statin (atorvastatin 80mg). Ordered routine bloods, and referred to RACPC for CT coronary angiography and formal risk stratification.

Chest Pain Differentials – MI vs Stable Angina vs Unstable Angina (PLAB 2 Context)

Feature	Myocardial Infarction (MI)	Stable Angina	Unstable Angina
Setting	A&E (Always)	GP (Routine)	GP (Urgent)
Pain Timing	Ongoing pain at the time of consultation	Only during exertion, settles with rest	Recent episodes, may include rest pain
Pain Duration	>20 minutes, does not resolve with rest	5–10 mins, resolves with rest	10–15 mins, may be increasing in frequency
Trigger	Can occur at rest or exertion	Exertion only (walking, uphill, stress)	Minimal effort or even at rest
Relief	No relief with rest or GTN	Relieved quickly with rest or GTN	May require GTN, less predictable relief
Pain Character	Crushing, central, intense (8–10/10), radiation to arm/jaw	Pressure/tightness, moderate (5–6/10)	Similar to stable angina, but more frequent
Associated Symptoms	Sweating, nausea, SOB, dizziness, palpitations	Mild SOB on exertion	May have SOB, especially during rest pain
ECG	May show ST elevation, T wave changes	Normal	Normal (unless evolving MI)
Troponin	Raised	Normal	Normal (but may be a precursor to MI)
Medical Emergency?	Yes – urgent A&E admission + MONA	No – managed in primary care	Yes – urgent hospital referral from GP
Initial Management	MONA protocol, ECG, admit + cardiology	Aspirin, GTN spray, beta-blocker/CCB, statin, refer to RACPC	Aspirin, ECG, same-day referral to hospital
Referral Pathway	Direct cardiology via A&E	RACPC (Rapid Access Chest Pain Clinic)	Urgent hospital referral today

Pericarditis

Scenario: Emergency Department | Young Adult Male | Acute Chest Pain with Recent Viral Prodrome
Your Role: FY2 doctor in Accident & Emergency

1. Introduction

Hello, I'm Dr. [Name], one of the doctors here in A&E.

Could I confirm your full name and age, please?

Thank you. I understand you've come in with chest pain - are you still experiencing the pain right now?

If yes:

- Can you show me where the pain is?
- Is it okay if I ask you a few more questions to understand this better?

2. Presenting Complaint – SOCRATES

- **Site:** Where exactly is the pain located? → *"Central part of the chest."*
- **Onset:** When did it begin? What were you doing at the time?
- **Character:** Is it sharp, dull, stabbing, or pressure-like? → *"Sharp and stabbing."*
- **Radiation:** Does the pain move to your arm, jaw, or back? → *"No."*
- **Associated symptoms:** Any shortness of breath, fever, palpitations, dizziness? → *"Mild breathlessness."*
- **Timing:** Is the pain constant or does it come and go? → *"It comes and goes."*
- **Exacerbating/Relieving factors:** Does it get worse when you lie flat or breathe in? → *"Yes."* Does anything make it better, like leaning forward? → *"Yes."*
- **Severity:** On a scale of 0-10, how bad is it right now? → *"6 out of 10."*

3. Differential Diagnosis Screening

- Do you get chest pain even when resting?
- Any pressure-like sensation that spreads to your arm or jaw? (MI)
- Recent travel, leg swelling, or calf pain? (PE)
- History of cough, fever, or viral illness? (Pneumonia, pericarditis)
- Rash or tingling in the chest wall? (Shingles)
- Past cardiac or autoimmune conditions?

4. Focused History

- Have you had any recent cold, cough, or flu-like symptoms? → *"Yes, about a week ago."*
- Any current fever, chills, or fatigue?
- Do you notice the pain more when breathing deeply or coughing?
- Is it more comfortable when you lean forward or sit upright?

5. PMAFTOSA

- Past medical conditions?
- Any prior similar episodes or hospital admissions?
- Medications you're currently taking?
- Allergies?
- Family history of heart or autoimmune conditions?
- Occupation and lifestyle?
- Smoking or alcohol use?
- Living situation and daily support?

6. ICE

- What do you think might be going on?
- Are you worried this could be something serious?
- What were you hoping we could do for you today?

7. Effect on Life

Has this chest pain affected your sleep, work, or ability to do your usual activities?

8. Examination

On examination:

- Vitals: Pulse slightly raised, other vitals stable
- Chest auscultation: Normal breath sounds, possible pericardial rub
- ECG: Widespread ST elevation and PR depression (typical for pericarditis)
- Troponin: To rule out myocardial damage (usually normal or mildly raised)

9. Provisional Diagnosis

Tell: Based on your symptoms, examination findings, and ECG results, this appears to be a condition called pericarditis.

Ask: Have you come across that term before?

Explain: The heart is surrounded by a thin fluid-filled sac called the pericardium. Think of the pericardium like cling film wrapped around your heart. In pericarditis, that lining becomes inflamed - usually due to a recent viral infection like the one you had last week. When it gets inflamed, the layers rub together - that's what causes the sharp pain, especially when you breathe deeply. The pain is typically sharp, worsens when you lie flat or take a deep breath, and improves when leaning forward - exactly like you've described.

This condition is usually self-limiting, but it can be very uncomfortable, so we aim to control the inflammation and ease your symptoms.

Check: Does that explanation sound okay to you?

10. Management Plan

We'll begin treatment to reduce the inflammation and prevent recurrence:

First-line Treatment:

- **Ibuprofen 600mg-800 mg three times daily (total 1800-2400 mg/day)** - an anti-inflammatory to reduce the inflammation. You'll take this for 1-2 weeks, with the dose gradually reduced as your symptoms improve. Alternatively, if you have coronary artery disease or are already on aspirin, we would use high-dose aspirin (750-1000 mg three times daily) instead of ibuprofen.
- **Colchicine 0.5mg twice daily** - I'll start you on this alongside the ibuprofen. This significantly reduces the chance of the pericarditis coming back. If you weigh under 70kg, we'll use a lower dose of 0.5mg once daily. You'll take colchicine for about 3 months for a first episode. The main side effect is stomach upset - if you get diarrhoea, let us know as we may need to reduce the dose.
- **Gastroprotection** - You'll also be given omeprazole to protect your stomach lining while you're on ibuprofen.

Investigations:

- **CRP/ESR:** To check for inflammation (often raised)
- **FBC:** To assess for signs of infection or anaemia
- **Echocardiogram:** We'll arrange an echo if there's any concern about fluid around the heart (pericardial effusion) or signs of tamponade

Admission vs Discharge Decision: Most cases of viral pericarditis can be safely managed at home.

However, we would admit you if:

- Large pericardial effusion on echo
- High fever ($>38^{\circ}\text{C}$) not settling
- Failure to respond to anti-inflammatory treatment within 7 days
- Immunocompromised patients
- Suspected bacterial/purulent pericarditis
- Concurrent myocarditis with troponin rise

If severe or not responding: If symptoms are severe, or if this is recurrent and not responsive to standard therapy, a specialist (usually cardiology or rheumatology) may consider steroids. This would only be done after infection is fully excluded.

Activity Restriction: Please avoid strenuous exercise until your symptoms have completely resolved and your inflammation markers are normal - usually at least 2–4 weeks for non-athletes. This is important to allow proper healing.

Lifestyle advice: Rest while you're recovering and drink plenty of fluids. Most people recover fully with medication and rest.

11. Safety Netting

Please return to A&E immediately if:

- You develop worsening chest pain that becomes constant or severe
- You notice shortness of breath even at rest, dizziness, or palpitations
- You feel faint, collapse, or develop leg swelling

These may be signs of complications like pericardial effusion or rare progression to cardiac tamponade, so don't delay seeking help.

12. Follow-Up

- We'll give you a course of ibuprofen and colchicine, and arrange for your GP to review you in 7–10 days to assess response and check your CRP.
- If you feel better and pain resolves, that's excellent - but do complete the colchicine course (3 months) and avoid physical exertion for at least 2–4 weeks.
- If symptoms recur or worsen, the GP may refer you to cardiology.

[Note: No formal DVLA restriction for uncomplicated pericarditis. Advise not to drive while symptomatic as chest pain could be distracting.]

Diagnostic Note

Young adult with recent viral illness and sharp, central chest pain relieved by leaning forward and worsened by deep inspiration. ECG shows diffuse ST elevation and PR depression, no reciprocal changes. Troponin normal or mildly elevated. Inflammatory markers raised. Diagnosis: Viral Pericarditis. Managed with NSAIDs plus colchicine (first-line per ESC guidelines), gastroprotection, activity restriction, safety netting, and GP follow-up.

Shingles (Herpes Zoster)

Scenario: Primary Care Setting | Older Adult | Dermatomal Pain with Vesicular Rash

Your Role: FY2 doctor in General Practice

1. Introduction

Hello, I'm Dr. [Name], one of the doctors here at the practice.

Could I confirm your full name and age, please?

Thank you. I understand you've come in today with chest discomfort. Are you experiencing any pain at the moment?

If yes:

- Can you show me exactly where the pain is?
- Thank you - would it be okay if I ask a few more questions to understand this better?

2. Presenting Complaint – SOCRATES

- **Site:** Where exactly do you feel the pain?
- **Onset:** When did the pain start?
- **Character:** Is the pain burning, sharp, or aching?
- **Radiation:** Does the pain travel anywhere else?
- **Associated symptoms:** Any fatigue, fever, or general unwellness?
- **Timing:** Is the pain constant or does it come and go?
- **Exacerbating/Relieving factors:** Anything that worsens or improves the pain?
- **Severity:** On a scale from 0 to 10, how bad is the pain right now?

3. Differential Diagnosis Screening

Let me just ask a few more questions to ensure we're not missing anything serious:

- Do you get chest pain when walking, climbing stairs, or exercising? (Angina)
- Have you noticed any shortness of breath, coughing, or fever? (Pneumonia, PE)
- Have you had any falls or injuries to your chest recently? (MSK)
- Any pain that worsens with deep breaths or when lying down? (Pericarditis)
- Any leg swelling or calf pain? (PE)
- Have you noticed any changes to the skin in the area of the pain? Any rashes or blisters? (Shingles)

4. Focused History for Shingles

- When did the rash appear?
- Is it itchy, burning, or painful?
- Did you have chickenpox in the past?
- Have you had any recent illness, stress, or health problems that may have weakened your immune system?
- Any known history of cancer, diabetes, or medication that affects your immunity?

5. PMAFTOSA

- Past medical conditions (especially cancer, diabetes, immunosuppression)?
- Medications?
- Allergies?
- Any family history of shingles or immune-related issues?
- Recent travel or illnesses?
- What do you do for work (if still working)?
- Smoking/alcohol history?
- Who lives at home with you - any pregnant women, young babies, or children?

6. ICE

- What do you think this might be?
- Is there anything you're particularly worried about?
- What were you hoping we could do for you today?

7. Effect on Life

Has the pain or rash affected your sleep, movement, or ability to do daily tasks?

8. Examination

I'd like to take a look at the painful area and examine your skin.

- Inspection: Vesicular rash in a dermatomal pattern, not crossing the midline
- Look for weeping lesions or crusted blisters
- Palpate gently to assess tenderness
- Check surrounding skin for secondary infection

Findings: Clear dermatomal vesicular rash on the left chest wall, corresponding to T5–T6. Lesions appear 48 hours old, with early crusting.

9. Provisional Diagnosis

Tell: Based on what you've shared and the appearance of the rash, this seems to be shingles - also known as herpes zoster.

Ask: Have you heard of this before?

Explain: It's caused by the same virus that causes chickenpox. After you recover from chickenpox, the virus stays dormant in your nerves. Later in life, especially when the immune system is weaker, it can reactivate as shingles - causing pain and a blistering rash that follows a specific nerve line. It's usually on one side of the body and doesn't cross the midline.

Check: Does that explanation make sense so far?

10. Management Plan

Antiviral medication: As your rash started within the last 72 hours, I'll start you on aciclovir 800 mg five times a day for 7 days. This helps reduce pain, severity, and duration.

If you have kidney problems, we may need to adjust the dose or use a different antiviral like valaciclovir.

Pain relief: Start with paracetamol. If that's not enough, we can add codeine or similar stronger pain relief.

Rash care:

- Keep the area clean and dry
- Do not apply any dressings or adhesive plasters - allow it to breathe
- If the rash is weeping, cover loosely with a non-stick dressing

Infection control:

- Avoid contact with pregnant women, babies under 1 month, and anyone who hasn't had chickenpox until the blisters have completely crusted (usually 5–7 days)
- Cover the rash if going outside, to reduce risk of spread

Vaccination advice: Once you've recovered, you may be eligible for the NHS shingles vaccine called Shingrix. The NHS offers this to people aged 65–79 (immunocompetent) or aged 18+ if severely immunosuppressed. It's given as two doses, 2–6 months apart for most people (8 weeks to 6 months for immunosuppressed), and is over 90% effective at preventing future episodes.

11. Safety Netting

Please come back or call us urgently if:

- You develop eye symptoms like redness or blurry vision (shingles near the eye needs urgent care)
- You feel generally unwell, develop fever, or worsening pain
- The rash spreads beyond one area or becomes infected
- The pain becomes too difficult to manage with current medication

12. Follow-Up

- I'd like to see you again in about 7 days to check your recovery.
- If you're still in significant pain after the rash settles, we may discuss nerve pain medication like amitriptyline, gabapentin, or duloxetine.
- Once fully recovered, we'll arrange your Shingrix vaccination to reduce future risk.

Diagnostic Note

Older adult with acute burning chest pain and a vesicular rash in a single dermatome (T5–T6). Rash appeared 48 hours ago, consistent with early herpes zoster. No signs of systemic illness or immunosuppression. Unilateral dermatomal distribution and typical vesicles confirmed shingles on exam. Antiviral therapy initiated within 72-hour window. Shingrix vaccination to be arranged after recovery.

Post-Herpetic Neuralgia

Scenario: Primary Care Setting | Middle-Aged Adult Male | Follow-up After Recent Shingles

Your Role: FY2 doctor

1. Paraphrase the Situation

Hello, I'm Dr. [Name], one of the doctors here today. Can I confirm your full name and date of birth, please?

Thank you.

So I see you've come in for a follow-up appointment after being diagnosed with shingles last week. Can I ask - what were you told at the time? What's your understanding of what's going on?

(Wait for response - encourage patient to share in their own words. Probe if vague: "Did they explain what the pain might mean going forward?")

2. Explain the Diagnosis Again

Thanks for sharing that. Let me explain it a bit more clearly.

You had a condition called shingles, which is caused by the same virus that causes chickenpox. After a person recovers from chickenpox, the virus can remain in the body in a dormant state. Later in life, if your immune system is stressed or weakened, the virus can reactivate. When it does, it causes a painful rash - that's shingles.

Now, sometimes even after the rash clears, the nerve that was affected remains inflamed or damaged. That's what we call post-herpetic neuralgia - long-term pain that continues even after the rash is gone. It's a form of nerve pain, and it can last weeks to months. It is not dangerous but can be very uncomfortable.

Does that explanation make sense to you?

3. Ask About Current Treatment

Can I just check what treatment you were given last week?

(Wait for response - "co-codamol")

Okay, and have you been taking the co-codamol regularly, or only when the pain is bad?

Have you noticed any improvement since starting it?

Any side effects - constipation, drowsiness, nausea, or any problems breathing?

Have you taken anything else for the pain?

4. Assess Current Symptoms

Can you describe the pain for me - is it stabbing, burning, tingling, or shooting?

Is it constant or does it come and go?

Where exactly do you feel the pain now?

Would you mind rating your pain before treatment - from 0 to 10, where 10 is the worst pain you've ever had?

And how would you rate it now?

Has the pain disturbed your sleep?

Is it affecting your work, mobility, or day-to-day activities?

Have you had any new symptoms in the area - like itchiness, numbness, or increased sensitivity to touch?

5. Discuss Potential Complications

Thank you. Just so you're aware - long-term nerve pain like this can sometimes affect mood, sleep, and energy levels.

Have you been feeling emotionally okay - any low mood, irritability, or frustration due to the pain?

Are you managing to sleep well despite the discomfort?

Have you had any issues with your appetite or motivation recently?

It's important we keep an eye on the overall impact - not just the pain.

6. Adjust the Management Plan

Based on everything you've said, it seems co-codamol has provided some relief but is not fully controlling the pain.

Let me walk you through the treatment options:

a. First, continue or optimise current medication:

- If you're tolerating co-codamol, we can continue for a few more days.
- Ensure you're not exceeding the maximum daily dose (8 tablets in 24 hours).

b. Step up to neuropathic pain medication:

For persistent nerve pain, NICE recommends drugs like:

- **Amitriptyline** (low dose at night) - often the first choice
- **Duloxetine** - another first-line option if amitriptyline isn't suitable
- **Gabapentin or pregabalin** (if amitriptyline and duloxetine unsuitable)

These help calm overactive nerve signals and reduce long-term pain.

"There are several options we can try. Amitriptyline is often the first choice - it's an older medication that's very effective for nerve pain at low doses. If that doesn't suit you, we have alternatives like duloxetine, gabapentin, or pregabalin."

c. Consider topical treatment:

You mentioned asking about cream - there's a treatment called capsaicin cream.

- It's made from chili extract and helps by reducing nerve sensitivity.
- Apply to the affected area three to four times daily (avoid touching eyes or broken skin).

For localised pain, we also have lidocaine patches that can be applied directly to the painful area.

d. Review need for stronger opioids cautiously:

Long-term opioids are generally avoided unless under specialist advice due to side effects and dependence risk.

e. Lifestyle support and non-drug measures:

- Use a cool compress or loose cotton clothing to avoid irritating the skin.
- Gentle stretching or mindfulness can sometimes reduce sensitivity.

f. Monitoring mental health:

If mood worsens or sleep continues to be disturbed, we can look into short-term psychological support or sleep aids.

Would you be open to trying one of these next steps today?

7. Safety Netting

Please come back to see us if:

- Your pain worsens or spreads
- You develop any new symptoms like weakness, fever, or a second rash
- You feel increasingly low, anxious, or unable to sleep
- You experience any side effects from the medications we prescribe

This condition can be persistent, but with the right plan we can usually bring it under control. You're not alone in this.

8. Follow-Up Plan

- I'll start you on [amitriptyline/duloxetine/gabapentin/capsaicin] today. It might take a couple of weeks to fully work.
- Let's arrange a follow-up in 2 weeks to assess how you're doing.
- If the pain persists beyond a few months or worsens, we can refer you to a pain management clinic.

9. Leaflet & Final Check

I'll give you a leaflet about post-herpetic neuralgia that includes lifestyle tips and medication guidance.

Aortic Dissection

Setting: Emergency Department

Role: FY2 Doctor

Patient: Older Adult with Cardiovascular Risk Factors

Presenting Complaint: Sudden Onset Severe Interscapular Pain

1. Introduction & Consent

"Hello, I'm one of the doctors on duty today. Could I confirm your full name and date of birth, please?"

Thank you. I understand you're here with sudden back pain - is that correct?

If it's alright, I'd like to ask you a few questions, examine you, and explain what we'll do next. Is that okay?"

2. Presenting Complaint – Pain History (SOCRATES)

"Let's talk about the pain in your back."

- **S – Site:** "Where exactly do you feel the pain?" → Between shoulder blades
- **O – Onset:** "When did it first start?" → Suddenly while watching TV / bending over
- **C – Character:** "How would you describe the pain - is it sharp, tearing, crushing?" → Tearing / ripping
- **R – Radiation:** "Does it move to your chest, neck, jaw, or down into your abdomen?" → May radiate to chest or abdomen
- **A – Associated symptoms:**
 - "Any dizziness or feeling faint?"
 - "Any weakness or numbness in your legs?"
 - "Any shortness of breath or chest pain?"

- "Any nausea, vomiting, or sweating?"
- **T – Timing:** "Is the pain constant since it started or does it come and go?" → Constant and unrelenting
- **E – Exacerbating/Relieving factors:** "Does anything make it better or worse?" → Nothing relieves it
- **S – Severity:** "On a scale of 1 to 10, how bad is the pain at its worst?" → 10/10

3. Red Flag & Systemic Review – Circulatory Collapse Risk

Cardiovascular:

- "Have you ever had high blood pressure, heart problems, or aortic aneurysm?"
- "Any palpitations, chest tightness, or fluttering sensation?"

Neurological:

- "Have you noticed confusion, trouble speaking, or numbness in your face or limbs?"
- "Any weakness or difficulty walking?"

Renal:

- "Any reduction in urination or swelling in your legs?"

GI / Hypoperfusion:

- "Any abdominal discomfort or vomiting?"
- "Do you feel unusually breathless?"

4. Targeted Risk Factor History

- "Have you ever been diagnosed with high blood pressure?"
- "Any connective tissue disorders - like Marfan's or Ehlers-Danlos syndrome?"
- "Have you had any recent trauma or heavy lifting?"
- "Any known heart valve problems or prior heart surgery?"

5. PMAFTOSA

- **P** – Any known medical problems besides this episode?
- **M** – Any regular medications?
- **A** – Any known allergies?
- **F** – Any family history of aneurysm, heart attack, or stroke?
- **T** – Do you smoke or use tobacco?
- **O** – Do you drink alcohol?
- **S** – What do you do for work? Any recent emotional or physical stress?
- **A** – Are you independent at home? Anyone with you now?

6. ICE

- **Ideas:** "What do you think is going on?"
- **Concerns:** "Is there anything you're particularly worried about?"
- **Expectations:** "What were you hoping we'd help with today?"

7. Examination (Verbalised)

"I'd now like to check your vital signs, examine your chest and back, and assess your circulation - would that be okay?"

Findings (provided by examiner):

- High BP (e.g. 190/100)
- Pulse deficit or radial–femoral delay
- Unequal BP in both arms
- Feeble peripheral pulses

- Neurological exam may show limb weakness (if spinal cord involved)

8. Provisional Diagnosis – Lay Explanation

"Based on your symptoms - especially the sudden, severe tearing pain between your shoulder blades - I'm concerned about a serious condition called aortic dissection.

That means there might be a tear in the inner wall of your aorta, the largest blood vessel in your body.

Imagine a garden hose with a tear in the inner lining - water starts to leak between the layers and can

block the flow. That's similar to what may be happening in your main blood vessel.

Blood can then track between layers of the wall, potentially reducing blood flow to vital organs like your brain, kidneys, or legs.

This is a medical emergency, but you've done the right thing by coming in quickly."

9. Emergency Management

To patient: "You're in the right place. We're going to start treatment straight away. I'm also going to call my senior and the surgical team immediately - this needs urgent specialist input, and I want to make sure we have everyone involved from the start."

A. Immediate Stabilisation

- IV Morphine → Pain relief
- IV Ondansetron → For nausea
- IV Labetalol → First-line to reduce BP and heart rate. Target systolic 100-120 mmHg AND heart rate <60 bpm to reduce aortic wall stress. Esmolol is an alternative if short-acting control needed.
- Continuous cardiac monitoring + oxygen + fluids if needed

B. Investigations

- Chest X-ray → May show widened mediastinum
- ECG → To rule out MI
- **Urgent CT angiogram (chest)** → Diagnostic gold standard
- We may also do a D-dimer blood test, though a negative result doesn't rule out dissection
- Sometimes we need a special ultrasound through the food pipe (TOE) for further assessment
- Bloods: FBC, U&E, LFTs, CRP, Troponin, Lactate, Coagulation profile

10. Definitive Treatment Plan (Stanford Classification)

Type A Dissection (Ascending aorta involved)

- Immediate referral to cardiothoracic surgery
- Requires emergency surgery (open repair)
- High risk of tamponade, stroke, or death

Type B Dissection (Descending aorta only)

- If stable → medical management (BP control, ICU monitoring)
- If unstable or organ perfusion affected → vascular surgery referral

11. Safety Netting

"This condition can become life-threatening if not treated quickly. If at any point you experience worsening pain, confusion, leg weakness, or chest tightness - please alert staff immediately.

You're in the right place, and we're doing everything to keep you stable and get you specialist care quickly."

12. Follow-Up Plan

- Once stabilised, you'll be monitored in a high-dependency unit or ICU
- Ongoing blood pressure control is key to prevent recurrence

- You'll have follow-up scans and be reviewed by vascular or cardiothoracic surgery
- Long-term: lifelong BP monitoring and possibly beta-blockers or ACE inhibitors

[Note: This is an emergency presentation - driving advice is not verbalised to the patient. For candidate knowledge:
 - **Type A dissection:** Must notify DVLA. Cannot drive until after successful surgical treatment. May be relicensed if aortic diameter <6cm, BP controlled, satisfactory follow-up. - **Type B dissection:** Must notify DVLA. May be relicensed after successful treatment if diameter <6cm, BP controlled. - **Group 2 (lorry/bus):** Stricter criteria apply - diameter must be <5.5cm with complete thrombosis of false lumen.
 Patient must NOT drive themselves to hospital - always by ambulance.]

Acute Decompensated Heart Failure

Setting: Emergency Department

Role: FY2 Doctor

Patient: Older Adult Male with Cardiac History

Presentation: Acute Dyspnoea with Peripheral Oedema

Mannequin Findings: Ascites, testicular swelling, bilateral pitting oedema, bibasal crackles

1. Introduction & Consent

"Hello, I'm one of the doctors here in the emergency department. Could I confirm your full name and date of birth please?"

Thank you. I understand you've been feeling breathless and noticed some swelling - I'm sorry to hear that. If it's alright with you, I'd like to ask a few questions, examine you, and then explain what we'll do next. Is that okay?"

2. Presenting Complaint – Breathlessness (ODIPARA)

- **O – Onset:** "When did you first start feeling breathless?"
- **D – Duration:** "Has it been there all the time, or does it come and go?"
- **I – Intensity:** "Has it gotten worse recently?"
- **P – Progression:** "Has the breathlessness been getting steadily worse, or did it worsen suddenly?"
- **A – Aggravating/Relieving Factors:**
 - "Does it get worse when you lie flat?"
 - "Do you find yourself needing more pillows to sleep?"
 - "Does walking make it worse?"
 - "Does sitting up or resting make it better?"
- **R – Radiation:** "Do you get chest tightness or discomfort with it?"
- **A – Associated Symptoms:**
 - "Any coughing, especially at night?"
 - "Do you wake up gasping for air?"
 - "Any palpitations, dizziness, or fatigue?"

3. Swelling History

"Where exactly have you noticed the swelling?" → "In my legs, tummy, and even the testicles."

- "When did you first notice the swelling?"
- "Has it been getting worse?"
- "Is it more noticeable at any time of day?"
- "Does the swelling reduce overnight or stay the same?"

4. Targeted System-Based Screening

- "Have you had any problems with your heart before?" → "Yes, *two heart attacks.*"
- "Were you put on any medications after those events?" → "Yes, *after the second one.*"
- "Are you taking a water tablet (diuretic) now?" → "No, *it makes me go to the toilet too often.*"

5. ICE

- **Ideas:** "What do you think is causing this?" → "Maybe *my kidneys?*"
- **Concerns:** "Is there anything you're particularly worried about?" → "That *I'll be stuck like this.*"
- **Expectations:** "What were you hoping we could do today?" → "Help *me breathe better.*"

6. Examination Findings (from mannequin)

- Chest: Bilateral bibasal crackles → pulmonary oedema
- Abdomen: Distended with shifting dullness → ascites
- Legs: Bilateral pitting oedema to knees
- Vitals: Raised RR, tachycardia, borderline low O2 sats

7. Provisional Diagnosis

"Based on everything you've told me - it looks like you have heart failure. The heart is a muscular pump, and after heart attacks, the pump may become weaker. When the heart can't push blood around the body effectively, fluid starts to build up - in the lungs, tummy, legs, and other parts of the body."

8. Acute Management Plan

CRITICAL SAFETY POINT: Do NOT give IV fluid bolus to patients with pulmonary oedema. This is a critical error - the patient is already fluid overloaded. Prioritise diuretics, not fluids.

- **IV loop diuretics** (e.g. furosemide 40-80mg) → to remove excess fluid
- **Oxygen therapy** if saturation low (target 94-98%) - avoid hyperoxia
- Sit patient upright
- Fluid balance monitoring → daily weight
- Catheter if needed: "You mentioned trouble going to the toilet with water tablets - would it be alright if we place a catheter temporarily?"
- Cardiology team referral

9. Long-term Heart Failure Therapy – The Four Pillars

"Once you're stable, the heart specialist team will start you on a combination of medications that work together to strengthen your heart and reduce fluid buildup - usually four different types working together."

[Note: Four Pillars - typically specialist-initiated]

- **Beta-blocker** (e.g., bisoprolol, carvedilol)
- **ACE inhibitor** (ACE inhibitor as first-line. ARNI (sacubitril/valsartan) should be offered instead of ACE inhibitor to people who have symptoms of intolerance to ACE inhibitors (other than angioedema), or if symptoms persist despite optimised quadruple therapy on maximum tolerated doses.)
- **Mineralocorticoid receptor antagonist** (e.g., spironolactone, eplerenone)
- **SGLT2 inhibitor** (e.g., dapagliflozin, empagliflozin) - now recommended for all patients with HFrEF regardless of diabetes status
- Loop diuretics as needed for fluid management
- **IV iron:** If blood tests show iron deficiency, we may give you iron through a drip as this can help with symptoms

[Note: Per NICE NG106 updated September 2025, there is no longer a fixed sequence for initiating these medications. Current guidance recommends early combined use of all four pillars, with sequencing based on individual patient factors. The goal is to initiate all four early, then up-titrate.]

10. Safety Netting

"While you're here, please let us or the nursing staff know straight away if:

- Your breathing gets worse or you feel like you can't catch your breath
- You develop any chest pain or tightness
- You feel dizzy, lightheaded, or like you might pass out
- You notice any new swelling or your legs get more swollen

You're in the right place, and we'll be monitoring you closely."

11. Follow-Up

"You'll be admitted to the cardiology ward so we can give you treatment through a drip and monitor how you're responding. Once the fluid comes off and you're breathing better, we'll make sure you're on the right combination of tablets before you go home.

After discharge, you'll be followed up by the heart failure specialist nurses - they will help adjust your medications, answer any questions, and support you at home. You'll also have regular check-ups with your GP."

12. DVLA Advice

"I should mention driving. With heart failure, the rules depend on how well your symptoms are controlled:

- If your symptoms affect your ability to drive safely - for example, if you're breathless at rest or with minimal activity - you'll need to stop driving and notify the DVLA.
- Once your symptoms are well controlled, many people with heart failure can drive again.

We can discuss this in more detail once you're feeling better and we know how you respond to treatment."

[Note: DVLA requirements for HF - Must notify DVLA if symptoms distract from safe driving (NYHA III-IV).

Group 1 licence holders with NYHA I-II may continue driving. Group 2 requires LVEF $\geq 40\%$ and NYHA I-II.]

13. Addressing Medication Concerns

"You mentioned earlier that you stopped taking the water tablet because it made you need the toilet too often. I completely understand - that can be inconvenient.

But as you can see, when the fluid builds up, it causes serious problems with your breathing and swelling. The water tablets are one of the key treatments to prevent this happening again.

There are things we can do to make it easier - like timing when you take it so you're not up all night.

Would you be open to trying it again with some adjustments?"

14. Closing Summary

"So to summarise - you've come in today with heart failure. The fluid has built up in your lungs, tummy, and legs because your heart isn't pumping as strongly after your previous heart attacks.

We're going to:

1. Give you medication through a drip to help get rid of the extra fluid
2. Monitor your breathing and how much fluid is coming off
3. Get the heart specialist team involved
4. Make sure you're on the right combination of long-term medications before you go home

Do you have any questions for me?

Heart Failure presenting in GP

Setting: Primary Care

Patient: Older Adult Female

Presenting Complaint: Progressive Breathlessness with No Prior Cardiac History

1. Introduction & History

Standard ODIPARA for breathlessness. Key findings: JVP raised, bilateral ankle pitting oedema, chest clear.

2. Provisional Diagnosis

"This condition is called heart failure. It doesn't mean your heart has stopped working, but that it's not pumping blood as effectively, which leads to fluid building up."

3. Investigations

- **NT-proBNP** (more commonly used than BNP):
 - NT-proBNP 400-2000 ng/L (47-236 pmol/L) → referral for specialist assessment AND echocardiography within 6 weeks
 - NT-proBNP >2000 ng/L (>236 pmol/L) → URGENT referral for specialist assessment AND echocardiography within 2 weeks
 - NT-proBNP <400 ng/L → heart failure unlikely in untreated patient
- FBC, U&Es, LFTs, TSH, HbA1c
- Chest X-ray, ECG, Urinalysis, Spirometry

4. Management Plan

- Keep track of your weight each morning - any sudden increase might mean fluid is building up
- Elevate legs when sitting
- Hold off diuretics until cardiology confirms diagnosis

About long-term treatment: "Once heart failure is confirmed, long-term treatment typically includes four key medications working together: ACE inhibitors, beta-blockers, MRAs, and a newer class called SGLT2 inhibitors - these have been shown to significantly improve outcomes even in people without diabetes."

DVLA Advice: "You should avoid driving until your symptoms are controlled and we know more about your heart function."

5. Safety Netting

"Please come back or call us urgently if:

- Your breathing gets worse, especially if you can't lie flat
 - You notice sudden weight gain - more than 2kg in a few days
 - Your ankles swell more
 - You develop chest pain or palpitations
 - You feel faint or dizzy"
-

Infective Endocarditis

Setting: Primary Care

Patient: Middle-Aged Adult Male

Presenting Complaint: Persistent Fever and Malaise with History of Intravenous Drug Use

1. Introduction & Consent

"Good morning, I'm one of the doctors here today. I understand you've not been feeling well recently - can you tell me more about that?"

2. Presenting Complaint – Fever & Malaise (ODIPARA)

Standard fever history. Key associated symptoms: chills, night sweats, fatigue, weight loss, joint pain, skin changes.

3. Infective Endocarditis Risk Factors

- Heart murmur or valve problem?
- Heart surgery (valve replacement, pacemaker)?
- History of endocarditis?
- When did you last inject drugs?
- Shared needles or equipment?
- Recent skin infections, abscesses, ulcers?

4. ICE

- **Ideas:** "Could it be the methadone or withdrawal?"
- **Concerns:** "Something to do with my heart maybe?"
- **Expectations:** "Just figure out what's going on."

5. Examination (Verbalised)

Looking for: Fever, tachycardia, new murmur, raised JVP, splinter haemorrhages, Osler nodes, Janeway lesions, petechiae, bibasal crepitations.

6. Provisional Diagnosis & Explanation

"Based on your symptoms - especially the persistent fever, fatigue, and your history of injecting drug use - I'm concerned about something called infective endocarditis.

Your heart has small valves that help keep blood flowing in the right direction. In people who have injected drugs in the past, sometimes bacteria can enter the bloodstream through shared or unclean needles. These bacteria can settle on the heart valves, like barnacles on a ship, and cause an infection there.

I know this sounds serious, and I want to be honest with you - it is. But catching it early gives us the best chance of treating it successfully.

In people who inject drugs, the infection typically affects the tricuspid valve on the right side of the heart - this can lead to lung complications as infected material travels to the lungs.

The most common cause in people who inject drugs is a bacterium called *Staphylococcus aureus*."

Brief mention of Duke Criteria: "Diagnosis is guided by the Duke Criteria, which combine blood culture results, echocardiogram findings, and clinical features like fever and immunological phenomena."

7. Management Plan

A. Immediate Action – Urgent Hospital Admission

- "We'll arrange for you to go to A&E today by ambulance."

B. Investigations in Hospital

- Blood cultures x3 from different sites (≥ 2 sets, ≥ 30 ml total volume), before antibiotics
- Echocardiogram (TTE first, TOE if needed)
- Bloods: FBC, U&Es, LFTs, CRP, ESR, coagulation profile

- ECG, CXR
- Neurological review if any focal signs

C. Treatment

- IV antibiotics (e.g. vancomycin + gentamicin) for 2–6 weeks based on culture
- If complications: valve surgery may be required

D. Holistic Support

- Harm reduction: Refer to substance misuse team, HIV/hepatitis screening, needle exchange
- Social support: Housing, addiction counsellor

8. Safety Netting

"This is potentially life-threatening if not treated early, so I strongly recommend you go in today. If anything changes before the ambulance arrives - like worsening breathlessness, chest pain, fainting, or confusion - call 999 straight away."

9. Follow-Up

"After your hospital stay, you'll need:

- Regular follow-up with cardiology to monitor your heart valve
- Ongoing support from the substance misuse team
- Dental review - good dental hygiene is important to prevent future infections
- HIV and hepatitis screening if not already done

We'll also see you back here at the practice once you're out of hospital to make sure you're recovering well and connected with all the right services."

10. Closing

"I know this is a lot to take in. The most important thing right now is getting you to hospital so we can start treatment. The team there will explain everything in more detail.

Do you have any questions before we arrange transport?"

Acute Heart Failure After Surgery

Setting: Emergency Department

Role: FY2 Doctor

Patient: Older Adult Female

Presenting Complaint: Post-Operative Dyspnoea Following Cholecystectomy

1. Introduction & Consent

"Hello, I'm one of the doctors here today. Just to confirm, could I check your full name and date of birth, please?"

Thanks. I understand you've been having some shortness of breath - could you tell me a bit more about what's been going on?"

2. Presenting Complaint – Breathlessness (ODIPARA)

- **O – Onset:** "When did you first start feeling breathless?" → "I noticed it the evening after my operation - it's gotten worse."
- **D – Duration:** "Has it been there continuously since then, or on and off?"
- **I – Intensity:** "How bad is it now - can you climb stairs or speak full sentences?"
- **P – Progression:** "Has it been getting better or worse over the past couple of days?"
- **A – Aggravating/Relieving:**
 - "Is it worse when you lie flat?"

- "Have you needed more pillows to sleep lately?"
- "Does resting or sitting upright help?"
- **R – Radiation:** "Any tightness or discomfort in your chest?"
- **A – Associated symptoms:**
 - "Any swelling in your legs or ankles?"
 - "Do you wake up at night gasping for air?"
 - "Feeling unusually tired or dizzy?"
 - "Any palpitations, nausea, or reduced appetite?"

3. Differential Diagnosis Screening – Post-Op Dyspnoea

"Just to rule out other possible causes:"

- "Any fever, cough, or green phlegm?" (→ Pneumonia)
- "Any sharp chest pain or coughing up blood?" (→ PE)
- "Any abdominal bloating or tenderness?" (→ Surgical complication)
- "Any recent vomiting or wound issues?"
- "Have you passed urine normally and been eating?"
- "Any confusion, light-headedness, or fainting episodes?"

We'll also calculate your risk of a blood clot in the lungs using a scoring system (Wells Score), as this is an important consideration after surgery.

4. Medical & Surgical Risk History

- "Have you had any previous heart conditions - like angina, heart attacks, or heart failure?"
- "Any high blood pressure, diabetes, or kidney problems?"
- "How did your gallbladder surgery go - were there any complications during or after?"
- "Have you had much fluid through a drip since the operation?"
- "Were you mobilising or mostly in bed at home?"

5. PMAFTOSA

- **P** – No diagnosed cardiac disease, recent laparoscopic cholecystectomy
- **M** – Paracetamol, omeprazole post-op
- **A** – No known drug allergies
- **F** – No family history of early heart disease
- **T** – Non-smoker
- **O** – Occasional alcohol
- **S** – Lives alone, independent prior to surgery
- **A** – No carers, managing alone since discharge

6. ICE

- **Ideas:** "What do you think might be causing the breathlessness?" → *"I thought maybe I was just slow to recover."*
- **Concerns:** "Is there anything in particular you're worried about?" → *"I'm scared my lungs or heart might be acting up."*
- **Expectations:** "What were you hoping we could do today?" → *"Help me breathe better and make sure nothing serious is going on."*

7. Effect on Life

- "Have you been able to walk around or carry out your usual activities?"
- "How did you sleep last night?"
- "Have you been eating and drinking normally?"

8. Examination (Verbalised)

"I'd like to examine your heart and lungs and check your vital signs - is that okay?"

Findings:

- Bibasal crackles on auscultation
- Mildly raised JVP
- Bilateral mild ankle oedema
- SpO2 slightly reduced

9. Provisional Diagnosis (Lay Explanation)

"Your heart works like a pump to circulate blood. Sometimes, the stress of surgery can unmask a weakness in the heart that wasn't causing problems before.

It looks like fluid has started to collect in places it shouldn't - a bit like a blocked drain backing up. This is causing the breathlessness you're experiencing.

We've caught it early, and we can treat it effectively."

10. Immediate Management

- Sit upright
- **Oxygen** if hypoxic (target O₂ saturation 94-98% - we avoid giving too much oxygen as this can be harmful)
- **IV furosemide 40mg** to help remove excess fluid
- ECG, CXR, BNP/NT-proBNP
- Blood tests including troponin to check for heart strain
- Echocardiogram

11. Follow-Up

"Once you're stable, the heart specialist team will start you on long-term medications to protect your heart - these typically include several tablets that work together. We'll make sure you're seen by the right team before you go home, and they'll explain everything in detail."

Intermittent Palpitations

Setting: Primary Care

Role: FY2 Doctor

Patient: Middle-Aged Adult

Presenting Complaint: Episodic Palpitations – Brief and Self-Terminating

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. I understand you've been experiencing some irregular heartbeats - would it be okay if I ask you a few questions about that?"

2. Presenting Complaint – Palpitations (ODIPARA)

- **O – Onset:** "When did you first notice these irregular heartbeats?" → "About 3 weeks ago."
- **D – Duration:** "When you feel them, how long does each episode last?" → "Maybe 10–20 seconds."
- **I – Intermittent/Constant:** "Are they there all the time, or do they come and go?" → "They come and go - maybe once or twice a day."
- **P – Pattern:** "Do they happen at any particular time - morning, evening, after meals?"

- "Are the episodes completely random, or do they tend to happen during certain activities?"
- "Have you noticed any changes in how often they occur?"
- **A – Aggravating/Relieving Factors:**
 - "Do they stop on their own, or do you need to do anything to make them go away?"
 - "Does caffeine, alcohol, or stress seem to affect them?"
 - "Have you recently been sleeping poorly, under more pressure, or physically unwell?"
- **A – Associated Symptoms:**
 - Dizziness or light-headedness?
 - Shortness of breath?
 - Chest discomfort or pain?
 - Sweating or anxiety?
 - Fainting or near-fainting episodes?

3. Risk Factor Screening

Cardiac history:

- "Have you ever been diagnosed with high blood pressure, heart disease, or rhythm problems?"
- "Any surgeries, stents, or valve issues in the past?"

Other medical conditions:

- "Do you have any thyroid problems, or hormone-related disorders?"
- "Any history of diabetes, anaemia, or electrolyte imbalance?"

Medications:

- "Are you taking any regular medications or supplements?"
- "Any inhalers, decongestants, or thyroid tablets?"

Mental health & stress:

- "Have you experienced anxiety or panic attacks before?"
- "Have you been feeling unusually stressed lately?"

Social & stimulant use:

- "Do you smoke or drink alcohol? If so, how much and how often?"
- "Do you drink tea, coffee, or energy drinks - how many cups a day?"
- "Have you been using any recreational substances?"

4. PMAFTOSA

- **P** – No diagnosed chronic illness
- **M** – No medications
- **A** – No known allergies
- **F** – No relevant family history
- **T** – Non-smoker
- **O** – Low alcohol use
- **S** – Drinks 2–3 cups of coffee per day
- **A** – Lives independently, no functional limitations

5. ICE

- **Ideas:** "Do you have any thoughts on what might be causing it?" → "Not sure - maybe stress?"
- **Concerns:** "Is there anything you're particularly worried about?" → "I'm worried it might be my heart."
- **Expectations:** "What would you like from today's consultation?" → "I'd like to make sure it's nothing dangerous."

6. Examination (Verbalised)

"I'd now like to check your vital signs and examine your heart and lungs - is that okay?"

Findings:

- Pulse: Regular
- BP: Normal
- Chest: Clear
- Heart sounds: Normal
- No signs of heart failure or hyperthyroidism

7. Provisional Diagnosis & Explanation

"The feeling you've described - short, irregular, thumping or fluttering sensations in the chest - is likely due to short episodes where your heart briefly beats faster or out of rhythm.

Our heart normally follows a very regular rhythm, like a metronome, but in some people, occasional extra signals can create a burst of fast or irregular beats. These episodes can last a few seconds and often stop by themselves.

It can be due to stress, caffeine, or just a naturally irritable part of the heart's electrical system. In most people your age and health profile, this is completely harmless - but we need to catch your heart in the act, so to speak, to be completely sure."

8. Management Plan

Investigations:

- 12-lead ECG - to check your heart's rhythm at rest
- 24-hour or event ECG monitor - to catch any abnormal rhythms when you feel symptoms
- Blood tests: FBC, U&Es, glucose, calcium, TFT

Referral:

- Routine referral to cardiology for specialist rhythm assessment
- May involve longer monitoring or stress testing depending on results

Lifestyle advice:

- Try to reduce caffeine if you're drinking more than 2-3 cups daily
- Stay hydrated and well-rested
- Avoid stimulants like energy drinks or decongestants

Vagal manoeuvres: "If you feel an episode starting, try coughing forcefully or bearing down - sometimes this can stop it."

CHA₂DS₂-VASc contingency: "If the heart monitor does show atrial fibrillation, we'll calculate your stroke risk using a scoring system called CHA₂DS₂-VASc to decide whether you need blood thinners."

[Note for candidates: Female sex scores 1 point, but a score of 1 in women (if sex is the only risk factor) does not mandate anticoagulation. Anticoagulation is offered at score ≥2, or considered at score 1 in men.]

Explaining AF to patients (if diagnosed): "Normally, the heart's internal wiring sends a regular signal to pump blood. In atrial fibrillation, that signal becomes chaotic or 'quivering,' which makes the heartbeat irregular. This increases the risk of blood clots forming, which is why we may need to discuss blood thinners."

9. Safety Netting & Follow-Up

"While we're investigating, if you experience any episode that lasts more than a few minutes, or you feel faint, get chest pain, or find it hard to breathe - call 999 or go to A&E immediately.

You don't need to notify the DVLA unless you experience symptoms while driving or lose consciousness.

We'll review your results here in about a week."

Case Variation – Older Adult with Risk Factors

Differences: Age over 65, known hypertension on amlodipine, positive family history of CAD.

Adjusted Management:

- Investigations remain the same
- Referral becomes **urgent** (4–6 weeks rather than routine)
- Greater emphasis on monitoring for symptoms
- If AF detected, CHA₂DS₂-VASc score likely higher → anticoagulation more likely needed

Ventricular Ectopics

Setting: Primary Care

Role: FY2 Doctor

Patient: Young Adult (Student)

Presenting Complaint: ECG-Confirmed Ventricular Ectopic Beats

Background: 30-year-old, stressed, drinks coffee and alcohol

1. Introduction & Consent

"Hello, I'm one of the doctors at the clinic. I understand you've been feeling some irregular heartbeats - would it be okay if I ask you a few questions about that before we go over your ECG?"

2. Presenting Complaint – Palpitations (ODIPARA)

- **O – Onset:** "When did you first notice this irregular heartbeat?" → "A few weeks ago."
- **D – Duration:** "Does the sensation last for a few seconds or longer?" → "Each time it's a few seconds, maybe once or twice a day."
- **I – Intermittent or Constant:** "Does it come and go, or is it there constantly?" → "It comes and goes."
- **P – Progression:** "Has it been getting more frequent or intense over time?" → "Not really, just that I notice it more when I'm anxious."
- **A – Aggravating/Relieving Factors:**
 - "Do you notice it more with caffeine, alcohol, or stress?" → "Yes, especially after coffee or after work."
 - "Does exercise make it worse?" → "I haven't noticed."
- **R – Radiation:** "Does the sensation spread to your throat or chest?" → "No."
- **A – Associated symptoms:**
 - "Any chest pain?" → "No"
 - "Any breathlessness?" → "No"
 - "Any dizziness or blackouts?" → "No"

3. Differential Diagnosis Screening

- "Have you had any recent infections or chest symptoms?"
- "Do you feel anxious or have a history of panic attacks?"
- "Any over-the-counter or herbal supplements?"
- "Any unintentional weight loss, heat intolerance, or tremors?"
- "Any history of thyroid issues?" → "No to all."

4. PMAFTOSA

- **P** – No diagnosed medical conditions
- **M** – Not on medications

- **A** – No known allergies
- **F** – No family history of sudden cardiac death
- **T** – Non-smoker
- **O** – Drinks 5–6 cups of coffee/day and alcohol on weekends
- **S** – Works in a high-pressure office job
- **A** – Lives independently

5. ICE

- **Ideas:** "What do you think is causing it?" → "Maybe stress or caffeine, but once I thought I might be having a heart attack."
- **Concerns:** "Is anything worrying you?" → "Yes, I'm scared it's something serious with my heart."
- **Expectations:** "What were you hoping I could do today?" → "Just want to know if I'm okay."

6. Examination & ECG Findings

Findings:

- Vitals normal
- Heart rate regular at rest
- No murmur
- No signs of thyroid disease or heart failure
- ECG shows isolated ventricular ectopic beats

7. Provisional Diagnosis & Explanation

"Your ECG shows something called ventricular ectopic beats. These are occasional extra heartbeats that come from the bottom part of the heart. They can create a fluttering or thumping sensation, or make it feel like your heart skips a beat.

The good news is that in otherwise healthy people - especially with normal tests and no other symptoms - they are generally harmless.

They're often linked to lifestyle triggers like stress, too much caffeine, alcohol, or even lack of sleep.

Your heart is reacting to these irritants, not showing signs of damage.

You've done the right thing by coming in."

8. Management Plan

A. Lifestyle Modification (First-Line Treatment)

- **Caffeine:** Gradually reduce coffee/energy drinks to no more than 1–2 cups/day
- **Alcohol:** Reduce intake and avoid binge drinking
- **Stress:** Explore stress-reduction techniques - e.g. breathing exercises, mindfulness, yoga
- **Exercise:** Aim for 150 minutes of moderate activity/week - "Exercise actually helps regulate heart rhythm and reduce anxiety."

B. Investigations

- No further urgent cardiac investigations needed unless symptoms worsen
- May check: Thyroid function (TFT), Electrolytes
- ECG copy for cardiology if any change later

C. Beta-blocker option (if symptomatic despite lifestyle changes): "If the extra beats continue to bother you despite lifestyle changes, we can consider a low-dose beta-blocker, which calms the heart's electrical activity."

D. Reassurance

- "No medication needed at this stage - we'll focus on addressing lifestyle triggers."

9. Safety Netting & Follow-Up

"If you ever experience episodes that last longer, cause fainting, severe chest pain, or breathlessness, please go straight to A&E or call 999.

We can recheck in a few weeks to see how you're doing after reducing caffeine and stress."

Atrial Ectopics

Setting: Primary Care

Role: FY2 Doctor

Patient: Young Adult (Student)

Presenting Complaint: ECG-Confirmed Atrial Ectopic Beats

1. Introduction & History

Standard palpitation history. Key features: Brief episodes, associated with caffeine (4-5 cups/day) and exam stress.

2. Examination & ECG Findings

- ECG shows atrial ectopics (inverted P waves)
- Normal examination

3. Explanation

"The ECG shows that extra signals can fire off from the top part of the heart - these are called atrial ectopics. Many people have them occasionally and don't even notice them.

They're often triggered by caffeine, alcohol, stress, or tiredness - which are common during student life."

4. Management Plan

Lifestyle Advice:

- Reduce caffeine to 2 cups or fewer per day
- Moderate alcohol
- Stress reduction - consider university counselling support
- Regular exercise

No further testing needed if benign features.

5. Safety Netting

"Please come back if:

- The palpitations become more frequent or last longer
- You experience any chest pain, breathlessness, or dizziness with them
- You ever faint or nearly faint

These extra beats are almost always harmless, but those symptoms would need further investigation."

6. Follow-Up

"No routine follow-up is needed if your symptoms settle with lifestyle changes. If you're still having frequent episodes in a few weeks despite cutting down caffeine, come back and we can discuss further options."

Heart Block on ECG

Setting: Primary Care

Patient: Older Adult

Presenting Complaint: Patient feels fine but family member was worried after a fainting episode yesterday

Key Finding: ECG shows **second-degree AV block (Mobitz type 2)**

1. Introduction & Consent

Greet the patient, confirm name & age

"I understand you came in yesterday after briefly losing consciousness. Is it alright if I check how you've been since and go over the test results with you today?"

2. Focused History & Context

Start by gently exploring the event and allowing patient narrative

"Could you walk me through what happened yesterday?"

Syncope Event History

What were you doing at the time? (e.g. standing, walking, exerting?)

Did you feel anything before it happened? (light-headedness, dizziness, nausea, blurred vision)

Did you completely lose consciousness?

How long were you out? (If unsure, ask if anyone witnessed it)

Any confusion after? Were you back to normal straight away?

Any injuries from the fall?

Any similar episodes before?

"Has this ever happened to you before? Even a feeling of near-fainting?"

Associated Symptoms

Ongoing fatigue or tiredness?

Chest pain or pressure?

Palpitations or slow heartbeat sensation?

Breathlessness?

Reduced ability to do daily tasks or walk long distances?

Past Medical History

Any history of:

Heart problems

Diabetes or high blood pressure

Stroke or mini-strokes

Medications: "Are you on any tablets for your blood pressure or heart?" (→ Amlodipine)

Family history of heart disease or sudden collapse

Smoking, alcohol, caffeine

Driving status: "Do you currently drive?"

Patient appears well and repeatedly says she feels fine; daughter was the one concerned.

3. Explore ICE

Ideas: "Do you have any thoughts on what caused it?"

Concerns: "Are you worried this might happen again?"

Expectations: "Was there anything you or your daughter were hoping we'd check today?"

Patient thinks it was "just a one-off" but is open to understanding what was found.

4. Ask to Review ECG

"I see some tests were done yesterday including an ECG. Would it be alright if I just take a quick look at those before we continue?"

→ **ECG reveals bradycardia with a significant conduction delay (Mobitz type 2 AV block)**

5. Clear Result Disclosure

"Thanks for waiting. I've reviewed your ECG, and it shows that your heart's electrical system is occasionally missing signals - meaning your heart skips a beat from time to time."

"This likely explains the fainting episode you had - your heart may have briefly paused, reducing blood flow to your brain, causing you to collapse."

"I know it probably feels strange to hear something is serious when you feel perfectly well. But this pattern on your heart tracing tells us that the electrical signals are occasionally getting blocked - and the concern is that it could suddenly get worse without giving you any warning signs first."

6. Explanation of the Condition

"Our heart has its own natural wiring system that sends signals to make it beat regularly."

"In your case, the signal is not always getting through to the bottom chambers of the heart."

"When that happens, your heart may beat too slowly or even pause - and that can cause blackouts or worse."

"It's not something we can leave untreated, even if you feel fine now."

7. Management Plan

Diagnosis

Second-degree AV block (Mobitz type 2) → risk of progression to complete block/asystole

Bradycardia (<40 bpm)

Immediate Actions in GP Setting

"We'll need to arrange for you to be seen at the hospital urgently today. The heart team needs to monitor your rhythm closely and may need to fit a small device called a pacemaker to keep your heartbeat regular."

Urgent same-day admission via 999 ambulance

Notify hospital of ECG findings and syncopal episode

Stop any contributing drugs if appropriate (note: amlodipine doesn't cause bradycardia - so likely continued)

What not to do:

Do **not** give atropine in GP (can worsen Mobitz type 2 and increase risk of complete block)

Do **not** delay referral waiting for more symptoms

8. Safety Netting

"Until the ambulance arrives, please sit and rest - don't walk around, and avoid driving or operating anything mechanical."

"If you feel dizzy, short of breath, or like you might faint again, call out for help or lie flat with your legs raised."

9. Follow-Up Plan

In-hospital monitoring by **cardiology**

Temporary or permanent pacemaker likely - permanent pacing is indicated for acquired Mobitz type 2 AV block regardless of symptoms. This is because Mobitz II has a high risk of progressing to complete heart block without warning.

Follow-up in GP after discharge

DVLA guidance: must not drive until specialist gives clearance

10. Leaflet & Final Check

Offer NHS leaflet on "**Heart block**" or "**Pacemaker**"

"Would you like me to go over anything again before we make the urgent arrangements?"

Stay with patient until ambulance arrives

Notes

ECG: Mobitz type 2 second-degree AV block

Bradycardia HR ~ 40 bpm

History of syncope = **symptomatic bradyarrhythmia**

NICE/RCUK: **Urgent admission for pacing**

Avoid use of jargon like "Mobitz" with patient unless asked

Consider using "heart rhythm disturbance" or "electrical problem" initially with patient, then introduce medical term

Wolff-Parkinson-White Syndrome

Setting: Primary Care

Patient: Adolescent male

Presenting Complaint: Episodic palpitations with ECG abnormality

1. Introduction & Consent

Greet, introduce self, confirm name and age.

"I understand you've had some episodes of your heart racing. I'd like to ask you some questions, review your heart tracing, and then we'll discuss the best next steps. Is that okay?"

Offer reassurance of confidentiality.

2. Open Question

"Can you tell me more about what you've been experiencing?"

Allow the patient to describe in their own words first.

3. History of Presenting Complaint

Character

"How would you describe the sensation-fast pounding, fluttering, skipping beats?"

"Does it feel regular, like a drum, or irregular and chaotic?"

Onset and Timing

"When did you first notice this?"

"How often does it happen?"

"How long does each episode last-seconds, minutes, hours?"

"Does it start and stop suddenly, like a switch, or does it build up gradually?"

Triggers

"Does it happen at rest or during exercise?"

"Any relation to sleep, meals, or dehydration?"

"Have you noticed if it happens after energy drinks, caffeine, alcohol, smoking, or drugs?"

"Any relation to stress or anxiety?"

Associated Symptoms

"Do you ever feel dizzy or faint during these episodes?"

"Any chest pain or pressure?"

"Shortness of breath, sweating, or nausea?"

"Has it ever happened during sport or physical activity?"

Relievers

"Do you do anything that makes it stop, like deep breathing or straining?"

"Does it stop by itself?"

Impact

"Has this affected your school, sleep, or sports?"

"Have you avoided activities because of it?"

4. Past Medical History

Congenital heart disease, cardiomyopathy, rheumatic fever, myocarditis.

Thyroid problems, anaemia, diabetes.

Any previous admissions for heart problems.

5. Drug & Allergy History

Regular medicines (salbutamol, stimulants, thyroxine, antidepressants).

OTC or herbal remedies, supplements.

Allergies.

6. Family History

Sudden cardiac death in relatives under 40.

Known arrhythmias, WPW, long QT, Brugada, hypertrophic cardiomyopathy.

Thyroid disease.

7. Social History

Exercise and sports level, competitive activities.

Caffeine/energy drinks, alcohol, smoking/vaping, recreational drugs.

School/stress (recall: none, but still check).

Sleep and hydration habits.

8. Systems Review

General: fever, weight loss, fatigue.

CVS: ankle swelling, exercise intolerance.

Endocrine: heat intolerance, tremor, sweating, diarrhoea.

9. ICE

Ideas: "What do you think this might be?"

Concerns: "Is there anything you're particularly worried about?"

Expectations: "What are you hoping I can do for you today?"

10. Examination (state you would do)

Vitals: HR, BP, RR, O₂ sats, temperature.

General: pallor, dehydration, tremor.

Cardiac: rate, rhythm, murmurs, thrills, heaves.

Thyroid: goitre, tremor, eye signs, warm peripheries.

Peripheral: signs of anaemia, cyanosis.

11. Explanation of ECG & Condition (if you recognise WPW)

"I know it can be worrying to hear there's something different about your heart's wiring, but I want to reassure you - this is a well-understood condition, and the good news is it's very treatable."

The heart has natural electrical wiring that keeps the rhythm steady. In most people, there is only one pathway. In your case, there is an **extra shortcut**. We call this Wolff-Parkinson-White syndrome, or WPW.

This shortcut can sometimes cause the heart to beat **very fast all of a sudden**, which explains your palpitations.

Most people with WPW are otherwise completely healthy, but because these rhythms can occasionally be dangerous, we take them seriously. The good news is there is a **curative keyhole procedure** available."

12. Management

Immediate

No red flags → no emergency admission.

Referral

Urgent referral to cardiology/electrophysiology for risk stratification and treatment.

Investigations (often initiated by GP or cardiology)

Bloods: FBC, TFTs, U&Es, glucose.

Ambulatory ECG (24–48h Holter or event recorder).

Echocardiogram.

Consider genetic screening if family history of sudden cardiac death or cardiomyopathy.

Definitive treatment

Catheter ablation of the accessory pathway is **first-line** for symptomatic WPW in young patients (curative, low risk).

Important drug caution:

In patients with WPW who develop **atrial fibrillation (pre-excited AF)**, **avoid adenosine, digoxin, verapamil, diltiazem, and beta-blockers** (remember "ABCD") as these can accelerate conduction down the accessory pathway and precipitate ventricular fibrillation.

Note: Adenosine CAN be used cautiously in known **orthodromic SVT** (narrow-complex, regular) under specialist guidance, but should be avoided if there is ANY doubt about the rhythm or if AF is present.

This is a **life-threatening scenario** requiring urgent specialist/emergency care.

Lifestyle advice while awaiting review

Avoid energy drinks, caffeine, illicit drugs, alcohol binges.

Avoid competitive/high-intensity sports until specialist advice.

Ensure good hydration and sleep.

If an episode comes, try **modified Valsalva** if taught; but if symptoms are severe or don't settle, call 999.

Advice to stop driving (including lessons) and to contact the DVLA regarding the diagnosis, pending specialist opinion on fitness to drive.

Safety Netting

Call 999 if: chest pain, collapse/faint, severe breathlessness, or prolonged attack not settling.

Return if frequency increases or symptoms worsen.

Provide NHS leaflet on palpitations/WPW.

Follow-up

GP to review after cardiology appointment and post-ablation if done.

If You Can't Interpret the ECG as an FY2 in GP

Do not guess: never falsely reassure or name a condition you can't identify.

State clearly: "Your ECG shows some changes. I want this to be reviewed by a heart rhythm specialist to be sure."

Check stability FIRST:

Signs of instability: chest pain, syncope, shock, heart failure, severe breathlessness, ongoing tachycardia.

If **ANY instability present** → **call 999/ambulance immediately** for electrical cardioversion.
Do NOT rely on routine referral.

If stable: arrange **urgent cardiology referral** for ECG review and further tests.

While awaiting review: give the **same safety-netting and lifestyle advice** (avoid stimulants, avoid competitive sports, call 999 for red flags).

Document clearly what was explained, what actions were taken, and why you referred.

This approach is **safe, professional, and aligned with GMC Good Medical Practice**: know your limits, prioritise safety, and escalate appropriately.

Q-Risk Assessment

Setting: Primary Care

Role: FY2 Doctor

Patient: Adult

Presenting Complaint: Cardiovascular Risk Assessment Follow-Up (Q-Risk = 14%)

1. Introduction

"Good morning, thanks for coming in. I've got your test results from your recent blood tests and blood pressure checks. Is it okay if we go through them together?"

2. Focused History

- "Have you had any recent chest pain, breathlessness, or palpitations?"
- "Any previous heart problems, strokes, or diabetes?"
- "Do you smoke, and if so, how much?"
- "How would you describe your diet and exercise habits?"
- "Any medication allergies?"

3. ICE

- **Ideas:** "Do you know what the Q-Risk score is used for?"
- **Concerns:** "Are you worried this means you're at high risk of a heart attack?"
- **Expectations:** "Were you expecting to be started on any medication today?"

4. Result Disclosure

"We use something called the Q-Risk 3 calculator, which takes into account your age, blood pressure, cholesterol, whether you smoke, and your medical history to estimate your risk of having a heart attack or stroke in the next 10 years.

Your score is 14%, which means that out of 100 people with similar risk factors, about 14 may have a heart attack or stroke in the next decade.

According to NICE guidance, a score over 10% is considered high risk, and we recommend starting medication to lower that risk - alongside lifestyle changes."

5. Explanation

"This doesn't mean anything is wrong with your heart right now. But it means you're more likely than average to develop heart disease if we don't act.

The good news is - we can reduce this risk significantly with a combination of diet, exercise, stopping smoking, and sometimes medication to protect your heart long term. This isn't about treating something that's broken - it's about protecting what's working well."

6. Management Plan

A. Lifestyle Advice

1. **Diet:** Reduce saturated fats, eat more fibre, add oily fish twice a week, reduce salt (<6g/day)
2. **Exercise:** At least 150 minutes/week of moderate activity
3. **Smoking:** "Stopping smoking is the single most important thing you can do for your heart."
Offer NHS smoking cessation referral
4. **Alcohol:** Keep under 14 units/week
5. **Weight Management:** Aim for BMI under 25

B. Medication

1. **Statin Therapy:**
 - Offer Atorvastatin 20 mg once daily
 - Benefits: lowers bad cholesterol (LDL), reduces risk of heart attack/stroke
 - Side effects: mild muscle aches (common), liver effects (rare)
 - Monitoring: Liver function test before starting, then at 3 and 12 months

Addressing patient concerns about statins: "I understand you may have read about muscle side effects with statins. While a small number of people do experience mild muscle aches, for the vast majority this medication is very safe and significantly reduces your risk of heart attack and stroke. We can start with a low dose and monitor how you respond. If you do experience any problems, we can always adjust or try alternatives."

2. **Blood Pressure Management:**
 - If BP $\geq 140/90$: Offer antihypertensive (e.g. Amlodipine 5 mg)

C. Shared Decision-Making

"It's your choice whether to start medication now. We strongly recommend it, but we'll support whichever path you choose."

7. Safety Netting & Follow-Up

- 3-month review: Check BP, cholesterol, liver function
- Reassess Q-Risk in 1 year
- "If you experience chest pain, shortness of breath, or anything new or worrying, please seek medical attention right away."

Peripheral Arterial Disease (PAD)

Setting: Primary Care

Role: FY2 Doctor

Patient: Middle-Aged Adult Male with Cardiovascular Risk Factors

Presenting Complaint: Exertional Leg Pain – Claudication

1. Introduction & Consent

"Hello, I'm one of the doctors in the practice. May I confirm your full name and age, please? What brings you in today?"

2. History – SOCRATES for Leg Pain

- **Site:** "Where do you feel the pain in your leg?"
- **Onset:** "When did it start?"
- **Character:** "Can you describe the pain - sharp, dull, aching?"
- **Radiation:** "Does the pain spread anywhere?"
- **Associated Symptoms:** "Any numbness, tingling, colour change, or skin changes?"
- **Timing:** "Is it constant or does it come on when you walk or exercise?"
- **Exacerbating/Relieving Factors:** "What brings it on? Does resting relieve it?"
- **Severity:** "On a scale of 1 to 10, how bad is the pain?" → Suggestive of intermittent claudication (pain during walking, relieved by rest)

3. Screen for Red Flags and Differentials

- "Do you have any chest pain or breathlessness?"
- "Any swelling or pain behind your knee or calf?" (DVT)
- "Any change in skin colour - pale, bluish, or shiny skin?"
- "Any sores or ulcers that are slow to heal?"
- "Any hair loss over the leg or coldness compared to the other side?"
- "Any numbness or weakness?" (sciatica)

4. PMAFTOSA

- **P** – High blood pressure, diabetes, high cholesterol?
- **M** – Current medications?
- **A** – Allergies?
- **F** – Family history of heart disease or circulation problems?
- **T** – Do you smoke? → Key risk factor
- **O** – Active or sedentary lifestyle?
- **S** – Alcohol intake?

5. ICE

Common patient concerns: Is it serious? Will I need surgery? Could I lose my leg?

6. Examination

Inspection: Look for colour change, hair loss, ulcers, shiny skin, muscle wasting **Palpation:** Check temperature, capillary refill, femoral and peripheral pulses **Auscultation:** Listen for femoral bruits

Special Test: Buerger's test if appropriate

ABPI (Ankle Brachial Pressure Index): "We'll measure the blood pressure in your ankle and arm - a ratio below 0.9 confirms narrowing of the arteries."

7. Explanation

"From what you've told me and what I've found, it looks like you have a condition called Peripheral Arterial Disease, or PAD.

Think of it like a hosepipe that's become kinked or furred up - the water (blood) can't flow as freely, so your muscles complain when they need more.

That's why you feel pain when walking - your muscles aren't getting enough blood and oxygen. This pain, called intermittent claudication, tends to ease with rest.

PAD is more common in people with risk factors like diabetes, smoking, high blood pressure, or high cholesterol. It's also important because PAD increases the risk of heart attack and stroke, so early treatment helps protect your whole circulation."

8. Management Plan

A. Investigations

- Blood tests: FBC, HbA1c, U&Es, lipid profile
- ECG: Baseline cardiovascular assessment
- ABPI: Non-invasive bedside assessment
- Doppler Ultrasound: To assess flow and narrowing

B. Lifestyle Measures (Cornerstone of PAD Management)

- **Smoking Cessation:** Most effective step to stop progression
- **Supervised Exercise Programme:** "A special exercise programme where we help you walk further each week - it's like physiotherapy for your arteries." (2 hours/week for 3 months, exercise to maximal pain)
- **Dietary Advice:** Mediterranean-style diet, reduce salt
- **Weight Management:** Aim for BMI < 25
- **Foot Care:** Daily inspection to prevent ulcers

"In early PAD, the best treatment is actually walking more - even if it causes discomfort. This trains the body to improve blood flow."

C. Medication

- **Antiplatelet:** Clopidogrel 75 mg OD (first-line for PAD, reduces clot risk)
- **Statin:** Atorvastatin 80 mg - this is the recommended dose for people with arterial disease
- **Risk Factor Control:** Optimise diabetes, hypertension (ACE inhibitor)

D. If Supervised Exercise Fails: "If the walking programme doesn't help enough, we can consider a tablet called naftidrofuryl, which may improve your walking distance."

9. Referrals

- **Vascular Surgery:** If symptoms disabling, rest pain, non-healing ulcers, or gangrene
- **Podiatry:** If reduced foot sensation
- **Diabetes Team:** If poor glucose control

10. Responding to Concerns

"You asked whether this is serious - and yes, it's a condition we monitor closely. The good news is we've caught it early, and with treatment, you can improve walking distance and reduce your long-term risks. It's very rare to lose a leg unless the blood flow becomes critically low and there are untreated ulcers - and our goal is to prevent that entirely."

11. Safety Netting

"Please seek urgent help if you notice:

- Sudden worsening of pain
- Pain at rest that does not improve
- Leg becomes cold, pale, numb
- Any ulcers or wounds that do not heal
- Chest pain or shortness of breath"

DVLA Advice: "You can continue to drive a car, but if you drive professionally, we may need to notify the DVLA depending on your symptoms."

12. Follow-Up Plan

"We'll arrange your blood tests today and refer you to a supervised walking programme. I'll start you on Clopidogrel and Atorvastatin 80mg, and we'll review your progress in a few weeks."

Postural Hypotension and Fall – Unregistered Patient

Setting: Primary Care

Role: FY2 Doctor

Patient: Middle-Aged Adult Male

Scenario: Collapse on Standing – Not Registered Patient

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Before we begin, may I confirm your full name and age please?"

I understand you had a fall just outside the practice - I'm here to check on you. Is it alright if I ask a few questions to understand what happened?"

2. History – Focused Data Gathering

A. Fall Analysis: Before, During, After

"Would you be able to tell me what happened?"

Before the Fall:

- "Were you feeling dizzy or light-headed before you got up?"
- "Any headaches, nausea, or chest discomfort before it happened?"
- "Did you eat or drink anything today? Any vomiting or diarrhoea recently?"
- "Any recent changes to your medication?"

During the Fall:

- "Did you trip or lose your balance?"
- "Did you lose consciousness or blackout?"
- "Did anyone witness what happened?"

After the Fall:

- "Were you confused after the fall?"
- "Any vomiting, fits, or loss of control over bladder or bowels?"
- "Do you remember everything clearly now?"

B. Red Flag Screening

- "Have you ever had any heart problems like heart attacks or irregular heartbeat?"
- "Any history of stroke or mini-strokes (TIAs)?"
- "Do you have any pain in your chest or legs?" (PE, MI)
- "Any recent infections or fever?"
- "Do you have diabetes, kidney, or liver problems?"
- "Any muscle weakness or unsteadiness before today?"

C. Medication History

"I understand you're on medication for blood pressure - do you remember the names?" (Patient: Amlodipine and Enalapril - dose increased last week)

"Have you had any medication changes recently?" "Any side effects since starting or increasing the dose?"

"Are you taking anything else, including over-the-counter medications?"

D. PMAFTOSA

- **P** – Hypertension confirmed. Any others?
- **M** – Amlodipine, Enalapril - dose change noted
- **A** – Any known medication or food allergies?

- **F** – Any heart disease, strokes, or falls?
- **T/O** – Do you smoke or drink alcohol?
- **S** – "You mentioned you're a teacher - that's important to know."
- **A** – Do you live alone? Is someone with you at home?

E. ICE

- **Ideas:** "Do you have any idea what might have caused the fall?"
- **Concerns:** "Is there anything you're particularly worried this could be?"
- **Expectations:** "What were you hoping I could help you with today?"

3. Examination (Verbalised)

"I'd like to examine you now, including checking your blood pressure both lying down and standing - would that be okay?"

Findings:

- General appearance: Alert, not confused, no obvious injury
- Observations: HR, BP, RR, O₂ saturation, temperature
- **Orthostatic BP:** Significant drop noted on standing (≥ 20 mmHg systolic or ≥ 10 mmHg diastolic within 3 minutes) → postural hypotension
- Neurology: No focal deficit
- Cardio/Resp exam: Normal
- Gait & Balance: Unsteady immediately after standing

4. Provisional Diagnosis

"From what I've gathered, it looks like you've had a drop in your blood pressure when changing positions - specifically from sitting or lying to standing.

We call this postural hypotension, and it's likely related to the recent increase in your blood pressure medication."

5. Explanation

"Normally, when we stand up, our body quickly adjusts the blood pressure so we don't feel dizzy. But sometimes, especially with blood pressure medications, that adjustment slows down.

The recent increase in your tablets has probably tipped things too far, causing your blood pressure to drop when you stand."

6. Management Plan (Limitations – Not Registered Patient)

"Because you're not registered with us, there are limits to what I can do today. However, I can:

- Give you immediate advice to keep you safe
- Write to your registered GP with my findings
- Advise you to see them urgently to review your medications"

Lifestyle & Preventive Advice (5 things that can help):

1. **Change position slowly:** Sit on the edge of the bed for a minute before standing
2. **Stay hydrated:** Aim for at least 6–8 glasses of water daily
3. **Avoid long hot showers** and standing still for too long
4. **Small frequent meals:** Avoid large meals, which can lower BP
5. **Raise head of bed slightly** at night

7. Safety Netting

"If you feel dizzy again or collapse, especially with chest pain or weakness, call 999 or come to A&E."

DVLA Advice: "I'd advise not driving until your regular GP has reviewed your medications and your symptoms have settled."

8. Follow-Up Plan

- Letter to patient's registered GP
- Advise urgent GP appointment within 1-2 days
- Medication review by their own GP

Postural Hypotension – Hypertension Annual Review

Setting: Primary Care

Role: FY2 Doctor

Patient: Middle-Aged to Older Adult Male

Scenario: Hypertension Annual Review with New Postural Symptoms

1. Introduction & Consent

"Hello, I'm one of the doctors here. You're here for your annual blood pressure review - is that right? How have you been since your last appointment?"

2. Focused History

"Have you noticed any new symptoms since we last saw you?"

Postural Symptoms:

- "Do you ever feel dizzy or light-headed when you stand up?"
- "Have you had any falls or near-falls recently?"
- "Any blackouts or feeling like you might faint?"

General Review:

- "How have you been taking your blood pressure tablets - any missed doses?"
- "Any side effects you've noticed?"
- "Any chest pain, breathlessness, or palpitations?"

3. Medication Review

"I can see you're on [medication names]. Have there been any changes?"

4. PMAFTOSA & ICE

Standard history. Address concerns about recurrence and medication.

5. Examination

Orthostatic BP Measurement:

- Lying BP: e.g., 145/85
- Standing BP (after 1-3 minutes): e.g., 118/70
- Drop >20mmHg systolic → confirms postural hypotension

6. Provisional Diagnosis

"Your blood pressure is dropping too much when you stand up. This is called postural hypotension."

7. Explanation

"Normally, when we stand up, our blood pressure adjusts quickly to keep enough blood flowing to the brain. But sometimes, especially as we get older or take blood pressure medication, that adjustment slows down.

In your case, your blood pressure drops too much when you stand, which is why you felt dizzy and fell.

This doesn't mean your medication is wrong - but as your body changes, even the same dose can start to act too strongly. That's why we need to review and possibly adjust your treatment."

8. Management Plan

A. Medication Adjustment

"We'll need to adjust your medication to find the right balance - to keep your blood pressure healthy but not let it fall too low."

This might mean:

- Reducing one of the doses
- Stopping one medication if needed
- Or changing the timing

"We'll do this slowly, and review how you respond over the next few weeks."

B. Monitoring & Follow-Up

- "We'll see you again in 2 weeks to check how you're doing."
- "If possible, keep a record of your BP at home - both sitting and standing readings."
- "If you have a home blood pressure machine, please take readings in the morning and evening for a few days before your next appointment."

9. Lifestyle & Preventive Advice

- Change position slowly
- Stay hydrated (6-8 glasses of water daily)
- Avoid long hot showers and standing still for too long
- Small frequent meals
- Raise head of bed slightly
- Avoid alcohol before bed

10. Safety Netting

"If you feel dizzy again or collapse, especially with chest pain or weakness, call 999 or come to A&E."

DVLA Advice: "You should avoid driving until your symptoms have settled and we've adjusted your medication."

11. Follow-Up Plan

- Review in 2 weeks for repeat BP and symptom update
- Possible further medication adjustments based on BP diary
- Annual review once optimised

Postural Hypotension – Elderly

Setting: Emergency Department

Role: FY2 Doctor

Patient: Older Adult Female

Presentation: Collapse on Standing – Known Hypertensive on Dual Therapy

1. Introduction and Consent

"Good morning, I'm one of the doctors in the Emergency Department. May I confirm your name and age, please?"

I understand you were brought in after a fall. I'd like to ask you a few questions and then examine you to work out what happened. Is that alright?"

2. Presenting Complaint – Fall History

"Can you tell me exactly what happened before the fall?"

Explore Fall in Three Phases (Before – During – After)

Before the Fall:

- "Did you feel dizzy or faint before the fall?"
- "Any blurred vision or light-headedness?"
- "Did you feel weak in your legs?"
- "Did you have any chest pain or palpitations before it happened?"
- "Any sweating, feeling hungry, or skipping meals today?"
- "Have you had any joint pain or stiffness that made it hard to get up?"

During the Fall:

- "Did you lose consciousness completely?"
- "Did you hit your head?"
- "Did anyone see what happened?"
- "Was there any bleeding or jerky movements?"

After the Fall:

- "Did you feel confused afterwards or vomit?"
- "Can you remember everything that happened?"
- "Any pain or bruising now?"

3. Differential Diagnosis Screening

- "Any history of recent chest pain or shortness of breath?"
- "Any fever, vomiting, or diarrhoea?"
- "Any swelling in your legs?"
- "Do you have any vision or balance problems recently?"
- "Any memory lapses or speech issues before the fall?"

4. Medical Background – MAFTOSA

- **M:** Hypertension, on Amlodipine + Enalapril
- **A:** No known allergies
- **F:** Family history of stroke in older sister
- **T:** Retired teacher
- **O:** Lives alone, independent
- **S:** Non-smoker, does not drink

"Are you currently taking any blood pressure medications?" "Have there been any changes to your medication recently?" "Do you feel dizzy when getting up from bed or standing from a chair?"

5. ICE

- **Idea:** "Do you have any thoughts on what may have caused your fall?"
- **Concern:** "Are you worried this could happen again?"
- **Expectation:** "What were you hoping we could do for you today?"

6. Examination (Verbalised)

"I'd like to check your vital signs, examine your legs, your heart, and your nerves."

Findings:

- Vitals: Supine BP: 150/85 → Standing BP: 118/70 (drop >20 mmHg)
- General: Alert, visible bruising on hip
- CVS: Normal heart sounds, regular rhythm
- Neuro: Normal GCS, no focal deficits

- ECG: Normal sinus rhythm
- No signs of infection or acute illness

Consider X-ray: "We'll also need an X-ray to make sure there's no fracture from the fall."

7. Provisional Diagnosis

"Based on your symptoms and the significant drop in your blood pressure when standing, it appears you have postural hypotension - a condition where your blood pressure drops when changing position."

8. Explanation in Lay Terms

"When we stand up, our blood pressure is meant to adjust quickly so the brain keeps getting enough blood.

In your case, that adjustment isn't happening fast enough - likely because of a combination of your age and your blood pressure medications. Your GP may have recently adjusted your medication, or sometimes as we get older, our body becomes more sensitive to these tablets.

This leads to dizziness and even fainting when you stand up."

9. Management Plan

Immediate Actions in A&E:

- Stop/withhold one antihypertensive temporarily (under senior guidance)
- Document BP drops and ECG findings
- Hydration assessment - encourage fluids
- Consult internal medicine team for safe plan

10. Advice for Patient (While Awaiting GP Review)

"In the meantime, there are things you can do to reduce your risk of falling again:"

- Get up slowly from lying/sitting
- Sit on the side of the bed for a minute before standing
- Eat smaller, more frequent meals
- Stay well hydrated - especially in warm weather
- Avoid large meals before standing
- Sleep with the head of the bed slightly raised
- Keep a soft nightlight in the room
- If dizzy, sit or lie back down immediately

11. Safety Netting

DVLA Advice: "You should not drive until we've sorted out your medication and you've been symptom-free for at least a week."

12. Follow-Up Plan

- Discharge when stable
- Letter to GP: Recommend full hypertension review
- GP to adjust medications gradually - could include dose reduction, timing change, or removal of one antihypertensive
- Weekly GP monitoring of BP and symptoms during adjustment
- Consider referral to falls clinic or care of the elderly team

Hypertension Follow-up – Cough with Enalapril

Setting: Primary Care

Role: FY2 doctor

Patient: Middle-Aged Adult Male with Diabetes

Scenario: Hypertension Follow-Up – ACE Inhibitor Side Effect

1. Introduction & Consent

"Hello, I'm one of the doctors here at the surgery. Thank you for coming in today. I understand this is a follow-up after your recent hospital visit. Before we begin, could I just confirm your full name and date of birth? Great, thank you. How can I help you today?"

(He may say: "I was asked to come for a follow-up after I was diagnosed with high blood pressure.")

2. Focused History & Context

Hospital Stay Context:

- "Can you tell me a bit about what happened when you were admitted to the hospital?"
- "I understand they found high blood pressure while you were there. Was that the first time you were told about it?"

Medication History:

- "Were you started on any tablets for your blood pressure?"
- "Which one were you prescribed?"
- "Are you still taking that medication?"
- "When did you stop taking it?"
- "What made you stop?"

Cough Details:

- "Was the cough dry or productive?"
- "Did it disturb your sleep?"
- "Did you have any fever, chest pain, or breathlessness?"
- "Any cold or flu-like symptoms before the cough started?"

Diabetes Status:

- "Just to check, how has your diabetes been lately?"
- "Are you on tablets or insulin for that?"

3. Explore ICE

- **Ideas:** "Do you have any thoughts on why your blood pressure was high?"
- **Concerns:** "Is there anything about this situation that's been worrying you?"
- **Expectations:** "What were you hoping we could do today?"

4. Clear Result Disclosure

"Thanks for sharing that. I've just checked your blood pressure, and it's currently 160/90, which is still a bit high. That's probably because the enalapril was stopped a few weeks ago, so you're not getting the full benefit."

5. Lay Explanation of the Condition

"High blood pressure often has no obvious symptoms, but it puts strain on your heart, kidneys, eyes, and blood vessels over time. If left untreated, it increases the risk of strokes, heart attacks, and kidney disease. That's why we try to keep it controlled-even if you feel fine."

As for the cough, one of the side effects of enalapril is that it can cause a dry, persistent cough in some people. It's not dangerous but can be irritating."

6. Structured Management Plan

Change of Medication:

"We'll switch you to a different medication called candesartan. It works similarly to enalapril to lower your blood pressure but is less likely to cause a cough. We can usually switch directly, though the cough may take a few weeks to fully settle after stopping the ACE inhibitor.

Please don't stop it without talking to us first - there may be other options we can try if you have any issues."

Renal Protection in Diabetes:

"For someone with diabetes like yourself, these ACE inhibitors and ARBs have an added benefit - they help protect your kidneys from the effects of high blood sugar. That's why we're keen to keep you on this type of medication."

Check for Contraindications:

"Before starting candesartan, I'll also check your kidney function and potassium levels - these are usually tested with a simple blood test. We'll check your potassium level - ARBs can sometimes cause it to rise, especially with kidney problems."

Angioedema Warning:

"Very rarely, these medications can cause swelling of the lips, face, or throat. If this happens, stop the medication and seek help immediately."

Lifestyle Advice:

"Blood pressure can also improve with lifestyle changes, such as:

- Eating less salt
- Reducing processed foods
- Losing weight if overweight
- Regular exercise (30 minutes, 5 times a week)
- Cutting back on alcohol
- Managing stress
- Stopping smoking, if applicable"

Diabetes Control:

"It's important to manage your diabetes well, as it can also affect your blood pressure and kidney health."

7. Safety Netting

"If you develop any dizziness, fainting, swelling in the legs, or a return of the cough, or if you feel unwell in any way, please come back immediately or call 111."

8. Follow-Up Plan

"I'd like to see you again in 4 weeks to check your blood pressure and see how you're responding to the new medication. We'll also arrange blood tests before then to monitor kidney function and potassium levels."

9. Offer Leaflet & Final Check

"I'll print out a leaflet for you on high blood pressure and the new medication, so you can read more about it at home. Is there anything else you wanted to ask or clarify before we finish?"

Hypertension Follow-up – Amlodipine and Leg Swelling

Setting: Primary Care

Role: FY2 doctor

Patient: Middle-Aged Adult Female

Scenario: Hypertension Follow-Up – Calcium Channel Blocker Side Effect

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Thanks for coming in today. I understand this is a follow-up after your recent hospital stay. Before we begin, could I confirm your full name and date of birth? Great. So how have you been since your discharge?"

2. Focused History & Context

Hospital Admission:

- "Can you tell me what led to your hospital admission recently?"
- "And during that time, they found your blood pressure was high, right?"
- "Was this your first time being diagnosed with high blood pressure?"

Medication History:

- "Were you started on any blood pressure tablets?"
- "Do you remember the name of the tablet?"
- "Are you still taking it?"
- "When did you stop it?"
- "What made you stop?"

Swelling History:

- "Can I ask where the swelling was - was it both legs or one?"
- "Did it start suddenly or gradually?"
- "Was it worse at the end of the day or constant throughout?"
- "Did it improve overnight?"
- "Were you able to walk comfortably?"
- "Did you notice any pain, redness, or skin changes?"
- "Did the swelling affect your ability to wear shoes or walk around?"

Exclude Other Causes (DVT):

- "Have you had any recent injuries or long periods of immobility?"
- "Any shortness of breath or chest pain?"
- "Any changes in your urine, such as reduced amount or frothy appearance?"
- "Any weight gain recently?"

3. Explore ICE

- **Ideas:** "What do you think might have caused the swelling?"
- **Concerns:** "Was anything about this worrying you in particular?"
- **Expectations:** "What were you hoping we could do today?"

4. Clear Result Disclosure

"Thanks for sharing that. I've checked your blood pressure today - it's 162/92, which is still a bit high. That's likely because you've not been taking your blood pressure medication."

5. Lay Explanation

"High blood pressure often doesn't cause symptoms, but over time it can quietly damage your heart, kidneys, eyes, and blood vessels. That's why we aim to keep it well controlled, even if you feel fine."

"It sounds like the amlodipine caused the swelling in your legs, which is a known side effect. It tends to cause fluid retention in some people."

"It sounds like the swelling was really affecting your daily life - I understand why you stopped it."

6. Structured Management Plan

Change of Medication:

"We'll switch you to a different type of medication called enalapril. This is an ACE inhibitor that works differently and won't cause ankle swelling."

Age/Ethnicity Consideration

"Another option would be a water tablet called indapamide, but given your history, an ACE inhibitor is a good choice."

[Note: Per NICE NG136, for patients ≥55 or Black African/Caribbean where CCB is not tolerated, thiazide-like diuretic is preferred. ACEi/ARB becomes first-line only if patient has type 2 diabetes, regardless of age/ethnicity. So in these cases - Since you're [over 55 / of Black African or Caribbean origin], and the amlodipine caused problems, we suggest trying a water tablet called indapamide as the next step. However, if you have other conditions like diabetes or heart failure, an ACE inhibitor like enalapril might be more appropriate. Let me check your records...]

Angioedema Warning:

"Very rarely, enalapril can cause swelling of the face, lips, or throat - this is different from the leg swelling you had. If this happens, stop the medication and seek help immediately."

Blood Tests:

"I'll arrange blood tests to check your kidney function before starting enalapril, as this is important with this type of medication."

Lifestyle Advice:

"Blood pressure can also improve with lifestyle changes such as:

- Reducing salt in your diet
- Regular exercise
- Losing weight if needed
- Reducing alcohol
- Managing stress"

7. Safety Netting

"If you develop any new cough, dizziness, swelling, or feel unwell, don't stop the medication on your own - just give us a call or book an appointment. We'll be happy to adjust things if needed."

8. Follow-Up Plan

"I'd like to see you again in 4 weeks to check your blood pressure and ensure the new medication is working well. We'll also review your blood test results before then."

9. Offer Leaflet & Final Check

"I'll give you a leaflet about high blood pressure and enalapril, which explains how it works and what to watch out for. Do you have any questions or concerns before we wrap up today?"

Hypertension Follow-up – Combination Therapy

Setting: Primary Care

Role: FY2 doctor

Patient: Middle-Aged Adult Male

Scenario: Hypertension on Dual Therapy – Partial Non-Adherence Due to Side Effect

1. Introduction & Consent

"Hello, I'm one of the doctors here. Thanks for coming in. I understand you're here for a follow-up about your blood pressure. How have things been?"

2. Focused History

Medication History:

- "I can see you were started on enalapril and amlodipine. Are you still taking both?"
- "When did you stop enalapril?"
- "What made you stop?"

Cough Details:

- "Was the cough dry or productive?"
- "Has it improved since stopping enalapril?"

Current Symptoms:

- "Any dizziness, chest pain, or breathlessness?"
- "Any swelling in your ankles?"

3. ICE

- "What do you think is happening with your blood pressure?"
- "Any concerns about the medications?"
- "What were you hoping we could do today?"

4. Current BP & Result Disclosure

"Your blood pressure today is 158/94, which is still a bit high. That's because you're only on one medication now instead of two."

5. Explanation

"To get good blood pressure control, many people need two or more medications working together. The enalapril was helping, but the cough is a known side effect that some people can't tolerate.

The good news is we can switch to an alternative that works the same way but doesn't cause the cough."

6. Management Plan

Change of Medication:

"We'll replace enalapril with candesartan - this is an ARB that works similarly but rarely causes coughing. You'll continue taking amlodipine alongside it."

Explicit BP Target:

"Our goal is to get your blood pressure below 140/90 when measured here in the clinic, or below 135/85 if you're measuring at home."

Blood Tests:

"I'll arrange blood tests to check your kidney function and potassium before we start, and again a few weeks after."

Home BP Monitoring:

"If you have a home blood pressure machine, please take readings in the morning and evening for a few days before your next appointment."

7. Safety Netting

"If you develop any new cough, dizziness, swelling, or feel unwell, don't stop the medication on your own - just give us a call or book an appointment. We'll be happy to adjust things if needed."

8. Follow-Up Plan

"I'd like to see you again in 4 weeks to check your blood pressure and ensure the new medication is working well. We'll also review your blood test results before then."

Hypertension Follow Up With Abnormal Blood Tests

Setting: Telephone Consultation

Role: FY2 doctor

Patient: Adult

Scenario: Routine Blood Test Review – Unexpected Liver and Haematological Findings

1. Introduction & Consent

"Hello, I'm one of the doctors calling from your GP surgery - is that Mr/Ms [Name]? Great, thank you. I understand you're expecting this call regarding your routine follow-up. Is this still a good time to talk? I'd like to go over how you've been doing and then talk through the results of your recent blood tests. Is that alright?"

2. Presenting Context

If hypertension follow-up: "You've been on treatment for high blood pressure for a while now - how have you been feeling lately?" "Are you still taking your medication regularly - I believe you're on amlodipine?"

3. Detailed Symptom Exploration

Energy and tiredness:

- "Have you been feeling unusually tired or more exhausted than usual during the day?"
- "Do you get breathless when walking or climbing stairs?"

Nerve or brain-related symptoms:

- "Have you had any numbness, tingling, or pins-and-needles sensations - particularly in your hands or feet?"
- "Have you noticed any memory problems, trouble concentrating, or feeling mentally foggy?"

Stomach and liver-related symptoms:

- "Any pain or discomfort around your upper abdomen - just under your ribs?"
- "Have your eyes or skin looked yellow?"
- "Has your urine become darker or your stools paler than usual?"

4. Lifestyle and Risk Factor History

Alcohol intake:

- "Do you drink alcohol? What kind of drinks and how much in a typical week?"
- "Has the amount you drink changed recently?"

(If patient says "I drink a few beers / a bottle of wine daily"): "Thanks for being open. Just so I can work it out accurately, that's about 5–6 units per day - so around 35–40 units per week. That's about two to three times the recommended safe limit."

Diet:

- "What's your usual daily diet like?"
- "Do you eat meat or animal-based foods like eggs, milk, or cheese?" (If yes: "That suggests your B12 intake from food is likely fine.")

Medication history:

- "Are you taking any tablets like omeprazole or others for stomach acid?"

- "Any recent antibiotics or long-term medications?"

Other life context:

- If patient mentions emotional stress or bereavement: acknowledge gently and assess possible impact.

5. Explore ICE

- **Ideas:** "Do you have any idea what might be causing the tiredness or what the tests might show?"
- **Concerns:** "Is there anything about your health or these results that's been worrying you?"
- **Expectations:** "What were you hoping we could do or find out today?"

6. Clear Result Disclosure

"Thanks for patiently going through that. So your blood tests showed a few changes we should talk about:

- Two liver markers called AST and ALT are higher than normal - this tells us your liver may be under some stress or mild damage.
- Your haemoglobin, which carries oxygen in your blood, is a little low - which means you're slightly anaemic.
- Another result called MCV - which measures the size of your red blood cells - is higher than normal, which can happen when there's a problem with vitamin B12 levels."

7. Explanation in Simple Terms

"Putting all this together - low haemoglobin, large red blood cells, and raised liver enzymes - one likely explanation is that you might have a vitamin B12 deficiency.

Vitamin B12 helps your body make healthy red blood cells and keeps your nerves working properly.

Even if you're eating enough, alcohol and certain stomach medications (like omeprazole) can affect how well your stomach absorbs it.

In your case, if you're drinking regularly - even moderate amounts - alcohol can damage the stomach lining and reduce absorption of B12. It also affects the liver over time, which may explain the raised enzymes."

Note on peripheral neuropathy: "The numbness and tingling could improve with B12 treatment, but if it's been going on a long time, some nerve damage may be permanent."

8. Structured Management Plan**1. Further Investigations:**

"We'll need a few more blood tests to confirm the cause. I'll arrange for:

- Vitamin B12 and folate levels
- Repeat full blood count
- Gamma GT (GGT) - a liver enzyme that helps us confirm if alcohol is involved
- Repeat AST and ALT to track if the liver enzymes are improving or worsening"

Consider liver ultrasound: "We may also want to do an ultrasound scan of your liver to check for any damage from alcohol."

2. Treatment (If B12 deficiency is confirmed):

"If we find that your B12 is low, the best way to treat it is with injections, not tablets.

Why injections? When the stomach isn't absorbing B12 properly, tablets don't work well. Injections go directly into the bloodstream and bypass the gut.

Dosing schedule:

- Initially, you'll need injections every other day for two weeks to correct the deficiency.

- After that, it's usually one injection every three months to maintain the levels."

9. Alcohol Advice & Support

"I also want to gently raise the topic of alcohol. The safe limit is about 14 units per week, and it looks like your intake is above that. Over time, regular drinking - even if it doesn't seem excessive - can affect your liver, blood cells, and nutrient absorption.

I'm not here to judge, but I'd really encourage cutting down gradually. We can also offer support - whether it's through online tools, local services, or speaking with someone about strategies to reduce intake."

10. Safety Netting

"If you start to feel more breathless, weak, or notice numbness, yellowing of the skin, or any changes in your mental clarity, please let us know straight away. These could be signs that your blood or liver problems are getting worse."

11. Follow-Up Plan

- "I'll arrange the additional blood tests today."
- "Let's review everything again in about a week, once we have the full picture. If B12 is low, we'll begin treatment right away."
- "We'll also continue checking your blood pressure from time to time, since that remains an important long-term focus."

12. Offer Leaflet & Final Check

"I'll send you a leaflet by email or post about vitamin B12 deficiency and tips on reducing alcohol safely. Is there anything else you'd like to discuss before we end the call?"

Hypertension – Ambulatory BP Result Discussion

Setting: Telephone Consultation

Role: FY2 Doctor

Patient: Adult

Scenario: ABPM Result Discussion – Newly Diagnosed Hypertension

1. Introduction & Consent

"Hello, is this Mr [Name]? I'm Dr [Name], one of the GPs here. I understand we arranged a 24-hour blood pressure monitor after your last visit - is now a good time to talk about the results?"

2. Focused History & Context

Clarify reason for original visit:

- "You originally came in with sinus issues, right? How have things been since then?"

Explore Patient's Understanding:

- "What's your understanding of why we did the BP monitor?"
- "Have you had any concerns about your blood pressure in the past?"
- "Have you had a chance to see the results we emailed over?"

Review purpose of monitoring: "We noted your blood pressure was quite high at the clinic, so we arranged the 24-hour monitor to get an accurate average."

Screen for red flags and associated symptoms:

- "Have you had any recent headaches, dizziness, nosebleeds, or blurry vision?"

- "Any chest discomfort, palpitations, breathlessness, or leg swelling?"

Cardiovascular risk and comorbidities:

- "Have you ever been told you have diabetes, high cholesterol, heart or kidney problems?"
- "Any family history of heart attacks or strokes?"

Lifestyle assessment:

- "Do you smoke or drink alcohol?"
- "Can you describe your diet - especially salt intake?"
- "Do you exercise regularly?"

Medication and allergy history:

- "Are you on any regular medications, including over-the-counter ones?"
- "Do you have any known allergies to medications?"

3. Explore ICE

- **Ideas:** "What were your thoughts when we arranged the 24-hour monitor?"
- **Concerns:** "Is there anything about your blood pressure that's been worrying you?"
- **Expectations:** "Was there something specific you were hoping to find out today?"

4. Clear Result Disclosure

"Your ABPM average was [X]/[Y]. We use the daytime average - anything at or above 135/85 confirms hypertension. The fact that your home readings are lower than clinic readings is common - that's why we use ABPM to get the true picture. This means that the blood pressure is high enough that we'd generally recommend starting medication - even if you're not having symptoms."

Note: ABPM thresholds: Stage 1 $\geq 135/85$, Stage 2 $\geq 150/95$

5. Explanation in Simple Terms

"High blood pressure often has no symptoms but increases the risk of future complications - like heart attacks, strokes, kidney problems, or damage to the eyes - if left untreated.

The good news is that with lifestyle changes and medication, it's very manageable.

At the moment, you don't need urgent treatment or hospital admission - but we do want to take steps now to prevent long-term complications."

6. Management Plan**Step 1 – Baseline Blood Tests (Before Starting Medication):**

"We need to check your kidney function, salt levels, and cholesterol before we safely start treatment."

"I'd like you to come in for these blood tests sometime this week. Is that possible?"

Step 2 – Initiate Antihypertensive Medication (After Bloods Done):

"Assuming your blood tests are satisfactory, we'll start you on Ramipril, which helps relax the blood vessels and lower pressure."

Age/ethnicity clarification:

"We're starting you on ramipril because for someone your age, this type of medication tends to work best. [If the patient is over 55 or of Black African or Caribbean background, we'd usually start with calcium channel blocker]"

"We'll begin at a low dose and adjust as needed. Common side effects include a dry cough or occasional dizziness. We'll monitor you closely.

You'll likely start this medication within a few days once your blood results come back."

Step 3 – Lifestyle Advice:

- **Salt:** Limit to $<6\text{g/day}$
- **Diet:** Increase fruits, vegetables, and whole grains; reduce processed food
- **Weight:** Aim for gradual weight loss if overweight

- **Exercise:** Moderate aerobic activity (e.g., brisk walk) for 30 minutes, 5x/week
- **Smoking/Alcohol:** Stop smoking, limit alcohol to <14 units/week

"Would you be interested in seeing our health coach or lifestyle support team?"

Step 4 – Monitoring:

- "We'll recheck your BP and kidney function 2 weeks after starting the medication."
- "Then again at 1 month to assess your response and decide on long-term dosing."

7. Safety Netting

"If you feel faint, dizzy, develop a persistent cough, or anything that concerns you after starting the tablets, please contact us.

And of course, if you experience chest pain or sudden breathlessness, seek urgent help."

8. Follow-Up Plan

"Let's arrange for your blood test in the next few days. Assuming those are okay, we'll start Ramipril - and I'll send your prescription electronically. Then we'll review everything again in 2 weeks. How does that sound?"

9. Offer Leaflet & Check Understanding

"Would you like a leaflet or a link with more information about hypertension and blood pressure medications? You can also find helpful information at nhs.uk/conditions/high-blood-pressure Have I explained things clearly? Any questions or anything you'd like me to go over again?"

Reference Tables for Cardiology

Management by Age in Hypertension

Age Group	Diagnosis	Treatment Strategy
< 80 years	Stage 1 (Clinic BP $\geq$ 140/90 AND ABPM $\geq$ 135/85)	Treat only if there is: Target organ damage, Cardiovascular disease, Renal disease, Diabetes, 10-year CV risk $\geq$ 10%
< 80 years	Stage 2 (Clinic BP $\geq$ 160/100 AND ABPM $\geq$ 150/95)	Start medication for all patients, regardless of risk factors
$\geq$ 80 years	Stage 1 or Stage 2 (ABPM $\geq$ 150/90)	Start medication if ABPM is consistently $\geq$ 150/90 and patient is fit enough to tolerate treatment
Any Age	Severe Hypertension (Clinic BP $\geq$ 180/120)	Same-day referral or urgent specialist review depending on symptoms

First-Line Antihypertensive Selection

Patient Profile	First-Line Choice
Age <55, not Black	ACE inhibitor (e.g., ramipril) or ARB
Age $\geq$ 55 OR Black African/Caribbean	Calcium channel blocker (e.g., amlodipine)
If CCB not tolerated	Thiazide-like diuretic (e.g., indapamide)
Diabetes	ACE inhibitor or ARB (renal protection)

DVLA Summary for Cardiovascular Cases

Condition	DVLA Group 1 (Car)	Notes
NSTEMI	1 week off driving	After successful treatment

Condition	DVLA Group 1 (Car)	Notes
STEMI	4 weeks off driving	After successful treatment
Unstable Angina	4 weeks minimum	Until assessed and stable
Heart Failure	Must not drive if symptoms at rest or with minimal exertion	Can drive when controlled
Palpitations/Arrhythmia	No restriction unless causes incapacity	Stop if syncope
PAD (claudication)	No restriction	Professional drivers may need assessment
Postural hypotension	Stop driving until controlled	Especially if caused syncope
Aortic dissection	Case-by-case	Specialist input required

ECGs Students Are Expected to Recognise

Based on the cases in Chapter 5, students should be able to identify the following ECG patterns:

Condition	ECG Findings	Key Features
STEMI	ST elevation, T wave changes	ST elevation in contiguous leads (≥ 2 mm V1-V3, ≥ 1 mm other leads); reciprocal ST depression; hyperacute T waves early
NSTEMI	ST depression, T wave inversion	Dynamic ST-T changes; may be normal initially
Unstable Angina	Often normal	May show ST depression during pain; ECG may be normal between episodes
Stable Angina	Usually normal at rest	Exercise ECG may show ischaemic changes
Pericarditis	Widespread (diffuse) ST elevation + PR depression	Saddle-shaped ST elevation; NO reciprocal changes (unlike MI); PR depression in most leads (PR elevation in aVR)
Atrial Fibrillation (AF)	Irregularly irregular rhythm, absent P waves	No discernible P waves; fibrillatory baseline; variable R-R intervals
Ventricular Ectopics (VEs/PVCs)	Wide QRS complexes, compensatory pause	Premature beats with broad bizarre QRS (>120 ms); full compensatory pause; no preceding P wave
Atrial Ectopics (PACs)	Abnormal P wave morphology, narrow QRS	Early beat with different P wave shape; narrow QRS (unless aberrant conduction); incomplete compensatory pause
Normal Sinus Rhythm	Regular rhythm, upright P waves in II, normal intervals	Rate 60-100; P wave before each QRS; PR 120-200ms; QRS <120 ms

ECG Differentiation: Pericarditis vs STEMI

Feature	Pericarditis	STEMI
ST elevation distribution	Widespread (diffuse) - multiple territories	Localised to coronary territory
Reciprocal ST depression	Absent (except aVR)	Present
PR segment	PR depression (PR elevation in aVR)	Usually isoelectric
ST morphology	Saddle-shaped / concave upward	Convex upward ("tombstone")
Evolution	Slow (days)	Rapid (hours)
Q waves	Absent	May develop

Clinical context	Recent viral illness, positional pain	Risk factors, crushing pain at rest

ECG Differentiation: Atrial vs Ventricular Ectopics

Feature	Atrial Ectopics (PACs)	Ventricular Ectopics (PVCs)
P wave	Present but abnormal morphology	Absent before ectopic beat
QRS width	Narrow (<120ms)	Wide (>120ms)
QRS morphology	Similar to sinus beats	Bizarre, different from sinus
Compensatory pause	Usually incomplete	Usually complete (full compensatory pause)
Origin	Atria (above AV node)	Ventricles (below AV node)
Clinical significance	Usually benign	Usually benign in structurally normal heart

ECG Findings by Case Reference

Condition	Expected ECG Finding	Notes for Exam
Myocardial Infarction	ST elevation/depression, T wave changes	May be normal in early MI - repeat and check troponin
Unstable Angina	Often normal	"No signs of MI on ECG" doesn't exclude UA
Stable Angina	Normal at rest	Exercise ECG may be requested
Pericarditis	Diffuse ST elevation + PR depression	NO reciprocal changes - key differentiator from MI
Aortic Dissection	May show LVH, ischaemic changes	ECG for ruling out MI, not diagnosing dissection
Acute Heart Failure	May show LVH, ischaemia, arrhythmias	Part of initial workup
Palpitations/AF	AF: Irregularly irregular, no P waves	"Catch the heart in the act" with Holter
Ventricular Ectopics	Wide QRS, compensatory pause	Isolated VEs in healthy person = benign
Atrial Ectopics	Abnormal P waves, narrow QRS	Caffeine/stress triggers common in students
Postural Hypotension	Normal sinus rhythm	Excludes arrhythmia as cause of falls

High-Yield ECG Patterns for PLAB 2 ([For sample ECGs refer to Image Library at https://www.gksplab2.com](https://www.gksplab2.com))

Must-Know Patterns:

STEMI - ST elevation with reciprocal changes

Pericarditis - Diffuse ST elevation, PR depression, NO reciprocal changes

Atrial Fibrillation - Irregularly irregular, no P waves

Ventricular Ectopics - Wide QRS, full compensatory pause

Atrial Ectopics - Abnormal P wave, narrow QRS

Normal Sinus Rhythm - Baseline comparison

ECG Intervals - Quick Reference

Interval/Segment	Normal Duration	Clinical Significance
PR interval	120-200ms (3-5 small squares)	Prolonged = heart block
QRS duration	<120ms (3 small squares)	Prolonged = bundle branch block or ventricular origin
QT interval	<440ms (varies with rate)	Prolonged = arrhythmia risk
ST segment	Isoelectric	Elevation = STEMI/pericarditis; Depression = ischaemia

Heart Blocks - Complete Reference**Overview**

Heart blocks occur when electrical conduction through the AV node is delayed or interrupted. They are classified by severity:

Type	Severity	Pacemaker Usually Needed?
First-degree	Mild	No
Second-degree Mobitz I (Wenckebach)	Moderate	Rarely
Second-degree Mobitz II	Serious	Often
Third-degree (Complete)	Severe	Yes

First-Degree Heart Block

Feature	Finding
ECG Pattern	Prolonged PR interval (>200ms / >5 small squares)
P waves	Present, all conducted
QRS	Normal (narrow)
Rhythm	Regular
Key finding	Every P wave is followed by a QRS, just delayed
Clinical significance	Usually benign, often asymptomatic
Causes	Increased vagal tone, athletes, drugs (beta-blockers, digoxin, CCBs), ischaemia, fibrosis
Management	Usually none required; monitor if symptomatic

Memory aid: "Long PR, all get through" - PR is prolonged but every beat conducts.

Second-Degree Heart Block - Mobitz Type I (Wenckebach)

Feature	Finding
ECG Pattern	Progressive PR prolongation until a beat is dropped
P waves	Present, but one eventually not conducted
QRS	Normal (narrow)
Rhythm	Irregular (grouped beating)
Key finding	PR gets longer, longer, longer... then dropped QRS, then cycle repeats
Clinical significance	Usually benign; often transient
Causes	Increased vagal tone, inferior MI, drugs, athletes
Management	Often none; treat underlying cause; rarely needs pacing

Memory aid: "Longer, longer, longer, drop - now you have a Wenckebach"

Second-Degree Heart Block - Mobitz Type II

Feature	Finding
ECG Pattern	Constant PR interval with intermittent dropped QRS
P waves	Present, some not conducted (no warning)
QRS	Often wide (infra-nodal block)
Rhythm	Irregular
Key finding	PR interval is CONSTANT, then sudden dropped beat without warning
Clinical significance	Serious - high risk of progressing to complete heart block
Causes	Anterior MI, fibrosis, structural heart disease
Management	Usually requires pacemaker

Memory aid: "Mobitz II = More serious" - constant PR then sudden drop, needs pacing.

Key difference from Mobitz I: No progressive PR prolongation - the dropped beat comes without warning.

Third-Degree (Complete) Heart Block

Feature	Finding
ECG Pattern	Complete AV dissociation - P waves and QRS complexes independent
P waves	Present, regular, but NO relationship to QRS
QRS	May be narrow (junctional escape) or wide (ventricular escape)
Rhythm	P waves regular, QRS regular, but at DIFFERENT rates
Key finding	P waves "march through" QRS complexes - no relationship
Atrial rate	Normal (60-100)
Ventricular rate	Slow (20-40 if ventricular escape, 40-60 if junctional)
Clinical significance	Medical emergency if symptomatic
Causes	MI (especially inferior), drugs, congenital, Lyme disease, post-cardiac surgery
Management	Pacemaker required (temporary then permanent)

Memory aid: "Complete divorce" - atria and ventricles going their separate ways, no communication.

Heart Blocks Comparison Table

Feature	1st Degree	2nd Degree Mobitz I	2nd Degree Mobitz II	3rd Degree (Complete)
PR interval	Prolonged (>200ms)	Progressive lengthening	Constant	Variable (no relationship)
Dropped beats	None	Yes (predictable)	Yes (sudden)	Complete dissociation
QRS width	Normal	Normal	Often wide	Variable
Pattern	Regular	Grouped beating	Intermittent drops	AV dissociation
Severity	Benign	Usually benign	Serious	Emergency
Pacemaker	No	Rarely	Often	Yes
DVLA	No restriction	Usually no restriction	Must notify	Must notify

Heart Block - Clinical Presentation

Symptom	Mechanism
Syncope / pre-syncope	Bradycardia causing reduced cerebral perfusion
Dizziness	Same as above
Fatigue	Reduced cardiac output

Breathlessness	Heart failure from bradycardia
Chest pain	May indicate underlying ischaemia
Asymptomatic	Common in 1st degree and some 2nd degree

Patient Explanations for ECG

When explaining ECG findings to patients:

Normal ECG: "Your ECG looks okay for now, but that doesn't rule out all heart conditions." (Case 3)

Ventricular Ectopics: "Your ECG shows something called ventricular ectopic beats. These are occasional extra heartbeats that come from the bottom part of the heart. They can create a fluttering or thumping sensation, or make it feel like your heart skips a beat." (Case 13)

Atrial Ectopics: "The ECG shows that extra signals can fire off from the top part of the heart - these are called atrial ectopics. Many people have them occasionally and don't even notice them." (Case 14)

Atrial Fibrillation: "Normally, the heart's internal wiring sends a regular signal to pump blood. In atrial fibrillation, that signal becomes chaotic or 'quivering,' which makes the heartbeat irregular." (Case 12)

ECG Interpretation

Detailed ECG interpretation is beyond the scope of these notes. For comprehensive ECG learning, we recommend Life in the Fast Lane (litfl.com/ecg-library) - an excellent free resource covering ECG basics through to advanced interpretation.

Chapter 6: Respiratory

A Note to Learners

The cases in this resource are written in a conversational style to help you become familiar with the natural flow of clinical consultations and the language commonly used in UK healthcare settings.

These dialogues are intended as a learning guide, not a script. Please do not attempt to memorise them verbatim. Examiners assess your ability to think and communicate authentically - not to recite rehearsed phrases.

Use this material to understand the underlying clinical reasoning, then practise in your own words until the consultation feels natural to you.

For Companion OSCE Cases, Practice Scripts, Evaluation Checklists, Summary Notes, Rapid Review Notes, Mindmaps, Management Flashcards and Image Library - visit <https://www.gksplab2.com>

Disclaimer

This material is independent educational content created to help candidates develop clinical reasoning and communication skills for UK medical practice.

All cases and clinical scenarios are based on common presentations encountered in UK primary care and emergency medicine, drawn from publicly available sources including NICE Clinical Knowledge Summaries (CKS), BNF, and other official NHS/UK healthcare guidelines.

No content in this resource is derived from, represents, or claims to replicate actual GMC PLAB 2 examination material.

Lung Cancer

Setting: Primary Care

Patient: Older Adult Male with Significant Smoking History

Presenting complaint: Chronic Cough with Haemoptysis and Constitutional Symptoms

1. Introduction

"Hello, I'm one of the doctors here at the surgery. Could I confirm your full name and date of birth, please? Thank you. How can I help you today?"

2. Presenting Complaint – Targeted History

"Can you tell me more about this cough?"

- "How long has it been going on?"
- "Is it dry or productive?"
- "Any blood in it?"
- "Has the amount of blood changed over time?"

"Any other symptoms you've noticed lately?"

- "Unintentional weight loss?"
- "Fever or night sweats?"
- "Loss of appetite or fatigue?"
- "Any shortness of breath or chest discomfort?"

3. Red Flag Screening – Targeted Differential Diagnosis

"Just to rule out a few things -"

- TB: "Have you travelled recently? Anywhere like Asia, Africa, or the Philippines?"
- PE: "Any leg pain, recent surgery, or long travel?"
- Infection: "Any recent fever or general illness?"
- Immunosuppression/PCP: "Do you have any conditions like HIV, or are you on long-term steroids?"

4. Risk Factor Clarification

- "Have you smoked in the past or do you currently smoke?"
- "What did you do for work before retirement?" (Mesothelioma: construction; Lung cancer: white-collar)
- "Has anyone in your family had cancer, especially lung-related?"

5. ICE

- Ideas: "What's been going through your mind about all this?"
- Concerns: "Is there anything in particular you're worried it might be?"
- Expectations: "What were you hoping we could do for you today?"

6. Effect on Life

- "How has this affected your daily routine?"
- "Any trouble sleeping, walking around, or doing chores?"
- "Are you still managing meals and self-care on your own?"

7. PMAFTOSA

- Past Medical History: Any history of TB, COPD, cancer, or chest conditions?
- Medications: Taking anything regularly? Any blood thinners?

- Allergies: Drug or food allergies?
- Family History: Any cancers in the family?
- Travel: Have you been abroad recently (e.g. TB-endemic areas)?
- Occupation: Covered - retired teacher
- Social: Who do you live with? Any support at home?
- Anything else important you think I should know?

8. Focused Examination

"I'd like to examine your chest and do a few basic checks."

- Vitals: O₂ saturation, RR, pulse
- General: Cachexia, clubbing, pallor
- Chest: Reduced breath sounds, dullness, wheeze
- Lymph nodes: Palpate cervical/supraclavicular
- Abdo: Hepatomegaly or masses (mets)
- CV: Rule out signs of PE

9. Chest X-ray Explanation (if result shown)

"Thanks for waiting. We have your chest X-ray result here - let me show and explain it to you:

- This blackish area here is normal lung tissue.
- The white area in the middle is your heart.
- But here in the top right corner, you'll notice a white patch - that's a shadow, which shouldn't normally be there.

This could be due to something growing, and we'll need to investigate that urgently."

10. Provisional Diagnosis (after X-ray explanation)

Breaking Bad News Structure (SPIKES Protocol):

1. **Warning shot:** "I'm afraid I have some difficult news to share with you..."
2. **Pause** - allow this to land
3. **Deliver news:** "Based on your symptoms, smoking history, and the X-ray findings, we are concerned that this shadow may be lung cancer."
4. **Pause** - allow patient to react
5. **Check understanding:** "I know this is a lot to take in. What questions do you have so far?"

Communication Note: Always use the word "cancer" clearly rather than euphemisms like "growth" or "mass" which patients may interpret as benign.

11. Management Plan

A. Urgent Referral

[Note: NICE NG12 pathway - Unexplained haemoptysis in age $\geq 40 \rightarrow$ 2WW referral to specialist. If no haemoptysis but ≥ 2 unexplained respiratory symptoms $\rightarrow$ Urgent CXR within 2 weeks.]

- "I'll be making an urgent referral to a specialist lung team under the 2-week wait cancer pathway."
- "They'll likely do a CT scan and a bronchoscopy to look inside the lungs and take samples."

B. Smoking Support

- "Stopping smoking, even now, can make a big difference. We can help with nicotine replacement or referral to a cessation clinic."

C. Blood Tests

- FBC, U&E, LFT, CRP/ESR
- Tumour markers not routinely used in primary care, but bloods help assess general health
- Note: If thrombocytosis is found, this should also prompt consideration for urgent CXR

- **CRITICAL:** Blood tests must NOT delay urgent 2WW referral. They can be done in parallel or by the specialist team.

D. Discuss Prognosis Openly but Reassuringly

- "I know this is worrying news. The good news is that we're acting quickly. If it is cancer, there are multiple treatments available depending on the stage - including surgery, radiotherapy, or chemotherapy. Even if it's not curable, there are very effective ways to manage symptoms and maintain your quality of life."

E. Multidisciplinary Coordination

- Palliative care only if advanced or symptomatic
- Involve family early if prognosis or support becomes key

12. Safety Netting & Follow-up

- "If you develop worsening breathlessness, cough up more blood, or have chest pain, please go to A&E."
- "I'll call you once I've sent the referral - you'll be seen by the specialist team within 2 weeks. If you don't hear by then, please contact us."
- "You've done absolutely the right thing coming in today."

Addressing Common Concerns

Patient: "Doctor, do you think I have cancer?" → "There is a real possibility, yes - but we won't say for sure until the specialist team completes the next tests. You've done the right thing by coming in early."

Patient: "Is this curable?" → "That depends on what we find in the next tests. Some types of lung cancer are caught early and can be cured. Even when not curable, we have effective treatments that can slow it down and help you live well."

Patient: "What caused this?" → "Smoking is the most common cause - and based on your long history, that could be a major factor. Occupation and age also play a role."

Student Note – Diagnostic Reasoning

This is a classic lung cancer case:

- Persistent cough with haemoptysis
- Weight loss
- Long smoking history (50+ years)
- White-collar background rules out mesothelioma
- X-ray showing upper lobe lesion confirms suspicion

Follow NICE 2WW referral guidelines strictly. Always discuss the X-ray in lay terms, give realistic but hopeful explanations, and do not delay referral with extra tests in primary care.

Mesothelioma – Referred from GP

Setting: Respiratory Unit (Secondary Care Referral)

Patient: Middle-Aged Male with Occupational Asbestos Exposure History

Presenting symptoms: Progressive Breathlessness with Constitutional Symptoms

Investigation finding: Bilateral pleural thickening on imaging

Task: Take brief focused history, deliver the suspected diagnosis, and explain next steps

1. Introduction & Identity Check

"Hello, I'm one of the doctors on the respiratory team. Just to confirm - could I check your full name and date of birth?"

2. Build Rapport & Set Agenda

"I understand you were referred here by your GP for breathing difficulties, and we've done a chest X-ray as part of our investigations. I'd like to go over the findings and talk you through what we're thinking and the next steps. Please feel free to stop me or ask questions at any point."

3. Focused History

"Just before we go into results, can I ask a few quick things to complete our assessment?"

- "How long have you had this breathlessness?"
- "Do you have any chest pain or discomfort?"
- "Any cough - is it dry or productive?"
- "Have you seen any blood in it?"
- "Have you noticed any weight loss or fatigue recently?"
- "Do you or did you smoke?"
- "What kind of work did you do before retirement?" (Expect: carpenter, builder, plumber - confirms asbestos risk.)

(Avoid detailed history - this is a result discussion station, not initial clerking.)

4. ICE

- Ideas: "Have you had any thoughts on what might be causing the breathlessness?"
- Concerns: "You mentioned you were worried because your colleague was recently diagnosed with lung cancer - is that still on your mind?"
- Expectations: "Was there anything in particular you were hoping to understand today?"

5. Effect on Life

- "How has this been affecting your day-to-day routine?"
- "Are you able to walk around or do simple tasks without getting breathless?"
- "Have you had to stop any activities or work?"

6. X-ray Discussion

"Thank you for your patience - we've reviewed your chest X-ray. If you look here, this dark area is your normal lung. Around it is a thin lining called the pleura. On your scan, we're seeing some thickening of that lining on both sides, and it's not a normal finding. This kind of shadowing can sometimes be caused by conditions related to past asbestos exposure, which is common in people who've worked in construction or trades like carpentry."

(Pause. Let patient respond.)

7. Delivering the Diagnosis (Empathetic, Balanced)

"Based on the scan findings, your symptoms, and your job history, we are concerned that this could be something called mesothelioma. It's a type of cancer that affects the lining of the lungs, not the lung tissue itself. It's often caused by exposure to asbestos, which can remain in the lungs for decades before symptoms appear. Now I know that's a lot to take in - and I want to reassure you that we're here to support you every step of the way."

8. Lay Explanation of Condition

"Let me break it down a bit more: Inside your chest, the lungs are wrapped in a thin lining called the pleura. In some people, especially those who worked in environments with asbestos, that lining becomes thick and abnormal - and over time, it can turn into a cancer called mesothelioma. The symptoms are usually breathlessness, weight loss, and sometimes a dry cough - exactly what you've described."

9. Management Plan

Immediate Next Steps (Already in Respiratory Unit)

- "Now that we have this initial finding, we'll start further tests right away. These may include:"
 - CT scan of your chest (more detailed than X-ray)
 - Pleural fluid sampling, if there's fluid buildup
 - Pleural biopsy (tissue sample from the lung lining) - this is usually the key test to confirm mesothelioma
 - Bronchoscopy may be used if needed, but is less central for mesothelioma diagnosis

Specialist Referral

- "Once we confirm things, we'll refer you to the lung cancer multidisciplinary team, which includes oncologists, surgeons, and specialist nurses."

Treatment Options (Discussed by MDT)

- "The specialist team will discuss the best treatment options with you. I can give you some general information:"
- "For most patients with unresectable mesothelioma, the standard first-line treatment is now immunotherapy - a combination called nivolumab plus ipilimumab. This is NICE-approved and has been shown to improve survival compared to chemotherapy alone."
- Chemotherapy (usually pemetrexed with cisplatin or carboplatin) may be used as an alternative or after immunotherapy.
- Some people may also benefit from palliative radiotherapy if there's any pain or discomfort.
- Surgery is less common but may be considered in early or limited cases.
- If fluid builds up again, we might insert a small chest drain to relieve the breathlessness.
- **The MDT will discuss your individual case and recommend the best approach for you.**

Supportive Care

- "We'll involve a specialist nurse to guide you and your family."
- "If needed, we'll link in with palliative care to make sure your comfort and quality of life are prioritised."

Industrial Compensation Support

- "There are also benefits available for people diagnosed with mesothelioma linked to workplace asbestos exposure - we can put you in touch with a specialist nurse who can help with this."

10. Safety Netting & Follow-Up

- "We'll complete the tests as quickly as possible - usually within the next few days."
- "Once we have the full picture, the cancer team will meet and build a personalised treatment plan for you."
- "If you feel more breathless, have chest pain, or feel unwell in the meantime, please let the ward team know immediately."

11. Addressing Concerns

Patient: "Is this definitely cancer?" → "Right now, we can't say that with 100% certainty - but based on the X-ray and your history, it's very likely. That's why we're acting quickly to confirm it and start treatment."

Patient: "How long do I have?" → "That's difficult to say at this stage. Everyone responds differently to treatment. Some people live for many months or even years, and our focus will always be on giving you the best quality of life and support throughout."

Patient: "Is it because of my work?" → "Yes, exposure to asbestos during jobs like carpentry or construction is the most common cause. You wouldn't have known back then - many people are only diagnosed years later."

Student Diagnostic Note

This patient presents with:

- Progressive SOB and weight loss
- Dry cough with streaks of blood (typical but not exclusive to mesothelioma)
- Occupation: High-risk exposure (carpenter)
- Smoker, though smoking is not the primary cause
- CXR: Bilateral pleural nodular thickening (strong indicator)

This is a classic mesothelioma case. The diagnosis is suspected, not confirmed - management must proceed with urgency but empathy. Treatment is palliative-focused in most cases, with MDT involvement crucial. Avoid confusing with lung cancer - setting, occupation, and imaging pattern are key differentiators.

Mesothelioma – GP Presentation

Setting: Primary Care

Patient: Middle-Aged Male with History of Manual Work

Presenting complaint: Chest Discomfort Following Minor Trauma

Investigation finding: Incidental bilateral pleural abnormality on imaging

You are: An FY2 doctor in GP, reviewing symptoms and explaining the findings

1. Introduction & Identity Check

"Hello, I'm one of the doctors here at the practice. Thank you for coming in today. Could I confirm your full name and date of birth, please? Great - I understand you've had a fall recently and you're here to review your chest X-ray. Shall we talk through it together?"

2. Presenting Complaint – Chest Pain from Fall

"I understand you had chest pain - can you tell me what happened?"

- "Where were you when you fell?"
- "Did you hit your chest directly?"
- "Is the pain sharp or dull? Does it hurt when you breathe in or move?"
- "Have you had any breathlessness since the fall?"

3. Broader Respiratory Symptom Review (10-question approach)

Upper Five

- "Have you had any cough lately?" → "Is it dry or with phlegm?"
- "Have you noticed any blood when you cough?"
- "Do you feel feverish or unwell?"
- "Any weight loss recently - without trying?"
- "Any night sweats or chills?"

Lower Five

- "Do you smoke? If yes, how long and how many per day?"
- "Do you use any recreational drugs?"
- "Can I ask about your sexual health, as some infections can affect the lungs?"
- "What's your current job - and have you worked in shipyards or construction in the past?" → Expected answer: shipyard, demolition, insulation work (asbestos risk)
- "Have you travelled anywhere recently, especially to countries like the Philippines, South Africa, or India?"

4. Cancer Symptom Screening

- "Have you had any fatigue or loss of energy?"
- "Any recent loss of appetite?"
- "Have you been losing weight unintentionally?"

5. PMAFTOSA

- Past medical history: Any long-standing lung or heart conditions?
- Medications: Taking any tablets daily or for pain relief?
- Allergies: Any known drug allergies?
- Family history: Any family history of lung disease or cancer?
- Travel history: Already asked
- Occupation: Covered in detail - confirmed asbestos risk
- Social: Living alone or with someone? Able to manage self-care?
- Anything else on your mind today that you'd like me to address?

6. ICE

- Ideas: "What did you think this might be when you came in today?"
- Concerns: "Are you worried this could be something serious?"
- Expectations: "What were you hoping we could do or find out today?"

7. Effect on Life

- "Have your symptoms affected your ability to work or get around?"
- "Are you able to do your usual daily activities or chores comfortably?"
- "Has this been affecting your sleep or energy levels?"

8. X-ray Explanation

"Thanks for waiting. I've had a look at your chest X-ray, and I'd like to explain what we found.

Normally, the lungs are surrounded by a very thin layer called the pleura. In your case, the X-ray showed something called bilateral pleural nodular thickening - this means the lining around both lungs has become unusually thick and lumpy, which is not a normal finding."

9. Delivering the Concern and Occupational Link

"I want to be honest with you. Based on your symptoms, your job history, and this X-ray finding, we are concerned. You've worked in shipyards and construction - and in those environments, people are often exposed to a material called asbestos. It was commonly used in older buildings and ships for insulation. Even many years later, asbestos exposure can cause long-term changes in the lungs."

(Pause here. Let the patient respond.)

10. Gently Communicate Diagnostic Suspicion

"I'm really sorry to say this, but there is a condition called mesothelioma - a type of cancer that affects the lining of the lungs - which can appear like this on X-ray. We can't confirm anything just yet, but based on everything we've seen, we do need to investigate this urgently."

11. Management Plan

A. Urgent 2WW Referral

- "I'm going to refer you to the chest specialist team under the two-week wait cancer pathway so they can see you quickly."

B. Investigations to Expect

- "They'll likely do a CT scan of the chest for a more detailed view"

- "They may take a sample of any fluid around the lungs (pleural aspiration)"
- "The key test is usually a pleural biopsy - taking a small tissue sample from the lung lining to confirm the diagnosis"
- "Bronchoscopy may occasionally be used but is less central for diagnosing mesothelioma"

C. Treatment (if confirmed)

- "If it does turn out to be mesothelioma, the specialist team will discuss all the treatment options with you."
- "I can tell you that treatments have improved significantly - immunotherapy is now available and NICE-approved for many patients."
- "The MDT (multidisciplinary team) will assess your case and recommend the best approach for your situation."

D. Industrial Compensation Support

- "There are benefits available for people diagnosed with mesothelioma linked to workplace asbestos exposure - we can connect you with support services to help with this."

E. Smoking Support (if relevant)

- "If you're still smoking, stopping now could really help your lung function - we can support you with that as well."

12. Safety Netting & Follow-up

- "You'll receive an appointment with the chest team within two weeks - if you don't, please contact us immediately."
- "If your symptoms worsen - more breathlessness, chest pain, or coughing up blood - don't wait, come back or go to A&E."
- "We'll stay in close contact to support you through this - and you'll be assigned a lung cancer nurse to help coordinate care."

Addressing Concerns

Patient: "So this is cancer?" → "We can't say that for certain yet - but the findings are suspicious, and we want to investigate this urgently to be sure."

Patient: "Why would asbestos cause this now?" → "Asbestos fibres can stay in the lungs for years - even decades - before causing symptoms. Many people exposed in jobs like yours only find out about the effects much later in life."

Patient: "Is it curable?" → "Mesothelioma is difficult to cure, but we now have treatments to slow it down and help manage symptoms. Our goal is to give you the best quality of life and support at every stage."

Student Diagnostic Note – Clinical Reasoning

This case is a classic GP presentation of suspected mesothelioma, where a non-specific complaint (chest pain after a fall) leads to an incidental red flag finding (bilateral pleural nodular thickening).

Key diagnostic pivots include:

- History of blue-collar work with asbestos exposure
- Smoker
- Respiratory symptoms + systemic signs
- Clear occupational link

Immediate action is a 2-week cancer referral to respiratory, followed by specialist investigations and MDT-led management.

Mesothelioma – (Suspected Pleural Cancer)

Setting: Emergency Department

Patient: Middle-Aged Male with Occupational Risk Factors

Presenting complaint: Acute Breathlessness with Hypoxia

Investigation finding: Large unilateral pleural effusion on imaging

1. Introduction

"Hello, I'm one of the doctors in the emergency department. I understand you've come in today with breathlessness - we'll talk through what's happening and how we can help. Can I quickly confirm your full name and date of birth, please?"

2. Presenting Complaint – Symptom Clarification

"Can you tell me when your breathlessness first started?"

- Expected: "About 6 months ago, worse over the last 2 days"
- "Was the breathlessness gradual or did it come on suddenly?"
- "Is it worse on exertion or even at rest?"
- "Have you been waking up breathless or needing to sit upright to sleep?"

3. Focused Differential Diagnosis Screening

"We'll also quickly check for any other causes that can sometimes cause fluid around the lungs."

Infection (pneumonia/TB):

- "Any fever, chills, or night sweats?"
- "Any chest pain when breathing in?"

Pulmonary embolism (PE):

- "Any recent travel, surgery, or long periods of being immobile?"
- "Any pain or swelling in your legs?"

Heart failure:

- "Do your ankles swell by the end of the day?"
- "Do you sleep with more pillows at night?"
- "Any known heart problems?"

Liver disease (hepatic hydrothorax):

- "Have you had any long-term liver conditions or yellowing of the skin?"
- "Any abdominal swelling?"

Malignancy (general):

- "Have you lost weight recently without trying?"
- "Any significant fatigue or appetite changes?"
- "Any prior cancer diagnosis?"

Occupational exposure:

- "What do you do for work - or have done in the past?" → Expect: construction, shipyards, demolition (asbestos risk)

Smoking history:

- "Have you ever smoked? If yes, how much and for how long?"

5. PMAFTOSA

- Past: Any previous lung, heart, or liver disease?
- Medications: Regular medicines, inhalers, blood thinners?
- Allergies: Drug allergies?
- Family history: Any cancers or respiratory illnesses?

- Travel: Already covered
- Occupation: Confirmed asbestos exposure likely
- Social: Living alone or with family?
- Anything else you'd like to tell me about your health?

6. ICE – Elicit Patient's Perspective

- Ideas: "Have you had any thoughts about what might be going on?"
- Concerns: "Are you worried this might be something serious?"
- Expectations: "What were you hoping we could do for you today?"

7. Effect on Life

- "Has this shortness of breath affected your daily routine or work?"
- "Are you able to manage your own care at home?"
- "Any changes to your mobility, sleep, or appetite?"

8. X-ray Explanation

"Thanks for your patience. We've reviewed your chest X-ray. On one side of your chest, there's a large amount of fluid around the lung - this is called a pleural effusion. Normally, lungs appear black on the X-ray because they're full of air. Fluid shows up as white - and that's what we're seeing here. This fluid buildup is pressing on your lung, which explains why you're having trouble breathing."

9. Diagnostic Concern

"Based on the X-ray findings, your long-term symptoms, and your job history involving shipyards or construction, we are concerned that this could be mesothelioma. That's a type of cancer that affects the lining of the lungs, not the lung itself. It's often linked to asbestos exposure, which is common in jobs like demolition, shipbuilding, or insulation work."

(Pause. Allow space for reaction.)

10. Immediate Management Plan (A&E Level)

Admit under Respiratory

- "Given your low oxygen levels and the amount of fluid, we'll admit you to the respiratory team."

Insert Chest Drain

- "We need to insert a chest drain to remove the fluid from around your lung. That should help improve your breathing quite quickly."

Initial Investigations

- "We'll send the fluid for laboratory analysis to check for infection or abnormal cells."
- "You'll also have a CT scan of the chest for a more detailed look."
- "If needed, a tissue sample (pleural biopsy) or bronchoscopy may be arranged later."

11. Specialist Involvement and Ongoing Plan

- "Once we confirm the diagnosis, you'll be referred to the lung cancer multidisciplinary team."
- "For most patients with unresectable mesothelioma, the standard first-line treatment is now immunotherapy (nivolumab plus ipilimumab) - this is NICE-approved and has better outcomes than chemotherapy alone."
- "Chemotherapy may be used as an alternative or after immunotherapy."
- "There's also excellent palliative support available to manage symptoms and maintain your quality of life."

12. Safety Netting and Reassurance

- "If at any point you feel more breathless, dizzy, or have chest pain, let the nurses or doctors know immediately."
- "You're not alone - we'll walk you through this one step at a time, and we'll make sure your family is kept informed if you'd like."

Common Concern Responses

Patient: "Is this definitely cancer?" → "Not yet confirmed - but the findings and your history make us very concerned. That's why we're moving quickly with tests to be sure."

Patient: "Why would asbestos affect me now?" → "Asbestos exposure can take 20 to 40 years to cause symptoms. Many people are only diagnosed decades after their exposure."

Patient: "Is it curable?" → "Mesothelioma is difficult to cure, but we can manage symptoms and often slow the disease down with treatment. We'll make sure you're fully supported."

Student Clinical Reasoning Note

Suspect mesothelioma in this A&E case based on:

- Chronic SOB worsening acutely
- Unilateral large pleural effusion on X-ray
- Asbestos-related occupation (e.g., shipyard, construction)
- No fever → less likely infection
- No cardiac signs → unlikely heart failure

Management begins with:

- Admission
- Chest drain
- CT + pleural fluid analysis

Then escalated to the lung MDT.

Feature	Lung Cancer	Mesothelioma
Main Symptom	Cough (± blood), weight loss	Breathlessness, dull chest pain
X-ray Finding	Central/upper mass	Pleural thickening ± effusion
Occupation Link	None specific	Asbestos exposure (e.g., shipyard)
Smoking	Almost always present	May or may not be present
Onset	Weeks to months	Very gradual, often years

Atypical Pneumonia – with NEWS Score

Setting: Emergency Department

Patient: Older Adult Male

Presenting symptoms: Respiratory Infection Not Responding to First-Line Oral Antibiotics

Background: GP-treated with oral antibiotics 2 weeks ago, no improvement

Examination: Basal crepitations

X-ray: Consolidation in lower lobe

NEWS score: 8

1. Introduction

"Hello, I'm one of the doctors working here in A&E. Thanks for coming in today. Before we begin, could I confirm your full name and date of birth please? I understand you've been feeling unwell. Could you tell me a bit more about what's been going on?"

2. Presenting Complaint – ODIPARA

"Let's talk through your symptoms."

- Onset: "When did the cough first start?"
- Duration: "Has it been continuous or on and off?"
- Intensity: "How bad is the breathlessness or chest pain, say on a scale of 1 to 10?"
- Progression: "Has it been getting better, worse, or staying the same?"
- Associated symptoms:
 - "Are you bringing up phlegm? What colour is it?"
 - "Any fevers, chills, or night sweats?"
 - "Is the chest pain sharp or worse when breathing in?"
 - "Any nausea, feeling faint, or confusion?"
 - "Any blood in the phlegm?"
 - "Any loss of appetite or recent weight loss?"
- Relieving/aggravating factors: "Does anything make it better or worse?"

3. NEWS Chart Interpretation

"Looking at your observations, your oxygen is slightly low, and your temperature and breathing rate are high. This gives us a NEWS score of 8, which means your body is under significant stress, likely fighting a serious infection. This score tells us you need close monitoring and may need escalation if things don't improve. I'll ask a few more questions to complete the picture."

4. Differential Diagnosis Screening

"Just to rule out any other causes of your symptoms:"

- "Do you ever get wheeze or symptoms triggered by cold or exercise?" (→ COPD/asthma)
- "Do you wake up breathless at night or have swollen legs?" (→ Heart failure)
- "Any leg pain, swelling, or long travel recently?" (→ PE)
- "Any night sweats or recent travel to high TB areas?" (→ TB)
- "Any recent new medications?" (→ Drug-induced pneumonitis)
- "Any voice changes or loss of appetite?" (→ Malignancy)

5. Targeted Risk Factor History

- "Have you had a chest infection or pneumonia before?"
- "Have you received your flu or pneumonia vaccine recently?"
- "Do you smoke or have you smoked in the past?"
- "Have you travelled recently?" (→ Spain, 4 months ago – known risk for Legionella)
- "Are you otherwise fit and active for your age?"

6. PMAFTOSA

- P: Any ongoing heart, lung, kidney problems?
- M: Regular tablets or inhalers?
- A: Any drug or food allergies?
- F: Any family history of lung problems or cancers?
- T: Travel confirmed (Spain 4 months ago)
- O: Retired judge

- S: Lives at home - ask: "Are you managing daily tasks okay?"
- A: "Do you drink alcohol regularly?"

7. ICE

- Ideas: "The GP thought it was a chest infection, but it hasn't cleared."
- Concerns: "I'm worried this could be something more serious - like pneumonia or even cancer."
- Expectations: "I came today because I'm not getting better and want answers."

8. Effect on Life

- "Has this affected your usual routine - like walking, cooking, or sleeping?"
- "Have you needed help from anyone at home recently?"

9. Examination Summary

- Chest exam: Reduced breath sounds, bilateral basal crepitations
- NEWS chart: High RR, low O₂ sats, febrile - total score 8
- CXR: Lower lobe consolidation confirming pneumonia

10. Provisional Diagnosis

Likely atypical pneumonia, possibly caused by Legionella or Mycoplasma, especially given poor response to oral antibiotics and recent travel.

CURB-65 Severity Assessment: "We use a score called CURB-65 to assess how severe your pneumonia is:"

- Confusion (AMTS $\leq 8/10$ or new confusion)
- Urea >7 mmol/L
- Respiratory rate $\geq 30/\text{min}$
- Blood pressure <90 systolic or ≤ 60 diastolic
- Age ≥ 65 or over

[Note: A CURB-65 score of ≥ 2 indicates hospital admission is REQUIRED. A score of 3 or above indicates severe pneumonia requiring urgent senior review and consideration of ICU. Never treat CURB-65 ≥ 2 in the community - this is a critical safety fail.]

11. Explanation

"From what you've told me and what we've seen on your chest X-ray, it looks like you have a lung infection called pneumonia. That's when part of your lungs become inflamed and filled with fluid or pus due to germs like bacteria. In your case, it hasn't improved with the first set of antibiotics from your GP - which suggests this may be caused by a less common type of bug, sometimes called 'atypical pneumonia.' These types don't always respond to standard antibiotics and often require treatment in hospital. Because of your age and oxygen levels, your body needs extra support to fight this infection - so we'll treat you with stronger medicines through a drip and monitor you very closely."

12. Management Plan

Admit under medical team Escalate to registrar/senior review IV treatment + supportive care

Investigations

- Bloods: FBC, CRP, U&E, LFTs, blood cultures
- Sputum culture
- Urine antigen for Legionella
- Throat swab for Mycoplasma
- COVID PCR if indicated

Treatment

[Note: Per NICE NG250 for high-severity CAP (NEWS ≥ 5)]

- IV co-amoxiclav 1.2g TDS PLUS IV clarithromycin 500mg BD for 5 days
- Consider IV hydrocortisone (or dexamethasone) for 4-7 days or until discharge for high-severity CAP
- IV fluids if dehydrated
- Oxygen therapy to maintain sats $>94\%$
- Paracetamol for fever and discomfort
- Monitor with NEWS chart every 4 hours

Supportive Measures

- Sit upright to help breathing
- Encourage fluid intake
- Chest physiotherapy if required
- Early senior review

Safety Netting

"We'll be checking your bloods and monitoring your breathing regularly. If at any point you feel more short of breath, your chest pain increases, or you feel confused - please tell the nurses immediately. We're starting strong treatment now, and we'll keep a close watch on your recovery."

Follow-Up Plan

- Daily review by ward team
- Step down to oral antibiotics once stable
- Repeat chest X-ray in 6 weeks (due to age and smoking risk)
- Smoking cessation advice if relevant
- Check pneumococcal/flu vaccination status on discharge
- Respiratory referral if response is slow or incomplete

CRITICAL SAFETY POINT - Non-Resolving Pneumonia: If pneumonia does not resolve, or if cough persists >3 weeks after treatment in patients aged >40 , arrange **urgent 2-week-wait CXR** to exclude underlying malignancy. Do NOT simply repeat antibiotics without investigating further. This is a common exam trap - the "resolved pneumonia" patient with lingering cough needs malignancy ruled out.

Leaflets & Support

- NHS leaflet: Pneumonia in Older Adults
- Smoking cessation resources (if smoker)
- Ward contact info for concerns after discharge

Pneumocystis Pneumonia (PCP)

Setting: Emergency Department

Patient: Young Adult Male with Social Vulnerability Factors

Presenting complaint: Progressive Respiratory Symptoms Not Responding to Standard Antibiotics

Clinical context: Hypoxia requiring oxygen support

Background: Prior hospital visit, no response to antibiotics. Oxygen-dependent.

1. Introduction

"Hello, I'm one of the doctors here in the emergency team. Thank you for coming in. Before we begin, could I confirm your full name and date of birth, please? I see that you've been having some breathing issues. Let's talk through it and work out how to help."

2. Presenting Complaint – Logical History Flow

Symptom Onset & Character

- "When did the breathlessness begin?"
- "Would you say it's been getting better, worse, or about the same?"
- "Is it constant or does it come and go?"
- "Is the breathlessness there even at rest?"
- "Do you have a cough? Is it dry or with phlegm?"
- "Have you had a fever or chills?"

Associated Features

- "Any chest pain, especially when breathing in?"
- "Any dizziness, nausea, or feeling light-headed?"
- "Any weight loss or loss of appetite?"
- "Any night sweats?"
- "Have you felt more tired than usual?"
- "Any blood when coughing?" (→ Unlikely, but always check)

3. Differential Diagnosis Screening

"Just a few quick questions to check for other possible causes."

Condition	Ask...
TB	"Have you travelled recently or had close contact with anyone coughing for a long time?"
PE	"Any recent long journeys, leg swelling, or surgery?"
Heart failure	"Do your legs swell? Do you sleep propped up with extra pillows?"
Malignancy	"Any voice changes, unexplained weight loss, or appetite changes?"
Typical pneumonia	"Have you had chills, thick phlegm, or sharp chest pain?"
Asthma/COPD	"Do you have a history of wheezing or use any inhalers?"
COVID	"Any recent known exposure to COVID or loss of smell/taste?"

4. Medical History

- "Have you ever had anything like this before?"
- "Have you been seen at hospital recently for this?" → Likely answer: "Yes, they gave me antibiotics. It didn't help."
- "Do you have any long-term conditions that you're aware of - like asthma, diabetes, or HIV?"
- "Have you ever had pneumonia or TB in the past?"

5. Drug History

- "Are you taking any medications at the moment?"
- "Any drug allergies?"

- "Have you used any recreational or injected drugs in the past?" (Ask neutrally, especially in patients with social vulnerability factors)

6. Sexual History

(Always include in PCP suspicion. Ask naturally and respectfully.) "To help work out what's going on, I need to ask a few questions about your sexual health - I ask this to everyone with infections like this."

- "Are you sexually active?"
- "Do you have sex with men, women, or both?"
- "Have any of your recent partners had similar symptoms - like cough, fever, or weight loss?" → Likely response: "One of them also had a cough like this."

7. Social History

- "Where have you been staying recently?" (Homelessness already flagged - ask non-judgmentally)
- "Has anyone been helping you with meals, medication, or day-to-day needs?"
- "Do you smoke or drink alcohol?"
- "Have you been in any shelters or close living spaces lately?"

8. PMAFTOSA

- P: Any history of chronic lung, heart, immune conditions?
- M: Current medications, recent antibiotics?
- A: Allergies to any medicines?
- F: Any family history of lung disease, TB, or HIV?
- T: Any travel in the past 6 months?
- O: Not employed; status confirmed
- S: Social circumstances - confirmed
- A: Alcohol or drug use covered earlier

9. ICE

- Ideas: "I thought it might be a chest infection, but it's not getting better."
- Concerns: "I'm scared this might be something serious."
- Expectations: "I want to breathe properly and get the right treatment."

10. Effect on Life

- "Has this been stopping you from doing your normal routine - walking, eating, sleeping?"
- "Do you feel safe where you're staying?"

11. Examination Summary

"I'd like to examine your chest and check your vital signs."

Findings (report aloud for examiner):

- Oxygen saturation: Low (often <92%)
- Temperature: Febrile
- Respiratory rate: High
- Chest auscultation: May be clear or fine crackles
- General: Appears unwell, on oxygen

12. Provisional Diagnosis

"From what you've told me - and based on your symptoms and oxygen levels - we're concerned that you may have a chest infection called Pneumocystis pneumonia, or PCP for short. It's a type of pneumonia caused by a bug called Pneumocystis jirovecii, and it tends to affect people whose immune systems are

not working as well as they should. Because your symptoms haven't responded to regular antibiotics, and because your oxygen levels are low, we need to act quickly and start the right investigations and treatment.

One thing to mention - this type of infection is more common in people with conditions that affect their immune system, like HIV. That's why we'd recommend offering a test for HIV as part of the assessment. Of course, this doesn't mean we think you definitely have it - but if your immune system is low for any reason, knowing that would help us choose the most effective treatment. And everything will be handled with complete privacy and support."

Management Plan

Admission under Medical Team Immediate Escalation to Senior/Registrar

Investigations

- Chest X-ray
- Arterial Blood Gas (ABG) - to assess oxygenation
- LDH - often raised in PCP
- PCR on respiratory sample (induced sputum or lavage)
- HIV test - essential in all suspected PCP cases "We'd advise an HIV test, as this infection is strongly associated with low immunity caused by HIV."

Treatment

- High-dose cotrimoxazole (Trimethoprim-Sulfamethoxazole) for 21 days
 - **IV route initially for moderate-severe PCP** (hypoxic patients), then switch to oral when improving
 - Oral may be used for mild cases
- Steroids if $\text{PaO}_2 < 9.3 \text{ kPa}$ (or $< 70 \text{ mmHg}$) OR A-a gradient $\geq 35 \text{ mmHg}$ - must start within 72 hours of anti-PCP treatment
- Oxygen therapy
- IV fluids if dehydrated

Supportive Measures

- Sit upright to ease breathing
- Monitor oxygen and vitals
- Physiotherapy if sputum retention
- Early review by medical registrar

Safety Netting

"We're admitting you today and starting specific treatment. If your breathing gets worse or you feel more unwell, let the nurses know immediately. These next few days are important for turning things around - we'll monitor you very closely."

Follow-Up Plan

- Daily ward review
- HIV result follow-up and referral to specialist team if positive
- If HIV is confirmed, early linkage to specialist HIV services is essential for starting antiretroviral therapy
- Repeat chest X-ray once improving
- Assess for secondary infections
- Discharge planning with community or homeless outreach team

Leaflets & Resources

- NHS Leaflet: "Pneumonia in adults"
- HIV support services (if relevant)
- Local homeless health service referral (if available)

Student Diagnostic Reasoning Note

This is a classic PCP presentation:

- Young adult male with social vulnerability factors
 - Dry cough, progressive SOB
 - No response to antibiotics
 - Low oxygen
 - High suspicion for HIV-related immunosuppression
-

Elderly Patient with Confusion and Chest Infection

Scenario: You are in A&E. An older adult female from a nursing home was brought in due to confusion. She cannot give her own history. You are speaking to one of the care staff to gather relevant background and explain what is happening.

Setting: Emergency Department

Patient: Older Adult Female from Care Facility

Presenting complaint: Acute Confusion (Collateral History Station)

Clinical context: New-onset delirium with systemic features

1. Introduction & Rapport Building

"Hello there, my name is Dr [Your Name], I'm one of the doctors looking after a resident from your care home who was brought in to the hospital earlier today. She's currently quite confused and isn't able to tell us what's been happening, so I was hoping you might be able to help us by sharing a bit more about what led up to her admission. Is this a good time to talk? And could I just confirm your name and role at the care home, please?"

2. Confirming Identity and Role

"Before we continue, could I check your full name, please? And may I ask what your role is at the care home?" → "Thank you. Do you know the resident I'm referring to? Have you been involved in her care recently, or would you be reading from the handover notes?"

3. Gathering Collateral History

A. Presenting Complaint

- "Can you tell me what made the team decide to send her into hospital today?"
- "When did you first notice she seemed unwell or different from her usual self?"
- "Was she more confused than her normal baseline?"
- "Had she shown any signs of discomfort or distress?"

B. Symptom Review

- "Was she eating and drinking normally in the past few days?"
- "Was there any cough or shortness of breath?"
- "Did she seem to be breathing faster or more heavily than usual?"
- "Was there any fever or temperature recorded in the past few nights?"
- "Any chest pain or discomfort noted?"
- "Any vomiting, nausea, or abdominal pain?"

- "Any signs of a urinary tract infection - like pain when passing urine, changes in smell or colour, or incontinence?"
- "Has she had any recent falls or injuries?"
- "Was she more sleepy or drowsy than usual?"

C. Past Medical Background

- "Does she have any known medical conditions?"
- "Is she on any regular medications?"
- "Does she have any known allergies?"

D. Social and Care Details

- "Does she usually require help with daily activities, or is she fairly independent within the home?"
- "Has her level of function changed in the last few days?"
- "Do you know if she has any family members listed as next of kin or legal decision-makers for her health?"
- "Do you know if there's a do-not-resuscitate order or advance decision to refuse treatment in her file?"
- "Could you tell me who her registered GP is?"

E. Request for Documentation "Would it be possible to send across any recent care notes, medication records, or observations to our team here at the hospital?"

4. Summarise & Acknowledge

"Thank you so much for that helpful information. Just to summarise - over the past few days she had a cough, was eating and drinking less, seemed more confused than usual, and had a recorded temperature. She has a history of dementia and is on regular medications for her memory and blood pressure."

5. Explaining Diagnosis

"Based on what you've told me and the tests we've done here, we think she may have developed a chest infection, and because of her age and health conditions, it has likely progressed into something more serious called sepsis. Sepsis is when an infection spreads through the body and causes strain on the heart, lungs, and other organs. It's not uncommon in people who are older or have memory problems. The fact that she's more confused than usual and her vital signs are abnormal - like low blood pressure and high temperature - tells us that her body is struggling to fight the infection."

Delirium Assessment "We'll also use a quick assessment tool called the 4AT to help us understand her confusion better."

6. Explaining Management

"We've already started the urgent treatment. This includes:

- Antibiotics, given through a drip - we've chosen a type that's safe for her, as we know she has an allergy to penicillin
- Fluids through a drip to support her blood pressure
- Oxygen to help her breathing
- Regular monitoring of her temperature, breathing, and blood pressure

"We've also taken some blood tests and a chest X-ray to confirm the source of the infection and to guide further treatment. We will keep you and her family fully updated as her condition progresses."

7. Reassurance and Professional Closure

"Thanks again for all the helpful details. We understand this is a worrying time. She's receiving the right treatment, and we'll be monitoring her very closely. Please let her daughter know that she can contact us for updates - and we'll speak with her directly once she arrives."

Follow-Up: Examiner Questions

If the examiner asks, "What is your working diagnosis and management plan?", respond as follows:

"She is an elderly woman from a nursing home presenting with new-onset confusion, fever, tachypnoea, and hypoxia. Examination reveals crepitations and signs consistent with infection. Her vital signs meet the criteria for sepsis, likely from lower respiratory tract infection (pneumonia).

High-Risk Sepsis Criteria: Immediate IV antibiotics are triggered by high-risk criteria:

- Respiratory rate >25
- Systolic BP <90
- Oxygen saturations <91% on air
- Lactate >2 mmol/L
- Non-blanching rash

If patient is "medium risk," there is a window for investigation before antibiotics, but high-risk = immediate treatment.

My immediate management includes:

- Airway, breathing, circulation – stabilise with oxygen and fluids
- Start Sepsis 6 bundle:
 - Give IV fluids
 - Give antibiotics (levofloxacin 500mg BD IV for 5 days)

[Note: Per NICE NG250 – levofloxacin is the recommended antibiotic for high-severity CAP with penicillin allergy. Fluoroquinolones including levofloxacin must only be prescribed when other commonly recommended antibiotics are inappropriate. Risk of disabling and potentially long-lasting or irreversible side effects including tendon rupture and neuropathy. Use with caution in patients >60, with renal impairment, or organ transplant. Avoid concurrent corticosteroid use.]

- Take blood cultures
- Measure lactate
- Monitor urine output
- Give oxygen
- Order chest X-ray and bloods (FBC, CRP, U&E, LFTs, lactate)
- Inform senior / registrar
- Notify next of kin – daughter (who has LPA for health decisions)
- Confirm resuscitation status and discuss ceiling of care if deterioration occurs
- Request nursing home records and handover via email or fax

If her condition deteriorates, I would consider escalation to HDU, depending on her ceiling of care."

Examiner: "How would you explain this to the patient's daughter?"

"I'd use simple, respectful language while making sure the key points are clear. I might say something like this:

"Thank you for coming in. I wanted to let you know that your mother has developed a chest infection, and from what we've seen so far, it looks like the infection may have spread through her body - a condition we call sepsis. This can happen quickly in older people, especially those who are already vulnerable or have memory conditions like dementia.

We're currently doing a number of tests, including blood tests and a chest X-ray, and we've already started treatment. She's receiving antibiotics through a drip - we've chosen a type that's safe for her since she's allergic to penicillin - along with IV fluids and oxygen to support her breathing.

We'll be monitoring her closely, and if anything changes, we'll act immediately. Because she's not able to make decisions herself at the moment, and since you hold lasting power of attorney for health, we'll make sure you're fully involved in any decisions moving forward. Please don't hesitate to ask us anything at any point - we're here to support both of you through this."

Obstructive Sleep Apnoea

Setting: Primary Care

Patient: Middle-Aged Adult Male

Presenting complaint: Sleep-Related Symptoms Affecting Daytime Function

You are: An FY2 GP trainee

Main concerns: Snoring, poor sleep quality, daytime tiredness

1. Introduction

"Hello, I'm one of the doctors here at the practice. Thank you for coming in today. Could I confirm your full name and date of birth, please? I understand you've been having some sleeping problems - could you tell me a bit more about that in your own words?"

2. Presenting Complaint – Sleep Symptoms History

"Can you describe the kind of sleeping problems you've been experiencing?"

- "Do you find it difficult to fall asleep at night?"
- "Do you fall asleep easily but then wake up during the night - especially gasping for air?"
- "Do you feel sleepy during the day, even after a full night's sleep?"
- "What time do you usually go to bed, and how long do you sleep?"
- "Do you wake up feeling refreshed?"

3. Focused Snoring History

"You mentioned you snore - how did you find out about it?"

- "How long have you been snoring?"
- "Has it been getting worse recently?"
- "Is it every night or occasional?"
- "Does anything make it worse - like alcohol, certain sleeping positions, or late nights?"
- "Has anyone ever told you that you stop breathing at night or gasp in your sleep?"

4. Daytime Functional Impact

"I'd like to ask you about how you feel during the day."

- "Do you often feel tired or struggle to stay awake?"
- "Have you ever accidentally fallen asleep while watching TV, reading, or sitting and talking?"
- "Do you drive?"
 - If yes: "Have you ever felt drowsy while driving or nearly fallen asleep at the wheel?"

5. Screening for Other Causes / Contributing Factors

"Just a few questions to rule out other possible causes or contributing factors."

- "Have you had any recent weight gain?"
- "Do you smoke?"
- "How much alcohol do you drink in a week?"
- "Have you had any operations on your nose, throat, or jaw?"
- "Any accidents involving your face or neck?"

6. PMAFTOSA

- P: "Do you have any long-term health problems like diabetes, high blood pressure, or thyroid issues?"
- M: "Are you on any regular medication?"
- A: "Do you have any allergies?"
- F: "Any family history of sleep issues or obesity?"
- T: "Have you travelled recently, or had any jet lag affecting your sleep?"
- O: "What do you do for work?"
 - If driving-related occupation (taxi, bus, lorry): Flag for urgent referral + DVLA advice
- S: "Do you live with anyone?"
- A: "Do you drink alcohol regularly? How many units per week?"

7. Effect on Life

- "Has this been affecting your work, relationships, or daily routine?"
- "How is this affecting your partner or family - especially with the snoring?"

8. Examination

"I'd like to check your height and weight so we can calculate your BMI. That often gives us useful clues in sleep-related conditions."

- Expected: BMI in the obese range
- Other findings: May note thick neck, crowded oropharynx, large tonsils (if examined)

9. Provisional Diagnosis

"From what you've told me - particularly the snoring, daytime tiredness, and episodes of gasping at night - there's a strong possibility that you may have a condition called Obstructive Sleep Apnoea, or OSA."

Epworth Sleepiness Scale "I'd also like you to complete a short questionnaire called the Epworth Sleepiness Scale - this helps us measure how sleepy you're feeling during the day."

10. Explanation

"Obstructive Sleep Apnoea is a condition where your throat temporarily closes during sleep. When we sleep, the muscles around the throat relax. In some people, especially those who are overweight, the airway can collapse partially or fully. This causes a brief stop in breathing - sometimes with a snort or gasp - which wakes the brain slightly. These episodes can happen dozens or even hundreds of times in a night, and most people don't remember them. But over time, it leads to poor sleep quality, daytime tiredness, and can increase the risk of high blood pressure, heart problems, and even accidents when driving."

11. Management Plan

Investigations & Referrals

1. Referral to sleep clinic (neurology or respiratory-led)
 - "I'll refer you to a sleep specialist who will organise a sleep study."
 - "They'll monitor your breathing, oxygen levels, and brain activity while you sleep."
2. Urgency of Referral
 - "Given your daytime tiredness, and especially if your job involves driving, I'll mark this as an urgent referral."
 - "You should be seen within 4-6 weeks, but please avoid driving if you feel too tired."
3. DVLA Advice (Detailed Guidance)

- **OSA without excessive sleepiness:** Can continue driving, no DVLA notification required
- **Mild OSAS with excessive sleepiness:** Must stop driving until symptoms controlled; notify DVLA only if not controlled within 3 months
- **Moderate/Severe OSAS with excessive sleepiness:** Must stop driving AND notify DVLA; can resume once specialist confirms symptoms controlled with treatment (usually CPAP)
- **Professional/HGV drivers:** Same principles apply but require specialist confirmation before resuming

Lifestyle Advice

- "There are things you can do while waiting for the referral that can make a big difference:"
 - Lose weight gradually if overweight
 - Regular exercise improves sleep quality
 - Avoid alcohol and heavy meals before bedtime
 - Avoid caffeine in the late evening
 - Try to sleep on your side rather than on your back

Treatment (If Confirmed)

- "If sleep apnoea is confirmed, the first-line treatment is usually CPAP, a small machine with a mask that keeps the airway open overnight."
 - It can feel unusual at first, but many people find it life-changing once they adjust."

Follow-Up Plan

- "I'd like to see you again once your sleep study results are back. We'll review how you're feeling, go over the results together, and make a treatment plan."
- "If your symptoms worsen or you have any concerns in the meantime - especially with driving - please contact us earlier."

Safety Netting and Final Check

- "If you feel unsafe to drive at any point, please don't. Let your employer know if needed."
- "This condition is very treatable, and many people feel a huge improvement once they're on the right treatment. Do you have any questions or concerns you'd like to ask before we finish?"

Student Reasoning Note

This patient presents with:

- Snoring, daytime somnolence, gasping at night
- Obesity (likely)
- No insomnia pattern
- No depression/red flags → Strong suspicion for OSA

Obstructive Sleep Apnoea (OSA) – Uncovered During Type 2 Diabetes Review

Setting: Primary Care

Patient: Middle-Aged Adult Male with Type 2 Diabetes

Reason for visit: Chronic Disease Review with Incidental Finding

Role: FY2 doctor

Trigger: Daytime tiredness raised during symptom review

Vitals Provided: HbA1c = 7.6% (60 mmol/mol), BMI = 34

1. Introduction

"Hello, I'm one of the doctors here at the practice. Thanks for coming in for your diabetes follow-up. Before we start, could I confirm your full name and date of birth please?"

2. Purpose & Engagement

"I see you're here for your routine diabetes review. Is that right?" "Just to begin, could I ask - how are you feeling overall? Any issues since your last check-up?"

Patient says: "Mostly okay... just been feeling quite tired."

3. Diabetes-Specific History

"Can I quickly check a few things about your diabetes before we come back to that tiredness?"

- "Are you currently on any medication or managing it through lifestyle alone?"
- "How often do you check your blood sugars at home?"
- "Do you experience any symptoms of high or low sugars - like thirst, frequent urination, blurred vision, or dizziness?"
- "Have you had any recent infections or noticed slow wound healing?"
- "How's your diet and physical activity these days?"

"I feel okay... just a bit tired/sleepy."

- "Have you had any recent eye or foot checks?"

4. Transition to OSA (Trigger = Tiredness)

"Thanks for going through that. You mentioned feeling tired - I'd like to understand that a bit better."

- "How long has the tiredness been going on?"
- "Would you say it's constant or worse at certain times?"
- "Does it improve with rest or sleep?"
- "Do you ever feel sleepy during the day - say, while reading, watching TV, or just sitting quietly?"
- "Have you ever dozed off during meals, conversations, or even when you're a passenger in a car?"

5. Safety Check – Driving History

"Do you drive?" If yes: "Have you ever felt drowsy or dozed off while driving?"

6. Night-time Sleep Pattern & OSA Symptoms

"Let's talk about your sleep at night -"

- "Do you snore loudly?"
- "Has anyone ever said you stop breathing or gasp during the night?"
- "Do you wake up with a dry mouth or headache?"
- "Do you ever wake up suddenly feeling short of breath?"
- "Roughly how many hours of sleep do you get, and do you feel refreshed when you wake up?"

7. PMAFTOSA

- P: "Any other medical conditions apart from diabetes? For example, high blood pressure or thyroid problems?"
- M: "Any other medications apart from your diabetes treatment?"
- A: "Any allergies to medicines or anything else?"
- F: "Any family history of diabetes, obesity, or sleep-related issues?"
- T: "Have you travelled recently or had jet lag?"
- O: "What do you do for a living?"
 - Delivery driver - triggers safety concern
- S: "Do you live with anyone who's noticed any issues with your sleep?"

- A: "How much alcohol do you drink in a typical week?"

8. Effect on Life

- "Has this tiredness been affecting your work or routine in any way?"
- "Is it impacting your ability to concentrate, stay alert, or perform daily tasks?"

9. Examination Summary

"I'd like to check your height and weight so we can calculate your BMI."

- BMI = 34 (obese category)
- Optional exam (if time): neck circumference, oropharynx (if crowding or tonsillar hypertrophy suspected)

10. Provisional Diagnosis

"From everything you've described - especially the loud snoring, excessive daytime tiredness, and gasping or disrupted sleep - there's a strong possibility that you may have a condition called Obstructive Sleep Apnoea, or OSA."

11. Explanation in Layman Terms

"Obstructive Sleep Apnoea is a condition where the airway temporarily collapses while you sleep, which briefly cuts off your breathing. This often happens without the person realising. Each time your body has to wake up slightly to restart breathing - and over time, that fragments your sleep. That's why you can feel tired and drowsy during the day, even after what seems like a full night's sleep. It's more common in people who are overweight, and it's often linked with conditions like diabetes and high blood pressure. Left untreated, OSA can increase the risk of heart disease, stroke, and serious driving-related accidents."

12. Management Plan

Immediate Actions:

- "I'm going to refer you urgently to a sleep specialist for a test called a sleep study - this measures your breathing, oxygen levels, and brain activity overnight."

Driving Safety:

- "Because you're a professional driver, this makes it more urgent. The DVLA guidance is clear on this:"
 - **Professional/HGV drivers with suspected moderate-severe OSA and excessive sleepiness:** Must stop driving AND notify DVLA
 - "You can resume once a specialist confirms your symptoms are controlled with treatment"
- "In the meantime, if you feel sleepy while driving, please avoid working until you're assessed."

Likely Treatment:

- "If diagnosed, the most common treatment is a CPAP machine - a mask worn during sleep that gently blows air to keep your airway open. It might feel strange at first, but many people find a big improvement in their energy and quality of life once they start using it."

Lifestyle Advice:

- "While we wait for the referral, here's what you can do now:"
 - "Try to lose weight gradually, as this can improve sleep apnoea"
 - "Avoid alcohol, especially in the evenings"
 - "Avoid caffeine after late afternoon"
 - "Sleep on your side if possible"
 - "Stick to a regular sleep routine"

Diabetes Follow-Up:

- "Your HbA1c today is 7.6% (that's 60 mmol/mol), which is slightly above target. Let's keep an eye on your diet and physical activity too, and recheck this in the next review."

Safety Netting

- "If your tiredness gets worse or you feel unsafe to drive, please contact us urgently."
- "We'll be monitoring this closely and updating the referral if needed."

Follow-Up

- "I'd like to see you again once your sleep study is done - usually within 4-6 weeks for urgent cases. We'll review the results and discuss the next steps."

Student Reasoning Note

This is a hidden OSA case revealed during a routine diabetes follow-up. The key clinical pivots are:

- Excessive daytime sleepiness
- Snoring and possible apnoeas
- Obesity
- High-risk occupation (driver)
- Underlying condition: Type 2 Diabetes

Appropriate response involves:

- Urgent sleep clinic referral
 - DVLA driving advice
 - Discussion of CPAP + lifestyle modification
 - Clear safety netting and follow-up
-

Pulmonary Embolism (PE)

You are: FY2 doctor

Settings:

- **Scenario A:** Setting: Primary Care | Patient: Young Adult Female | Presenting complaint: Acute Chest Pain with Relevant Thrombotic Risk Factors
- **Scenario B:** Setting: Emergency Department | Patient: Young Adult Male with Social Complexity | Presenting complaint: Progressive Breathlessness with Re-presentation

Presenting complaint: Chest pain and/or shortness of breath

1. Introduction

"Hello, I'm one of the doctors here. Thanks for coming in today. Before we begin, could I confirm your full name and date of birth please?"

GP: "I understand you've come in with some chest pain - would you be able to tell me more about that?"

A&E: "I see you're back in with shortness of breath - I'd like to understand what's going on so we can help."

2. Chest Pain – SOCRATES

"Let's talk about the chest pain first."

- S – Site: "Where exactly is the pain located?"
- O – Onset: "When did the pain start?"
- C – Character: "How would you describe the pain - sharp, dull, tight?"
- R – Radiation: "Does the pain spread anywhere, like your arm or back?"

- A – Associated symptoms: "Any shortness of breath, dizziness, cough, or palpitations along with the pain?"
- T – Timing: "Is the pain constant or does it come and go?"
- E – Exacerbating/relieving: "Is it worse when breathing in, lying down, or walking?"
- S – Severity: "On a scale of 1 to 10, how bad is it at its worst?"

Quick Chest Pain Screening (Two-Question Rule):

1. "Does the pain get worse when you take a deep breath in?" → Suggests pleuritic/respiratory cause (PE, pneumonia, pleuritis)
2. "Does it hurt if I press on your chest here?" → Suggests MSK/costochondritis

3. Shortness of Breath – ODIPARA

"Now let's talk about your breathing."

- O – Onset: "When did you start feeling breathless?"
- D – Duration: "Is it constant or does it come in episodes?"
- I – Intensity: "Has it been getting worse over time?"
- P – Progression: "Was it sudden or gradual?"
- A – Associated symptoms: "Any dizziness, cough (dry or with blood), leg swelling, or palpitations?"
- R – Relieving/worsening factors: "Is it worse when walking, climbing stairs, or lying flat?"
- A – Activity limitation: "Has this stopped you from doing your normal daily tasks?"

4. Differential Diagnosis Screening

To guide diagnosis logically:

- Myocardial infarction: Any pressure or heaviness in the chest? Any risk factors?
- Unstable angina: Any pain at rest or unpredictable episodes?
- Pericarditis: Pain worse lying down? Better when leaning forward?
- Pneumonia: Any fever, cough with phlegm, or chills?
- Pneumothorax: Any sudden chest pain with breathlessness, especially in tall, thin individuals or after trauma?
- Musculoskeletal: Pain reproducible on palpation or movement?
- Gastroesophageal: Burning pain, acid reflux, recent large meals?

Then steer into suspicion of PE by asking:

5. DVT Symptom Screening

"Sometimes clots form in the legs and travel to the lungs. Have you noticed:"

- One leg being more swollen than the other?
- Pain or heaviness in the calf or thigh?
- Redness or warmth in one leg?

6. Focused Risk Factor History

Tailor based on setting:

GP (Young woman):

- "Are you currently taking any hormonal contraception like the pill?"
- "Have you recently been on a long flight or car journey?"
- "Any recent operations, injuries, or time spent mostly in bed?"
- "Do you smoke?"

A&E (Young man):

- "Have you used any injected or recreational drugs recently?"
- "Do you share needles?"
- "Any recent leg pain, swelling, or hospital visits?"
- "Do you live alone or have any support at home?"

7. PMAFTOSA

- P: "Any other medical conditions like asthma, heart problems, or clotting disorders?"
- M: "Are you on any regular medications?"
- A: "Any allergies to medicines?"
- F: "Any family history of clots, strokes, or heart attacks at a young age?"
- T: "Have you travelled recently?"
- O: "What kind of work do you do?"
- S: "Who do you live with? Any support at home?"
- A: "Do you drink alcohol or smoke?"

8. Effect on Life

"How has this been affecting your ability to work, sleep, or carry out your usual day-to-day routine?"

9. Examination Summary

(Simulated findings for examiner:)

- Looks anxious and mildly breathless
- O₂ sat: 91% on room air
- Pulse: 108 bpm
- RR: 26
- Temp: normal
- Chest: clear or minimal fine crackles
- Calf: mild swelling/tenderness on one side
- ECG (if given): sinus tachycardia
- No wheeze, no fever → infection less likely

10. Wells Score Assessment

"We use a scoring system called the Wells Score to help us decide how likely a PE is - based on your symptoms and risk factors, your score suggests this is [likely/unlikely]."

11. Provisional Diagnosis

"Given your symptoms and risk factors, I'm very concerned this could be a Pulmonary Embolism - which is when a blood clot travels to the lungs and blocks one of the blood vessels. It can cause chest pain, breathlessness, and in severe cases, even collapse. This needs urgent treatment in hospital."

12. Explanation in Lay Terms

"Pulmonary embolism, or PE, means a blood clot has likely moved to your lungs, making it harder for your blood to get oxygen. It can develop if someone has been sitting for long periods, after surgery, or if there are other risk factors like using hormonal pills or injecting drugs. The clot may come from a leg vein - called a DVT - and travel upwards. It can cause breathlessness, chest pain, or even fainting. Because this can be life-threatening, we need to act fast."

Management Plan

If in GP Setting: "Given your symptoms and risk factors, I'm very concerned you may have a blood clot in your lungs - something called a Pulmonary Embolism, which can be serious. I'm going to call an ambulance to take you to hospital immediately. It's very important that you are taken under medical supervision, so they can monitor your breathing, heart rate, and oxygen levels on the way. They'll also inform the hospital to expect you, which means care can begin more quickly."

If in A&E Setting: "Because your symptoms suggest a possible clot in the lungs, we'll need to admit you straight away and begin urgent investigations."

Interim Anticoagulation: "If we strongly suspect a PE and tests will take time, we may start you on treatment straight away while waiting for confirmation."

What Will Happen in Hospital: "Once you arrive at the hospital, the team will perform several tests to confirm the diagnosis and guide treatment. This typically includes:

- A chest scan - most often a CT Pulmonary Angiogram (CTPA) - to look directly at the blood vessels in your lungs
- V/Q scan: Alternative if CTPA is contraindicated (e.g. pregnancy, severe renal impairment eGFR <30, contrast allergy)
- Blood tests to check oxygen levels, kidney function, and clotting status
- An ECG to rule out heart-related causes of your symptoms
- In some cases, an ultrasound scan of the leg may be done if there's concern about a DVT (deep vein thrombosis)

Note on D-dimer: *If your Wells score suggests PE is likely, we go straight to imaging (CTPA) without waiting for D-dimer results. D-dimer is only used to rule out PE when clinical probability is low. In high-risk cases like yours, we won't delay hospital transfer with blood tests."*

Anticoagulation Treatment: The preferred treatment is now tablet blood thinners called DOACs - medicines like apixaban or rivaroxaban. These are taken by mouth and don't usually require regular blood monitoring like older treatments.

DOAC Loading Dose Regimens:

[Note: FY2 should know these regimens. Discuss with senior/haematology if unsure about choice or contraindications.]

- **Apixaban:** 10mg twice daily for the first 7 days, then 5mg twice daily maintenance
- **Rivaroxaban:** 15mg twice daily WITH FOOD for 21 days, then 20mg once daily maintenance

These loading doses are essential for achieving therapeutic anticoagulation quickly.

[Note: When to seek senior advice - Renal impairment, extremes of weight, active bleeding risk, drug interactions, or if considering thrombolysis in massive PE.]

Ongoing Treatment (If Confirmed): "Most people with a PE are treated with anticoagulants for 3 to 6 months. These medicines help prevent the clot from growing and stop new clots from forming. In serious cases, other treatments like stronger clot-busting medication or admission to intensive care may be needed - but most cases are managed safely on the medical ward."

Follow-Up and Discharge Plan

"If your condition stabilises, you may be discharged after a few days with medication to take at home. The hospital team will:

- Book a follow-up to monitor your response to treatment

- Check if you need longer-term blood thinners
- Assess for any underlying cause - like clotting disorders or lifestyle factors
- We may also look for underlying causes, especially if no obvious trigger like recent travel or surgery

You may also be referred to a haematology clinic or a respiratory team, depending on the findings."

Safety Netting

"If at any point you feel suddenly more breathless, develop new chest pain, notice swelling in one leg, or feel dizzy or faint - please call 999 or return to A&E immediately. Even after discharge, if you experience new symptoms, contact your GP or the emergency services without delay. These clots can sometimes return, especially in the early days, and we'd always prefer to check early rather than wait."

Addressing Patient Concern: "But I have no one to look after my pet..."

"I completely understand how important your pet is to you - and it's natural to feel worried about leaving them behind, especially when things happen so suddenly. Your health and safety are our priority right now, but please know that you're not alone in this. We can help explore options - for example, some local charities and support services can assist with temporary pet care in urgent situations like this. Once you're admitted, our hospital team or social worker can help make those arrangements so your pet is safe while you're getting the care you need."

Suspected Pulmonary Tuberculosis

Setting: Primary Care

Patient: Middle-Aged Adult Male

Presenting Complaint: Prolonged Respiratory Symptoms with Constitutional Features

Clinical context: Recent travel to high TB-incidence region

You are: An FY2 GP trainee

1. Introduction

"Hello, I'm one of the doctors here at the practice. Thank you for coming in today. Before we start, could I confirm your full name and date of birth, please? I understand you've come in with a cough - could you tell me more about that in your own words?"

2. Presenting Complaint – Cough (ODIPARA)

"Let's talk through your cough in a bit more detail."

- O – Onset: "When did the cough first begin?" → "Several weeks ago."
- D – Duration: "Has it been continuous since it started?"
- I – Intensity: "Has the cough been getting worse over time?"
- P – Progression: "Is it dry or are you bringing up phlegm?"
- A – Associated symptoms:
 - "Have you had any fever or chills?"
 - "Any blood in your phlegm?"
 - "Have you lost any weight recently?"
 - "Any night sweats or drenching sweat while sleeping?"
- R – Relieving/worsening factors: "Does anything make it worse or better?"
- A – Activity limitation: "Has this affected your day-to-day activities?"

3. Screening for TB Risk and Differentials

"I'd like to ask a few more questions to rule out other causes and explore possible risk factors."

- "Have you travelled anywhere recently?" → "Yes, I visited South Africa to see my son."
- "How long were you there, and did you have any contact with people who were unwell?"
- "Do you smoke? If so, how long have you smoked and how many per day?"
- "Have you noticed any breathlessness, wheezing, or chest pain?"
- "Any weight loss not linked to dieting?"
- "Do you have any known long-term conditions such as diabetes, cancer, or HIV?"
- "Have you been exposed to anyone with tuberculosis before - either here or abroad?"
- "Have you had TB yourself in the past?"
- "Do you live with anyone who's been unwell recently?"
- "Have you ever had a BCG vaccination - that's the TB vaccine usually given in childhood?"

4. PMAFTOSA

- P: Type 2 Diabetes (controlled)
- M: Metformin only
- A: No known allergies
- F: No family history of TB or lung conditions
- T: Travel to South Africa for 3 weeks
- O: Retired teacher
- S: Lives with wife and occasionally stays with son (during travel)
- A: Social alcohol, non-smoker now, but smoked for 20 years (quit 2 years ago)

5. ICE

- Ideas: "I thought it might be a bad chest infection, but it's just not going away."
- Concerns: "I'm a bit worried because I've started seeing streaks of blood when I cough."
- Expectations: "I'd like to get some tests and find out what's going on."

6. Effect on Life

- "How has this affected your daily life - sleeping, appetite, energy?" → "I feel tired all the time. I've lost a bit of weight too."

7. Examination Summary

- Alert but fatigued
- RR: 20, Temp: 37.9°C, O₂ Sat: 96% on air
- Chest: Crackles in upper left zone
- No lymphadenopathy
- No clinical signs of heart failure
- BMI: 22 (recent unintentional weight loss)

8. Provisional Diagnosis

"Based on the symptoms of a persistent cough, weight loss, blood in phlegm, fever, and recent travel to a country where TB is more common, my provisional diagnosis is pulmonary tuberculosis."

9. Explanation in Lay Terms

"From what you've described, there's a possibility this could be tuberculosis, or TB - which is an infection in the lungs caused by bacteria. TB can cause a long-lasting cough, fever, weight loss, and sometimes coughing up small amounts of blood. It can spread through droplets in the air when someone who is infected coughs or sneezes. You mentioned you travelled to South Africa recently - TB

is more common there, so it's possible you may have been exposed to TB during your trip - this doesn't mean you did anything wrong, and it's actually quite treatable. Don't worry - TB is treatable and curable with the right care and medications."

10. Management Plan

1. Same-day referral to TB clinic "We'll refer you to a specialist TB clinic today to run tests and confirm the diagnosis."

2. Investigations at the clinic "They'll collect a phlegm sample (called sputum) to test for TB bacteria. They'll also do a chest X-ray and blood tests to check your overall health. The TB clinic may use a rapid test called a nucleic acid amplification test (NAAT) which can give us results much faster than traditional cultures - sometimes within a day or two."

3. Infection control "Until the test results come back, we'll ask you to self-isolate for about 3 days, to reduce the risk of spreading anything. During this time, you can take paracetamol if you feel unwell."

4. If confirmed - Treatment overview "If TB is confirmed, treatment involves a course of antibiotics over 6 months. The TB clinic will explain this in detail, but briefly:

- You'll take a combination of antibiotics (usually four initially, then two)
- You'll be supported by a TB key worker throughout
- Most people recover completely if they take the medication regularly
- The TB specialist team will go through all the details with you, including any side effects to watch for.
- You may also be given vitamin B6 (pyridoxine) to take alongside your antibiotics to prevent side effects"

5. HIV testing "We also recommend an HIV test for everyone with TB - this is routine and helps us make sure we're giving you the best possible care."

6. Notify public health (mandatory) "Because TB is a condition that can affect others, it's what we call a notifiable disease - this means we'll inform the public health authorities so they can coordinate any contact tracing or additional support."

7. Household screening "Since you've been staying with your son, he and other close contacts may need to be screened too - just to be on the safe side."

8. Support services "You'll also have access to emotional support if you need it - some people find a TB diagnosis stressful, and that's completely understandable."

11. Safety Netting

"If you start feeling worse before your TB clinic appointment - especially if you feel very breathless, start coughing up larger amounts of blood, or feel confused or faint - please call 999 or come to A&E immediately. If your fever persists or you experience significant weight loss, let us know - we'll help escalate things sooner."

12. Follow-Up Plan

"The TB clinic will be in touch within the next 24-48 hours. I'll also arrange to follow up with you here at the practice once your diagnosis and treatment are confirmed - just to make sure everything is going smoothly. In the meantime, if you have any questions or concerns, please feel free to call us anytime."

Student Diagnostic Summary

- Classic TB red flags: persistent cough, fever, haemoptysis, weight loss
- Epidemiological context: travel to high-risk country (South Africa)
- Differential: malignancy, bronchiectasis, fungal infection
- Management: same-day TB clinic referral, sputum testing, X-ray, isolation, public health notification

FY2 Scope Note: As an FY2 in GP, your role is to recognise suspected TB, arrange urgent referral, advise on isolation, and notify public health. Detailed treatment counselling (RIPE regimen, side effects, DOT) is the responsibility of the TB specialist team. You should know these exist but not counsel on specifics.

Suspected Pulmonary Tuberculosis – (Unstable)

Setting: Emergency Department

Patient: Adult Male

Presenting complaint: Acute Respiratory Distress with Chronic Cough

Clinical context: Hypoxic patient requiring immediate stabilisation

Epidemiological risk: Recent travel to high TB-incidence region

You are: FY2 doctor

1. Introduction & Prioritization

"Hello, I'm one of the doctors in A&E. I can see you're quite breathless - don't worry, we're going to look after you. I'll start by checking your oxygen level, pulse, breathing rate, and temperature to make sure you're stable, and we'll take it step by step."

2. ABC Assessment & Immediate Action

(Vitals handed on observation chart)

- RR: 28/min
- O₂ saturation: 89% on air
- Temp: 38.2°C
- HR: 115 bpm
- BP: borderline low

"Your oxygen levels are low and your temperature is high. I'd like to give you some high-flow oxygen via a non-rebreather mask to help your breathing while we continue assessing you."

CRITICAL SAFETY NOTE - Oxygen in COPD: Before applying high-flow oxygen, ALWAYS check if the patient has known COPD or is a CO₂ retainer (check for alert card or ask about previous admissions/home oxygen).

- **If COPD/CO₂ retainer:** Start with controlled oxygen via Venturi mask (24-28%) targeting sats 88-92%
- **If no COPD history:** High-flow oxygen via non-rebreather is appropriate
- **Only use non-rebreather in known COPD if:** Patient is in peri-arrest or immediate life-threatening hypoxia

In this case, the patient has no stated COPD history, so high-flow oxygen is appropriate.

3. Presenting Complaint – After Stabilization

"Now that you're a bit more comfortable, I'd like to ask you some questions to understand what's going on."

ODIPARA for Breathlessness

- O: "When did you first start feeling breathless?" → "About 2 weeks ago"
- D: "Has it been getting progressively worse?"
- I: "Are you breathless even at rest?"
- P: "Did the breathlessness come on suddenly or gradually?"
- A: "Any associated symptoms like chest pain, dizziness, or cough?"
- R: "Is it worse when walking or lying down?"
- A: "Has it affected your daily activities or ability to work?"

4. SOCRATES for Cough-Associated Chest Pain

- S: Central
- O: Gradual
- C: Tight/heavy
- R: Localised
- A: Cough, haemoptysis
- T: Persistent
- E: Worse on exertion or deep breath
- S: Moderate

5. Red Flag Symptoms & Risk Factors

- "How long have you had the cough?" → "About 6 weeks"
- "Any fever?" → "Yes, on and off for a few weeks"
- "Any weight loss?" → "Yes, I've lost a few kilos recently"
- "Any blood in your cough?" → "Yes, streaks of blood sometimes"
- "Any drenching night sweats?" → "Yes, almost every night"
- "Do you smoke?" → "Yes, 10 cigarettes a day"
- "Have you travelled recently?" → "Yes, I returned from the Philippines 2 months ago"
- "Did you come into contact with anyone who was coughing there?"
- "Do you know anyone else who has TB or similar symptoms?"
- "What do you do for a living?" → "I'm a hairdresser"
- "Who do you live with?" → "My girlfriend - we travelled together"

6. PMAFTOSA

- P: No major long-term illnesses
- M: Occasional paracetamol for fever
- A: No known drug allergies
- F: No known family history of TB or lung disease
- T: Philippines - 2 months ago
- O: Hairdresser
- S: Lives with girlfriend
- A: Social alcohol, regular smoker

7. ICE

- I: "I thought it was just a chest infection that wouldn't go away."
- C: "I'm scared now - especially with the blood."
- E: "I just want to know what this is and if I'll be okay."

8. Effect on Life

- "It's made working hard. I'm coughing all the time, and even talking is tiring now."

9. Examination Summary (Verbalised)

- Breathless on speaking
- Oxygen saturations low on air, improved with oxygen
- Crackles over upper zone on left
- Mild clubbing
- No lymphadenopathy noted
- Cachectic appearance (Examiner confirms findings if needed)

10. Provisional Diagnosis

"Given your long-standing cough, weight loss, fever, blood in sputum, and recent travel to an area where TB is more common, based on everything you've told me, I'm concerned this could be tuberculosis, or TB - a bacterial lung infection."

11. Lay Explanation

"TB is an infection in the lungs caused by a specific bacterium. It spreads through droplets - for example, when someone with active TB coughs or sneezes near others. Your symptoms - especially the long cough, fever, weight loss, and blood in phlegm - fit with TB, especially since you've travelled to a country where it's more common. The good news is that TB is treatable and curable with antibiotics - but you do need specialist care and support starting right now."

Airborne Precautions Explanation "TB spreads through the air when someone coughs or sneezes. That's why we're taking extra precautions - it's not because you've done anything wrong, it's just to keep everyone safe while we get your treatment started."

12. Management Plan

Immediate Hospital Management

- "We'll need to admit you to the medical ward now for further assessment and to keep your oxygen and symptoms under control."
- "We'll do a chest X-ray, blood tests, and collect a sputum sample to test for TB bacteria. The result may take a few days, but if your scan and symptoms strongly suggest TB, the hospital team may start treatment before the result comes back."
- "We'll test the TB bacteria to make sure they respond to standard antibiotics."

Isolation

- "Because TB can be spread before treatment starts working, we'll advise that you avoid close contact with others, especially your girlfriend, for at least two weeks after treatment begins."
- "You'll be in a special isolation room - ideally one with negative pressure, which means air flows into the room rather than out, to reduce the risk of spread to others. Staff will wear masks, and visitors will need to follow special precautions."
- "Most people become non-infectious within 2 weeks of starting treatment - we'll let you know when it's safe to have normal contact with others again."

Treatment (If confirmed)

- "If the diagnosis is confirmed, the treatment lasts 6 months. For the first 2 months, you'll take four antibiotics, followed by two antibiotics for the final 4 months."
- "You'll have a TB specialist nurse and support team including a key worker and possibly a social worker to help with medication, reminders, and check-ups."

HIV Testing

- "We also routinely offer HIV testing to everyone with TB - would you be happy for us to include that in your blood tests?"

Notification & Contact Tracing

- "TB is a notifiable disease, meaning we're required to report it to the public health authorities. This helps us arrange screening for people close to you, like your girlfriend, just in case they've been exposed."
- "Because you work as a hairdresser and are in close contact with many people, the public health team may want to consider whether any of your clients need to be notified."

Smoking Cessation

- "When you're ready, we can also help you stop smoking - this will help your lungs recover better from the infection."

Follow-up Imaging

- "We'll repeat your chest X-ray during treatment to make sure the infection is clearing."

Safety Netting

"If your breathing worsens, you feel faint, or cough up larger amounts of blood - press your call bell or let someone know immediately. Once you're discharged, if your cough returns, your weight drops again, or you stop responding to medication, come back to hospital without delay."

Follow-Up Plan

"You'll remain in hospital until your oxygen levels, temperature, and breathing are stable. Once discharged, you'll continue your TB treatment at home with regular follow-ups in the TB clinic. They'll monitor your response, adjust medication if needed, and make sure your contacts are screened safely. We'll make sure you have everything in place before discharge, and if you ever need more support, your TB nurse will be your first point of contact."

Student Diagnostic Summary

- Red flags: Cough >6 weeks, haemoptysis, fever, weight loss
- Epidemiological link: Recent travel to high-TB area
- Stabilization before history: Oxygen, vitals first
- Investigations: Sputum, X-ray, bloods
- Management: Admission, isolation, notification, early empirical treatment
- Social considerations: Contact tracing (including occupational), multidisciplinary support

Empathy Statement for Chronic SOB Patients

For patients with chronic breathlessness (COPD, heart failure, etc.):

"I can see how much effort it's taking you to just sit here and talk to me. It sounds like this has really changed your quality of life. We're going to look into how we can get you feeling a bit more comfortable."

Key Exam Traps to Avoid

1. **Non-resolving pneumonia:** Don't just give more antibiotics. Patient >40 with persistent cough >3 weeks needs 2WW CXR to rule out malignancy.
2. **High-flow oxygen in COPD:** Always check for COPD/CO₂ retention before applying 15L non-rebreather. Use Venturi 24-28% targeting 88-92% if COPD.
3. **CURB-65 ≥2:** Must admit to hospital. Never treat in community - this is a critical safety fail.
4. **PE in young female:** Always ask about COCP - missing this loses a risk factor mark.
5. **BBN with "growth":** Use "cancer" clearly. "Growth" can be misinterpreted as benign.

6. **High-severity CAP antibiotics:** Use **co-amoxiclav** (not amoxicillin alone) + clarithromycin. For penicillin allergy: **levofloxacin** (not clarithromycin monotherapy).
 7. **Mesothelioma diagnosis:** Pleural biopsy is key - bronchoscopy is less central. First-line treatment is now immunotherapy (nivolumab + ipilimumab), not chemotherapy.
 8. **Blood tests in suspected cancer:** Must NOT delay 2WW referral - can be done in parallel or by specialist team.
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Chapter 7: Gastrointestinal

A Note to Learners

The cases in this resource are written in a conversational style to help you become familiar with the natural flow of clinical consultations and the language commonly used in UK healthcare settings.

These dialogues are intended as a learning guide, not a script. Please do not attempt to memorise them verbatim. Examiners assess your ability to think and communicate authentically - not to recite rehearsed phrases.

Use this material to understand the underlying clinical reasoning, then practise in your own words until the consultation feels natural to you.

For Companion OSCE Cases, Practice Scripts, Evaluation Checklists, Summary Notes, Rapid Review Notes, Mindmaps, Management Flashcards and Image Library - visit <https://www.gksplab2.com>

Disclaimer

This material is independent educational content created to help candidates develop clinical reasoning and communication skills for UK medical practice.

All cases and clinical scenarios are based on common presentations encountered in UK primary care and emergency medicine, drawn from publicly available sources including NICE Clinical Knowledge Summaries (CKS), BNF, and other official NHS/UK healthcare guidelines.

No content in this resource is derived from, represents, or claims to replicate actual GMC PLAB 2 examination material.

Abdominal Examination Guide

PART 1: Introduction to the Patient

"Thank you for answering my questions earlier. Now I'd like to examine your tummy to find out what might be causing your symptoms. Before proceeding with the abdominal exam, I would record your vital signs - including blood pressure, pulse, temperature, respiratory rate, and oxygen saturation - and perform a general assessment."

Explain the exam: "The abdominal examination involves four parts: I'll look at your tummy, gently press on it, tap in some areas, and listen with my stethoscope. It shouldn't be painful, but it might feel a little uncomfortable at times."

Positioning and exposure: "I'll need you to lie flat on your back. Please expose the area from just below your chest to your mid-thigh. You can keep your undergarments on."

Privacy and chaperone: "A member of the team will be present as a chaperone, and I will make sure your dignity and privacy are respected throughout."

Consent: "Is that alright with you? Can I go ahead with the examination?"

PART 2: Positioning and Preparation

- Ensure the patient is lying supine, arms by the side, head supported with a pillow.
- Expose the abdomen from just below the breasts or nipples to mid-thigh, keeping underwear on.
- Ask: "Are you comfortable? Are you in any pain right now?"
- Stand on the right side of the patient throughout.

PART 3: General Observation (End of Bed Inspection)

From the foot of the bed, observe for:

- Overall appearance: Does the patient look unwell, pale, jaundiced, or distressed?
- Abdominal distension: Note if the abdomen is visibly rounded.
- Movement: Observe for visible peristalsis or pulsations (suggests obstruction or aneurysm).
- Visible signs on the skin: scars (surgical history), striae (stretch marks), rashes, bruising, dilated veins.

Then, move to both sides and repeat inspection to identify asymmetry or localized changes.

PART 4: Examination of Hands, Arms, Face, and Chest

Important: The following systemic examination steps (hands, face, chest) are included for learning purposes only and are not to be performed in mannequin based PLAB 2 stations. In the exam, start directly with abdominal inspection unless instructed otherwise.

(This step is important to pick up systemic signs that may explain abdominal disease, especially in cases like liver disease or malabsorption)

Hands:

- Palmar erythema
- Pallor of palms (anaemia)
- Koilonychia (spoon-shaped nails – iron deficiency)
- Leukonychia (white nails – hypoalbuminaemia)
- Clubbing (chronic liver or bowel disease)
- Asterixis (flapping tremor): Ask patient to extend both arms, spread fingers, and cock wrists back.

Arms:

- Bruising or purpura (suggesting coagulopathy or liver disease)

Face and Eyes:

- Conjunctival pallor – look inside lower eyelid
- Jaundice – inspect sclera

Mouth:

- Glossitis, angular stomatitis
- Ulcers or dry mucosa

Chest (males):

- Spider naevi
- Gynaecomastia
- Hair loss – suggests hormonal imbalance in liver disease

PART 5: Abdominal Examination Proper**1. Inspection (Close-Up)**

- View the abdomen at eye level from above and from the side.
- Look for:
 - Distension
 - Scars (surgical history)
 - Visible veins (e.g., caput medusae in portal hypertension)
 - Skin changes: rashes, bruises, striae
 - Visible pulsations or peristalsis

2. Palpation

Before palpating, ask: "Is there any area that's especially painful? I'll start away from that spot."

Superficial Palpation:

- Use a light touch over all 9 regions of the abdomen.
- Watch the patient's face for signs of pain or guarding.

Temperature check:

- Use the back of your hand to compare abdominal skin temperature with the thighs.

Deep Palpation:

- Apply more pressure to detect:
 - Masses
 - Organ enlargement
 - Tenderness deep in the abdomen

Murphy's sign (if RUQ pain):

- Place hand below the right costal margin at the mid-clavicular line.
- Ask the patient to take a deep breath.
- Sudden pain or cessation of inspiration indicates positive Murphy's sign (suggestive of cholecystitis).

Rebound tenderness (if lower abdominal pain):

- Slowly press down on the tender area, then release suddenly.
- Pain on release suggests peritoneal inflammation (e.g., appendicitis).

3. Organ-Specific Palpation**Liver:**

- Start in right iliac fossa, palpate upward toward the costal margin.
- Ask patient to take a deep breath as you reach costal margin – feel for the liver edge.

Spleen:

- Start in right iliac fossa, palpate diagonally toward the left costal margin.

Kidneys:

- Place one hand behind the back, the other on the abdomen.

- Try to ballot the kidney between your hands.

Aorta:

- Palpate in the midline above the umbilicus for a pulsatile mass.

4. Percussion**Percuss:**

- From epigastrium to umbilicus.
- Over both flanks to check for dullness (suggests fluid).
- Over liver and spleen if enlargement suspected.

Shifting dullness (for ascites):

1. Percuss flank – note dullness.
2. Ask patient to roll onto the opposite side.
3. After a few seconds, percuss the same area.
4. If dullness becomes resonant – positive shifting dullness.

Fluid thrill (if gross ascites suspected):

- Ask patient to place the edge of their hand along the midline (to stop transmission).
- Tap one flank and feel on the opposite side for a transmitted wave.

5. Auscultation

- Place stethoscope over the right or left iliac fossa.
- Listen for bowel sounds.
- Verbalise: "Ideally, I would listen for up to 2 minutes."

PART 6: Additional Examinations to Complete the Station

Say: "To complete the examination, I would also like to:"

- Check for hernias: inguinal, femoral, and umbilical orifices.
- Inspect the external genitalia (if appropriate).
- Examine lower limbs for oedema (suggests hypoalbuminaemia or portal hypertension).
- Perform a digital rectal examination (if indicated by symptoms).

PART 7: Thank the Patient

"That's the end of the examination. Thank you for your cooperation."

Practice Tips

1. Use a pillow wrapped in a T-shirt as a mannequin to simulate the abdomen.
2. Practice the full examination at least 20 times before any mock or assessment.
3. Set a timer for 3 minutes 30 seconds for history-taking and practice keeping your structure within that limit.
4. Practice delivering your diagnosis + management within 60–90 seconds clearly and confidently.
5. Make 20 mock scenarios yourself and rotate through them daily.
6. Focus on identifying high-yield findings such as:
 - Silent vs hyperactive bowel sounds
 - Signs of peritonitis or distension
 - Past surgical scars

Time Management Rules

- History: 3 minutes (max)
- Diagnosis and plan: Start no later than 5:30 minutes in exam
- Don't stall waiting for extra cues-verbalise what you find and move forward
- Remember: If you skip diagnosis or management, it will score zero for that domain.

Things to Avoid

1. Avoid asking unnecessary open-ended theory questions (e.g. "Do you know why this is important?").
2. Don't joke, over-praise, or act overly informal.
3. Avoid long-winded definitions or explanations in the middle of the station.
4. Never begin with scripted phrases like "Certainly!" or "Absolutely!"
5. Use professional terminology—say abdomen, not tummy.
6. Don't ask about rare causes (like body packing) unless suggested.
7. Don't overfocus on history—examination must be done promptly.
8. Avoid repeating what the patient already told you.

High-Yield Scenario-Specific Reminders

Bowel Obstruction

- Look for abdominal distension, past surgeries, and altered bowel sounds.
- Silent abdomen = late/complicated obstruction → suspect ischemia (check lactate).

Irritable Bowel Syndrome (IBS)

Station ID: Older Adult Male | Primary Care Follow-Up | Long-standing Abdominal Symptoms with Recent Exacerbation | Medication Review Required

1. Introduction

"Hello, I'm one of the doctors here at the practice. Thank you for coming in today. Could I confirm your full name and date of birth? Great, thank you. What brings you in today?"

"I'm sorry to hear that you've been struggling with these symptoms. Let me ask you some questions to better understand what's been happening."

2. Presenting Complaint (ODIPARA)

"Could you tell me more about your symptoms?"

- **O – Onset:** "When did the symptoms first begin?" → Since 20s, over 40 years
- **D – Duration:** "Are the symptoms constant or do they come and go?"
- **I – Intensity:** "How much are they affecting your day-to-day life?"
- **P – Progression:** "Have they been getting worse recently?" → Yes, more urgency
- **A – Aggravating/Relieving:** "Does anything make them better or worse?"
- **R – Radiation:** Not typically applicable
- **A – Associated:** "Any blood, mucus, or unexplained weight loss?"

3. Red Flag Screening

"Just to be thorough, I'd like to ask a few important questions:"

- Blood in stool → No
- Unexplained weight loss → No
- Appetite loss → No
- Nocturnal symptoms (waking from sleep to open bowels) → All absent in this case

4. Targeted Risk Factors / Triggers

- "Any particular foods that seem to set things off?" → Dairy, spicy foods, caffeine
- "Have you ever kept a food diary?"
- "Do your symptoms worsen during stressful periods?" → Yes, exam deadlines

- "Do you drink enough fluids?"
- "How is your fibre intake?"

5. PMAFTOSA

- **Past Medical History:** Any previous gut conditions ruled out?
- **Medications:** Buscopan, OTC, laxatives, etc.
- **Allergies**
- **Family History:** Bowel cancer or IBD?
- **Travel History:** Any recent trips that caused gut upset?
- **Occupation:** University researcher/academic – stress impact?
- **Social:** Alcohol, smoking, caffeine use
- **Anxiety/stress:** baseline and coping

6. ICE (Ideas, Concerns, Expectations)

- **Ideas:** "Have you been told what this might be before?"
- **Concerns:** "Is there anything you're particularly worried about?"
- **Expectations:** "What were you hoping we'd do today?" → Patient may fear cancer, or that this won't improve.

7. Effect on Life

"How are these symptoms affecting your work or day-to-day life?" → Embarrassment, rushing to toilet during lectures, decreased productivity

8. Examination

"I'd like to perform a brief abdominal examination to check for any tenderness or swelling. Is that okay?"
Please refer to the detailed abdominal examination guide at the beginning of the chapter for full steps.

9. Provisional Diagnosis

"Based on your long-standing symptoms, normal stool tests, and no worrying features, this sounds like Irritable Bowel Syndrome, or IBS."

10. Lay Explanation

"IBS is a common condition that affects how your bowels work, but it doesn't cause damage or lead to cancer. The nerves in your gut become more sensitive - which means gas, food, or even stress can make your gut overreact. That's why you get tummy pain, diarrhoea, bloating, or cramping - especially during exam periods or after certain foods. It's what we call a functional condition, meaning the structure of your bowel is fine, but the function is a bit off."

11. Management Plan

A. Medications

Amitriptyline (low dose, e.g. 5–10 mg at night): "This helps calm the nerves in your gut and reduce pain and urgency."

Explain: "I want to reassure you - at this low dose, it's not being used as an antidepressant. It works directly on the nerves in your gut to help calm them down."

Note: The ATLANTIS trial (Lancet, November 2023) provides strong evidence for low-dose amitriptyline (10-30mg) as second-line treatment for IBS in primary care when first-line therapies (antispasmodics, dietary changes) have failed.

B. Review Previous Use

- Stop Buscopan if no longer effective
- Consider peppermint oil capsules as a natural smooth muscle relaxant

C. Further Testing

- Repeat stool calprotectin or FIT test (if >3 months ago)
- **Regarding colonoscopy:** For patients with *established* IBS and no new red flags, routine colonoscopy is not indicated per NICE CG61. However, if there is a new or unexplained change in bowel habit, investigation may be warranted depending on age and other factors:

"Your symptoms fit with IBS, which you've had for some time. Because your recent tests were normal and there are no red flags, we don't need a colonoscopy right now. However, if you develop any new symptoms - like blood in your stool, unexplained weight loss, or a persistent change in your bowel habit that's different from your usual pattern - we'd want to investigate further at that point."

Note for candidates: NICE does not recommend routine colonoscopy for established IBS without red flags. Per NICE NG12, consider FIT testing for adults with unexplained symptoms that do not meet 2WW criteria. A positive FIT ($\geq 10 \mu\text{g Hb/g faeces}$) warrants 2WW referral.

D. Diet & Lifestyle

- **General dietary advice:** "Try to limit fresh fruit to about 3 portions a day, as too much can worsen symptoms. Also avoid artificial sweeteners like sorbitol - these are found in sugar-free sweets and drinks and can trigger bloating and diarrhoea."
- **FODMAP advice:** "Some foods - like onions, garlic, beans, milk, or certain fruits - can trigger IBS symptoms because they're not fully absorbed and cause bloating or diarrhoea. These are called FODMAPs. If simple diet changes don't work after a few weeks, I can refer you to a dietitian to try a structured low-FODMAP diet - they'll help you find out which foods are triggering your symptoms without restricting too much."
- Limit lactose and possibly trial dairy-free
- Reduce caffeine and spicy foods
- Keep a symptom + food diary: "This helps identify what's triggering symptoms - and you can spot patterns over time."

E. Stress and Routine

- Regular exercise: "You mentioned this helps - keep it going."
- Consider mindfulness apps, breathing techniques, or support if stress is high.

F. Leaflet/Resource

- Offer NHS-approved IBS leaflet or direct to NHS.uk IBS page.

12. Safety Netting and Follow-Up

"If anything changes - like if you develop blood in your stool, start losing weight without trying, or feel unusually tired - please come back immediately."

"I'll arrange a review in a few weeks after your stool test and to see how the new treatment is working. You can always reach out before that if needed."

"How does that sound?" (Varied from "Does that explanation make sense?")

When to Refer to Gastroenterology

FY2 Note: Most IBS can be managed in primary care. Consider gastroenterology referral if:

- Diagnostic uncertainty despite basic investigations (FBC, CRP, coeliac serology, calprotectin)
- Symptoms persist despite 12 months of optimised treatment (dietary changes, antispasmodics, low-dose TCA)

- Patient requests specialist review
- Consideration of psychological therapies (CBT, hypnotherapy) requiring specialist input
- Red flags develop at any point

Student Note: Diagnostic Reasoning

This is a clear case of IBS, not IBD or cancer:

- Red flags absent
- Normal stool results
- Symptoms for >40 years (since age 20s)
- Worsens with stress, triggered by diet
- No nocturnal symptoms, bleeding, or weight loss
- Age-appropriate colonoscopy planned as precaution

What is the Low FODMAP Diet?

FODMAP stands for Fermentable Oligosaccharides, Disaccharides, Monosaccharides, and Polyols - a group of short-chain carbohydrates that are poorly absorbed in the small intestine and can trigger symptoms in people with IBS. The low FODMAP diet is a special eating plan for people with IBS. It avoids certain sugars and fibres found in common foods - like onions, garlic, milk, apples, beans, and sweeteners - because they can be hard to digest. These ingredients draw water into the bowel and produce gas, leading to bloating, tummy pain, and diarrhoea.

The diet is done in 3 steps:

1. Avoid all FODMAP foods for a few weeks
2. Reintroduce one group at a time to find triggers
3. Stick only to the foods that cause symptoms

This diet should only be done with a dietitian's guidance, not on your own.

Suspected Colon Cancer – Bloating

Station ID: Middle-Aged Male | Primary Care Setting | Abdominal Bloating with Weight Loss and Altered Bowel Habit | Physical Examination Required

1. Introduction

"Hello, I'm one of the doctors here today. Thank you for coming in. Could I confirm your full name and date of birth, please? Great, thank you. How can I help you today?" → "I've been feeling really bloated lately."

"I'm sorry to hear that. Could you tell me a little more about what you've been experiencing?"

2. Presenting Complaint (ODIPARA)

"Can I ask a few questions to understand this bloating better?"

- **Onset:** "When did the bloating start?" → Two months ago
- **Duration:** "Is it constant or does it come and go?"
- **Intensity:** "How uncomfortable is it?"
- **Progression:** "Has it been getting worse?"
- **Aggravating/Relieving:** "Is anything making it better or worse?"
- **Associated symptoms:**
 - "Have you had any changes in your bowel habits?" → Yes, going more frequently
 - "Any pain in your abdomen?" → Yes, left side pain, not relieved by passing stool
 - "Any blood in your stool?"
 - "Any nausea or vomiting?"

3. Differential Diagnosis Screening

"I'd like to ask a few more questions to consider other possible causes as well."

- **Diverticular disease:**
 - "Is the pain crampy or sharp?"
 - "Does it get worse after eating?"
 - "Any relief after passing stool?" (IBS-like pattern)
- **IBS:**
 - "Do you get relief of symptoms after a bowel movement?"
 - "Any symptoms triggered by food or stress?"
 - "Have you had these symptoms on and off for years?"
- **Ovarian cancer (in females):**
 - "Any pelvic heaviness or pressure?"
 - "Any changes in urination?"
- **Pancreatic cancer:**
 - "Have you noticed any yellowing of your skin or eyes?"
 - "Feeling more thirsty or passing urine more often?"
- **Infective gastroenteritis or post-infectious IBS:**
 - "Any recent travel abroad or tummy infections?"
 - "Any fever or sudden diarrhoea?"

4. Red Flag and Cancer Symptom Screening

"I'd also like to check a few other symptoms just to make sure we're not missing anything serious."

- Weight loss → Yes, half a stone in 2 months
- Appetite → Poor appetite, leaving food on plate
- Blood in stool
- Nocturnal symptoms
- Fatigue or tiredness
- Fever or night sweats

5. PMAFTOSA

- **Past medical history:** Any previous GI issues?
- **Medications:** OTC, laxatives, pain meds?
- **Allergies**
- **Family history:** Cancer or bowel conditions
- **Travel history?** (to rule out infectious causes)
- **Occupation:** Professor/researcher
- **Social history:** Smoking, Alcohol, diet, exercise, support

6. ICE

- **Ideas:** "What do you think might be causing the bloating?"
- **Concerns:** "Is there anything in particular you're worried about?"
- **Expectations:** "What were you hoping we'd do today?" → Patient may fear cancer but hasn't verbalised it clearly yet.

7. Effect on Life

"Has this affected your daily activities, work, or energy levels?" → Yes – bloating is uncomfortable, and reduced appetite is affecting meals.

8. Examination

"I'd like to examine your tummy now - would that be alright?"

- Ask the patient to lie flat and expose from below chest to mid-thigh
- Perform gentle abdominal palpation, especially in left lower quadrant
- Avoid aggressive pressure - the actor may simulate tenderness

Note: Pain may be localised on left; no real lump present. Do not try to elicit one.

Please refer to the detailed abdominal examination guide at the beginning of the chapter for full steps.

9. Provisional Diagnosis

Warning shot: "I need to share something with you that might be concerning to hear..."

(Pause)

"I know this might sound scary, but I want to be completely honest with you."

"Given your symptoms, including recent weight loss, change in bowel habits, and pain that doesn't improve after passing stool, I'm concerned there may be something affecting your colon."

10. Lay Explanation

"We don't know for sure what's causing this yet. But your symptoms suggest there could be a problem in your large bowel, or colon. To be safe, I'd like to refer you under what's called the two-week cancer pathway. That doesn't mean we think you definitely have cancer - but it ensures you're seen quickly and thoroughly checked by a specialist. They may do a camera test called a colonoscopy, where they look inside your bowel to check for any issues."

"This is precautionary, but given your age and the symptoms, it's the right step to take."

11. Management Plan

1. Urgent 2WW referral to gastroenterology

NICE NG12 Colorectal Cancer 2WW Criteria: - Refer urgently if FIT result ≥ 10 μg Hb/g faeces - Refer urgently if rectal mass detected on examination - Consider FIT testing for adults with unexplained symptoms (weight loss, abdominal pain, change in bowel habit) who do not meet direct 2WW criteria

Note: This patient meets referral criteria based on combination of age (40+), unexplained weight loss, and persistent change in bowel habit with abdominal pain.

2. Investigations (do not delay referral)

- FBC, LFTs, ferritin, CRP
- **FIT test (routine):** "We'll also do a stool test called a FIT test alongside the urgent referral - it won't delay your appointment. This checks for tiny amounts of blood that aren't visible and helps the specialist prioritise your investigation." (FIT is now routine for the colorectal cancer pathway per August 2023 NG12 update - but must NOT delay 2WW referral)

Important NICE Principle: Blood tests and FIT should be done alongside 2WW referral, not as a prerequisite. Referral should not be delayed for test results if there is clinical concern of cancer.

3. Colonoscopy

- "A colonoscopy is a procedure where a thin, flexible tube with a camera on the end is passed through your back passage to look inside your large bowel. It helps us check for any inflammation, growths, or blockages. It's usually done as a day procedure, and you'll be given medication to help you relax. It might feel a bit uncomfortable, but it's generally safe and gives us very useful information."

4. Supportive care

- Recommend small, regular meals
- Stay well-hydrated

- Reassure that urgent referral is for fast assessment, not confirmation of cancer
- 5. **Information**
 - Offer a leaflet or written info about the referral process

Safety Netting and Follow-Up

"Please come back if you notice anything new - like blood in your stool, worsening pain, fevers, or fatigue. Also, if you don't hear about your appointment within two weeks, call us or the hospital directly. I'll arrange a follow-up after your referral to see how things are going."

Student Diagnostic Note

This case qualifies for 2W/W referral due to:

- 40 years of age
- Unexplained weight loss
- Persistent change in bowel habit
- Abdominal pain (left-sided)
- Loss of appetite and bloating (contributing but not qualifying alone)

This is a "skin to skin" station - physical exam is mandatory. Actor will have left-sided tenderness but no palpable lump. Be gentle.

Suspected Oesophageal Carcinoma

Station ID: Adult Patient | Primary Care or Telephone Triage | Progressive Swallowing Difficulty with Unintentional Weight Loss

1. Introduction

"Hello, I'm one of the doctors here today. Thank you for coming in. Could I confirm your full name and date of birth, please? Great, thank you. How can I help you today?" → "I've been struggling to swallow food lately."

"I'm sorry to hear that. Let me ask you a few more questions so I can understand what's going on."

2. Presenting Complaint – Dysphagia (ODIPARA for dysphagia)

- **Onset:** "When did this difficulty with swallowing begin?"
- **Duration:** "Has it been persistent every day since it started?"
- **Intensity:** "Is it painful or more of a sensation of blockage?"
- **Progression:** "Was it just for solid food at first, or was it liquids too?" → Solids first, now liquids - red flag pattern
- **Aggravating:** "Do certain foods make it worse?"
- **Relieving:** "Does drinking water help at all?"
- **Associated:** "Any coughing, choking, vomiting, or regurgitation?"

Confirm: "Are you still able to eat or drink anything at all?" → If patient says no: urgent same-day admission needed

3. Differential Diagnosis Screening

"I'd like to ask a few more questions to rule out other causes."

- **Achalasia:** "Did the problem begin with liquids rather than solids?"
- **GORD:** "Do you often get heartburn or acid reflux?"
- **Oesophageal stricture:** "Any history of long-standing reflux or previous swallowing difficulties?"
- **Oesophageal spasm:** "Do you feel chest pain when swallowing?"

- **Neurological:** "Have you had any weakness, slurred speech, or difficulty swallowing saliva?"
- **Throat/laryngeal cancer:** "Any hoarseness or painful swallowing?"
- **Infective causes (if immunosuppressed):** "Any fever or ulcers in your mouth?"

4. Red Flag Screening (Cancer symptoms)

"Let me also check for a few other symptoms."

- "Have you noticed any weight loss recently without trying?" → Yes, e.g. half a stone in 2 months
- "How is your appetite?" → Reduced
- "Any vomiting or feeling of food getting stuck?"
- "Have you noticed any bleeding, like vomit with blood or black stools?"
- "Any fatigue or feeling generally unwell?"

5. Risk Factors

- "Do you smoke or have you ever smoked?"
- "Do you drink alcohol regularly?"
- "Any family history of cancer, especially in the digestive system?"
- "Have you had any history of acid reflux or Barrett's oesophagus?"
- "Any known oesophageal conditions in the past?"

6. PMAFTOSA

- **Past Medical History:** Any GI conditions or reflux?
- **Medications:** Especially PPIs or NSAIDs
- **Allergies**
- **Family History:** Cancer, Barrett's, GORD
- **Travel history:** Not relevant unless infection suspected
- **Occupation**
- **Social history:** Independence, diet, weight pattern, smoker/alcohol
- **Alcohol and smoking:** Ask in detail if not yet covered

7. ICE

- **Ideas:** "Have you had any thoughts about what this could be?"
- **Concerns:** "Is there anything you're particularly worried about?"
- **Expectations:** "What were you hoping I could help with today?" → Many patients will have silent concern about cancer - explore gently.

8. Effect on Life

"Has this been affecting your eating habits, energy levels, or daily life?" → Yes - likely avoiding meals, eating slower, socially withdrawn.

9. Examination

"I'd like to examine your abdomen now - would that be alright?"

- Perform focused abdominal exam to check for tenderness, masses, distension
- Check for dehydration if patient is barely eating/drinking
- Check weight/BMI if possible

Please refer to the detailed abdominal examination guide at the beginning of the chapter for full steps.

10. Provisional Diagnosis

"Given your symptoms - especially the progressive difficulty swallowing, weight loss, and reduced appetite - I'm concerned that there may be a serious condition affecting your food pipe, and we need to investigate this urgently."

11. Lay Explanation (Cancer Suspicion – Clear and Empathetic)

"Unfortunately, Mr/Mrs [Surname], I'm sorry to say that one of the possibilities we need to rule out is cancer of the food pipe, or oesophagus. I know this may sound worrying, and I don't want to cause unnecessary alarm - but I also feel it's important to be open with you."

"To be safe, I'll refer you under what we call the two-week cancer pathway. This doesn't mean you definitely have cancer, but it allows the hospital team to investigate quickly so we can get answers and, if needed, start treatment as soon as possible."

12. Management Plan

A. Urgent 2WW Referral for OGD (Upper GI Endoscopy)

- "You'll be seen by a specialist team within two weeks."
- "They'll look inside your food pipe and stomach using a thin, flexible camera - this is called an OGD or gastroscopy."
- "If they find any abnormal tissue, they may take a small sample (biopsy) to examine in the lab."

B. Additional Investigations (Alongside Referral - Do Not Delay)

- Bloods: FBC, U&E, LFTs - "We'll do these here, but they won't hold up your referral."
- Chest X-ray (if clinically indicated)
- Weight documentation

Note for candidates: Per NICE NG12, blood tests and imaging may be arranged alongside the 2WW referral but should NOT delay it. The specialist team can arrange further tests as needed.

C. Nutrition and Support

- "If you're struggling to eat, try soft or mashed foods."
- "Drink nutritional supplements if available."
- "Avoid lying down right after eating."

D. If Unable to Swallow Liquids (Emergency)

- "This would mean we need to get you seen today for fluids through a drip."
- "Please go to A&E or we'll arrange admission."

13. Safety Netting

"If your symptoms get worse - especially if you can't swallow liquids, start vomiting blood, lose more weight, or feel very weak - please come back immediately or go to A&E."

"Also, if you haven't heard from the hospital about your appointment within two weeks, contact us so we can follow up."

14. Follow-Up Plan

- GP to follow up post-referral to check progress
- Review endoscopy results
- Provide ongoing emotional support - signpost to cancer support services if needed

15. Leaflet Offered

- NHS leaflet on upper GI endoscopy
- Information about the two-week wait pathway

Intestinal Obstruction

Large Bowel Obstruction

Station ID: Middle-Aged Male | Emergency Department | Acute Abdominal Pain with Absolute Constipation and Vomiting | Mannequin Station

1. Introduction

"Hello, I'm one of the doctors here in A&E. Thank you for coming in. Just to confirm, could I check your full name and date of birth? Great, thank you. I understand you've been having tummy pain - could you tell me a bit more about that?"

2. Presenting Complaint (SOCRATES)

- **Site:** "Where exactly is the pain?"
- **Onset:** "When did it start?"
- **Character:** "Can you describe the pain - is it sharp, crampy, constant?"
- **Radiation:** "Does the pain go anywhere else - your back, groin?"
- **Associated:** "Any vomiting, bloating, or changes in your bowel habits?"
- **Timing:** "Is the pain constant or does it come in waves?"
- **Exacerbating/Relieving:** "Does anything make it better or worse?"
- **Severity:** "On a scale of 1 to 10, how bad is the pain?"

Key findings:

- No stool for 4 days
- No flatus for 2 days
- Repeated vomiting (may be faeculent if late)
- Abdominal distension

3. Differential Diagnosis Screening

- **Constipation (simple):** "Has this happened before?"
- **Pseudo-obstruction:** "Any recent medications, hospitalization, or illness?"
- **Hernia:** "Have you noticed any lumps in your groin?"
- **Volvulus:** "Any sudden onset twisting pain?"
- **Cancer:** "Any recent weight loss, bleeding, or change in stool calibre?"

4. PMAFTOSA

- **Past Medical History:** Any previous bowel surgeries or obstructions?
- **Medications:** Any opioids, anticholinergics?
- **Allergies**
- **Family History:** Bowel cancer?
- **Social History:** Mobility, independence

5. ICE

- **Ideas:** "What do you think might be causing the pain?"
- **Concerns:** "Is there anything you're particularly worried about?"
- **Expectations:** "What were you hoping we'd do today?"

6. Effect on Life

"Have you been able to eat or drink? How has this been affecting you?"

7. Examination

Say: "I'd like to examine your abdomen now. Is that okay?"

Findings (from examiner):

- Abdominal distension, tympanic to percussion
- Increased bowel sounds will be heard

Skip percussion due to discomfort.

Please refer to the detailed abdominal examination guide at the beginning of the chapter for full steps.

8. Provisional Diagnosis

"Based on your symptoms and the examination findings, I'm concerned that this could be a large bowel obstruction - a blockage in the lower part of your intestines."

9. Lay Explanation

"This means something is stopping food, gas, and stool from moving through your bowel properly.

That's why you're feeling bloated, in pain, and haven't been able to pass stool or gas."

"This can happen due to things like scarring from old surgeries, a twist in the bowel, or sometimes a growth. We need to stabilise you and carry out urgent tests to confirm the cause and treat it quickly."

10. Management Plan

A. Immediate Stabilisation (ABC approach)

"We need to start treatment right away to stabilise you."

- **IV Cannula:** Insert a line for fluids and medication
- **IV Fluids:** Start balanced crystalloids (e.g., Hartmann's solution or Plasmalyte) - these are preferred over 0.9% saline as they're closer to your body's natural fluid composition.
- **Analgesia:** Paracetamol ± IV morphine
- **Antiemetics:** Ondansetron or cyclizine for vomiting
- **Nil by Mouth:** Stop all oral intake to prevent worsening of symptoms
- **Nasogastric Tube:** Insert to decompress stomach → relieves vomiting and pressure

"I know this might sound uncomfortable, but we'll place a thin tube through your nose - it will help drain the fluid and gas that's built up and should actually help you feel more comfortable."

B. Investigations

"We'll also do some tests to confirm the diagnosis."

- **Bloods:** FBC, U&Es, CRP, LFTs, Group & Save
- **Abdominal X-ray:** Will show dilated bowel loops → "The X-ray suggests a large bowel obstruction."
- **CT Abdomen & Pelvis with contrast (NICE/BSGAR standard)** → "The CT confirms large bowel obstruction. It will help locate the blockage."

C. Escalation

- Urgent referral to surgical team

"We'll get the surgeons involved now - they'll assess whether you need surgery and how urgently."

Tip - When to Call Your Senior:

- Haemodynamic instability despite initial resuscitation
- Signs of peritonitis (rigid abdomen, rebound tenderness)
- Suspected bowel ischaemia (severe pain, lactate >2, silent abdomen)
- Uncertainty about diagnosis or management
- Patient deteriorating despite initial treatment

D. Monitoring

- Regular obs, fluid balance chart, urine output
- Continue pain and nausea control

11. Safety Netting and Follow-Up

"We'll monitor you closely, and the surgical team will decide if you need an operation. If your pain or vomiting gets worse, or you feel dizzy or feverish, please let us know immediately."

Student Note – Diagnostic Reasoning

This is a large bowel obstruction, suggested by:

- No stool for 4 days
- No flatus for 2 days
- Vomiting and abdominal distension
- Risk factors: prior surgery, constipation
- Examination: distension and increased bowel sounds
- X-ray + CT confirm obstruction

Management includes resuscitation, NG decompression, nil by mouth, and surgical referral, as per NICE/NHS protocol.

Suspected Early Obstruction

Station ID: Adult Female | Emergency Department | Acute Abdominal Pain with Constipation | Mannequin Station

Presentation:

- Female patient
- No stool for 2 days
- No gas for 1 day
- Mannequin is present

Examination:

- Say: "I'd like to examine your abdomen now. Is that okay?"
- When you auscultate, the examiner will verbally state: "There are increased bowel sounds."
- X-ray will not be provided in this version.

Key Difference from Scenario 1: You must rely on the verbal findings from the examiner (increased bowel sounds) instead of imaging. Management remains largely the same, but this case is generally less severe.

Suspected Late Obstruction with Ischemia

Station ID: Adult Patient | Emergency Department | Acute Abdomen with Previous Abdominal Surgery History | Real Patient Station

Presentation Differences:

- You're examining a real patient, not a mannequin.
- The patient has a history of previous abdominal surgery → important risk factor (adhesions).
- Symptoms may resemble Scenario 1, but timing is more advanced.

Examination Differences:

- Be more cautious: Say, "This might cause some discomfort. Please let me know if it becomes too painful."
- Examiner will tell you: "Silent abdomen" - this is a red flag.
- Do not perform percussion; it's painful and not useful here.

Investigation Differences:

- No imaging expected during the exam.
- You must request lactate in blood tests:

"I'd like to check the patient's lactate level - a raised lactate could indicate bowel ischaemia, which is a surgical emergency."

Interpretation:

- Silent bowel sounds + high lactate = likely ischaemic bowel, a late complication of obstruction.
- Previous abdominal surgery (e.g., ruptured appendix) is the probable cause (adhesive obstruction).

Management Adjustments:

- Same resuscitation steps: IV fluids (balanced crystalloids preferred), NG tube, nil by mouth, analgesia, antiemetics, escalation.

Alcohol Liver Disease

Station ID: Middle-Aged to Older Adult Male | Primary Care Setting | New-Onset Abdominal Distension

1. Introduction

"Hello, I'm one of the doctors here at the practice. Thank you for coming in. Could I confirm your full name and date of birth, please? Great, thank you. How can I help you today?"

→ "My tummy started to swell up, so I have come."

2. Presenting Complaint (ODIPARA)

- **Onset:** "When did you first notice your tummy swelling?"
- **Duration:** "Has it been there constantly since then, or does it come and go?"
- **Initiating event:** "Did anything happen around that time?"
- **Progression:** "Is it getting better, worse, or staying the same?"
- **Associated symptoms:** "Any pain, bloating, or difficulty breathing?"
- **Relieving/aggravating:** "Does anything make it feel better or worse?"
- **Areas affected:** "Is the swelling mostly in one part or all over the tummy?"

3. Differential Diagnosis Screening

(To assess other causes of abdominal swelling)

- "Have you gained or lost weight recently?"
- "Do you have any problems with your heart, kidneys, or liver?"
- "Have you noticed swelling in your legs or ankles?"
- "Any recent changes in your bowel habits?"
- "Have you noticed yellowing of your eyes or skin, or itchy skin?"
- "Have you ever had any liver infections like hepatitis?"

4. Targeted Risk Factor History

- "Have you had any abdominal surgeries before?"

- "Is there any history of liver disease or cancer in your family?"
- "Have you ever been diagnosed with liver problems before?"

5. Alcohol History (explored sensitively)

"I'm going to ask some questions about alcohol - please know I'm not here to judge, just to understand what might be happening."

- "Do you drink alcohol?"  (Wait for response before probing further)
- "What kind of alcohol do you usually drink?"
- "Roughly how much do you drink in a day or week?"
- "How long have you been drinking at this level?"
- "Has it increased or decreased over time?"

(Do not use CAGE or AUDIT at this stage in the exam. Maintain neutral tone throughout.)

6. ICE (Ideas, Concerns, Expectations)

- **I:** "Have you had any thoughts on what might be causing this swelling?"
- **C:** "Is there anything specific you're worried this could be?"
- **E:** "What were you hoping I could do for you today?"

7. Effect on Life

- "Has this swelling affected your day-to-day activities or your sleep?"
- "Is it making it harder to eat or breathe comfortably?"

8. Examination Summary

Please refer to the detailed abdominal examination guide at the beginning of the chapter for full steps.

Summary of relevant findings:

- Inspection: Visible abdominal distension
- Palpation: Hepatomegaly and fluid thrill
- Percussion: Shifting dullness present (verbalised)
- Auscultation: Normal or reduced bowel sounds

9. Provisional Diagnosis

"Based on what you've told me and what I've found on examination, I'm concerned that you may have alcohol-related liver disease, and the swelling in your tummy appears to be due to a condition called ascites, where fluid collects in the abdomen."

10. Lay Explanation

"What seems to be happening is that your liver is not working as well as it should. Over time, drinking alcohol regularly can damage the liver, making it less able to perform its usual functions. One of those functions is regulating the amount of fluid in the body. When the liver becomes stiff or scarred, it struggles to manage this balance, and fluid starts to leak and collect in the tummy - this is what we call ascites."

"I know this may feel worrying, but you're not alone - we'll arrange the right tests and specialist care to find out exactly what's going on and guide you through the next steps."

11. Management Plan

Investigations

- Blood tests: LFTs, U&E, FBC, clotting profile, glucose
- Abdominal ultrasound + Fibroscan
- Diagnostic paracentesis if ascites confirmed

Immediate Management (Primary Care)

- Referral to hepatology/gastroenterology
- **Alcohol liaison service referral:** "I'd like to refer you to our alcohol liaison service - they're a specialist team who can provide support for reducing or stopping alcohol. This isn't about judging you; it's about giving you the best chance of recovery. Would that be okay?"
- Discuss reducing alcohol intake gradually if dependent

What the Specialist Will Do

- Perform a Fibroscan to assess liver scarring
- May give diuretics to reduce fluid buildup
- Consider draining the fluid (paracentesis)
- Monitor for complications like infection (SBP) or kidney issues

Supportive Advice

"It's really important we support you in stopping alcohol completely. This will help prevent further liver damage. There are local services that can help you through this."

DVLA Notification (Conditional)

"There's one more thing I need to discuss with you about driving. Whether you need to notify the DVLA depends on your specific situation:

- If you have **alcohol dependence** - meaning difficulty controlling your drinking, withdrawal symptoms, or needing to drink despite harm - you must notify the DVLA and stop driving. The licence would require at least 1 year of abstinence before it can be restored.
- If you develop **hepatic encephalopathy** - confusion, drowsiness, or difficulty concentrating due to liver problems - you must also notify the DVLA.
- If your liver condition or alcohol use affects your alertness, concentration, or ability to drive safely, you should stop driving and notify the DVLA.

The specialist team will assess your situation fully and give you clear advice. If you're unsure, it's best not to drive until you've had that assessment."

Note for candidates: DVLA notification is NOT automatic for all alcohol-related liver disease. It specifically applies to:

1. Alcohol dependence (requires 1 year abstinence for Group 1 licence)
2. Hepatic encephalopathy
3. Any cognitive impairment affecting driving ability Ascites alone is not a notifiable condition.

12. Safety Netting, Follow-up, and Leaflet

- "If you develop sudden fever, confusion, severe pain, or worsening breathlessness, please go to A&E immediately."
- "I'll arrange an urgent referral to the liver specialist today. We'll also do the blood tests here."
- "I'll give you an information leaflet on liver disease and where to get alcohol support."

Note to Student

The diagnosis here was made based on: persistent abdominal swelling, a clear history of daily alcohol intake, supportive examination (shifting dullness, hepatomegaly), and ruling out other causes (heart, kidney). The key in this case is non-judgmental, structured history, strong communication, and clear escalation to hepatology.

Cholecystitis

Station ID: Adult Patient | Emergency Department | Right Upper Quadrant Pain

1. Introduction

"Hello, I'm one of the doctors here in A&E. Thank you for waiting. Just to confirm, could I check your full name and date of birth? Thank you. I understand you've come in with some pain - could you tell me a bit more about that?"

2. Presenting Complaint (Pain History – SOCRATES)

- **Site:** "Where exactly is the pain?"
- **Onset:** "When did it start?"
- **Character:** "Can you describe the pain - is it sharp, dull, crampy?"
- **Radiation:** "Does the pain go anywhere - for example, to your shoulder?"
- **Associated symptoms:** "Any other symptoms with the pain, like nausea, vomiting, or yellowing of your eyes?"
- **Timing:** "Is the pain constant or does it come and go?"
- **Exacerbating/Relieving factors:** "Does anything make it worse or better?"
- **Severity:** "How bad is it on a scale of 1 to 10?"

3. Differential Diagnosis Screening (based on upper abdominal pain)

- **Pancreatitis:** "Do you drink alcohol? Have you had any similar pain before?"
- **Peptic ulcer or gastritis:** "Do you get any burning pain in your upper tummy or chest?"
- **Appendicitis:** "Has the pain moved from one part of your tummy to another?"
- **Liver pathology:** "Have you had any liver conditions in the past?"

4. Targeted Risk Factors + PMAFTOSA

- **Past Medical History:** "Any medical problems like gallstones or liver disease in the past?"
- **Medications:** "Do you take any regular medications?"
- **Allergies:** "Any known allergies?"
- **Family History:** "Any family history of gallstones or liver problems?"
- **Travel:** "Have you travelled anywhere recently?"
- **Smoking and Alcohol:** "Do you smoke or drink alcohol?"
- **Surgery:** "Have you had any abdominal surgeries before?"

5. ICE

- **Ideas:** "What did you think might be causing the pain?"
- **Concerns:** "Is there anything in particular you're worried about?"
- **Expectations:** "What were you hoping we could do for you today?"

6. Effect on Life

"Has the pain affected your appetite, sleep, or ability to move around?"

7. Examination Summary

"I'd now like to examine your abdomen, if that's okay. I'll be looking, feeling, tapping, and listening. Please let me know if anything is painful."

Findings:

- Murphy's sign: Positive (patient winces or stops breathing in when pressure applied during deep inspiration in RUQ)
- No need to verbalise "Murphy's sign" aloud in the exam
- No fever present (important distinction from cholangitis)

Note: Please refer to the detailed abdominal examination guide at the beginning of the chapter for full steps.

8. Provisional Diagnosis + Lay Explanation

"Based on your symptoms - especially the pain in the right upper part of your tummy that travels to your shoulder - and what I found on examination, it looks like you may have a condition called cholecystitis, which means inflammation of the gallbladder."

"The gallbladder is a small pouch under the liver that stores a digestive fluid called bile. Sometimes, small stones can block its outlet, causing the fluid to back up and irritate the gallbladder lining. This results in pain and inflammation, which is what we suspect in your case."

9. Management Plan**Investigations:**

- Blood tests: FBC, LFTs, U&Es, CRP, amylase
- Imaging: Abdominal ultrasound (to check for gallstones or gallbladder thickening)

Immediate Management in A&E:

- Admit under surgical team
- IV fluids, analgesia (e.g., paracetamol or morphine as needed)
- Antibiotics (as per local trust protocol – typically IV co-amoxiclav or cefuroxime + metronidazole if penicillin allergic)

FY2 Note: Always check your local trust antibiotic guidelines – regimens vary between hospitals. The above are common examples but may differ locally.

Specialist Management:

- Conservative management initially (pain relief, fluids, antibiotics)
- **Cholecystectomy timing update:** "Cholecystectomy is ideally performed during the same hospital admission (within 72 hours to 1 week) if you're fit for surgery - this reduces the risk of recurrent attacks and shortens overall recovery time. If that's not possible, we'll plan it within a few weeks."

10. Safety Netting

"We'll be monitoring you closely for any signs of worsening infection or complications."

"If your pain becomes unbearable, you develop fever, vomiting, or yellowing of your eyes, please alert the staff immediately."

11. Follow-Up

- Surgical team to assess and plan definitive management
- GP follow-up after discharge to review blood tests and recovery

12. Leaflet and Final Check

"I'll arrange for an information leaflet on gallbladder problems for you."

"Before I go, is there anything you'd like me to explain again or any questions you have?"

Cholangitis

Station ID: Adult Patient | Emergency Department | Right Upper Quadrant Pain with Fever and Jaundice Features

1. Introduction

"Hello, I'm one of the doctors here in A&E. Thanks for your patience. Before we begin, may I confirm your full name and date of birth? Great, thank you. I understand you've been having some pain - could you tell me more about what brought you in today?"

2. Presenting Complaint (Pain History – SOCRATES)

- **Site:** "Where is the pain located?"
- **Onset:** "When did it begin?"
- **Character:** "Can you describe what the pain feels like - sharp, dull, crampy?"
- **Radiation:** "Does it move anywhere, like to your shoulder or back?"
- **Associated symptoms:** "Have you felt feverish? Any chills, nausea, vomiting, or yellowing of your eyes?"
- **Timing:** "Has the pain been constant or coming and going?"
- **Exacerbating/Relieving factors:** "Anything that makes it better or worse?"
- **Severity:** "On a scale of 1 to 10, how would you rate the pain?"

3. Differential Diagnosis Screening (RUQ Pain + Fever)

- **Cholecystitis:** "Have you had any pain like this before? Any known gallstones?"
- **Hepatitis:** "Any recent travel? Tattoos or piercings? Yellowing of skin or eyes?"
- **Liver abscess or pancreatitis:** "Do you drink alcohol? Any previous liver problems?"
- **Pneumonia (right lower lobe):** "Any cough, shortness of breath, or chest pain?"
- **Peptic ulcer complications:** "Any burning pain in your upper tummy?"

4. Targeted Risk Factors + PMAFTOSA (merged)

- **Past Medical History:** "Any history of gallstones, liver or bile duct issues?"
- **Medications:** "Do you take any regular medication?"
- **Allergies:** "Any drug allergies, especially to antibiotics?"
- **Family History:** "Any family history of liver or gallbladder problems?"
- **Travel:** "Have you travelled recently?"
- **Occupation:** "What do you do for work?"
- **Smoking & Alcohol:** "Do you smoke or drink alcohol?"
- **Surgical History:** "Any past operations, especially abdominal?"

5. ICE

- **Ideas:** "What do you think might be causing your symptoms?"
- **Concerns:** "Is there anything you're especially worried about?"
- **Expectations:** "Is there something specific you were hoping we could do today?"

6. Effect on Life

"Has this pain or fever been affecting your ability to eat, sleep, or go about your daily routine?"

7. Examination Summary

"I'd like to examine your tummy now. I'll be looking, feeling, tapping, and listening. Please let me know if you feel pain at any point."

Findings:

- Murphy's sign: Negative or not prominent
- Temperature: 37.8°C or above
- Tenderness in the right upper quadrant
- No guarding or rebound tenderness (unless complicated)

Note: Refer to abdominal exam guide at the beginning of the chapter for full steps.

8. Provisional Diagnosis + Lay Explanation

"Based on your symptoms - including the pain in your upper tummy, your fever, and the dark urine -

I'm concerned you may have a condition called cholangitis, which means an infection in the bile ducts."

"The bile ducts are small channels that carry a digestive fluid called bile from your liver to your bowel. If a gallstone blocks this passage, it can lead to a buildup of bile and allow bacteria to grow, resulting in infection - which is what we suspect here."

9. Management Plan**Investigations:**

- Blood tests: FBC, U&Es, LFTs, CRP, blood cultures, clotting profile
- Imaging: Urgent abdominal ultrasound
- ECG and chest X-ray (to exclude other causes if indicated)

Immediate Management in A&E:

- Admit under surgical or medical team (depending on local protocol)
- Start IV fluids
- Start IV broad-spectrum antibiotics:
 - First-line: IV Co-amoxiclav
 - If penicillin-allergic: IV Ciprofloxacin + Metronidazole
- Analgesia: Paracetamol +/- opioids as needed
- Monitor vitals and urine output

Specialist Management:

- If no improvement or signs of sepsis: emergency ERCP (endoscopic drainage)
- Later, elective cholecystectomy to prevent recurrence

Note: Key Clinical Signs:

- *Charcot's triad: Fever + RUQ pain + Jaundice (present in ~ 50-70% of cholangitis cases)*
- *Reynolds' pentad: Charcot's triad + Confusion + Hypotension (indicates severe/septic cholangitis - requires emergency ERCP)*
- *Grade III (severe) cholangitis per Tokyo Guidelines 2018 (TG18) is defined by organ dysfunction and requires immediate biliary drainage.*

FY2 Tip – When to Escalate Urgently:

- Sepsis (NEWS ≥ 5 or sepsis criteria met) → Call registrar immediately
- No improvement within 12-24 hours of antibiotics
- Hypotension despite fluid resuscitation
- Altered consciousness
- Worsening liver function tests

10. Safety Netting

"We'll be closely monitoring for signs of worsening infection, like low blood pressure, worsening pain, or confusion."

"Please inform staff immediately if you feel faint, feverish, or if your pain gets worse."

11. Follow-Up

- Specialist team will reassess once infection is controlled
- GP follow-up after discharge for liver function monitoring and surgical referral if needed

12. Leaflet and Final Check

"I'll arrange for an information leaflet about gallbladder and bile duct infections."

"Before I go, is there anything you'd like me to go over again, or any questions on your mind?"

Comparison: Cholecystitis vs Cholangitis

Feature	Cholecystitis	Cholangitis
Cause	Blocked gallbladder (cystic) duct	Blocked bile duct + infection
Fever	Usually absent	Present ($\geq 37.8^{\circ}\text{C}$)
Jaundice	Rare	Common
Murphy's Sign	Positive	Often negative
Pain	RUQ, may go to right shoulder	RUQ pain + unwell
Main Danger	Inflammation	Serious infection
Antibiotics	Sometimes used	Always needed urgently
Next Steps	Surgery after settling (cholecystectomy)	Urgent ERCP + later surgery

Acute Pancreatitis

A&E Presentation

Station ID: Middle-Aged Male | Emergency Department | Severe Epigastric Pain with Recent Alcohol Intake

1. Introduction

"Hello, I'm one of the doctors here in A&E. Thanks for waiting. Could I please confirm your full name and date of birth? Great. I understand you're having some abdominal pain - can you tell me more about that?"

2. Presenting Complaint (SOCRATES Pain History)

Site: "Where exactly is the pain?"

(Patient points to epigastrium)

Onset: "When did it start?"

Character: "Can you describe the pain - is it sharp, dull, cramping, or burning?"

Radiation: "Does the pain move anywhere - for example, to your back like a band?"

Associated symptoms: "Have you had any nausea, vomiting, fever, or bloating?"

Timing: "Is the pain constant, or does it come and go?"

Exacerbating/Relieving factors: "Does anything make it worse or better?"

Severity: "On a scale of 1 to 10, how severe is the pain?"

3. Differential Diagnosis Screening

Cholecystitis: "Have you had similar pain before? Any right upper tummy pain before this?"

Peptic Ulcer/Dyspepsia: "Do you get burning pain, indigestion, or acid reflux?"

MI (if older patient): "Any chest discomfort, sweating, or breathlessness?"

Aortic aneurysm: "Do you have any known heart or vascular problems?"

4. Targeted Risk Factors + PMAFTOSA

Past Medical History: "Any history of gallstones, diabetes, or high triglycerides?"

Medications: "Do you take any regular medication - including over-the-counter or herbal?"

Allergies: "Any known drug or food allergies?"

Family History: "Any history of gallbladder or pancreatic problems in the family?"

Travel: "Have you travelled recently?"

Smoking & Alcohol: "Do you smoke? How often do you drink alcohol?"

(Patient admits to regular use and heavy drinking last night: gin + beer)

Surgery: "Any previous surgeries on your abdomen?"

5. ICE

Ideas: "What do you think is causing this pain?"

Concerns: "Is there anything in particular you're worried about?"

Expectations: "What were you hoping we could do for you today?"

6. Effect on Life

"Has this pain affected your appetite, ability to eat, move around, or do daily tasks?"

7. Examination Summary

Examiner says: "Generalised abdominal tenderness on palpation"

No guarding or rebound tenderness

No Murphy's sign, no features suggesting localised peritonitis

Vitals: may show mild tachycardia

8. Provisional Diagnosis + Lay Explanation (merged)

"Based on the location of the pain, the way it spreads to your back, your alcohol intake, and the findings on examination, it sounds like you're experiencing acute pancreatitis - which means inflammation of the pancreas."

"The pancreas is a gland behind your stomach that helps digest food. When it gets irritated - often due to alcohol or gallstones - it becomes inflamed and causes severe pain. It's a condition that needs monitoring in hospital, but in most cases it settles on its own with supportive care."

9. Management Plan

Investigations:

Blood tests: FBC, U&Es, LFTs, CRP, amylase or lipase

(Lipase preferred in UK practice)

Lipase interpretation: "We'll test a marker in your blood called lipase - if it's raised more than three times normal, it supports the diagnosis. However, it can also be raised in other conditions, so we look at the whole picture."

Abdominal ultrasound (to rule out gallstones)

Consider chest X-ray (to rule out other causes)

CT abdomen if diagnosis unclear or no improvement in 48-72 hrs

Immediate Management:

Admit under surgical/gastro team

Nil by mouth

IV fluids (aggressive hydration to prevent hypovolemia)

IV analgesia: paracetamol ± opioids (e.g. morphine) for severe pain

Note: Pethidine is no longer recommended due to metabolite accumulation risk and lack of evidence for sphincter of Oddi benefit

Antiemetics as needed

Monitor vitals, urine output, oxygen saturation

Consider NG tube if persistent vomiting

FY2 Tip – Severity Assessment: Calculate severity score on admission. If Glasgow score ≥ 3 or clinical deterioration, escalate to registrar/consultant early as patient may need HDU/ICU.

Glasgow Criteria (≥ 3 = severe pancreatitis):

PaO₂ <8 kPa

Age >55

Neutrophils (WCC) $>15 \times 10^9/L$

Calcium <2 mmol/L

Renal function (Urea >16 mmol/L)

Enzymes (LDH >600, AST >200)

Albumin <32 g/L

Sugar (Glucose >10 mmol/L)

Mnemonic: PANCREAS

Further Advice:

"Most people recover within a few days, but we need to keep a close eye on you."

"Avoiding alcohol is the most important part of long-term recovery."

"We'll check if gallstones were a possible trigger, and arrange follow-up accordingly."

10. Safety Netting

"If your pain worsens, or you develop fever, confusion, or worsening vomiting, please inform staff immediately."

"There are some rare but serious complications like infection, bleeding, or fluid buildup, and we'll be watching for those."

11. Follow-Up

Monitor bloods and clinical signs daily

Diet: reintroduce food gradually as pain and inflammation improve

Discuss alcohol cessation before discharge

Outpatient follow-up to investigate and manage risk factors (e.g., gallstones, triglycerides)

12. Leaflet and Final Check

"I'll arrange for a leaflet about pancreatitis and alcohol-related liver risk."

"Would you like me to go over anything again or do you have any questions?"

Diagnostic Note (How the Diagnosis Was Made):

The diagnosis of acute pancreatitis was made based on the classic presentation: severe epigastric pain radiating to the back, history of heavy alcohol use, and generalised abdominal tenderness on examination. Confirmatory investigations would include elevated serum lipase/amylase, and ultrasound to rule out gallstones. The absence of peritonitis signs makes perforation less likely.

Acute on Chronic Pancreatitis – A&E Scenario

Key Differences from Acute Pancreatitis (Scenario 1):

History Duration: Pain has been intermittent for 6 months, but has worsened recently, leading to current visit.

Delayed Presentation: Patient delayed seeking care thinking it would resolve on its own.

Comorbidities: Patient is known to have diabetes mellitus.

New Symptom: Reports bulky, foul-smelling stools, which may indicate exocrine pancreatic insufficiency (EPI).

Additional Considerations in History

Ask: "Have you noticed your stools being bulky, greasy, or difficult to flush?"

Ask: "How has your sugar control been lately?"

Ask: "What medication do you take for diabetes?"

Diagnosis

"Your symptoms suggest you are having a flare-up of ongoing inflammation in the pancreas, a condition called acute on chronic pancreatitis. This means the pancreas has been irritated over a long time - possibly due to alcohol - and is now acutely inflamed again."

Key Differences in Management

Same initial A&E management as Scenario 1:

Admit under surgical/gastro

IV fluids, nil by mouth, analgesia (morphine, not pethidine), antiemetics

Additional Steps:

Refer to diabetic team for:

Glycaemic control review

Medication adjustment

Consider insulin if poor control

Assess for exocrine pancreatic insufficiency (EPI)

Consider prescribing pancreatic enzyme replacement therapy (PERT) such as Creon

Dietitian referral for nutritional support

Follow-Up Adjustments

Diabetic nurse input for education and monitoring

Gastroenterology follow-up to evaluate for chronic complications (e.g. calcifications, pseudocysts)

Consider CT scan or MRCP if structural changes suspected

Pancreatitis – GP Setting

Station ID: Adult Patient | Primary Care Setting | Acute Epigastric Pain | Managing Patient Who Declines Hospital Referral

Key Differences from A&E Scenario:

Setting: GP consultation (not emergency department)

No investigations available in clinic - diagnosis is suspected based on clinical presentation

Primary goal is to recognise red flags and safely refer to hospital

Likely patient refusal of admission – requires careful counselling

Presentation

Patient presents with epigastric belt-like abdominal pain

History of long-term alcohol use, especially as a coping mechanism for stress

No vital signs or abdominal exam typically given in GP setting

Red flag: Ongoing alcohol use + epigastric pain → suspect acute or chronic pancreatitis

Approach and Explanation

Patient refusal response: "Doctor, I'm not going to the hospital. Just give me some painkillers."

Suggested response: "I understand you're feeling unwell and prefer to manage this at home, but I'm genuinely concerned. Based on what you've described - especially the belt-like pain and alcohol history - we are worried about a condition called pancreatitis, which is inflammation of the pancreas."

"It might settle on its own, but it can also lead to dangerous complications - like internal bleeding, infection, or even organ failure. We can't take that risk without monitoring."

"You'll need IV fluids, blood tests, possibly imaging, and careful monitoring - none of which can be safely done at home. That's why I strongly advise you to go to hospital today."

Key Differences in Management

No investigations or treatment initiated in GP

Do not prescribe opioid painkillers in GP for suspected pancreatitis

Emphasis on emergency referral

Negotiate respectfully if patient is reluctant

Use phrases like:

"I genuinely wouldn't feel right letting you leave without the care you need."

"You deserve proper care - that can only be given in hospital."

Safety-Net and Escalation

If patient still refuses despite explanation:

"Would you allow me to call an ambulance for you?"

"If you're really not willing to go now, please be aware of red flags - worsening pain, vomiting, fever, yellowing of eyes. If that happens, go to A&E immediately."

Document refusal and attempt to refer

Follow-Up Planning

Immediate hospital referral if accepted

If refusal persists, offer follow-up call in 24 hours to reassess

Barrett's Oesophagus – Result Discussion

Station ID: Middle-Aged Male | Primary Care Follow-Up | Endoscopy Result Discussion | Long-standing Reflux Symptoms | Non-Dysplastic Barrett's Oesophagus Finding

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Thanks for coming in today. I see we're reviewing your recent endoscopy results. Would it be alright if I go through the findings with you and answer any questions you may have?"

2. Focused History & Context

Before we talk about the results: "I'd like to check how you've been feeling lately."

Presenting Complaint (Heartburn – ODIPARA)

Onset: "How long have you had reflux or heartburn symptoms?" → Years

Duration: "Do you get it daily or occasionally?" → Most days

Intensity: "On a scale of 1-10, how bad is it?"

Progression: "Have things worsened in recent weeks or stayed the same?" → Worse lately

Aggravating: "Does anything make it worse - like spicy food or lying down?" → Night symptoms

Relieving: "Does omeprazole or antacids help?" → Omeprazole helps partially

Associated: "Any difficulty swallowing, vomiting, or changes in your voice?" → No red flags

Treatment History

"How regularly have you been taking the omeprazole?" → On 20 mg/day, still symptomatic

"Any side effects?" → None reported

Complication Check (Post-Endoscopy)

"Did you have any issues after the scope - pain, vomiting, bleeding?" → No

Red Flags + Risk History

FLAWS: No Fatigue, weight loss, anaemia, weakness, systemic signs

DESA:

Drinks alcohol heavily

Smokes 20/day for 20 years

Poor sleep due to reflux

Eats late meals and fast food

MAFTOSA (short)

Manual worker (delivery driver), eats irregularly

No medical history other than GERD

No drug allergies

No family history of GI malignancy

3. ICE

Ideas: "I thought this was just acid reflux, but now I'm not sure."

Concerns: "Is it cancer?"

Expectations: "What does the biopsy mean, and do I need treatment?"

4. Result Disclosure

"The biopsy taken during your endoscopy shows a condition called Barrett's oesophagus. This means that the cells lining the lower part of your food pipe have changed slightly because of long-term irritation from stomach acid. The good news is - the biopsy shows no signs of cancer or precancerous changes, which is very reassuring."

5. Explanation – Barrett's Oesophagus

"Your food pipe (oesophagus) is normally lined by one type of cell. But with repeated acid reflux over the years, the body starts to replace those cells with a different type, more like the ones in your intestine - we call this intestinal metaplasia or Barrett's oesophagus. It's your body's way of adapting, but unfortunately, these new cells have a slightly higher risk of turning into cancer over time. That risk is still low - and in your case, there's no sign of dysplasia, which means no early changes or abnormalities were found."

6. Management Plan

Medical Management

PPI dose increase: "Your current dose (20 mg) isn't fully controlling your symptoms, so we'll increase it to 40 mg daily, or consider switching to another effective PPI like lansoprazole."

Emphasise strict adherence: "It's important to take it at the same time each day, ideally 30 minutes before meals."

Consider H. pylori test if not done recently

Long-term PPI considerations:

- Consider checking serum magnesium if patient develops muscle cramps, tremor, or arrhythmias
- Consider B12 monitoring if symptoms of deficiency develop (typically only with very long-term use)
- DEXA scan: Consider in patients with additional osteoporosis risk factors (not routine for all PPI users)
- Annual medication review recommended for all long-term PPI prescriptions

Lifestyle Advice

"There are some key changes that can really improve your symptoms and reduce the risk of complications:"

Stop smoking – Refer to smoking cessation service

Reduce alcohol – Advise max 14 units/week, ideally lower

Weight loss – Target BMI <25

Avoid trigger foods – Coffee, chocolate, mint, acidic/spicy/fatty foods

No food 2–3 hours before bed

Smaller, frequent meals

Raise head of bed if waking at night with reflux

Keep a food + symptom diary (optional for engagement)

Monitoring & Surveillance

"Because the Barrett's segment is 5 cm - which is considered long-segment Barrett's - guidelines recommend surveillance endoscopy every 2 to 3 years. The exact interval depends on your individual risk factors like age, smoking history, and family history."

This is to monitor for early signs of change

"If we ever find early cell changes (called dysplasia), we would monitor more closely or offer treatment."

Patient informed clearly: this is precautionary and not urgent

Barrett's Surveillance Intervals (BSG/ESGE Guidelines):

- ≥ 3 cm and < 10 cm: Every 3 years
- < 3 cm with intestinal metaplasia: Every 3-5 years
- < 3 cm without intestinal metaplasia: Consider discharge from surveillance after 2 negative endoscopies
- ≥ 10 cm: Refer to Barrett's expert centre

Low-Grade Dysplasia (LGD):

- Requires confirmation by second expert GI pathologist
- If confirmed: surveillance at 6 months, then annually
- Consider endoscopic ablation if LGD persists

Note: NICE CKS on Barrett's oesophagus provides practical primary care guidance.

Re-referral to Gastroenterology if:

Symptoms continue or worsen despite being on high-dose PPI

Any red flags appear - such as new difficulty swallowing, weight loss, vomiting, or bleeding

Patient requests consultant input or second opinion about surveillance, biopsy, or management

"In any of these cases, we'd get you seen by a specialist sooner for further investigation or advice."

7. Addressing Concerns

"Is it cancer?" "No - and that's the most important thing here. Barrett's itself is not cancer, and your biopsy showed no dysplasia, which means the cells are not progressing toward cancer. Most people with Barrett's never develop complications, especially when managed properly."

"Why did this happen?" "The most likely cause is long-term acid reflux. Some people are just more prone to it - and factors like smoking, alcohol, and diet can make it worse over time."

"Why don't you just cut it off now?" "That's a very understandable question, and I'm glad you asked. Right now, your biopsy doesn't show any dangerous or cancerous changes - which is really good news. At this stage, it would actually be too early to consider any invasive treatment like surgery or removal, because the risks would far outweigh the benefits. Instead, we focus on controlling your acid levels with medication, helping with lifestyle changes, and keeping a close eye through regular check-ups. If we ever do see early warning signs in the future, then we can act early - but at the moment, there's no need for any aggressive steps."

8. Consent for Ongoing Plan

"Would you be happy for us to increase your medication dose, refer you to support for smoking and alcohol reduction, and book you into the surveillance programme? Based on your segment length and risk factors, we'll arrange your next scope in 2-3 years. I'll also print out some helpful information."

9. Safety Netting

"If your symptoms get worse - particularly if you develop new difficulty swallowing, weight loss, vomiting, or chest pain - please don't wait. Contact us or come in urgently, and we'll arrange a quicker review."

10. Follow-Up Plan

GP review in 4-6 weeks to assess symptom control and lifestyle change progress
Ensure Barrett's surveillance record updated for 2-3 year scope (per NICE NG231)
Refer to gastro if no improvement or PPI intolerance
Long-term monitoring for any signs of complications

11. Leaflet Offered

NHS leaflet: Barrett's Oesophagus
NHS: Heartburn and acid reflux self-care
Smoking cessation service contact details

Coeliac Disease – Endoscopy Explanation

Station ID: Middle-Aged Female | Gastroenterology Outpatient Clinic | Positive Coeliac Serology | Endoscopy Counselling

Introduction & Consent

"Hello, I'm one of the doctors in the gastroenterology team. Thanks for coming in today. I understand your GP referred you after some recent test results. I'll do my best to explain what we've found so far and what the next steps are. Is that alright?"

Focused History & Context

"Before we talk about the procedure, could I ask how you've been feeling recently?"

Current symptoms:

"Are you still experiencing diarrhoea or tiredness these days?" → Symptoms ongoing

New/worsening symptoms:

"Any new or worsening symptoms?" → No

Complication check (Coeliac):

"Any unexplained weight loss, tingling in your fingers or toes, bone pain, or rashes on your skin?" →

None

FLAW screen:

"Any fevers, night sweats, or weight loss?" → No

PMA:

"Do you have any medical conditions?"

"Are you taking any medications or allergic to anything?" → Nil

Dietary history:

"Do you eat any specific type of diet?" → Enjoys carbohydrate-rich foods

Family history:

"Does anyone in your family have similar symptoms or a diagnosis of coeliac disease?" → Brother has coeliac disease

Psychosocial impact:

"Any impact on your work or daily routine due to these symptoms?" → No major concerns

Explore ICE

Ideas: "I'm guessing it might be something to do with gluten."

Concerns: "Why is this happening to me? I feel tired all the time."

Expectations: "I want to get a clear answer... but do I really need a scope?"

Clear Result Disclosure

"The blood test you had - called TTG - came back positive. This suggests that your body might be reacting to gluten, which is a protein found in wheat, barley, and rye. This test result points toward a condition called coeliac disease, where your immune system mistakenly attacks your small intestine when you eat gluten."

Explanation of Coeliac Disease

"Coeliac disease is a long-term condition where your immune system reacts to gluten. Let me explain what happens inside your body."

"Normally, the inside of your small intestine has tiny finger-like projections called villi - you can think of it like a deep-pile carpet. These villi help absorb all the nutrients from your food. When someone with coeliac disease eats gluten - found in bread, pasta, and cereals - their immune system wrongly attacks these villi and flattens them, like turning that deep carpet into a hard, flat floor."

"When the villi are flattened, your body can't absorb nutrients properly. That's why people often feel tired, get bloating, diarrhoea, and sometimes even weight loss or anaemia."

"It's not caused by something you did - it's a condition that can run in families, and your brother having it makes this more likely for you."

Structured Management Plan – Procedure Explanation

"To confirm coeliac disease, we need to look directly at the small intestine and take tiny samples - this is done through a camera test called an endoscopy with biopsy."

"The endoscopy is the gold standard - it's the only way we can be certain of the diagnosis."

What happens during the endoscopy:

A thin, flexible tube with a camera is passed gently through your mouth into your stomach and small intestine

You'll be given a mild sedative to help you relax

Small tissue samples will be taken - this is painless

The procedure takes about 15–30 minutes

You might have a sore throat for a day or so after
You'll go home the same day but need someone to accompany you

Why it's important:

Confirms the diagnosis (a positive blood test alone is not enough)
Checks for intestinal damage
Rules out other causes of symptoms
Guides treatment (e.g., need for gluten-free diet)

Address Her Concerns

1. **"Why am I having this?"** "From what you've shared and your test results, it looks likely that gluten is affecting your health. This isn't something you caused - it's an autoimmune condition, and it's more common in people with a family history."
2. **"Why do I have to take that procedure?"** "The endoscopy is the gold standard - it's the only way we can confirm coeliac disease with certainty. Without it, we might miss other conditions or give the wrong advice."
3. **"I want to speak with the consultant first"** "I completely understand. Unfortunately, your consultant is on annual leave this week, but I'm part of the same team. If you still feel unsure, I'll make a note and ensure you get to speak with them when they return."

Consent Check & Preparation Advice

"Would you be happy to proceed with the test as planned?"

Preparation instructions:

Continue eating gluten until the test - this is essential: "It's really important that you keep eating gluten - bread, pasta, cereals - normally until after the biopsy. If you stop eating gluten before the test, the lining of your gut might look normal even if you do have coeliac disease, and we wouldn't be able to confirm the diagnosis. I know it might be tempting to cut it out now, but please wait until after the test."

Fast for 6–8 hours before the test
Arrange someone to accompany you home
Wear comfortable clothes
Routine bloods may be done beforehand

NICE NG20 Key Point: Patients must continue a gluten-containing diet until biopsy is complete. Stopping gluten prematurely leads to false-negative results and may require a "gluten challenge" (reintroducing gluten for 6+ weeks) before repeat testing.

Safety Netting

"If your symptoms get worse - especially if you experience significant weight loss, new rashes, tingling in your hands or feet, or weakness - please let us know."

Follow-Up Plan

Endoscopy as per consultant's plan
Refer to dietitian if diagnosis confirmed

Offer Leaflet

NHS Leaflet on Coeliac Disease
NHS Leaflet on Endoscopy Procedure

Clinical Reasoning Note

This is a classic follow-up station involving result interpretation and consent counselling. The patient has a positive TTG, ongoing symptoms, and family history of coeliac disease. NICE guidance states that biopsy is essential for diagnosis unless the patient meets all criteria for no-biopsy diagnosis (primarily for children). Explaining why the endoscopy is necessary, addressing concerns about timing and consultant absence, and confirming consent are key marks. Gluten must be continued until biopsy is complete.

Hepatitis B – Positive HBsAg Blood Result Discussion

Station ID: Middle-Aged Male | Primary Care Setting | Positive Hepatitis B Serology Result Discussion

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Thank you for coming in today. I see we're here to go over your recent blood test results. Would it be alright if I ask you a few quick questions before we go through them?"

2. Focused History & Context

Indication for Test

"Can you remind me what prompted the blood test - were you feeling unwell?"

"Have you been experiencing tiredness or any flu-like symptoms recently?"

Symptom Check

"Any yellowing of the skin or eyes?"

"Any dark urine or pale stools?"

"Any pain or discomfort in your upper tummy?"

"Any nausea or vomiting?"

"Any itching?"

"How's your appetite and weight?"

"Any fevers or night sweats?"

Risk Factor Screen

"Have you ever had a blood transfusion, tattoo, or body piercing?"

"Any history of recreational drug use or needle-stick injuries?"

"Do you drink alcohol? If so, how much?"

"Are you currently sexually active?"

"Do you have a stable partner or multiple partners?"

"Do you usually practice safe sex?"

Psychosocial

"Anyone in your family unwell with similar symptoms?"

"How are things at home at the moment?"

3. Explore ICE

Ideas: "Did you have any idea what the result might show?"

Concerns: "Anything in particular you were worried about?"

Expectations: "What were you hoping to find out today?"

4. Result Disclosure

"I know this might feel like a lot to take in. Would you like me to pause at any point?"

"Your blood test shows that you've tested positive for the Hepatitis B surface antigen. That means you've been exposed to the Hepatitis B virus, and the virus is currently present in your bloodstream."

"Your ALT level is elevated, which tells us that your liver is inflamed. The good news is that other markers - like bilirubin and ALP - are normal, meaning there's no sign of major liver damage or bile duct blockage at this stage."

→ Pause to check understanding

5. Explanation – Hepatitis B

"Hepatitis B is a viral infection that affects the liver. It spreads through contact with infected blood or body fluids, such as through unprotected sex, sharing needles, or sometimes even from shared razors or toothbrushes.

In many people, the infection clears up on its own within 6 months. But for some, it stays in the body long-term - this is called chronic Hepatitis B, which can lead to complications like liver scarring or cancer over time if not monitored."

"At this point, we don't yet know if your infection is recent (acute) or long-standing (chronic), so we need some additional tests to find out."

6. Management Plan

Further Investigations

Hepatitis B core antibody (Anti-HBc IgM & IgG): To determine if the infection is new or old

HBeAg (e-antigen): To see how active the virus is and how infectious it may be

HBV DNA (viral load): Measures how much virus is in the blood

HIV test: Routine in all Hepatitis B patients

If Acute Hepatitis B: Usually clears on its own; supportive care, rest, fluids, paracetamol for fever.

Avoid alcohol. Do not share razors, toothbrushes, or needles. Use condoms until cleared. Advise testing and vaccinating sexual partners and close contacts.

If Chronic Hepatitis B: Refer to Hepatology. Regular liver function monitoring and abdominal ultrasounds. First-line for HBeAg-positive with compensated liver disease: Peginterferon alfa-2a (48-week course). If peginterferon fails or is contraindicated: Tenofovir disoproxil (first choice) or Entecavir. For decompensated liver disease: Entecavir or Tenofovir (not peginterferon). Regular monitoring: LFTs every 3-6 months, HBV DNA levels, abdominal ultrasound surveillance for HCC every 6 months in cirrhosis or high-risk patients.

7. Lifestyle Advice

Avoid alcohol entirely

Do not share toothbrushes, razors, or personal items

Avoid donating blood

Use condoms until infectivity is clarified

Close contacts and sexual partners must be tested and vaccinated

8. Public Health Responsibilities

"Hepatitis B is a statutory notifiable disease - this means we're required by law to notify the local Health Protection Team within 3 days. This isn't about getting anyone in trouble; it's about ensuring contacts can be traced, tested, and offered vaccination."

9. Safety Netting

"If you notice any yellowing of your skin or eyes, dark urine, abdominal pain or swelling, or if you feel very sleepy or confused, please go to A&E straight away."

10. Follow-Up Plan

Repeat LFTs in 6–8 weeks

Arrange Anti-HBc IgM/IgG, HBeAg, HBV DNA
Refer to Hepatology if chronic infection is confirmed
Test and vaccinate household contacts and partners
Offer fit note if tiredness is affecting work

11. Leaflet & Final Check

Provide NHS leaflet on Hepatitis B

"Do you have any questions, or is there anything you'd like me to explain again?"

Colonoscopy – Test Result Discussion Following Sigmoidoscopy

Station ID: Middle-Aged Female | Surgical Outpatient Clinic | Sigmoidoscopy Result Discussion | Adenomatous Polyp with Dysplasia

1. Introduction & Consent

"Hello, I'm one of the doctors in the surgical team. Thank you for coming in today. Before we begin, could I confirm your full name and date of birth, please?"

→ "I understand you recently had a sigmoidoscopy and were waiting on the biopsy results. I have the report here and I'd like to go over everything with you and explain the next steps. Is that okay?"

2. Focused History & Context

"Can I quickly check how you've been feeling since the procedure?"

"Any ongoing bleeding?" → "No, it stopped after the procedure."

"Any tummy pain, bloating, change in your bowels?" → "Constipation as usual, nothing new."

"How's your appetite, weight, or energy?" → "All stable."

3. Explore ICE

Idea: "Did you have any thoughts on what the result might be?" → "I was worried it might be cancer."

Concern: "Is there anything in particular you've been worried about?" → "Just scared it might mean something serious."

Expectation: "What were you hoping we could do for you today?" → "I just want to know if I'm okay and what happens next."

4. Clear Result Disclosure

"Thank you for sharing that - I have your biopsy result here. It confirms that the polyp we removed during your sigmoidoscopy is called a benign adenoma. That means it's a non-cancerous growth."

"However, the lab also found something called dysplasia, which refers to some early changes in the cells. It's not cancer, but it does mean those cells aren't entirely normal."

5. Lay Explanation of the Condition

"Polyps like the one you had are quite common, especially in people over 50. Most are harmless. But sometimes, over time, some types of polyps can turn into cancer, particularly if they show dysplasia like yours did."

"That's why, when we find one, we remove it and then check if there are others further up in the bowel - just to be safe."

6. Structured Management Plan

"Based on this result, the next step is to do a colonoscopy. This will allow us to look at your entire large bowel - not just the lower part we looked at during the sigmoidoscopy - and check for any additional polyps or changes."

7. Explain What a Colonoscopy Is

"A colonoscopy is a camera test where we gently pass a thin, flexible tube with a light and camera on the tip through your back passage and into the bowel. It lets us view the whole colon from the inside."

"It usually takes about 30 to 45 minutes. You'll be given a sedative through a drip - not to put you to sleep, but to help you relax and reduce any discomfort."

"Before the test, you'll need to follow a special diet for 1-2 days and take a strong laxative to completely empty your bowels - that gives us the best view."

"After the procedure, you'll be observed for a couple of hours, and then you can go home."

8. Risks and Sedation Advice

"The procedure is generally very safe, but like any test, there are some small risks."

Risks include:

Mild abdominal discomfort or bloating

Drowsiness or tiredness from the sedation

A small chance of bleeding, especially if we remove polyps

A very rare risk of bowel perforation (a small tear), which may require hospital admission

After sedation:

Do not drive or ride any bicycle for 24 hours

Avoid alcohol or signing any legal documents for 24-48 hours

Do not operate machinery

Arrange for someone to accompany or pick you up

Avoid caring for children or vulnerable adults for the rest of the day

9. Reassure & Answer Questions

Q: "Why do I need this if the polyp was already removed?" "That polyp was found in the lower part of the bowel - but sometimes there may be other similar ones further up. Since this one had early changes, it's safest to check the rest of the bowel completely."

Q: "Is this cancer?" "No - it's not cancer. But the dysplasia means there's potential for change over time, which is why we're acting early to prevent anything serious."

Q: "Is colonoscopy worse than sigmoidoscopy?" "It looks further into the bowel, so it can take a bit longer, but it's very similar in how it feels. The sedation helps you feel relaxed throughout."

10. Safety Netting

"If you experience tummy pain, fever, heavy bleeding from the back passage, or feel unwell after the procedure - contact us or A&E straight away. These are rare, but we always prefer to check if you're unsure."

11. Follow-Up Plan

"After your colonoscopy, we'll review the findings and send any polyps we remove for testing. You'll usually get the results in 2-3 weeks through the clinic or by post."

"If everything is normal, you may not need further tests for many years. If anything is found, we'll guide you step by step."

12. Offer Leaflet & Confirm Consent

"Would you like me to give you an NHS leaflet about colonoscopy? It explains everything we discussed today."

"Are you happy for us to proceed with scheduling the colonoscopy, or would you like more time to think about it?"

Gilbert's Syndrome

Station ID: Young Adult Male | Primary Care Setting | Incidental Finding of Isolated Unconjugated Hyperbilirubinaemia | Reassurance Consultation

1. Introduction & Consent

"Hi, I'm one of the doctors here at the surgery. Thanks for coming in today. I understand you recently had some blood tests done after noticing some changes like dark urine.

Before we begin, could I just confirm your full name and date of birth?

Perfect. Would it be okay if I go through your test results and explain what they show?"

2. Focused History & Context

"Just to get a full picture - what exactly did you notice that made you come in for the test? Was it just the urine colour, or anything else like yellowing of the skin or eyes?"

"Have you been feeling unwell recently - fever, stress, or any illness?"

"Do you eat regularly or do you skip meals sometimes?"

"You mentioned you eat out often - any recent food changes or issues with appetite?"

"And just to check - do you drink alcohol? Roughly how much in a week?"

"You also mentioned your dad had a liver condition - do you remember what it was called?"

"Are you on any medications at the moment - either regular or over-the-counter?"

3. Explore ICE

"How have you been feeling about all of this while waiting for your results?"

"Is there anything you were particularly worried about?"

"What were you hoping to find out today?"

(Patient concern: "I'm worried it's something serious. Will my kids have this too?")

4. Clear Result Disclosure

"Thanks for sharing that with me. I've looked at your blood tests, and the main finding is that a substance in your blood called bilirubin is a little high - specifically one type of it.

But all your other liver tests are normal, and this pattern fits a condition called Gilbert's Syndrome - I'll explain that in simple terms."

5. Lay Explanation of the Condition

"Gilbert's Syndrome is a completely harmless condition that some people are born with. It means your body takes a bit longer to clear out a natural waste product called bilirubin, which comes from breaking down old blood cells.

Because of this, your bilirubin levels can go up a little from time to time, especially if you're ill, tired, stressed, or haven't eaten properly. That's what may have caused the darker urine you noticed."

"It's very common - about 1 in 20 people have it - and most of them don't even know because it usually doesn't cause any symptoms at all."

Note: Gilbert's typically causes dark/concentrated urine during episodes. The symptom description should be consistent.

6. Structured Management Plan

A. No treatment required

"You don't need any medicine for this. It's nothing dangerous, and it doesn't cause damage to your liver or any other part of your body."

B. Lifestyle advice

"You can reduce the chances of it flaring up by:

Staying well hydrated, especially in hot weather or if you're unwell

Eating regular meals - try not to skip them

Managing stress where you can

Keeping alcohol to sensible limits - moderate drinking is fine, but avoid heavy use"

C. Reassure about liver function

"Your liver is completely healthy, and this doesn't increase your risk of liver disease, failure, or cancer.

It's just how your body handles bilirubin."

D. Genetic aspect

"Gilbert's can run in families. If you have children one day, there's a chance they could inherit it - but even if they do, it's not dangerous, doesn't need treatment, and they can live a completely normal life."

E. When to return

"If you ever notice worsening yellowing of your eyes or skin, very pale stools, itchy skin, or feel generally unwell - please do come back and we'll check everything again, just to be safe."

F. Information leaflet

"I'll give you a leaflet you can read at home - it explains what Gilbert's Syndrome is, what to expect, and how to manage it."

7. Safety Netting

"Again, this condition isn't harmful, but if you feel anything's changed or you're not sure about any symptoms, please don't hesitate to come back. It's always better to check."

8. Follow-Up Plan

"There's no need for regular follow-ups for this, but you're always welcome to come back if you have questions or notice anything unusual."

9. Offer Leaflet & Final Check

"Here's that leaflet I mentioned - it covers everything we talked about.

Before you go, is there anything else on your mind or anything I can clarify?"

How to Answer His Concerns:

Q: "Is it serious?" "Not at all. It's very mild and harmless. You're not sick, your liver is perfectly fine, and this won't affect your life in any negative way."

Q: "Will my kids have it too?" "They might - it runs in families - but even if they do, it's not a problem. It doesn't cause symptoms in most people, and it never becomes something dangerous."

Diagnostic Note:

Gilbert's Syndrome is suspected when:

Isolated rise in unconjugated bilirubin

Normal liver enzymes (ALT, AST, ALP) and conjugated bilirubin

No evidence of haemolysis or liver disease

Diagnosis is clinical and does not require imaging or treatment. NICE and NHS CKS recommend reassurance and simple lifestyle advice.

Chronic Heartburn (GERD)

Station ID: Middle-Aged Male | Primary Care Setting | Chronic Heartburn with Escalating Symptoms

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Thank you for coming in today. Could I confirm your full name and date of birth, please?"

Thanks. I understand you've booked this appointment because of heartburn that's been troubling you. Would it be alright if I ask a few questions, do a quick examination, and then we can go over what might be causing it and how we can manage it together?"

2. Presenting Complaint – ODIPARA (Heartburn Focus)

"Could you tell me more about the heartburn?"

Onset: "When did this all begin?"

Duration: "Is it happening every day or just on some days?"

Intensity: "How severe is it, say from 1 to 10?"

Progression: "Has it become more frequent or worse over time?"

Aggravating: "Are there any foods or drinks that make it worse?"

Relieving: "Do antacids or anything else help?"

Associated: "Any sour taste in your mouth, nausea, bloating, or trouble swallowing?"

3. Differential Diagnosis Screening

"Just so we don't miss anything else, I'd like to ask a few quick questions."

Gastritis / Peptic Ulcer Disease

"Any stomach pain, especially before or after meals?"

"Have you vomited at all - any blood?"

"Any black or tarry stools?"

Oesophagitis

"Do you feel any pain when swallowing?"

"Any difficulty getting food down?"

Gastric Cancer

"Have you lost weight without trying?"

"Any loss of appetite, early fullness after meals, or persistent indigestion?"

Cardiac / Angina

"Does the pain or burning ever move to your chest or arms?"

"Do you get breathless, sweaty, or dizzy during episodes?"

Pericarditis

"Any chest or upper stomach pain that gets better when you lean forward or worse when breathing deeply?"

4. Targeted Risk Factor History + PMAFTOSA (combined)

"Have you ever had anything like this in the past?"

"Do you take any regular medication or over-the-counter treatments?"

"You mentioned antacids - do they still help or not anymore?"

"Do you take any medications like painkillers, sleeping tablets, or steroids?"

"Have you had any recent stress or changes in lifestyle?"

"How would you describe your usual diet - do you often eat spicy or fatty foods?"

"Do you smoke or drink alcohol?" (Patient: 20 cigarettes/day for 20 years, 5 pints/day)

"How is your weight? Has it gone up or down recently?"

"Any family history of stomach or digestive conditions?"

5. ICE – Ideas, Concerns, Expectations

"What are your thoughts about what might be causing this?"

"Is there anything in particular you're worried this could be?"

"What were you hoping I could do for you today?" (Patient says: "Why do I keep getting this?" and

"What are you going to do for me?")

6. Effect on Life

"Has this been affecting your day-to-day life - like your work, sleep, or appetite?"

7. Examination Summary

If this is an examination station:

"I would now like to examine you. I would begin by checking your vital signs - including blood pressure, heart rate, respiratory rate, temperature, oxygen levels, and body mass index. I would also perform a focused abdominal examination and, if appropriate, consider a rectal examination to rule out signs of bleeding or other pathology."

(Refer students to the full abdominal and rectal examination steps provided at the beginning of this chapter.)

Findings Provided: All examinations are normal.

8. Provisional Diagnosis + Lay Explanation

"Based on your history, the fact that the heartburn has become more frequent and no red flags are present, this is most likely something called Gastro-Oesophageal Reflux Disease - or GERD for short. It's a long-term condition where acid from your stomach leaks up into the food pipe - the tube that connects your mouth to your stomach.

This acid irritates the lining of the food pipe, which causes that burning sensation you feel after eating - especially with spicy or fatty foods."

"It's not dangerous in most people, but the symptoms can be uncomfortable and affect quality of life if not managed well."

9. Management Plan

A. Initial Investigations

"We'll start with a few routine tests to be safe:

A blood test to check your blood count, liver and kidney function, and blood sugar

A stool test to check for a common stomach bug called H. pylori that can cause acid symptoms"

B. Trial of Treatment

"The next step would be to start you on a medication called lansoprazole.

This belongs to a group of medicines called proton pump inhibitors, or PPIs (e.g., lansoprazole 30mg or omeprazole 20-40mg once daily for 4-8 weeks). They reduce the amount of acid your stomach makes.

You'd take this once a day, usually for 4-8 weeks, and we'll then review how you're feeling."

C. Lifestyle Advice

"There are also some changes you can make to reduce symptoms and improve the long-term outlook:

Avoid large meals or eating late at night - try to eat dinner at least 3-4 hours before lying down

Cut down or avoid foods that trigger heartburn - like spicy food, coffee, chocolate, or fatty meals

Raise the head of your bed if possible - using blocks or a wedge, not extra pillows

Drink less alcohol - try to stick to safe limits

I understand quitting smoking isn't something you're ready for right now - that's okay. Just so you know, whenever you do feel ready, we're here to help. Smoking does make reflux worse by weakening the valve between your stomach and food pipe."

(Add tailored suggestion: "Would you be open to small changes in your diet or meal timing?")

10. Safety Netting

"If you develop any worrying symptoms like:

Black or tarry stools

Vomiting blood

Difficulty swallowing

Sudden weight loss

then please come back straight away so we can reassess and do further tests."

11. Follow-Up Plan

"Let's review things in 4 weeks. If your symptoms have improved, we can plan how to reduce the medication slowly.

If there's no improvement, or your symptoms come back quickly, we may consider a referral for endoscopy - a simple test using a camera to look inside your stomach."

12. Offer Leaflet & Final Check

"Before you go, I'll give you a leaflet that explains what GERD is, how to manage it, and what foods to avoid.

Is there anything else you wanted to ask or anything that's still unclear?"

Responses to Common Patient Questions

Q: "Why do I keep getting this?" "Your stomach produces acid to help digest food - but in some people, the muscle that normally keeps the acid inside the stomach is a bit weak. That allows the acid to move upwards, which causes heartburn. Certain things like spicy food, alcohol, smoking, and stress can make this worse."

Q: "What are you going to do for me?" "We'll start by treating the symptoms with a stronger medication and check for any hidden infections. Alongside that, I'll guide you on diet and lifestyle changes to stop it coming back. We'll review things in 4 weeks - and if it's still a problem, we'll arrange a simple camera test to take a closer look."

Student Diagnostic Note

Diagnosis of GERD is made based on:

Chronic burning retrosternal discomfort linked to food intake

History of OTC antacid use, alcohol/smoking triggers

Absence of red flags (weight loss, bleeding, dysphagia)

Normal examination

Management includes trial of PPI, lifestyle advice, safety netting, and review. NICE advises endoscopy if no response after 4–8 weeks, age >55 with new onset symptoms, or presence of alarm features.

Hepatitis A – Test Result Discussion

Station ID: Young Adult Female | Primary Care Setting | Acute Hepatocellular Injury Pattern on LFTs
| Positive Hepatitis A Serology

1. Introduction & Consent

"Hello, I'm one of the doctors here at the surgery. Thanks for coming in today. Could I confirm your full name and date of birth?"

Perfect. I understand you came in last week feeling tired with some tummy discomfort, and we arranged some blood tests to check what might be going on.

I've now got your results - would it be alright if I explain them and ask a few more questions to guide the next steps?"

2. Focused History & Context

"To recap - could you tell me what symptoms brought you in last week?"

"How long have you been feeling tired?"

"Any fever, nausea, vomiting?"

"Have you noticed any yellowing of your eyes or dark urine?"

"Any changes to your bowel movements - pale stools, diarrhoea, or constipation?"

"Any itchiness or change in appetite?"

3. Differential Diagnosis Screening

Hepatitis A (most likely)

"Any recent meals out, especially seafood or undercooked food?" (Yes – shellfish 3x/week)

"Does your husband eat the same food as you?" (No – doesn't eat seafood, no symptoms)

Gallstones / Cholestasis / Pancreatic causes

"Have you had any similar pain in the past, particularly after meals?"

"Any past history of gallstones or liver problems?"

Hepatitis B, C, other viral infections

"Do you or your partner have any history of liver infections or previous hepatitis?"

"Have you ever had a blood transfusion, tattoos, or piercings done abroad?"

Other systemic causes / Cancer

"Any recent weight loss?"

"Have you noticed any new lumps or bumps?"

"Are you on any medications, including painkillers or herbal supplements?"

4. Targeted Risk Factor & PMAFTOSA

"Can I quickly confirm a few more details about your general health?"

Past medical history: "Any previous liver problems or chronic illnesses?"

Medications: "Do you take any tablets, even over-the-counter cold medicines or painkillers?"

Allergies: "Any known allergies?"

Family history: "Any family history of liver disease?"

Social history: "Do you smoke or drink alcohol?"

Travel: "Have you travelled recently?"

Occupation: "What type of work do you do?"

Sexual history: "Are you in a stable relationship? Any new partners or recent STIs?"

5. ICE – Ideas, Concerns, Expectations

"What do you think might be causing these symptoms?"

"Is there anything you've been particularly worried about?"

"What were you hoping I could do for you today?" (Patient may say: "Was it the restaurant food?" "Is this serious?")

6. Effect on Life

"How has this been affecting your day-to-day life - energy levels, work, or appetite?"

7. Examination Summary

"To complete the picture, I would have: – Checked your vital signs: blood pressure, heart rate, temperature, oxygen levels - all of which are normal. – Performed a full abdominal examination, which shows some tenderness in the upper right part of your tummy. – Also done a general examination for signs of liver disease like jaundice or skin changes. – We also arranged an ultrasound of your abdomen, which came back normal.

I'd encourage students to refer to the full liver examination steps provided at the start of this chapter."

8. Provisional Diagnosis + Lay Explanation

"From your history, the examination, and your test results, this picture fits with something called Hepatitis A. It's a short-term viral infection of the liver.

You likely picked it up from eating food - especially raw or undercooked seafood - that may have been contaminated. It's very common in people who eat out often, particularly seafood like shellfish.

It causes tiredness, yellowing of the skin or eyes, tummy discomfort, and changes in liver blood tests - which is exactly what we're seeing in your case."

9. Management Plan

A. Confirmatory Tests (already done)

"We tested for different types of hepatitis viruses, and your blood test was positive for Hepatitis A IgM, which confirms this diagnosis."

B. Treatment Plan

"The good news is that Hepatitis A usually gets better on its own. There's no need for antiviral medication, and most people recover fully in a few weeks.

However, during this period, it's important to:

- Get plenty of rest
- Drink lots of fluids
- Avoid alcohol completely while the liver is healing
- Use pain relief cautiously while your liver is recovering: Paracetamol can be used at reduced doses (maximum 2-3g/day in divided doses) if needed, but avoid in severe hepatitis or if liver function is significantly impaired
- Avoid NSAIDs (like ibuprofen) as these can worsen liver inflammation and affect kidney function
- For nausea, we can prescribe metoclopramide if needed
- For simple discomfort, measures like a warm compress and rest are often sufficient."

C. Public Health Advice

"There are a few precautions to take:

Avoid preparing food for others until the symptoms settle

Wash your hands thoroughly after using the toilet

Avoid unprotected sex, including oral sex, for at least a week

Because this is a notifiable infection, we'll report your case to the local public health authority. This helps track outbreaks and protect others."

10. Safety Netting

"Most people recover fully within 4 to 6 weeks, but please come back immediately if you notice:

High fever

Severe tummy pain

Bleeding gums

Feeling very drowsy or confused

These could be signs of liver stress and would need urgent review."

11. Follow-Up Plan

"I'd like to see you again in one week to check how you're feeling and repeat your blood tests in about 4 weeks to make sure the liver levels are going back to normal.

If they're still high at that point, we may do another scan or refer you to a specialist."

12. Leaflet & Final Check

"Before you go, I'll give you a leaflet about Hepatitis A - it explains what it is, how you caught it, and what to expect.

Is there anything else on your mind, or anything you'd like me to go over again?"

Responses to Common Patient Questions

Q: "Why are my liver enzymes high?" "They're high because the liver is a bit inflamed due to this infection. The enzymes are released when liver cells are irritated, but they'll come down as you recover."

Q: "What's bilirubin?" "It's a yellow pigment made when your body breaks down old blood. Your liver usually clears it out, but when the liver's inflamed, it builds up - that's why your eyes look a bit yellow."

Q: "How did I get this?" / "Was it the shellfish?" "Very likely. Hepatitis A spreads through food and water that's been contaminated. Raw seafood like oysters and shellfish are common sources - especially if eaten outside."

Q: "Is Hepatitis A serious?" "In most healthy adults like you, it's not serious and goes away on its own. It's rare for it to cause long-term problems, and once you recover, you'll be immune for life."

Diagnostic Note

Diagnosis made based on raised ALT, AST, bilirubin, recent fatigue, RUQ pain, and seafood exposure

Normal ALP and GGT suggest hepatocellular (not cholestatic) pattern

Confirmed by Hep A IgM positivity

Hepatitis A is self-limiting; supportive care + public health advice are mainstays of management

Red flags monitored; referral to gastro if not improving by 4-6 weeks

Suspected Upper GI Malignancy

Station ID: Older Adult Male | Primary Care Setting | Prolonged Fatigue with Weight Loss and Chronic Reflux History

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Thanks for coming in. Could I confirm your full name and date of birth, please?

Great, thank you. I understand you've been feeling tired for a while, and you've also had a few chest infections in the past. Would it be okay if I ask a few questions, do an examination, and then we can go through what may be going on and how to manage it?"

2. Presenting Complaint – ODIPARA

"Let's start with the tiredness - could you tell me more about that?"

Onset: "When did it first begin?"

Duration: "Has it been constant or on and off?"

Intensity: "How bad is the tiredness on a typical day?"

Progression: "Has it been getting worse over time?"

Aggravating/Relieving: "Anything that makes it worse or better?"

Associated symptoms: "Any palpitations, shortness of breath, dizziness, or poor sleep?"

3. Differential Diagnosis Screening

Anaemia / Malignancy / Chronic Infection

"Any recent weight loss or change in appetite?" (Yes)

"Any night sweats or low-grade fevers?"

"Have you had any unusual bleeding, dark stools, or vomiting blood?"

"Any changes in bowel habits?"

"Have you noticed any swelling in your neck, underarms, or tummy?"

Thyroid / Endocrine causes

"Any intolerance to cold or heat?"

"Have you had any change in bowel habits - constipation or loose stools?"

"Hair loss, dry skin, or mood changes?"

4. Targeted Risk Factor + PMAFTOSA

"Can I quickly ask about your past health and habits?"

Past medical history: "Have you been diagnosed with anaemia before? Any long-term conditions like diabetes or heart problems?"

Medications: "You mentioned Gaviscon - how long have you been taking it? Is it helping?"

Allergies: "Any medication allergies?"

Family history: "Any history of cancer, especially bowel or stomach, in the family?"

Smoking: "Do you smoke?" (No)

Alcohol: "Do you drink alcohol? If so, how often?"

5. ICE – Ideas, Concerns, Expectations

"What are your thoughts on what might be causing this?"

"Is there anything you're particularly worried about?" ("Is it serious? What's happening to me?")

"Is there anything you were hoping I could do for you today?"

6. Effect on Life

"Has this tiredness affected your daily life - work, activity levels, or appetite?"

7. Examination Summary

"I'd now like to examine your tummy, which might help us find the cause of your symptoms."

Perform full abdominal examination on manikin as per station instructions.

Findings provided: Normal

Verbalise: "I'd also like to check your general appearance for signs of anaemia like pale skin, and assess your vital signs."

Add: "I'd also perform a digital rectal examination to check for dark stools (melaena), and check for lymph nodes around the neck and underarms. I'd also examine your chest, but I understand from the notes that your chest is clear today."

8. Provisional Diagnosis + Lay Explanation

Warning shot: "I need to share something with you that might be worrying to hear..."

"Thank you for letting me examine you. From what you've told me - feeling tired, experiencing unintentional weight loss, reduced appetite, and having a long-standing history of acid reflux - one possibility we need to seriously consider is that you may have some bleeding or irritation happening inside your stomach.

This could be causing anaemia, which explains the tiredness and palpitations.

Now, while there are many causes, we are a bit concerned about a possible stomach or oesophageal condition, including the chance of a tumour, especially because of your age, symptoms, and reflux history.

That doesn't mean it's definitely cancer, but we want to be cautious and investigate it properly."

9. Management Plan

A. Urgent 2WW Referral

"We'll arrange an urgent referral to the hospital within 2 weeks for a test called an upper endoscopy, where they use a thin camera to look inside your food pipe and stomach.

If they see anything unusual, they may take a small sample for testing (biopsy)."

B. Blood tests and baseline investigations

"We'll also arrange blood tests within the next 48 hours to check for:

Anaemia (FBC)

Any signs of inflammation or infection

Liver and kidney function

Stool test (FIT – faecal immunochemical test)

Chest X-ray to check for other causes of tiredness or infections"

C. Symptomatic treatment

"Depending on what we find in your blood tests, we can give medication for acid reflux or iron tablets if your levels are low. But the main thing is to find the cause."

10. Safety Netting

"If you don't hear from the hospital about your appointment within 2 weeks, or if your symptoms get worse - for example, if you start vomiting, feel faint, or notice black stools - please come back and let us know straight away."

Important Note for Acute GI Bleeding: "If you vomit blood or pass black tarry stools, this is an emergency - please call 999 or go straight to A&E. In hospital, we use a scoring system called Glasgow-Blatchford to assess bleeding risk. Anyone with signs of active bleeding needs urgent assessment and may require emergency endoscopy."

11. Follow-Up Plan

"We'll follow up as soon as the blood test results are back. I'd also like to see you after your hospital appointment so we can go through the outcome and next steps together."

12. Leaflet & Final Check

"I'll give you a leaflet that explains the next steps for endoscopy and what to expect.

Is there anything else you'd like me to explain, or anything you're still unsure about?"

Responses to Patient Concerns

Q: "What's happening to me?" "Right now, we're seeing symptoms that suggest something is affecting your stomach or digestion - and that's possibly causing anaemia, which explains your tiredness."

Q: "Is it serious?" "It could be, which is why we want to act quickly. Not all causes are serious, but we don't want to miss anything important. That's why we're arranging urgent tests."

Diagnostic Summary

Red Flags:

Age > 60

Unexplained tiredness

Weight loss

Loss of appetite

Long-standing reflux (risk factor for Barrett's / malignancy)

Likely cause: Iron-deficiency anaemia secondary to upper GI bleeding from underlying malignancy or ulcer

NICE NG12: Consider urgent direct access upper GI endoscopy for people aged 55+ with weight loss AND any of: upper abdominal pain, reflux, or dyspepsia.

Suspected Colon Cancer – Iron Deficiency

Station ID: Older Adult Male | Acute Medical Unit | Collapse with Incidental Iron Deficiency | Angry Patient Scenario

1. Introduction & Managing the Angry Patient

"Hello, I'm one of the doctors looking after you today. First of all, I understand you've been waiting for quite a while and that must be frustrating. I'm really sorry for the delay. Let's go over everything now and make sure you have the information you need."

Maintain eye contact, show empathy through body language, let patient vent fully before responding

Avoid saying: "Calm down," "It's the emergency department," or blaming workload

2. Collapse History – ODIPARA

"I'd like to understand more about what happened today. Could you walk me through how the collapse happened?"

Onset: "When did it happen?"

Duration: "How long were you on the ground?"

Intensity: "Did you lose consciousness completely or just feel weak?"

Preceding: "Did you feel dizzy, lightheaded, or see black before falling?"

Aftermath: "Were you able to get up by yourself? Did anyone help you?"

Recurrence: "Has anything like this happened before?"

3. Anaemia Symptoms

"We've found that your iron levels are low. That could explain tiredness, but I'd like to ask a bit more."

"Have you been feeling more tired than usual?"

"Any shortness of breath or racing heartbeat?"

"Do you feel pale or have others commented on how you look?"

"Any chest pain or difficulty doing everyday activities?"

4. Bowel Cancer Red Flag Screening

"I need to ask a few more questions about your digestive system - this is important."

"Have you noticed any blood in your stool - either fresh red or darker like tar?"

"Have your bowel habits changed recently - more or less frequent, or different consistency?"

"Any unexplained weight loss over the past few months?"

"Any tummy pain, bloating, or discomfort after eating?"

"Have you felt more tired or run-down than usual?"

5. PMAFTOSA

Past Medical History: "Any previous bowel problems, polyps, or anaemia?"

Medications: "Are you taking blood thinners, iron tablets, or regular painkillers?"

Allergies: "Any drug allergies?"

Family History: "Any family history of bowel cancer or polyps?"

Smoking & Alcohol: "Do you smoke or drink?"

Diet: "What's your usual diet like - red meat, fibre, processed foods?"

6. ICE

Ideas: "Did you have any idea what might have caused the collapse?"

Concerns: "Is there anything you're particularly worried about?"

Expectations: "What were you hoping we'd do for you today?"

7. Effect on Life

"Has this tiredness or weakness been affecting your daily life - walking, stairs, or managing at home?"

8. Examination Summary

"We've done several tests today. Your observations are normal, your ECG looks fine.

Before completing your assessment, I'd like to perform a physical examination of your back passage with a gloved finger - we call this a PR examination. I know it might feel undignified, but it's an important check when we're looking for causes of bleeding or iron loss. We'll have a chaperone present and be as quick as possible. Would that be alright?"

(After examination) "The PR examination didn't show anything abnormal, which is reassuring.

Your blood tests show normal haemoglobin, but your iron stores are low - which is called iron deficiency. This can happen slowly over time and may not always show as anaemia straight away."

9. Provisional Diagnosis + Lay Explanation

"Based on your age, the low iron, and your recent collapse, we're concerned that there may be a source of slow bleeding in your bowel that we can't see.

Iron deficiency in men over 60, especially without an obvious cause, can sometimes be a sign of a problem in the gut - including, in some cases, early bowel cancer.

I want to reassure you - we're not saying you have cancer. But we need to rule it out, and the best way to do that is through a camera test of the bowel called a colonoscopy."

10. Management Plan

A. Urgent 2WW Colonoscopy Referral

"We'll refer you urgently under the two-week cancer pathway. You'll be contacted by the hospital to arrange a colonoscopy - a camera test that looks at the inside of your bowel."

B. Iron Replacement

"In the meantime, we'll start you on iron tablets to help build your iron stores back up. You may notice your stools turn darker - that's normal and expected."

C. Discharge Today

"We're happy for you to go home today, as your observations are stable and there's no immediate danger. But the colonoscopy is important, so please don't miss the appointment."

11. Safety Netting

"Please come back or call 999 if you:

Have another collapse or feel faint

Notice blood in your stool or vomit

Feel very unwell, have chest pain, or become breathless"

12. Follow-Up Plan

"We'll send a referral today. If you haven't heard from the hospital within 2 weeks, please contact your GP to chase it.

Your GP will also review the colonoscopy results and arrange any further follow-up."

13. Leaflet & Final Check

"I'll give you a leaflet about colonoscopy and what to expect.

Is there anything else you'd like me to explain before you go?"

Managing Continued Frustration

If patient remains frustrated:

"I completely understand - this has been a long day, and I know it's a lot to take in. The most important thing is that we're now on a clear path to finding out what's going on. Is there anything specific I can help with before you leave?"

Diagnostic Note

Age >60 with iron deficiency (even without overt anaemia) = red flag for GI malignancy

NICE NG12 recommends 2WW colonoscopy referral for unexplained iron deficiency in men or postmenopausal women

Collapse may have been related to orthostatic hypotension from hypovolemia or early anaemia

Always check for PR bleeding, even if patient denies it initially

Suspected Gastric Cancer

Station ID: Middle-Aged Male | Primary Care Setting | Worsening Dyspepsia with Weight Loss | Known Peptic Ulcer Disease | Patient Requesting Medication Increase

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Thank you for coming in today. Could I confirm your full name and date of birth, please?

Great, thank you. I understand you've come in because your indigestion has been getting worse. Would it be alright if I ask a few questions and then go through what might be happening?"

2. Presenting Complaint – ODIPARA

"Could you tell me more about the indigestion?"

Onset: "When did it start getting worse?"

Duration: "Has it been there every day?"

Intensity: "How bad is it - is it affecting your eating?"

Progression: "Has it been getting steadily worse?"

Aggravating/Relieving: "Does anything make it better or worse - food, medication?"

Associated: "Any nausea, vomiting, bloating, or feeling full quickly?"

3. Red Flag Screening

"I need to ask a few more questions to make sure we're not missing anything important."

"Have you lost weight recently without trying?" → Yes, 4 kg in 1 week

"Any vomiting - and if so, any blood in it?"

"Any difficulty swallowing?"

"Any black or tarry stools?"

"Any family history of stomach or bowel cancer?"

4. Targeted Risk Factor History + PMAFTOSA

Past medical history: "You mentioned a stomach ulcer - when was that diagnosed? Any previous endoscopy?"

Medications: "Are you currently on any other tablets besides lansoprazole?"

Allergies: "Any drug allergies I should know about?"

Family history: "Has anyone else in your family had cancer - stomach, colon, or other types?"

Smoking & Alcohol: "Do you smoke or drink alcohol?"

Travel/Occupation/Diet: "What's your usual diet like - spicy, greasy, or irregular meals? Any recent travel or food poisoning episodes?"

5. ICE – Ideas, Concerns, Expectations

"What do you think might be causing these symptoms?"

"Is there anything you're particularly worried about?"

"What were you hoping I could help you with today?" (Patient may say: "I just want stronger medication," "Do I really need another endoscopy?")

6. Effect on Life

"Has this affected your daily activities - appetite, work, sleep, or social life?"

"Has this weight loss been intentional or unintentional?"

7. Examination Summary

Perform a focused abdominal examination with attention to epigastric tenderness.

"I've checked your tummy, and there's mild tenderness in the upper central part, which matches where your discomfort is.

Your pulse, blood pressure, and temperature are all normal. You're not jaundiced, and there are no worrying findings on general examination. But based on your symptoms, we still need to look deeper."

8. Provisional Diagnosis + Lay Explanation

"Based on what you've told me - particularly the indigestion that's not settling, the tummy discomfort, the recent vomiting, and the weight loss - we're concerned there may be something more going on inside the stomach.

One possibility is that the ulcer may have worsened or changed. Another is that this could be a sign of something more serious like a growth or tumour in the stomach.

We're not saying this is definitely cancer, but these are called alarm symptoms, and we want to be thorough and rule out serious causes."

9. Management Plan

"Here's what we'll do next to investigate this properly and without delay."

A. Urgent 2WW Referral

"We'll refer you for an urgent endoscopy within 2 weeks. This involves a thin camera going into your stomach to check for ulcers, inflammation, or any abnormal growths. If needed, they'll take a small sample (biopsy) for testing."

B. Urgent Bloods

"We'll also do some blood tests urgently within the next 48 hours to check:

Your blood count (for anaemia)

Liver and kidney function

Signs of inflammation

These results will help guide immediate management."

C. Addressing Patient Request

"I hear you - and I wish I could just give you something stronger to make this go away. But I'd be doing you a disservice if I masked these symptoms without understanding what's causing them. Because of your weight loss and discomfort, it's important we check the stomach thoroughly first."

10. Safety Netting

"If you start vomiting blood, notice black or sticky stools, develop new difficulty swallowing, or your symptoms get worse quickly - please come back immediately or go to A&E.

Also, if you don't hear from the hospital about your appointment within 2 weeks, let us know so we can follow up."

Important Note for Acute GI Bleeding: "Vomiting blood or passing black tarry stools is an emergency. In hospital, we use a risk assessment called the Glasgow-Blatchford Score - anyone with signs of active upper GI bleeding scores above zero and typically needs admission for urgent endoscopy. Do not ignore these symptoms."

11. Follow-Up Plan

"Once your blood test results are back, we'll review them and see if you need any supportive treatment while waiting for the endoscopy. After the endoscopy, we'll follow up with you to discuss what was found and what the next steps are."

12. Leaflet & Final Check

"I'll give you a leaflet that explains the endoscopy process and common causes of indigestion. Is there anything else you'd like to ask, or anything that's unclear about what we discussed today?"

How to Respond to Common Concerns

Q: "Why do I need another endoscopy?" "Because your symptoms have changed - especially with the weight loss and vomiting - we want to rule out anything serious and not miss a treatable condition. It's better to act early if something is going on."

Q: "Can't you just give me more medicine?" "I understand that's what helped you before, but these new symptoms need investigation. Giving stronger medication now might hide something more serious that we need to catch early."

Note

Age ≥ 55 with new-onset dyspepsia and weight loss $\rightarrow$ urgent endoscopy per NICE NG12

PMHx of gastric ulcer = higher risk of malignancy

Epigastric pain, vomiting, and weight loss are key red flags

Clear need for urgent referral, blood tests, and safety netting

Patient wants treatment escalation - must explain why investigation is safer

Follow-up after bloods and endoscopy

Suspected Liver Cancer

Station ID: Middle-Aged Male | Primary Care or Acute Medical Setting | Unintentional Weight Loss with Hepatomegaly on Examination

1. Introduction & Consent

"Hello, I'm one of the doctors here today. Thanks for coming in. Before we start, could I confirm your age and just a couple of details about your symptoms?"

I understand you've come in because you've been losing weight and not feeling like eating. Would it be okay if I asked some questions, examined you, and then explained what we might be dealing with?"

2. Presenting Complaint – ODIPARA

"Could you tell me more about the weight loss and appetite changes you've noticed?"

Onset: "When did you first notice the weight loss?"

Duration: "How long has this been going on?"

Intensity: "Roughly how much weight have you lost?"

Progression: "Has it been getting worse?"

Aggravating/Relieving: "Does anything help with your appetite?"

Associated symptoms: "Any tiredness, weakness, or feeling light-headed recently?"

3. Differential Diagnosis Screening

"I'd like to ask about a few more things to help narrow down the possible causes."

"Any recent fever, night sweats, or chills?"

"Any yellowing of your eyes or skin?"

"Any nausea or vomiting?"

"Any recent changes in your bowel habits - constipation, diarrhoea, or darker stools?"

"Any bleeding from your back passage?"

"Any abdominal bloating or discomfort after meals?"

"Have you been feeling full quicker than usual when eating?"

4. Targeted Risk Factor History + PMAFTOSA

"Just a few more background questions, if that's alright."

Past Medical History: "Any known history of liver disease or hepatitis?"

Medications: "Do you take any medications regularly, including painkillers or supplements?"

Allergies: "Any medication allergies?"

Family History: "Anyone in the family diagnosed with cancer, liver disease, or gastrointestinal conditions?"

Social History:

"Do you drink alcohol? If yes, how much and how often?"

"Do you smoke?"

"Any history of unprotected sex or tattoos abroad?"

"Any recent foreign travel, especially to regions where hepatitis is more common?"

"What kind of work do you do - any exposure to chemicals or solvents?"

5. ICE – Ideas, Concerns, Expectations

"What are your thoughts on what could be causing your symptoms?"

"Is there anything in particular that's been worrying you?" ("Why do I have this?")

"What would you like to achieve from today's visit?"

6. Effect on Life

"How has this affected your day-to-day life - energy levels, work, meals, or sleep?"

"Have you been able to maintain your usual routine?"

7. Examination Summary

Perform a structured abdominal examination.

Verbalise inspection, palpation (liver border), percussion, auscultation, and signs of chronic liver disease.

"Thank you for letting me examine you. Your vital signs and general physical examination are normal, which is reassuring.

On abdominal examination, I found that your liver feels slightly enlarged - a condition we call hepatomegaly. There's also mild tenderness when pressing on the upper right part of your tummy, but no signs of swelling, fluid, or other abnormalities."

8. Management Plan

1. Share Your Clinical Impression Clearly

Warning shot: "I want to be completely honest with you about what I'm thinking..."

"Based on your recent weight loss, reduced appetite, and what I felt during the examination - specifically, some tenderness in the upper part of your abdomen - I'm concerned that we may be dealing with something more serious affecting your liver or digestive tract. Even though you haven't complained of pain, the examination findings alongside your weight loss mean we cannot take any chances."

2. Explain the Need for Urgent Referral

"Because of these findings, I'd like to make an urgent referral to a specialist under the two-week wait pathway. This is a fast-track system designed to rule out or diagnose serious conditions, including cancer, as early as possible. It doesn't mean we're saying it is cancer, but your symptoms do fall under a category that needs urgent investigation according to national guidance."

NICE NG12 allows for 2WW referral in patients over 40 with unexplained weight loss and upper abdominal symptoms, and this case qualifies under that route - even if pain was not volunteered - due to clinical concern and red flag constellation.

3. Outline the Role of the Specialist

"The specialist will likely arrange some advanced imaging such as an ultrasound or CT scan, and possibly an endoscopy or liver-specific blood tests. They may also ask more detailed questions about your liver health and digestion. Depending on what they find, they might request a biopsy or other tests to guide treatment."

4. Arrange GP-Initiated Tests Immediately

"While waiting for the specialist appointment, I'll also organise the following urgent blood tests today, to give us more information and ensure nothing is missed before your referral:

Full blood count (FBC) – to check for anaemia or signs of inflammation

Liver function tests (LFTs) – to look at how well your liver is working

Urea and electrolytes (U&E) – to check kidney function and overall balance

Clotting profile – as liver problems can affect blood clotting

Amylase/lipase – if pancreatic involvement is suspected

Serum ferritin, iron studies, CRP/ESR – to evaluate inflammation and nutritional status

Alpha-fetoprotein (AFP) – if hepatocellular carcinoma is suspected (optional depending on clinical picture)"

5. Address the Patient's Concerns (Reassurance + Rationale)

"I understand you may be wondering why we're escalating things now when the symptoms haven't seemed that dramatic to you. The reason is that certain combinations of symptoms - like unexpected weight loss and findings on examination - can sometimes point to more serious issues beneath the

surface. The earlier we investigate, the more likely we are to find a treatable cause or rule out anything worrying."

6. Offer Symptomatic Support (If Appropriate)

"If you're still feeling discomfort or indigestion, I can continue your current acid-reducing medication such as lansoprazole. However, I won't increase the dose until we know more, because symptoms that continue despite treatment may indicate something deeper, and masking them could delay diagnosis."

7. Lifestyle Advice and Monitoring

"While we wait for results, it would be helpful to:

Avoid alcohol completely, as it can strain the liver.

Eat small, frequent meals, even if your appetite is poor.

Keep track of any new symptoms - such as pain, jaundice, dark urine, or vomiting - and let us know right away if these appear."

9. Safety Netting

"If you begin to feel worse in any way - for example, if you develop yellowing of the skin or eyes, vomit blood, pass black stools, or have severe new pain - please come back immediately or go to A&E.

Also, if you haven't heard from the hospital about the specialist appointment within two weeks, contact us straight away so we can follow up."

10. Follow-Up Plan

"I'll call you once the blood test results are back, which should be in a couple of days. We can go through those together, and I'll make sure you're fully informed and supported throughout this process. We'll also meet again once the specialist's opinion and tests are complete, so we can decide together what to do next."

Traveller's Diarrhoea – Campylobacter Positive

Station ID: Young Adult | Primary Care Setting | Stool Culture Result Discussion | Confirmed Bacterial Gastroenteritis

Note: Although titled "Traveller's Diarrhoea," this case describes local dining exposure. The title could be "Infectious Gastroenteritis – Campylobacter" for accuracy.

1. Introduction & Consent

"Hi, I'm one of the doctors here at the practice. I understand you came in today to discuss the stool test results.

Before we begin, could I just confirm your full name and date of birth? Thank you. Would it be okay if I explain the results and talk you through what they mean and what we'll do next?"

2. Focused History & Context

(Clarifying brief recent events before disclosing the result)

"You mentioned you were having bloody diarrhoea – can I just confirm, was it about 4 times a day?"

"Any abdominal cramps or fever?"

"Were you able to drink fluids and eat normally?"

"Any signs of dehydration like dizziness, dry mouth, or low urine?"

"Did anyone else who dined with you fall ill?"

"Are your symptoms still ongoing today?"

"Any other medical problems or medications?"

"Any recent travel or is this just after dining out locally?"

→ Patient confirms: 4 bloody stools/day, cramps and fever, able to tolerate food, no dehydration, no one else affected.

3. Explore ICE

Ideas: "Did you have any thoughts on what might have caused this?"

Concerns: "Is there anything specific you were worried about when the blood appeared?"

Expectations: "Is there anything in particular you were hoping I could do or explain today?"

→ Patient thinks it was food-related, worried it could be a serious infection, wants to know what the result means.

4. Clear Result Disclosure

"Thanks for explaining all of that. Your stool test showed the presence of white and red blood cells, and the culture confirmed an infection with a bacteria called *Campylobacter jejuni*. This is one of the most common causes of bacterial food poisoning."

5. Lay Explanation of the Condition

"This type of infection is commonly picked up through undercooked poultry - it's actually one of the most common causes of food poisoning in the UK, so you're definitely not alone in this. The bacteria irritates the bowel lining, which can lead to bloody diarrhoea, cramps, and fever like you experienced."

"The good news is, most people recover fully with rest and good hydration. Your ability to eat and drink, and the absence of dehydration, are reassuring signs."

6. Structured Management Plan

Supportive Care:

"The mainstay of treatment is supportive – drinking plenty of fluids to prevent dehydration, resting, and eating light meals."

"Avoid alcohol, spicy foods, dairy, and fatty foods until your stools return to normal."

No Antibiotics Needed:

"Because your symptoms are already improving and you're otherwise well, antibiotics aren't routinely recommended. They don't shorten the illness and can sometimes make things worse."

"We would only consider antibiotics if symptoms were severe, prolonged, or if your immune system was weakened - which doesn't apply in your case."

I

Infection Control:

"Make sure to wash your hands thoroughly with soap and water after using the toilet and before eating or preparing food."

"Use a separate towel and avoid preparing food for others until at least 48 hours after symptoms stop."

Occupational Advice:

"Since you work in IT and don't handle food or vulnerable people, you don't need to stay off work once you feel well enough."

"However, if diarrhoea continues, take time off until 48 hours after your last loose stool."

7. Safety Netting

"If you start getting worse again - with persistent fever, severe tummy pain, signs of dehydration, or if diarrhoea continues for more than 10 days - please come back or call 111."

"If there's any blood in the stool that doesn't settle, or new symptoms develop, we may need to reassess or refer you."

8. Follow-Up Plan

"No further stool tests are needed at this stage."

"If symptoms settle within a week as expected, there's no need to come back."

"But if things don't improve or worsen, do come back for reassessment."

Campylobacter is notifiable as suspected food poisoning - we will notify the local Health Protection Team.

9. Offer Leaflet & Final Check

"Would it help if I shared a leaflet with advice on food poisoning and recovery?"

"Do you feel you've got a better understanding of the condition now?"

"Is there anything else you wanted to ask or check with me today?"

Diagnostic Reasoning Note for Student

Diagnosis confirmed by:

Stool culture positive for *Campylobacter jejuni*

Typical symptoms: bloody diarrhoea, cramps, fever

Recent food exposure (likely undercooked poultry)

Self-limiting course in immunocompetent adults

Management:

Supportive care (fluids, rest)

No antibiotics unless severe/prolonged/immunocompromised

Infection control advice

Safety netting for complications (reactive arthritis rare but possible)

CLINICAL REFERENCE: Glasgow-Blatchford Score (GBS)

When to Use

The Glasgow-Blatchford Score is used for risk stratification in **acute upper GI bleeding** (haematemesis, melaena, or coffee-ground vomiting). It helps determine the need for admission and urgent intervention.

Key Principle

Any patient with a GBS > 0 is considered high-risk and should be admitted for urgent assessment and likely endoscopy.

A score of 0 identifies very low-risk patients who may be suitable for outpatient management (rare in practice).

Components (for reference)

The score includes:

Blood urea level

Haemoglobin (different thresholds for men/women)

Systolic blood pressure

Pulse rate

Presentation with melaena

Presentation with syncope

Hepatic disease

Cardiac failure

PLAB 2 Application

In the exam, you don't need to calculate the score numerically. However, you should:

Recognise that any patient with haematemesis, melaena, or coffee-ground vomiting needs urgent assessment

Know that risk scoring determines management urgency

Communicate clearly to patients that GI bleeding is an emergency requiring immediate hospital attendance

Safety net appropriately - patients with suspected GI malignancy must be told to attend A&E immediately if they develop signs of bleeding

Suspected Paracetamol Overdose with Liver Injury

Setting: Emergency Department

Patient: Young Adult

Presenting Complaint: New-onset jaundice with recent history of analgesic ingestion

Introduction

"Hello, my name is Dr [Your Name], one of the doctors in A&E. Can I confirm your full name and age, please? What brought you in today?"

"When did you first notice the yellowing?"

Would it be okay if I ask you a few questions, examine you, and then explain what we might need to do next?"

Presenting Complaint & History of Present Illness

"Can you tell me more about what you've noticed recently?"

"When did you or someone else first notice the yellowing?"

"Has it been getting worse or staying the same?"

"How have you been feeling otherwise?"

"Have you had any discomfort or pain in your tummy?" → "Where exactly?" → RUQ

"Any nausea or vomiting?"

"Any change in your appetite?"

"Have your bowel movements changed at all - especially the colour of your stool?"

"Has your urine been any different - like darker in colour?"

"Have you noticed any itching of your skin?"

"Any fever, chills, or recent illnesses?"

Focused Review of Systems & Red Flags

Gastrointestinal:

"Any vomiting, especially with blood?"

"Any black or very dark stools?"

"Any weight loss that you weren't trying for?"

Neurological:

"Have you been more sleepy, confused, or drowsy than usual today?"

Bleeding:

"Have you noticed easy bruising, nosebleeds, or bleeding from your gums?"

Other systemic:

"Any rashes, joint pain, or swelling anywhere?"

Drug History & Toxin Exposure

"Are you on any regular medications or supplements?"

"Have you taken any over-the-counter medications recently - things like paracetamol, ibuprofen, cold and flu tablets?"

"Did you take anything at home to help with this yellowing or tummy discomfort?"

"I need to ask something that might feel difficult, but it's really important for your care. Sometimes people take more medication than usual, whether to help with pain or for other reasons. Is there any chance that happened?"

"Have you ever taken medicines that weren't prescribed to you - even just occasionally?"

→ Patient discloses taking 20 paracetamol tablets with vodka 3 days ago.

Overdose Clarification

"Thank you for sharing that. I know it's not easy. Can I just ask a few more details to help guide your care?"

"Roughly how many tablets did you take?"

"Were they all taken at once or spread over time?"

"Do you know when exactly that was?"

"Was there alcohol involved at the time?"

"Were you trying to feel better, or did you mean to harm yourself?"

"Have you ever felt like that before?"

Enhanced Suicide Risk Assessment (Key for Safety Domain):

"How do you feel about being here now?" (*assesses current feelings about survival*)

"Do you regret that it didn't work?" (*assesses ongoing intent*)

"Do you have any thoughts of harming yourself now?"

"Have you made any plans or preparations?"

Psychosocial & Mental Health History

"You mentioned you were going through something - was there anything in particular that triggered it?"

→ Patient: argument with partner

"Were you feeling overwhelmed or low when this happened?"

"Have you been feeling this way for a while?"

"Have you ever seen anyone before for mental health support or counselling?"

"Do you feel safe now?"

"Do you have someone you trust that you can talk to or stay with?"

PMAFTOSA

"Do you have any diagnosed medical conditions - especially anything related to the liver, gallbladder, or stomach?"

"Have you had any surgeries in the past?"

"Any history of mental health diagnoses or previous self-harm?"

"Is there any history of liver disease, jaundice, or autoimmune conditions in your family?"

"Do you have any allergies - to medications, food, or anything environmental?"

"Have you travelled anywhere recently - especially abroad?" → Spain, 6 months ago

"Any tattoos, piercings, or dental procedures in the last year?"

"Any blood transfusions?"

"Have you had close contact with anyone who has hepatitis?"

"Do you smoke?"

"How much alcohol do you typically drink in a week?"

"Do you use any recreational drugs - injecting, smoking, or nasal?"

"Have you ever shared needles or straws with others?"

Sexual History

"I just need to ask some routine questions related to liver health, if that's alright."

"Have you had any new sexual partners in the last few months?"

"Do you usually use barrier protection like condoms?"

"Any history of STIs or testing for hepatitis?"

Examination

"I'd like to examine you now if that's okay. I would:"

General: Observe for jaundice, confusion, distress, flapping tremor.

Abdomen: Palpate for RUQ tenderness, hepatomegaly.

Neurological: Check orientation (person, place, time).

Vital signs: BP, HR, RR, Temp, O₂ sat.

Skin: Check for bruising, petechiae.

"I would also review her **urine colour**, request a **full set of observations**, and assess for **asterixis (liver flap)**."

Differential Diagnosis

Most likely: Paracetamol-induced acute liver injury (Stage 3 hepatotoxicity).

Others to exclude:

Acute hepatitis (viral, alcoholic, autoimmune)

Biliary obstruction (less likely without pain or fever)

Haemolysis (no anaemia, no dark stools or splenomegaly)

Explanation to Patient

"Thanks for sharing everything so openly. From what you've told me - the yellowing of the eyes and skin, the dark urine, and the fact that you took a large number of paracetamol tablets with alcohol a few days ago - I'm concerned that your liver may be under strain."

"Paracetamol is normally safe at the usual dose, but in large amounts, and especially when taken with alcohol, it can damage the liver. Sometimes, symptoms take a couple of days to appear, which is what seems to be happening now."

"This is a **serious but treatable condition**, and we'll act quickly to assess and manage it."

Management

Immediate Investigations:

LFTs (AST/ALT, bilirubin)

INR/PT - key prognostic marker

U&Es, glucose, FBC, ABG (lactate, acid-base)

Paracetamol level (still done if <24h, or if ingestion time uncertain. Although the paracetamol level won't guide initial treatment with NAC at this late stage, it is crucial to confirm paracetamol as the causative agent.)

Ethanol level (alcohol co-ingestion)

Pregnancy test (in females of childbearing age)

Treatment (for acute single ingestion where timing is known):

For acute single ingestions where timing is known, plot the paracetamol level against time on the treatment nomogram. The treatment line starts at 100 mg/L at 4 hours post-ingestion. If the level is at

or above this line, start NAC. If timing is unreliable, staggered ingestion occurred, or there is any doubt - start NAC anyway.

Staggered Ingestion Guidance: If ingestion was staggered (over >1 hour), the nomogram is unreliable - start NAC regardless of level. **Important:** For staggered overdose, the decision to STOP NAC is based on blood results taken near the end of the first bag (INR, ALT, paracetamol level). If INR and ALT are normal AND paracetamol is <10 mg/L, NAC may be stopped. Do NOT use the nomogram at all for staggered overdose.

Treatment:

Start IV N-acetylcysteine (NAC) immediately - indicated even >24 hrs if LFTs abnormal

IV fluids, monitor glucose

Hospital admission under medical/gastro team

ICU referral if: INR >3, pH <7.3, lactate >3, encephalopathy present

Note: The standard 21-hour NAC protocol is:

- Bag 1: 150mg/kg in 200mL 5% glucose over 1 hour
- Bag 2: 50mg/kg in 500mL 5% glucose over 4 hours
- Bag 3: 100mg/kg in 1000mL 5% glucose over 16 hours

FY2 Escalation (Important):

Discuss ALL paracetamol overdoses with senior/registrar

For complex cases or uncertain timing, contact **NPIS (Toxbase)** or local toxicology

If King's College Criteria met → **Contact liver unit and senior consultant immediately**

Prognostic Criteria (King's College Criteria):

King's College Criteria for liver transplant assessment in paracetamol-induced acute liver failure:

- Arterial pH <7.3 (after adequate fluid resuscitation), OR
- ALL THREE of:
 - INR >6.5 (or PT >100 seconds)
 - Creatinine >300 µmol/L
 - Grade III-IV hepatic encephalopathy

Additional poor prognostic markers:

- Arterial lactate >3.5 mmol/L at 4 hours or >3.0 mmol/L at 12 hours after admission
- Serum phosphate >3.75 mg/dL (1.2 mmol/L) at 48-96 hours

Mental Health Referral:

If overdose was intentional or unclear, **refer to psychiatry liaison** for full risk assessment

Safety Netting

"I'll be keeping a close eye on your liver function and blood clotting results while you're in hospital. If you notice any confusion, vomiting blood, increasing sleepiness, or new bleeding - please call the nurse immediately or ring the call bell."

"We'll be monitoring you regularly and may need to involve the liver specialist team depending on your results."

Follow-Up Plan

Daily monitoring of LFTs, INR, renal function.

Psychiatry review before discharge (if overdose was intentional or mental health concern exists).

Arrange **GP follow-up** after discharge to monitor liver function over weeks.

Leaflet & Patient Support

Offer NHS leaflet on:

Paracetamol overdose
Liver health and alcohol
Mental health support resources

Final Check

"Do you feel okay with everything we've discussed so far?"

"Is there anything you'd like me to explain again or any concerns you have right now?"

Key Learning Point:

Patients don't always volunteer critical information - especially if it's emotionally sensitive, potentially embarrassing, or if they assume it's not relevant.

When the symptoms don't fully add up - **circle back. Ask again. Ask better.**

Use specific, layered, and compassionate questions to get the truth behind the symptoms.

Acute Anal Fissure

Setting: Primary Care

Patient: Young Adult

Presenting Complaint: Perianal pain on defecation with fresh rectal bleeding

1. Introduction & Consent

"Hello, I'm Dr [Name], one of the doctors in the clinic today."

"Could you confirm your full name and age, please?"

"Nice to meet you. How can I help you today?"

"Would it be okay if I ask you some questions, then examine you if needed, and explain the next steps?"

2. Presenting Complaint - Symptom-Focused History

"Can you tell me more about the pain you're experiencing when passing stool?"

Onset: Started 4-5 days ago

Nature: Sharp, stinging or burning pain

Location: Felt at the back passage

Timing: Happens during defecation, lasts up to an hour after

Severity: Moderate to severe

Bleeding: Fresh red blood on tissue paper

No blood mixed with stool, no dripping in toilet bowl

No mucus or pus

No swelling or lump

No abdominal pain or change in stool frequency

Triggers: Pain started after passing a particularly hard stool

Relieving factors: Noticed temporary relief with warm sitz baths

Previous episodes: This is the first episode

3. ICE

Ideas: "I thought it might be piles."

Concerns: "I got really scared seeing blood - could it be something serious like cancer?"

Expectations: "I was hoping you could tell me what this is and help with the pain."

4. Focused System Review

Red flags: No weight loss, fever, night sweats, or fatigue

GI: No mucus, pus, abdominal cramps, or altered bowel habits

Perianal: No swelling, discharge, itch, or perianal mass

IBD screen: No family history, no mouth ulcers, joint pain, skin rashes

Gynae: Normal cycles, no vaginal bleeding

Sexual health: No recent new partners, no anal intercourse, no discharge or ulcers

Urology: No pain on urination or urinary symptoms

5. PMAFTOSA

P: No previous GI issues, no IBS/IBD

M: Not on regular medications

A: No known drug allergies

F: No family history of bowel cancer or IBD

T: No recent travel abroad

O: Sedentary desk job

S: Monogamous relationship, no STI risk

A: Non-smoker, occasional alcohol use, normal BMI

6. Examination

"With your permission, I would like to perform an inspection of the anal area."

Findings:

Posterior midline linear fissure

No swelling, fistula, abscess, or signs of haemorrhoids

No skin tags, no signs of chronic disease

7. Diagnosis

Likely Diagnosis: *Acute anal fissure*

Simple Explanation:

"It looks like you have a small tear in the skin just inside the back passage. This often happens when you pass a hard stool and can cause sharp pain and a small amount of bright red bleeding. It's a common problem and can be quite painful but is not dangerous or cancerous.

Most cases heal on their own with some treatment and lifestyle changes."

8. Differentials (ruled out by history/exam)

Haemorrhoids - no lump or prolapse

Perianal abscess - no fever or swelling

IBD - no systemic symptoms

STI - no risk factors or discharge

Colorectal cancer - highly unlikely in age group with no red flags

9. Management

Initial Approach (First-line - Conservative + Medical):

Stool softening and dietary advice

High-fibre diet (fruits, vegetables, wholegrains)

At least 1.5–2 litres fluid/day

Avoid straining and prolonged sitting on the toilet - try to limit to 5 minutes

Regular exercise

Pain relief

Paracetamol or ibuprofen as needed

Topical treatment

Topical local anaesthetic (e.g. lidocaine 5%) before defecation

Topical glyceryl trinitrate (GTN) 0.4% ointment (Rectogesic) - apply twice daily for 6-8 weeks even if symptoms resolve

"This ointment works like a headache tablet for your bottom - it opens up blood vessels. Because of this, it can give you a headache. About 1 in 5 people experience this. **To help prevent headaches, I recommend taking paracetamol about 30 minutes before you apply the cream.** If the headaches are still too bothersome despite this, we have alternatives we can try."

Diltiazem 2% cream (if GTN not tolerated due to headaches) - recent evidence suggests similar efficacy between GTN, diltiazem, and nifedipine, with diltiazem showing better tolerability

Sitz baths

Warm water soaks after bowel movements, 10-15 minutes

Lifestyle Summary:

"The key is to keep your stools soft and regular, avoid straining, and allow the tear to heal. The ointment helps relax the muscle around the area so healing can happen faster."

10. Safety Netting

"Please come back if:"

Pain or bleeding gets worse

There's swelling, pus, or signs of infection

No improvement after 6-8 weeks

You notice changes in bowel habits, weight loss, or other red flag symptoms

11. Referral & Follow-up

Review in 6-8 weeks

If symptoms persist despite adequate treatment:

Refer to colorectal surgery

Options include botulinum toxin injection or lateral internal sphincterotomy

12. Final Check + Leaflet

"I'll give you a leaflet with dietary advice and how to use the cream."

"Do you have any questions or concerns about anything we discussed?"

"Would you be happy to follow this plan for now?"

Inflammatory Bowel Disease - Test Result

Setting: Primary Care

Patient: Young Adult

Reason for Visit: Review of investigation results for lower gastrointestinal symptoms

1. Introduction & Consent

"Good morning, I'm Dr [Name], one of the GPs here. I see you're here to go over some of your recent results?"

"Before we get to the results, would it be alright if I ask a few more questions to get the full picture?"

Gain consent.

2. Focused History & Context

Symptoms

"Can you tell me more about the episodes of bloody diarrhoea? When did they start and how often?"

→ *Patient had a few recent episodes*

"Any associated abdominal pain, cramping, mucus, or urgency?"

"Any recent change in the number or consistency of bowel movements?"

"Did you notice any unintentional weight loss or fatigue?"

"Have you had any recent fever or night sweats?"

Infective screening & history

"Have you travelled recently, or eaten anything unusual?"

"Any recent use of antibiotics or illness in the family?"

Systemic inquiry

"Any joint pains, skin rashes, or eye issues?"

"Do you sometimes get painful mouth ulcers?"

→ *Mouth ulcers present, only if asked*

Risk Factors

"Do you smoke or use alcohol?" → *Non-smoker*

"Any family history of inflammatory bowel disease or bowel cancer?"

"Are you on any medications or supplements?"

Context

"I see you've done a few tests already including celiac screening - were these suggested by another doctor or something you requested?"

3. Explore ICE

Ideas: "What do you think might be causing these symptoms?"

→ *Patient is concerned it could be cancer*

Concerns: "That sounds worrying. Has anything in particular made you think about cancer?"

Expectations: "What were you hoping to find out from the results today?"

4. Clear Result Disclosure

"Thanks for sharing that. I've had a look through your test results."

"Your blood counts, electrolytes, and celiac screen are all normal."

"However, your inflammatory markers are raised - specifically, your CRP - and your fecal calprotectin is also elevated."

"These findings suggest there's some inflammation in your bowel."

Calprotectin Interpretation:

"Your faecal calprotectin level was [X] µg/g. Levels above 50 suggest inflammation in the bowel, and levels above 250 are strongly suggestive of inflammatory bowel disease. Your result of [X] means we need to investigate further."

5. Explanation of the Condition

"Raised CRP and calprotectin usually indicate that the gut lining is inflamed. This is commonly seen in conditions like **inflammatory bowel disease**, or IBD."

"IBD stands for inflammatory bowel disease. It's an umbrella term for conditions where the immune system mistakenly attacks the digestive tract, causing inflammation. The two main types are Crohn's disease and ulcerative colitis."

"These are not infections or cancers - rather, they are long-term conditions where the immune system causes inflammation in the digestive tract."

"It would explain your symptoms, including the bloody diarrhoea and mouth ulcers."

"We can't confirm this just based on blood tests - a specialist would need to do further investigations to be sure."

6. Structured Management Plan

Urgent Referral

"We will refer you urgently to gastroenterology. The national standard is for you to be seen within 4 weeks, though if symptoms are severe, this may be sooner."

"They will likely arrange a **colonoscopy**, which is a camera test to look inside your bowel and confirm the diagnosis."

"Sometimes, they may also do imaging (like an MRI) depending on what they find."

GP Role Before Referral

"We usually do not start treatment until a clear diagnosis is confirmed."

FY2 Note: Do not initiate IBD-specific treatment (5-ASA, corticosteroids, immunosuppressants, biologics) until specialist review confirms diagnosis and guides therapy. These medications have significant side effects and require specialist monitoring.

"In the meantime, avoid NSAIDs like ibuprofen, as they can worsen bowel inflammation."

"Try to maintain a balanced diet, and drink plenty of fluids."

"Please let us know if symptoms worsen."

Ensure stool M,C&S and C. diff are sent as pre-referral investigations

FIT (faecal immunochemical test) may also be requested to rule out colorectal cancer, especially in patients over 50

Cancer Concern Addressed

"You mentioned concern about cancer - I understand that's frightening."

"However, bowel cancer is extremely rare in someone your age without family history."

"The pattern of your symptoms and the test results suggest inflammation, not cancer."

"The colonoscopy will help us rule out anything serious and confirm the exact cause."

7. Safety Netting

"If you develop severe abdominal pain, worsening diarrhoea, dehydration, or high fever, please come back urgently or go to A&E."

"Also, let us know if you start losing weight or feel unusually tired."

8. Follow-Up Plan

"We'll refer you to gastroenterology today via the urgent pathway - you should hear from them within 2-4 weeks."

"We'll follow up with you once we get an update from their side."

"Please contact us if you haven't heard anything within 2 weeks."

9. Offer Leaflet & Final Check

"Would you like me to send you a leaflet or NHS link about IBD and colonoscopy?"

"Do you feel everything was explained clearly today?"

"Is there anything you'd like to go over again or ask?"

Suspected Colorectal Carcinoma

Setting: Primary Care

Patient: Older Adult

Presenting Complaint: Painless rectal bleeding

Background: No bowel habit change, no abdominal symptoms, no weight loss. Patient reluctant to see a specialist.

1. Introduction & Consent

"Hello, my name is Dr _____. I understand you've noticed some bleeding while passing stools - would it be alright if I ask you a few questions to understand this better and discuss next steps together?"

2. Focused History

A. Characterisation of Bleeding

"When did the bleeding start?" → 3-4 days ago

"Have you noticed it every time you go to the toilet?" → Yes

"What does the blood look like - bright red or dark?" → Bright red

"Is it mixed in with the stool or separate?" → Separate, seen on the tissue

"Do you have any pain when passing stools?" → No

"Any itching or swelling around the back passage?" → No

"Any mucus or pus?" → No

"Any recent constipation or hard stools?" → No

"Do you feel any lumps when wiping?" → No

B. Bowel Habit Questions (Change / Cancer Screen)

"Have you noticed any change in how often you go to the toilet?" → No

"Have your stools become looser, harder, or more frequent?" → No

"Any sense of urgency or incomplete emptying?" → No

"Any diarrhoea or abdominal cramps?" → No

"Any bloating or feeling of fullness?" → No

3. Differential Diagnosis Screening

Ask explicitly to rule out other causes:

Anal fissure: "Any pain, especially sharp or burning during or after passing stools?" → No

Haemorrhoids: "Any swelling, lump, or itching in the anal area?" → No

Diverticular disease/IBD: "Have you had any fever or mucus in stools?" → No

Gastroenteritis/travel-related infection: "Have you recently travelled or eaten outside food?" → No

NSAID-related bleeding: "Are you taking any painkillers or blood thinners regularly?" → No

IBD (e.g. UC): "Any history of mouth ulcers, joint pains, or eye redness?" → No

4. Red Flag Screening (Actively Asked)

"Have you had any recent weight loss without trying?" → No

"Have you felt more tired or weak than usual?" → No

Iron Deficiency Anaemia (IDA) Screen - IMPORTANT: In patients aged 60+, iron deficiency anaemia ALONE (even without rectal bleeding) warrants 2WW referral. Ask:

"Have you been feeling unusually tired, short of breath when you exert yourself, or noticed you look paler than usual?"

"Has anyone mentioned you look pale?"

"Any dizziness or palpitations?" (*If IDA is suspected clinically, check FBC and iron studies. In a 60+ patient, unexplained IDA triggers the 2WW pathway*)

"Any tummy pain, discomfort, or cramps?" → No

"Any family history of bowel or other cancers?" → No

"Any change in appetite?" → No

"Any new back pain or bone pain?" → No

"Any black or very dark stools?" → No

"Any urinary problems like blood in urine or pain while passing urine?" → No

Age >60

Isolated rectal bleeding

No other red flags - but qualifies for investigation under NICE

5. ICE

Ideas: "Maybe I overstrained or something I ate"

Concerns: "I really don't want to go through hospital tests at this age"

Expectations: "Could I just take something and see if it goes away?"

6. Explanation

"Thank you for answering all those questions. From what you've told me, there are no worrying symptoms apart from the bleeding itself - which is reassuring. But because you're over 60, even a small amount of bleeding can sometimes be a sign of something that needs checking. That's why national guidelines recommend a test to rule out anything serious like bowel cancer."

7. Differentials

Colorectal cancer - NICE: >60 yrs + rectal bleeding = FIT testing then 2WW referral if positive

Haemorrhoids - Unlikely: no lump, itching, or constipation

Anal fissure - No pain

Diverticular disease - No lower abdo pain, fever

IBD or proctitis - No mucus, diarrhoea, or systemic symptoms

8. Management Plan

FIT Testing Pathway:

Under current NICE guidance most patients with suspected colorectal cancer symptoms should have a FIT (faecal immunochemical test) before referral. A result $\geq 10 \mu\text{g Hb/g}$ faeces triggers the 2-week wait pathway. The exceptions are patients with a rectal mass or anal mass/ulceration - they should be referred directly without FIT.

For this patient:

"For this patient with painless rectal bleeding at age >60, arrange FIT testing. If FIT $\geq 10 \mu\text{g/g}$, refer via urgent suspected cancer pathway. If FIT is negative ($< 10 \mu\text{g/g}$), safety net with advice to return if symptoms persist or worsen, and consider other causes."

If Patient Refuses:

"Could you help me understand what concerns you about the referral?"

Offer reassurance:

"It's just an appointment and discussion first - you're not agreeing to any procedure right now."

"It helps us rule things out early before anything becomes serious."

Offer written info and time to think

Book a follow-up in 1-2 weeks to revisit the decision

Safety Netting

"Please let us know urgently if you notice:

Worsening bleeding

Tummy pain

Unintentional weight loss

Change in stool consistency or frequency

Feeling tired or dizzy"

"If your FIT test is negative, this is reassuring but not 100% - please return if bleeding continues or you develop new symptoms"

FIT-Negative but Symptomatic Pathway: If FIT is $<10 \mu\text{g/g}$ BUT symptoms persist (especially ongoing rectal bleeding), do NOT simply "safety net and discharge." Consider:

Repeat FIT in 2-4 weeks if symptoms continue

Referral via "FIT-negative but symptomatic" pathway (available in some areas)

GP specialist discussion or referral to general surgery

Particularly important if bleeding is ongoing despite negative FIT

9. Follow-Up Plan

Arrange FIT testing

If FIT $\geq 10 \mu\text{g/g}$ → proceed with suspected cancer pathway referral

If still refuses:

Clear documentation

Offer review in 1-2 weeks

Keep referral open if she changes her mind

Functional Constipation

Setting: Primary Care

Patient: Middle-aged Adult

Presenting: Change in Bowel Habit Following Dietary Modification

1. Introduction & Consent

"Hello, I'm Dr _____. Thanks for coming in today. I understand you've noticed some changes with your bowel habit. Before we start, may I confirm your full name and age? Is it alright if I ask you a few questions about your symptoms, lifestyle and general health to understand what's going on?" (Consent obtained.)

2. Presenting Complaint

"So, tell me a bit about what's been happening with your bowels lately."

3. History of Presenting Illness

Onset & Duration

When did you first notice the change?

Has it been getting worse or stayed the same?

Frequency & Consistency

How often do you open your bowels in a week?

What does the stool look like - small and hard pellets or large and lumpy?

We sometimes use something called the Bristol Stool Chart to describe stool consistency - types 1-2 are constipated, 3-4 are ideal.

Any straining or feeling of incomplete emptying afterwards?

Associated Symptoms

Any tummy pain, bloating, or distension?

Any nausea, vomiting, or loss of appetite?

Any blood, mucus, or black stools?

Any weight loss or tiredness recently?

Triggers / Lifestyle

Have you made any recent changes to your diet or routine? (*Yes - switched to fast food, low-fibre, fewer fruits & vegetables.*)

How much water do you usually drink in a day?

How physically active are you - do you walk or exercise regularly?

Medication / Systemic Screen

Any new or regular medicines such as painkillers, iron, or antacids?

Common medications that can cause constipation include opioids, iron supplements, calcium channel blockers, and some antidepressants.

Any medical problems such as thyroid issues, diabetes, or depression?

Bowel Baseline

What was your normal pattern like before this started?

4. ICE - Ideas, Concerns, Expectations

"What do you think might be causing this?" *'Maybe constipation.'*

"Anything in particular you're worried about?" *Wife is concerned something serious might be wrong.*

"What were you hoping I could do for you today?" *Wants advice and reassurance.*

5. Focused Review of Systems

Urinary: Any change in frequency or difficulty passing urine? No.

Constitutional: Any fever, night sweats, or fatigue? No.

Endocrine: Any cold intolerance or weight gain (screen for hypothyroid)? No.

Neuro: Any back pain, weakness, or numbness? No.

6. Past Medical, Drug, Family & Social History

No previous bowel disease or surgery.

No regular medication; no allergies.

No family history of bowel cancer or IBD.

Non-smoker, drinks occasionally.

Sedentary work, minimal exercise.

Diet low in fibre and fluid since switching to fast food.

7. Physical Examination

Consent and chaperone offered.

No red-flag findings.

8. Clinical Impression

Most likely diagnosis: Functional (primary) constipation, precipitated by low-fibre diet and inactivity.

Differentials:

- Hypothyroidism
- Medication-induced constipation
- Colonic malignancy (unlikely - no alarm features)
- IBS-C (unlikely - no pain or alternation)

9. Explanation

"I understand this has been uncomfortable and perhaps a bit embarrassing to talk about. It sounds like you're constipated - meaning your bowel is working more slowly, and stools are becoming hard and less frequent.

Often this happens when we don't get enough fibre or fluids, or if we sit for long hours and eat more processed food. Fibre in fruits, vegetables, and whole grains helps the bowel hold water and push things along gently."

10. Management Plan

A. Lifestyle & Dietary Advice (First-line)

Increase fibre:

Aim approximately 30 g/day - whole-grain cereals, oats, bran, beans, lentils, fruits (esp. prunes, apples, pears), vegetables.

Hydration: 1.5–2 L of fluids daily unless contraindicated.

Physical activity: At least 30 min brisk walk most days.

Regular bowel routine: Sit on toilet after breakfast or meals when urge strongest; unhurried and supported foot position.

Reduce: Fast food, cheese, red meat, caffeine, alcohol, and dehydration.

B. Pharmacological (Stepwise if lifestyle inadequate after 2–4 weeks)

Bulk-forming laxative: Ispaghula husk or methylcellulose.

If stools remain hard - **Osmotic laxative: Macrogol (polyethylene glycol)** is first-line; lactulose is second-line if macrogol not tolerated (NICE CKS). Macrogol is generally more effective and causes less bloating/flatulence.

If still no response - **Short course stimulant laxative:** Senna or bisacodyl.

Review in 2–4 weeks and taper once normal rhythm restored.

C. Exclude secondary causes

If symptoms persist or new red-flag features appear - baseline bloods (FBC, TFT, U&E, calcium), consider FIT test or colonoscopy if greater than or equal to 50 or red flags.

11. Safety-Netting

Return **urgently** if:

- Blood in stool
- Persistent abdominal pain or bloating
- Unexplained weight loss
- Sudden change in bowel habit greater than 6 weeks

Otherwise, follow up in 3–4 weeks to reassess.

Provide **written leaflet** on constipation and healthy diet.

12. Closing

"Let's start with these changes first - they work well for most people. If things don't improve in a few weeks, we'll add gentle medication to help the bowel move. Does that sound reasonable to you? Do you have any other questions or worries before we finish?"

Chapter 8: Endocrinology

A Note to Learners

The cases in this resource are written in a conversational style to help you become familiar with the natural flow of clinical consultations and the language commonly used in UK healthcare settings.

These dialogues are intended as a learning guide, not a script. Please do not attempt to memorise them verbatim. Examiners assess your ability to think and communicate authentically - not to recite rehearsed phrases.

Use this material to understand the underlying clinical reasoning, then practise in your own words until the consultation feels natural to you.

For Companion OSCE Cases, Practice Scripts, Evaluation Checklists, Summary Notes, Rapid Review Notes, Mindmaps, Management Flashcards and Image Library - visit <https://www.gksplab2.com>

Disclaimer

This material is independent educational content created to help candidates develop clinical reasoning and communication skills for UK medical practice.

All cases and clinical scenarios are based on common presentations encountered in UK primary care and emergency medicine, drawn from publicly available sources including NICE Clinical Knowledge Summaries (CKS), BNF, and other official NHS/UK healthcare guidelines.

No content in this resource is derived from, represents, or claims to replicate actual GMC PLAB 2 examination material.

Addison's Disease

Setting: Primary Care | Young Adult with Autoimmune History | Presenting with Electrolyte Abnormalities | Recent Travel History and Constitutional Symptoms

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Thanks for coming in. I understand you came in for some test results-would it be okay if we go through those together and discuss what they mean?"

2. Focused History & Context

"Before we go into the results, can I ask-what prompted you to have these tests done?"

→ Patient: "I've been feeling really tired."

Explore Fatigue

"When did this tiredness start, and has it been getting worse?"

"Is it affecting your daily activities or concentration?"

"Are you sleeping okay?"

"Do you feel weak at any particular time of day?"

Screen for hyponatraemia symptoms

"Any nausea, headaches, or confusion recently?"

"Have you had any episodes of dizziness or fainting?"

Screen for hyperkalaemia

"Have you noticed any palpitations or chest discomfort?"

Screen for Addison's-specific symptoms

Appetite: "Any change in appetite recently?"

Salt craving: "Have you been craving salty foods?"

GI: "Any abdominal pain, nausea, vomiting, or diarrhoea?"

Weight: "Have you unintentionally lost any weight?"

Skin: "You mentioned noticing pigmentation-can you tell me where exactly?" → Follow-up: "Have you noticed darkening in areas like old scars, skin folds, or your gums?"

Mental: "Any changes in mood, energy levels, or concentration?"

Syncopal episodes: "Have you fainted or felt like passing out?"

Musculoskeletal: "Any joint or muscle pain recently?"

Screen for causes of Addison's disease

"Apart from Type 1 Diabetes, do you have any other autoimmune conditions?"

"Have you ever had TB or any other major infection?"

"Any history of cancer, chemotherapy, or radiotherapy?"

"Have you had any bowel surgeries?"

"Any known bleeding disorders?"

"Have you ever had a head injury?"

"Are you taking any long-term antifungal medications?"

3. Explore ICE

Ideas: "What are your thoughts about why you've been feeling this way?"

Concerns: "Is there anything in particular you're worried about?"

Expectations: "Is there something you were hoping these tests would show?"

4. Clear Result Disclosure

"Thanks for sharing all that. I can see from what you've shared that these symptoms have been affecting you for a while. Let me explain what we've found and what it means.

I've reviewed your test results, and they show that your sodium level is low and your potassium level is slightly high. These findings, together with your symptoms and background, suggest a condition called Addison's disease."

5. Lay Explanation of the Condition

"Let me explain that a bit more. We all have small glands sitting above our kidneys called adrenal glands. These glands produce important hormones like cortisol, which helps you handle stress and regulate sugar, and aldosterone, which helps control your salt and fluid balance.

In Addison's disease, the adrenal glands are damaged and don't produce enough of these hormones. That's why your salt levels are low, and you're feeling weak and tired. The skin pigmentation you noticed is also a typical sign-your body tries to stimulate the adrenals by producing more ACTH, and that hormone increases pigmentation in some areas."

6. Structured Management Plan

Acute Management (Immediate)

"I know this sounds serious, and I want you to understand that we're treating this urgently because we want to make sure you're safe and well. This is considered a medical emergency. If we didn't act on this, it could become very dangerous - but because we've caught it now, we can prevent that. I'd like to refer you urgently to the hospital today."

"In hospital, they'll correct your salt imbalance and start hormone replacement straight away."

"You'll be seen by an endocrinologist, a specialist in hormones."

Diagnostic Confirmation

They may arrange the following:

A short Synacthen test (ACTH stimulation test) to confirm adrenal function

Blood tests for cortisol, ACTH, aldosterone, and renin

Imaging like abdominal CT to assess adrenal size

Autoimmune antibody screen (e.g., adrenal antibodies)

Long-term Management

You'll need lifelong hormone replacement therapy:

Hydrocortisone (replaces cortisol)

Fludrocortisone (replaces aldosterone)

Hydrocortisone is typically prescribed at 15-25mg daily in divided doses, and fludrocortisone at 50-300 micrograms daily

You'll also be given:

An **NHS Steroid Emergency Card** - a blue card you should carry at all times

MedicAlert bracelet

Hydrocortisone injection kit to use in case of severe illness

Sick Day Rules

"During illness, surgery, or significant emotional stress - like exams or bereavement - you'll need to double or triple your usual hydrocortisone dose, to a minimum of at least 40mg daily during illness. This includes times of intense psychological stress - not just physical illness.

Critical point: If you vomit within 30 minutes of taking your oral hydrocortisone, take another dose at DOUBLE the original amount once vomiting subsides. If you continue vomiting or cannot keep tablets down, inject 100mg hydrocortisone intramuscularly immediately and go to A&E. The specialist team will teach you and a family member how to give this injection, and you'll have a kit to carry with you at all times."

Monitoring

Regular endocrine follow-up

Education about sick day rules - i.e., how to adjust steroid doses during illness, surgery, or stress

Annual diabetes and adrenal review

DVLA Advice

"Once you're on stable treatment, there's generally no driving restriction, but you'll need to inform the DVLA if you have any episodes affecting your awareness."

7. Safety Netting

"If you ever feel dizzy, faint, confused, or unwell-especially during stress or illness-you must seek urgent medical help. Addisonian crisis is life-threatening and needs immediate treatment."

Important for Healthcare Settings (Candidate Note): In suspected Addisonian crisis (hypotension, abdominal pain, confusion, pigmentation), treatment with **IV hydrocortisone 100mg** and aggressive fluid resuscitation must start **immediately**. Do not wait for a Short Synacthen Test or biochemical confirmation - this is a life-threatening emergency where treatment takes priority over diagnosis.

8. Follow-Up Plan

"I'll contact the endocrinology team today and get you referred immediately. Please go to hospital today. We'll also organise your follow-up once the diagnosis is confirmed."

Support Resources

"The Addison's Disease Self-Help Group (ADSHG) provides excellent resources and peer support."

9. Offer Leaflet & Final Check

"I'll give you a leaflet about Addison's disease that explains all this in writing as well. Do you have any other questions or anything you'd like me to go over again?"

You've done exactly the right thing by coming in - and with the right treatment, people with Addison's disease live completely normal, healthy lives."

Diagnostic Note for Candidate

How diagnosis was made:

Symptoms: Fatigue, salt craving, pigmentation, GI symptoms

Biochemistry: Low Na⁺, high K⁺

Background: Type 1 diabetes (autoimmune association)

Clinical reasoning: Strong suspicion of primary adrenal insufficiency → Addison's disease. Confirm with Synacthen test.

DKA First Presentation

Setting: Emergency Department | Young Adult | Presenting with Fatigue and Systemic Symptoms |
Task includes managing refusal of admission

1. Introduction & Consent

"Hello, I'm one of the doctors here in the emergency department. Thanks for coming in today. I understand you've been feeling quite tired recently - would it be okay if I ask you a few questions to understand things better, do a quick examination, and explain what we've found so far?"

2. Presenting Complaint – Tiredness

1. Onset and Duration

"When did you first start feeling this tired?"

"Was it sudden, or did it come on gradually over days or weeks?"

"Can you remember what you were doing when you first noticed it?"

2. Progression

"Has it been getting worse, or staying the same since it started?"

"Is it constant throughout the day or does it come and go?"

3. Severity and Impact on Life

"On a day-to-day basis, how bad is it - are you still able to go to work/college or do daily tasks?"

"Have you had to stop doing any activities because of it?"

"Have you needed to rest more than usual, even during the day?"

4. Timing and Pattern

"Is there a time of day when you feel worse - mornings, evenings, or after meals?"

"Do you feel more tired after physical activity or walking short distances?"

5. Rest and Sleep

"Are you sleeping okay at night?"

"Even after sleeping, do you still feel tired in the morning?"

"Do you nap during the day - and does that help?"

6. Physical vs Mental Tiredness

"Would you say it's more of a physical tiredness - like your body feels weak - or more mental, like you can't concentrate or think clearly?"

3. Differential Diagnosis Screening (with diagnostic pivots)

A. Screen for DKA/Diabetes features

"Have you noticed any weight loss recently - even though you've been eating normally?"

"Do you feel unusually thirsty or dry in your mouth?"

"How often are you passing urine - has it increased recently?"

"Any tummy pain, nausea, or vomiting?"

"Have you noticed your breath smelling unusual or fruity?"

"Have you been breathing faster than usual - even while resting?"

B. Screen for Acute Leukaemia (young tired patient)

"Have you had any unexplained bruises or bleeding - for example, when brushing your teeth?"

"Have you noticed any lumps, swollen glands, or persistent fevers?"

"Have you felt more tired after physical activity - like football or a gym session?"

C. Screen for other causes

Anaemia: "Any palpitations or breathlessness on exertion?"

Depression: "How have your mood and motivation been lately?"

Hypothyroidism: "Any weight gain, constipation, or cold intolerance?"

OSA: "Do you wake up feeling tired despite sleeping? Any loud snoring?"

4. Targeted Risk Factor History

Past Medical History: "Have you ever been told you have diabetes or any other medical conditions before?"

Family History: "Anyone in your family with diabetes, thyroid issues, or other autoimmune conditions?"

Drug/Allergy History

Social History:

"Do you smoke or drink?"

"What's your usual routine like - college, work?"

"Any recent stress, illness, or infections?"

5. ICE

Ideas: "What do you think might be going on?"

Concerns: "Is there anything in particular that's been worrying you about these symptoms?"

Expectations: "What were you hoping we'd find out or do for you today?"

6. Effect on Life

"Has this tiredness made it harder to keep up with your normal life - your studies, socialising, or even just getting out of bed?"

7. Examination Summary

"I'd like to examine you now - just checking your vital signs, your breathing, and your tummy."

→ Findings usually provided:

General: Looks dehydrated, dry mouth, fast breathing (Kussmaul), acetone breath

Vitals: HR ↑, RR ↑, BP ↓/normal

Urine: +++ ketones, +++ glucose

CBG: >20 mmol/L

Abdo: Mild epigastric tenderness

8. Provisional Diagnosis

"Based on your symptoms and the tests we've just done, I'm quite concerned that you're experiencing a serious condition called Diabetic Ketoacidosis - or DKA for short."

9. Lay Explanation

"Let me explain what that means in simple terms:

Your body needs a hormone called insulin to use sugar as energy. When there's not enough insulin - like in type 1 diabetes - the sugar builds up in your blood, but your body can't use it.

So instead, your body starts breaking down fat for energy, and that process produces ketones - acidic substances that make your blood dangerously acidic.

That's why you're feeling extremely tired, thirsty, and why your breathing is heavy. If left untreated, this can become very serious - even life-threatening. But the good news is, we've caught it early, and it's fully treatable - as long as you stay in hospital."

10. Management Plan

Immediate Treatment

"I wish I could tell you this is something we could manage together from home, but this particular situation needs hospital-level care to be safe. You need to be admitted today."

0.9% sodium chloride (normal saline) with potassium chloride - this is the standard fluid replacement per JBDS guidelines

IV insulin (fixed rate infusion at 0.1 units/kg/hour), reduced to 0.05 units/kg/hour when blood glucose falls below 14 mmol/L to bring down blood sugar safely and stop ketone production

Regular blood tests to monitor salt balance, sugar, and blood acidity

ABG/VBG to assess how acidic your blood is

Infection screen - just in case something triggered this

Resolution Monitoring

"The doctors will monitor until your ketone levels fall below 0.6 mmol/L, and pH rises above 7.3- that's when we know you're out of danger."

Once Stabilised

You'll be transitioned to subcutaneous insulin

Reviewed by endocrinology team

Seen by **diabetes specialist nurse** and taught how to manage sugar levels, injections, and diet

Continuous Glucose Monitoring

"Before you leave hospital, you'll be offered a continuous glucose monitor (CGM) - a small device that tracks your sugar levels throughout the day and can warn you early if things are going wrong."

Diagnosis Summary

This is likely the first presentation of type 1 diabetes

You'll need insulin lifelong, but with support, people live full, active lives

11. Handling Refusal of Admission

If patient says: "I don't want to stay."

Respond with calm empathy:

"I hear you - this must feel overwhelming. But I do need to be completely honest. Right now, your body is in a very dangerous state. If you walk out without treatment:

Your blood will become more acidic

You could get severely dehydrated

You may start feeling confused or collapse

In rare cases, if this isn't treated, it can cause confusion and, in the worst case, loss of consciousness - which is why we need to act now.

I want to help you feel better - and that means acting now. Within 24 hours of treatment, most people feel completely different. Can I ask if there's something in particular making you want to go home? I'd really like to help."

Reaffirm with warmth:

"You're not alone. We'll support you through this, and it's very treatable. But you must stay - this isn't something that can wait."

12. Safety Netting & Follow-Up

"If you ever experience similar symptoms - like tiredness, vomiting, deep breathing, or confusion - it could mean your ketone levels are rising again. Seek urgent medical help."

"We'll arrange follow-up with the diabetes team after discharge. They'll guide you through your new diagnosis and provide full support, including diet advice, monitoring, and insulin training."

DVLA Advice

"Once your diabetes is stable, there may be some driving considerations - particularly around hypoglycaemia awareness. The diabetes team will discuss this with you."

Final Steps

Offer a diabetes information leaflet

Check understanding: "Do you feel you've understood what's going on and what we need to do next?"

Final encouragement: "It's a tough day, but I promise we'll do everything to help you feel better quickly and get back to normal life."

Diagnostic Reasoning Note

DKA Diagnostic Criteria (JBDS):

Blood glucose >11.1 mmol/L (or known diabetes). Note: euglycaemic DKA can occur at lower glucose levels, particularly in patients taking SGLT2 inhibitors

Blood ketones ≥ 3.0 mmol/L (or urine ketones $\geq 2+$)

Venous pH <7.3 and/or bicarbonate <15 mmol/L

Why DKA in this case?

Young adult in A&E

Symptoms: tiredness, dehydration, polydipsia, vomiting, fast breathing

Capillary glucose >20 , urine $+++$ ketones, acetone breath $\rightarrow$ Strongly suggestive of DKA $\rightarrow$ requires urgent admission and IV insulin

Resolution criteria: Ketones <0.6 mmol/L AND pH >7.3 AND bicarbonate >15 mmol/L

Diabetic Neuropathy Follow-up

Setting: Primary Care | Middle-Aged Adult with Long-standing Type 1 Diabetes | Follow-up After Non-attendance | Findings Suggest Microvascular Complications

1. Introduction

"Hello, I'm one of the doctors here at the practice. I understand you're here for a follow-up regarding your diabetes. I see that we haven't had the chance to check in since then. I'm really glad you came in today - would it be alright if we went over what's been happening and talked through the next steps?"

2. Explore patient's understanding of diabetes

"Can I ask - what's your current understanding of how diabetes affects the body over time?"

"Has anyone explained to you about complications like nerve damage or kidney issues before?"

Give explanation to fill gaps

"When blood sugar stays high for a long time, it starts to damage small blood vessels.

This can affect your nerves - especially in your feet.

It can damage the back of your eyes - called retinopathy.

It can also affect your kidneys, often without obvious symptoms at first.

That's exactly why catching up like this matters - we can spot things early before they cause bigger problems."

3. Explore ICE

Ideas: "What do you think might be going on with your diabetes or your symptoms?"

Concerns: "Is there anything you've been particularly worried about - like your feet or vision?"

Expectations: "Were you hoping to adjust your treatment or get more clarity on how to manage this better?"

4. History – Data Gathering

A. Current Glycaemic Control

"Are you currently taking insulin? Which type and how many units per day?"

"How regularly do you take it?"

"Have you had any issues storing or injecting it?"

"Have you experienced low sugars - like shaking, sweating, or confusion?"

"Have you had any infections or felt unwell recently?"

B. Neuropathy Screening – Sensory Changes

"The nurse picked up some changes in sensation during your foot check. Can I ask if you've noticed any of these yourself?"

Tingling, numbness, or burning pain in the feet?

Feeling like your feet are "asleep" or not part of your body?

Trouble walking, especially in the dark or uneven surfaces?

Any unnoticed injuries to your feet?

If symptoms present → Use SOCRATES

Site: "Where exactly do you feel the sensation?"

Onset: "When did it start?"

Character: "What does it feel like - burning, pins and needles, stabbing?"

Radiation: "Does it go above the ankles?"

Associated: "Any muscle weakness, colour or temperature changes in the skin?"

Timing: "Is it constant, or worse at night?"

Exacerbating: "Does anything make it worse or better?"

Severity: "On a scale of 1-10, how bad is the pain?"

C. Visual Symptoms – Retinopathy

"Your optician found some early changes at the back of your eye - have you noticed any blurring, floaters, or trouble focusing?"

"Any changes in night vision or trouble reading?"

D. Renal Involvement – Nephropathy

"Your urine test showed some protein. Have you had any:

Swelling in your ankles or legs?

Frothy or foamy urine?

Unexplained tiredness or low energy?"

E. Hyperglycaemia Symptoms

"Have you been feeling unusually thirsty or drinking more than usual?"

"Going to the toilet more often?"

"Any weight loss?"

"Fatigue or difficulty concentrating?"

5. PMAFTOSA

Past Medical: Type 1 DM, Hypertension (on Amlodipine?)

Medications: Confirm insulin type and adherence

Allergies: Any medication or food allergies?

Family History: Any family history of diabetes, kidney disease, vision problems, heart attacks?

Travel: Any recent travel abroad?

Occupation: "What's your job? Has diabetes affected your ability to work?"

Social:

Eating habits: "Who does the cooking?"

Support: "Anyone helping you with injections or meal prep?"

Alcohol: "Do you drink? How often?"

Smoking: "Do you smoke? How much and for how long?"

6. Examination Summary

(Not required in this case. Findings from nurse and optician already provided.)

7. Provisional Diagnosis (Lay Summary)

"From what you've described - and based on the checks we've done - it seems your diabetes has not been well controlled recently, and you're now showing some early signs of nerve damage in the feet (diabetic neuropathy), early eye changes (retinopathy), and possible kidney involvement (nephropathy).

But the good news is - we've caught this now, and if we act quickly, we can slow or stop it from progressing."

8. Explanation – In Simple Language

"Diabetes can quietly damage small blood vessels. In your:

Feet: It can damage nerves - causing numbness, burning pain, or tingling. That's neuropathy.

Eyes: The blood vessels at the back of the eye can weaken - leading to retinopathy. It can affect vision if left untreated.

Kidneys: High sugars can cause protein to leak into urine - an early sign of kidney damage. This usually has no symptoms until later stages."

9. Management Plan

Let the patient know the aim: "We're now going to put together a clear plan to get things under control."

A. Investigations

HbA1c

U&E, eGFR

Urine ACR (Albumin:Creatinine Ratio)

Lipid profile

ECG

B. Medication

Restart or continue insulin

Confirm dose and refer to diabetes nurse for titration

Neuropathic pain treatment

"There are several effective options for nerve pain - including amitriptyline, duloxetine, gabapentin, or pregabalin. We'll choose together based on your other conditions and preferences."

[Note: Per NICE CG173, all four agents are equal first-line options]

"Some of these medications are controlled medicines, so we'll need to review them regularly and avoid stopping them suddenly."

[Note: Pregabalin and gabapentin are Schedule 3 Controlled Drugs. Prescriptions are limited to 30-day supply.

Amitriptyline and duloxetine are not controlled substances.]

Continue Amlodipine for BP control

Start Statin if indicated by lipid profile

C. Referrals

Diabetic Clinic – comprehensive glycaemic control
Podiatry – diabetic foot care education, regular screening
Ophthalmology – confirm and manage diabetic retinopathy
Diabetes Nurse – insulin guidance, glucose monitoring, sick-day rules
Dietitian – to review diabetic nutrition and weight management

D. Lifestyle Support (DESA)

Diet: Low glycaemic index, portion control, avoid sugary drinks
Exercise: Walking, swimming - avoid going barefoot
Smoking: "We can offer support to help you stop - including nicotine replacement or medication if you'd like."
Alcohol: Minimise - alcohol can worsen neuropathy
Daily Foot Care: Inspect feet daily, moisturise soles (not between toes), wear diabetic shoes/socks

E. DVLA Advice

"Because diabetes can affect sensation in your feet and potentially vision, it's important to be aware of DVLA requirements. Group 1 licence holders with insulin-treated diabetes need to notify the DVLA and meet certain standards."

10. Safety Netting

"Please come back or call immediately if you notice:
New or worsening foot symptoms - ulcers, infection, numbness
Any vision changes
Signs of low sugar - confusion, sweating, shakiness
If you feel unwell or are unable to eat and take insulin"

Hypoglycaemia Recovery (Important Patient Education): "If you ever have a hypo - where your blood sugar drops too low - and you treat it with fast-acting sugar like glucose tablets or juice, you must follow this up with a **long-acting carbohydrate** like a sandwich, piece of fruit, or your next meal. This prevents your sugar from dropping again. Just treating with the fast sugar alone isn't enough."

Metformin and Medical Imaging: "If you ever need a CT scan or other imaging with contrast dye, let the team know you have diabetes. If your kidney function is reduced, metformin may need to be withheld for 48 hours after the scan to prevent a rare complication called lactic acidosis."

11. Follow-Up Plan

GP review with blood results in 4 weeks
Nurse appointment for insulin support and foot review
Podiatry, ophthalmology, and dietitian referrals to be arranged
Annual diabetic review to be scheduled moving forward

12. Leaflet & Final Check

"I'll also give you a leaflet on diabetic neuropathy and foot care, so you can keep an eye on any changes at home. Before we finish - do you feel you've understood everything we discussed? Would you like me to go over any part of the plan again?"

Diagnostic Reasoning Note

T1DM with poor follow-up → complications picked up on routine nurse review
Neuropathy: Bilateral distal symptoms confirmed
Retinopathy: Dot and blot haemorrhages

Nephropathy: Proteinuria → Needs urgent glycaemic control, neuropathic symptom treatment, and MDT referral

Primary Hyperparathyroidism

Setting: Primary Care | Middle-Aged Female | Test Results Consultation for Suspected Endocrine Disorder | Hypercalcaemia Identified

1. Introduction & Consent

"Good morning, I'm one of the doctors here at the surgery. Before we start, could I just confirm your full name and date of birth, please?"

Thanks for confirming. I understand you've come in today to go over the blood tests we did last week. If it's alright with you, I'll first ask a few follow-up questions about your symptoms and then explain what we found and what we'll do next. Does that sound okay?"

2. Focused History & Context

"To begin, can I ask - what prompted you to get those blood tests done?"

→ Patient: "I've been feeling tired all the time."

Explore each symptom individually

Fatigue:

"When did this tiredness start?"

"Is it getting worse or staying the same?"

"Does it affect your work, social life, or looking after family?"

Bone pain:

"Where exactly are you feeling the pain - in your legs, back, or elsewhere?"

"Is it constant or does it come and go?"

"Does anything make it worse or better?"

Constipation:

"How often are your bowel movements?"

"Do you ever need laxatives or find yourself straining?"

"Have you ever had nausea or bloating?"

Mood changes:

"Have you been feeling low, anxious, or irritable?"

"Any difficulty concentrating or memory lapses?"

"How have you been sleeping recently?"

Screen for classical features of hypercalcaemia (Stones, Bones, Groans, Thrones, Overtones)

"Have you noticed any of the following recently?"

"Increased thirst or needing to pass urine more often?"

"Any nausea, vomiting, or abdominal pain?"

"Any history of kidney stones in the past?"

"Any fractures or loss of height over time?"

"Any confusion, forgetfulness, or mental fog?"

Screen for MEN syndromes (Family History)

"Does anyone in your family have problems with their parathyroid, thyroid, or adrenal glands - or pancreatic tumours?"

3. Explore ICE

Ideas: "Have you looked up or thought about what might be causing all this?"

Concerns: "Is there anything specific you were worried this could be?"

Expectations: "Were you hoping the test would explain your symptoms or rule something out?"

4. Clear Result Disclosure

"Thank you for sharing all that - it really helps me understand the full picture. I can see from what you've shared that these symptoms have been affecting you for a while. Let me explain what we've found and what it means.

Your full blood count, kidney function, and thyroid hormones are all within normal limits.

However, one important finding stands out:

Your blood calcium level is raised.

And a hormone called parathyroid hormone (PTH) is also elevated."

"These two together - high calcium with high PTH - point toward a condition called primary hyperparathyroidism."

5. Lay Explanation of the Condition

"You have four tiny glands in your neck called parathyroid glands. Their job is to help regulate the calcium levels in your blood.

In your case, one of these glands is overactive, producing too much hormone, which in turn causes your calcium levels to rise.

This high calcium is what's likely responsible for your tiredness, constipation, bone pain, and mood changes - and it can affect your bones and kidneys if left untreated."

6. Structured Management Plan

A. Referral to Endocrinology

"Because you have symptoms and your calcium is raised, I'll refer you to a hormone specialist."

[Candidate Note: NICE recommends endocrinology referral for symptomatic hypercalcaemia OR adjusted calcium ≥ 2.85 mmol/L. If calcium > 3.0 mmol/L $\rightarrow$ urgent/same-day referral. If > 3.5 mmol/L or vomiting/confusion $\rightarrow$ A&E referral.]

B. Further Investigations

"I'll also arrange a few more tests that help us confirm the diagnosis and assess any complications:"

Vitamin D levels - to rule out secondary causes

DEXA scan at lumbar spine, hip, AND distal radius (forearm) - to check bone density. The distal radius is particularly important as primary hyperparathyroidism preferentially affects cortical bone.

Neck ultrasound or sestamibi scan - to locate the overactive gland

24-hour urine calcium - to rule out familial hypocalciuric hypercalcaemia

C. Treatment Options

[Per NICE CKS]

The most effective treatment is surgical removal of the overactive gland (parathyroidectomy)

If surgery is not suitable:

Cinacalcet: medication that reduces calcium levels. *Indicated if adjusted calcium is ≥ 2.85 mmol/L with symptoms, OR if calcium is ≥ 3.0 mmol/L and surgery is unsuitable or declined*

Bisphosphonates: help protect bones from calcium loss

D. Lifestyle Advice

"Drink at least 2 to 3 litres of water per day - staying hydrated helps flush out excess calcium."

"You don't need to avoid calcium in your diet - a balanced diet is fine."

"Try to keep active with gentle weight-bearing exercises - good for both bones and mental wellbeing."

Avoid over-the-counter vitamin D or calcium supplements unless advised

7. Addressing Concerns

Patient asks: "How long will I feel like this?"

"Your symptoms are likely linked to your high calcium. Most patients feel significantly better - more energetic, more comfortable - once the calcium level is brought back to normal. This is usually after surgery, or sometimes with medication. You won't feel like this forever - we're taking it seriously."

8. Safety Netting

"If you develop new or worsening symptoms - such as:

Severe tummy pain or vomiting

Confusion, severe fatigue, or muscle cramps

Feeling faint or dehydrated

Please come back immediately or go to A&E - as very high calcium levels can become dangerous if untreated."

9. Follow-Up Plan

GP review in 1-2 weeks to monitor symptoms and ensure referral has gone through

Specialist endocrinology appointment within a few weeks

DEXA scan within 3-6 months

Repeat blood calcium and PTH depending on the specialist's advice

10. Offer Leaflet & Resources

"I'll give you a leaflet about hyperparathyroidism to take home - it goes over everything we've discussed in simple terms. You can also read more on the NHS website if you'd like."

11. Final Check

"Before we wrap up - is there anything else you'd like to ask or go over again? Would you like help reading through the specialist letter once it arrives?"

Clinical Summary

Symptoms: Fatigue, bone pain, constipation, irritability → classic signs of hypercalcaemia

Bloods: Elevated serum calcium + PTH = primary hyperparathyroidism

Likely single-gland adenoma

Needs endocrinology referral, DEXA, vitamin D, and imaging → Appropriate structure, communication, and safety met

Hyperthyroidism

Setting: Primary Care | Middle-Aged Female | New Diagnosis Consultation | Thyroid Function Abnormality with Systemic Symptoms

1. Introduction & Consent

"Good morning, I'm one of the doctors here at the practice. Before we begin, could I confirm your full name and date of birth please?"

Thanks. I understand you've come in today to discuss some symptoms you've been having, and we also have your recent test results. If it's alright with you, I'll start by asking a few questions to better understand your concerns, and then we'll go through the results and next steps. Would that be okay?"

2. Focused History & Context

Symptom Clarification

"When did you first notice the tremors?"

"Do they happen at rest or with movement?"

"Are they visible, or more of an internal sensation?"

"Have they been getting worse over time?"

"When did the hot flushes start?"

"Do they come suddenly or gradually?"

"Are they affecting your whole body or just the face and chest?"

"Do they come with sweating, palpitations, or anxiety?"

Review of Systems – Hyperthyroidism Screening

Weight loss without trying?

Increased appetite or constant hunger?

Feeling too warm compared to others?

Restlessness or trouble relaxing?

Irritability or mood swings?

Trouble sleeping (falling asleep or staying asleep)?

Palpitations, dizziness, or chest fluttering?

Changes in bowel habits - looser stools or more frequent?

Eye Symptoms Screening (Graves' Orbitopathy)

"Have you noticed any changes with your eyes - dryness, grittiness, bulging, or double vision?"

Menstrual & Gynae History

Last period?

Any change in cycle length, frequency, or flow?

Skipped or lighter periods recently?

Are you sexually active?

Are you using contraception?

Any chance you could be pregnant?

3. Explore ICE

Ideas: "Have you had any thoughts about what might be causing all this?" → "I thought it could be early menopause."

Concerns: "Has anything about these symptoms been especially worrying for you?"

Expectations: "Were you hoping the blood tests would confirm or rule something out today?"

4. Clear Result Disclosure

"Thanks for explaining everything so clearly. Let's now go over your blood test results.

We checked your thyroid function, and the results show:

TSH (the signal that tells your thyroid to work) is low

T3, the active thyroid hormone, is high

This pattern suggests that your thyroid is overactive, and you have a condition called hyperthyroidism."

5. Lay Explanation of the Condition

"Let me explain what that means in simple terms.

The thyroid gland is a small gland in your neck that controls how fast your body works - it regulates your metabolism, which affects energy, mood, digestion, heart rate, and even menstrual cycles.

In hyperthyroidism, your thyroid is producing too much hormone, which speeds everything up. That explains your tremors, weight loss, hot flushes, anxiety, and irregular periods.

It can sometimes mimic menopause, but in your case, these symptoms are more likely due to your overactive thyroid. Once we treat it, your cycles may settle down again."

6. Structured Management Plan

A. Further Investigations

"I'll arrange a few more tests to confirm the cause and check for any effects on your body:"

Repeat Thyroid Function Tests - to confirm the trend

Thyroid autoantibodies (TRAb, TPO) - to check if it's Graves' disease, the most common cause

ECG - to check for irregular heartbeat like atrial fibrillation

Thyroid Ultrasound - if there are nodules or swelling

Radionuclide scan - if diagnosis remains unclear or nodules are seen

B. Symptom Relief – Start Propranolol

"To help with the symptoms - like tremor, anxiety, palpitations - we'll start Propranolol, typically 10-40mg three times daily. This won't treat the thyroid itself, but it will give you short-term relief while we complete the diagnosis."

C. Treat the Cause – If Graves' Confirmed

"Once the diagnosis is confirmed, we'll start Carbimazole, typically at 20-40mg once daily initially, reducing to a maintenance dose of 5-10mg daily once your thyroid levels normalise."

"It's very effective, but I'll explain how to use it safely."

Carbimazole Safety Advice:

"If you ever get a sore throat and fever, stop the medication and see a doctor immediately - it can rarely lower your white cells and affect your immunity."

"Also, if you develop sudden severe stomach pain, seek medical help - carbimazole can very rarely cause inflammation of the pancreas."

D. Alternative Treatment Options

"If medication doesn't work well enough, or you prefer a more permanent solution, there are other options like **radioactive iodine treatment** - the specialist can discuss these with you."

E. Specialist Referral

"I'll refer you to an endocrinologist, a hormone specialist, to confirm the cause and help plan long-term management."

"If your periods remain irregular even after your thyroid is treated, we can consider a separate gynaecology referral - but often, this improves once thyroid levels are normal."

F. DVLA Advice

"If you experience episodes that affect your awareness or vision, you may need to notify the DVLA - but we'll monitor this together."

7. Addressing Common Concerns

Patient asks: "Is this permanent? Will I always need treatment?"

"Some causes of hyperthyroidism - like Graves' disease - can come and go or need long-term treatment.

Some people eventually go underactive and need replacement later.

Our goal is to get you feeling like yourself again - and we do that by bringing your hormone levels back to normal. We'll monitor your progress and adjust the plan if needed."

8. Safety Netting

"Please seek urgent help if you notice any of the following:

Chest pain, fainting, or irregular heartbeat

Severe anxiety or restlessness

Sore throat and fever while taking Carbimazole

Sudden severe stomach pain

Worsening symptoms, despite taking Propranolol

Also, if your periods stop completely, or you develop any new symptoms, let us know - we'll reassess."

9. Follow-Up Plan

GP review in 2–4 weeks after starting Propranolol

Monitor response to symptom relief

Blood test + specialist input before starting Carbimazole

Assess menstrual cycle again 3–6 months after thyroid levels are stable

10. Offer Leaflet & Medication Guidance

"I'll give you a leaflet about hyperthyroidism - what it is, treatment options, and what to expect."

"There's also information on the safe use of Carbimazole and what symptoms to watch out for."

11. Final Check

"Before we finish - is there anything you'd like me to explain again? Any other questions about your diagnosis, the treatment, or what happens next?"

12. Clinical Reasoning Summary

Symptom pattern: tremors, hot flushes, weight loss, palpitations, irregular cycles

TFTs: TSH low, T3 high → consistent with primary hyperthyroidism

Likely cause: Graves' disease pending TRAb

Plan: propranolol for symptom relief, bloods + referral for cause, start Carbimazole if confirmed

Patient supported and safety net provided

Subclinical Hypothyroidism

Setting: Primary Care (Telephone) | Young Adult Female | Thyroid Function Results Discussion | Symptomatic with Borderline Abnormality

1. Introduction & Consent

"Hello, am I speaking with Mrs [Name]? Thank you for confirming. I'm one of the doctors here at the practice.

I understand you arranged this call to go over the blood tests we did recently. If it's alright with you, I'd like to first ask a few follow-up questions to understand how you're feeling, and then we'll go through what the results mean and the next steps. Does that sound okay?"

2. Focused History & Symptom Clarification

Main complaint: Weight gain

"Could I ask - when did you first start noticing the weight gain?"

→ Use ODIPARA:

Onset: "Has it come on suddenly or gradually?"

Duration: "How long has it been going on?"

Intensity: "Roughly how much weight have you gained?"

Progression: "Has the gain been steady or fluctuating?"

Aggravating: "Have there been any changes in activity or appetite?"

Relieving: "Any changes to diet or exercise helping at all?"

Associated: "Any bloating, swelling, or fluid retention?"

Explore related hypothyroid symptoms

"Have you been feeling more tired than usual lately?"
"Do you ever feel cold when others are comfortable?"
"How's your mood been?" → Mildly low (4/10), no suicidal thoughts
"Any constipation?" → No
"How are your periods?" → Regular
"Any changes to your hair, skin, or voice?"
"Any issues with memory, concentration, or sleep?"

Function & impact

"How has this been affecting your day-to-day life?"
"You mentioned you stopped Zumba - is that because of energy levels or something else?"

3. Explore ICE

Ideas: "Have you looked up or thought about what might be causing these symptoms?" → "I thought maybe stress or diet, but nothing changed."
Concerns: "Is there anything in particular you're worried this could be?"
Expectations: "Were you hoping the tests would show something or rule anything out?"

4. Result Disclosure

"Thanks for explaining everything. So looking at your blood results:
Your TSH level is higher than normal, and
Your T4 level is still in the normal range.
This pattern, especially with your symptoms, suggests that your thyroid is underactive - a condition we call subclinical hypothyroidism."

5. Lay Explanation of the Condition

"Your thyroid gland, which sits in your neck, controls your body's metabolism - things like energy levels, temperature, weight, bowel movements, and mood.
In your case, the gland is starting to slow down, even though your T4 is still in the normal range. That's why your body is sending out more TSH - the signal to get the thyroid working harder.
This explains the tiredness, weight gain, cold sensitivity, and low energy. The good news is - it's manageable, and most people feel better with the right treatment."

6. Structured Management Plan

A. Start Medication – Levothyroxine

"I'd recommend we start Levothyroxine. For younger adults without heart problems, we typically start at 50-100 micrograms daily. For older adults or those with heart conditions, we start lower at 25-50 micrograms."
"You'll take it once daily in the morning, ideally 30-60 minutes before breakfast, with just water."
"Try to avoid tea, coffee, or calcium supplements close to the dose - they can affect how well it's absorbed."
"Take it at the same time every day to maintain stable levels."
"We'll start at a low dose and adjust depending on how you feel and your repeat tests."

NICE NG145 Treatment Guidance (Candidate Note):

TSH ≥ 10 mIU/L on two occasions 3 months apart → Consider levothyroxine
TSH 4-10 mIU/L + symptoms in adults under 65 → Consider 6-month trial of levothyroxine
Adults over 65 with TSH < 10 mIU/L → Generally monitor rather than treat (studies like TRUST trial showed no benefit in this group)

Planning pregnancy → Treat to achieve TSH <2.5 mIU/L before conception

"Because you're having symptoms with a raised TSH, it makes sense to try treatment and see if it helps."

Important: Levothyroxine is a slow-acting medication. "It may take **several weeks** before you start feeling the full benefits, and we'll need regular blood tests to find the dose that's exactly right for your body."

B. Monitor & Adjust

"We'll repeat your thyroid blood test **every 3 months**."

"We'll continue adjusting the dose until your symptoms settle and blood levels normalise."

C. Contraception Consideration

"Can I just check - are you planning to become pregnant soon?" → If yes:

"We'll aim to stabilise your thyroid levels before you conceive - it's important for the baby's development."

"You'll need higher dose adjustments during pregnancy, and we'll coordinate with the antenatal team."

D. Lifestyle Support

"No need to follow a thyroid-specific diet - but try to keep your fibre and soy intake consistent, as they can affect absorption."

"Continue gentle physical activity if you're able - walking, yoga - even short sessions can help with fatigue and mood."

"There's no need to avoid iodine or gluten unless advised by a specialist."

7. Address Common Concerns

Patient asks: "Will I have to take this for life?"

"In some cases, yes - but not always. Since your levels are borderline and you're having symptoms, we'll start treatment and review how you respond."

Sometimes, the thyroid recovers - in which case we may trial stopping the medication later. But for many people, it becomes a long-term part of staying well - and it's very safe when monitored properly."

8. Safety Netting

"Please let us know urgently if you develop:

Worsening fatigue or mental fog

Swelling in the neck or voice changes

Feeling unusually cold or slow despite treatment

Or if you're planning a pregnancy in the near future"

9. Follow-Up Plan

Start Levothyroxine

Repeat TFTs in 8-12 weeks

GP review or phone follow-up once results are back

Long-term: repeat TFTs every 6-12 months once stable

10. Offer Leaflet & Resources

"I'll send you a digital leaflet about hypothyroidism, the medication, and how to take it properly. There are also reliable NHS links I can share if you'd like to read more after the call."

11. Final Check

"Before we finish - is there anything I haven't explained clearly, or anything else you wanted to ask me about today?"

Clinical Reasoning Summary

Patient: symptomatic with weight gain, fatigue, cold intolerance

Labs: TSH elevated, T4 normal → subclinical hypothyroidism

Symptomatic → NICE supports trial of levothyroxine

Planned structured follow-up, contraception checked, lifestyle addressed → Covers PLAB 2 domains: communication, diagnosis, management, safety

Primary Hypothyroidism

Setting: Primary Care | Young Adult Female | Initial Assessment of Constitutional Symptoms | Pre-investigation Consultation

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Could I confirm your full name and date of birth, please?"

Thanks. What would you like to talk about today?"

→ Patient: "I've been feeling extremely tired, and I feel cold all the time."

"I'm sorry you've been feeling this way - let's work through this together and find out what's going on. If it's okay, I'd like to ask you a few more questions to understand this better, examine you if needed, and then explain what we can do next. Does that sound alright?"

"So you mentioned you've been feeling extremely tired - I'd like to understand that in a bit more detail, if that's okay."

→ Then begin layered questioning:

B. Tiredness History (ODIPARA + Functional Impact)

Onset:

"When did this tiredness first start?"

"Was it sudden or did it build up gradually?"

Duration/Pattern:

"Has it been constant throughout the day, or does it come and go?"

"Is it worse at any particular time - mornings, afternoons, or evenings?"

Intensity:

"On a scale of 1 to 10, how exhausted would you say you feel by the end of a typical day?"

Progression:

"Has it been getting worse over time, or staying the same?"

Aggravating/Relieving Factors:

"Does anything make it worse - for example, physical activity, work, stress?"

"Does resting or sleeping help at all?"

Associated symptoms:

"Have you noticed anything else - like sluggish thinking, low energy, cold intolerance, or dry skin?"

Effect on Daily Life:

"Are you still able to carry out your usual activities - like work, household chores, social life?"

"Have you had to stop anything you normally do - like exercise or hobbies?"

Sleep Quality:

"How has your sleep been?"

"Do you wake up feeling rested?"

"Any difficulty falling asleep, waking up frequently, or early waking?"

C. Mood and Cognitive Assessment

"Sometimes when people feel tired for a long time, it can also affect how they feel emotionally."

→ Use layered, non-leading questions:

"How have your mood and motivation been lately?"

"Do you still enjoy the things you normally like doing?" (anhedonia)

"Any feelings of sadness, low self-worth, or tearfulness?"

"Any recent change in how you feel about yourself or your future?"

"Have you noticed any difficulty concentrating, remembering things, or making decisions?"

"Have you felt anxious, overwhelmed, or unusually irritable lately?"

"Have you had any thoughts of hurting yourself or that life isn't worth living?" (If yes, immediate risk assessment)

If mood symptoms are mild (e.g., 3-4/10), reassure and explain possible link with thyroid.

D. Hypothyroid-Specific Screening

"Have you noticed any weight gain, even though your appetite hasn't changed?"

"Any constipation - how often do your bowels open?"

"Has your skin become dry, rough, or flaky?"

"Any hair thinning - especially from the scalp or outer eyebrows?"

"Have you noticed feeling mentally slower - like brain fog or sluggish thinking?"

"Any puffiness in your face or swelling in your hands or feet?"

E. Differential Screening – Tiredness Causes

Anaemia

"Do you feel breathless on mild exertion - like walking up stairs?"

"Any dizziness, pale skin, or a sore tongue?"

"How are your periods - regular, or heavier than usual?"

Vitamin B12 or Folate Deficiency

"Any tingling or numbness in your fingers or toes?"

"Do you feel more forgetful or mentally foggy?"

Diabetes / Thyroid

"Any increase in thirst, passing urine more often, or recent infections?"

OSA (if overweight/snoring)

"Do you snore at night or ever wake up choking or gasping?"

"Do you feel sleepy during the day - even after a full night's sleep?"

Chronic fatigue or post-viral

"Any viral illness or infection before all this started?"

"Do you feel worse after exercise or exertion?"

Menstrual & Hormonal

"Are your periods still regular?"

"Any changes in flow, timing, or skipped cycles?"

"Any hot flushes, night sweats, or breast tenderness?"

F. Past Medical & Drug History

"Have you ever been told you have thyroid problems before?"

"Any history of autoimmune conditions - like coeliac, vitiligo, type 1 diabetes?"

"Any long-term medical conditions?"

"Are you on any regular medications or supplements?"

Ask specifically about amiodarone, lithium, iodine contrast, hormonal treatments

"Any known allergies?"

G. Family & Social History

"Any family members with thyroid disease or hormonal issues?"

"Are you working currently? Has this been affecting your performance or energy levels there?"

"Do you smoke or drink alcohol?"

"Have there been any major stresses or life changes recently?"

H. Reproductive & Fertility History (if applicable)

"Are you sexually active?"

"Are you using any contraception?"

"Are you currently trying for a baby, or planning a pregnancy soon?"

6. ICE

Ideas: "What do you think might be causing this?" → "Maybe it's stress or early menopause?"

Concerns: "Anything specific you're worried it could be?"

Expectations: "What were you hoping I could help with today?"

7. Examination

"I'd now like to do a quick examination if that's alright. This would include:"

Vitals: Heart rate, BP, temperature, oxygen saturation

General appearance: Puffy face, dry skin, coarse hair, slow movement or speech

Thyroid gland: Palpate neck for enlargement, nodules, or tenderness

Reflexes: Check ankle jerk for delayed relaxation

Weight/BMI: Baseline measure

→ On paper: examination normal or "slow speech, dry skin, mild bradycardia, no goitre"

8. Provisional Diagnosis

"Based on everything you've shared - the tiredness, feeling cold, possible weight gain, dry skin, and your examination - one possible explanation is that your thyroid gland may not be working properly. This condition is called hypothyroidism, and we'll confirm it with a blood test."

9. Lay Explanation of Hypothyroidism

"Your thyroid is a small gland in your neck that controls how fast your body works - like your internal engine. It affects your energy, weight, mood, digestion, and even your periods.

When it's underactive, everything slows down. That's why you might feel sluggish, cold, tired, gain weight, and have dry skin or low mood. The good news is - it's common, treatable, and easily managed once we confirm the diagnosis."

10. Structured Management Plan

A. Investigations – Confirm Diagnosis

"I'll arrange blood tests to confirm this. We'll start with a TSH blood test - if that's abnormal, the lab will automatically check your thyroid hormone levels (FT4) as well."

We'll also check:

Thyroid antibodies → to see if it's autoimmune (most cases are)

FBC → to rule out anaemia

U&Es, LFTs, lipid profile → for general screening and baseline

Prolactin → if there's menstrual irregularity or low libido

"We should also check for coeliac disease, which can sometimes go hand-in-hand with thyroid conditions - I'll add a blood test for that."

→ Imaging (e.g., thyroid USS) only if there's a goitre or palpable nodule

B. Treatment – Levothyroxine (If Confirmed)

"If the tests confirm hypothyroidism, we'll start you on a medication called Levothyroxine.

It's a synthetic form of the thyroid hormone.

You take one tablet daily, ideally 30–60 minutes before breakfast with water.

Avoid calcium, iron, or soy within 4 hours - they interfere with absorption.

We typically start at 50-100 micrograms daily in younger healthy adults, or 25-50 micrograms in older adults or those with heart conditions. The dose will be adjusted based on blood tests and how you feel."

C. Pregnancy & Contraception

"Can I ask - are you planning a pregnancy soon?" → If yes:

"We'll aim to stabilise your thyroid levels before you conceive - it's very important for your baby's brain development." → If not:

"You should continue contraception until levels are stable."

11. Follow-Up Plan

Review test results in 1 week

If hypothyroid confirmed → start Levothyroxine + recheck TSH every 3 months

Once stable → routine monitoring every 6-12 months

GP-led care unless complications arise

Refer to endocrinology only if: goitre, nodules, pregnancy, treatment resistance, or secondary hypothyroidism suspected

12. Safety Netting & Leaflet

"Please contact us earlier if:

You develop new or worsening symptoms - increasing fatigue, swelling in the neck, palpitations, or mental fog

If your mood gets worse or you have thoughts of self-harm - we can help with that too

I'll also send you a leaflet about hypothyroidism and the thyroid blood test - it goes over everything we discussed."

Final Check

"Before we finish - was there anything you wanted me to go over again or any other questions on your mind?"

Exam Summary Note

Young adult woman with classical hypothyroid symptoms

Clear screening for differentials (anaemia, B12, menopause, mood)

Explanation aligns with NHS and NICE guidance

Management structured: full TFT workup, levothyroxine if confirmed

Safety netting for worsening symptoms or mental health

Vitamin D Deficiency

Setting: Primary Care **Station Type:** Test Result Discussion **Patient:** Middle-Aged Adult **Presentation:** Fatigue and Constipation with Family History of Thyroid Disease **Test Results:** Available at Station

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Thank you for coming in today. Could I confirm your full name and age please?"

"I understand you've been feeling tired and constipated lately and were concerned it might be related to your thyroid. I've reviewed your test results - would it be okay if I ask a few questions first before we go through them together?"

2. Focused History & Context (ODIPARA - Tiredness)

"When did the tiredness first start?"

"Is it there throughout the day or does it vary?"

"Has it been getting worse or staying the same?"

"Is it relieved by rest or sleep?"

"Does anything make it better or worse?"

"How has it been affecting your daily life - have you been able to go to work?"

Patient: "I've had to take two weeks off."

3. Symptom Screening - Vitamin D Deficiency

"I'd also like to ask a few questions to check for other symptoms that can be linked with vitamin D deficiency."

"Do you get any **bone pain**, particularly in your **back or hips**?"

"Have you had any **falls or fractures** recently?"

"Any **muscle cramps or generalised weakness**?"

"Any changes in your **mood** or have you been feeling a bit low or foggy?"

"Do you find yourself **sweating more than usual**, especially around your face or scalp?"

"Can you tell me more about your **constipation** - how often, and any other bowel changes?"

"Have you had any **tingling, numbness, or weakness** in your limbs?"

4. Risk Factor History - Causes of Vitamin D Deficiency

"Let's explore a few reasons why vitamin D might be low."

"How often are you able to get outside during the day - especially in spring and summer?"

"When you're outside, do you usually use sunscreen?"

"Can you tell me about your typical diet - do you regularly eat foods like oily fish, egg yolks, liver, or fortified cereals or dairy?"

"Have you had any gut or bowel issues - like inflammatory bowel disease, chronic diarrhoea, or previous bowel surgery?"

5. PMAFTOSA

P: Any long-term health conditions like thyroid disease, diabetes, or osteoporosis?

M: Are you on any regular medications or supplements?

A: Any known allergies?

F: You mentioned your sister has hypothyroidism - any other family history of thyroid or autoimmune conditions?

T: Any recent travel or infections?

O: Is the fatigue affecting your ability to work or concentrate?

S: Who do you live with? Do you have help at home?

A: Any smoking, alcohol, or substance use?

6. ICE

Ideas: "Were you thinking this might be related to your thyroid, like your sister?"

Concerns: "Is there anything you're particularly worried this might be?"

Expectations: "Were you hoping for treatment or further testing today?"

7. Examination (Verbalised)

"Your blood pressure and general observations today are within the normal range. You appear generally well but understandably fatigued. There are no signs of muscle wasting or neurological concerns on brief assessment."

8. Clear Result Disclosure

"Thanks for being patient. I've reviewed your results, and the good news is your **thyroid function is completely normal**. That includes your **TSH, T3, and T4**."

"Your **blood count, sugar, and B12** levels are also normal."

"However, your **vitamin D level is quite low - it's 14 nmol/L**, which is well below the normal level of 50 or above. This is what we'd call **severely deficient**."

Note: NICE CKS uses <25 nmol/L for deficiency, 25-50 nmol/L for insufficiency, >50 nmol/L for sufficiency.

9. Lay Explanation of the Condition

"Vitamin D doesn't work alone, but it helps your body **absorb and regulate calcium**, which is essential for bone strength and muscle function."

"When your vitamin D is low, it can cause **fatigue, muscle weakness, bone aches**, and in some cases, even **constipation** - since calcium is also needed for smooth muscle movement in the gut."

"So it's very likely that your tiredness and constipation are due to this deficiency."

"And to reassure you - this is **not hypothyroidism**. Your thyroid results were completely normal. So you don't need thyroid medication like your sister does."

10. Management Plan

"To treat this, we'll start you on a **loading dose of vitamin D** to bring your levels up. This is a prescription dose - much higher than what you'd buy in a shop - but it's safe and needed to bring your levels up quickly."

A. Vitamin D Supplementation

"You'll take **50,000 units once a week for 6 weeks** - this is the high loading dose."

"After that, you can continue with an **over-the-counter vitamin D supplement - 800 to 2000 units daily** - which is available from pharmacies or supermarkets."

"We may check your calcium levels, particularly if you have certain conditions like sarcoidosis, as vitamin D supplementation can affect calcium levels."

B. Lifestyle Advice

"Try to get **10-15 minutes of safe sunlight exposure per day** when possible, especially in summer."

"Consider including vitamin D-rich foods in your diet: oily fish (like salmon or mackerel), egg yolks, red meat, liver, and fortified cereals or milk."

11. Safety Netting

"Please let us know if your tiredness gets worse, you develop **numbness, confusion, unsteadiness, or severe constipation**."

"If you experience any new symptoms or side effects from the medication, let us know."

12. Follow-Up Plan

"We'll book you for a **follow-up in 6 weeks** to see how your symptoms are improving."

"We don't usually need to retest your vitamin D level if your symptoms improve. However, if symptoms persist despite treatment, or if you have conditions affecting absorption, we may recheck at 3 months."

Student Note: Patient presented with tiredness and constipation. Family history of hypothyroidism raised concern, but thyroid tests, glucose, B12, and FBC were normal. Vitamin D was severely deficient (14 nmol/L - NICE defines <25 as deficient). History and symptom profile consistent with vitamin D deficiency. Explained clearly that this was the likely cause of her symptoms and not hypothyroidism. Started on **50,000 IU/week loading dose for 6 weeks**, followed by **daily 800-2000 IU maintenance** (can

be purchased OTC). Routine retesting not needed per NICE CKS unless symptoms persist. Safety netting and follow-up arranged.

Agranulocytosis (Carbimazole-Induced Neutropenia)

Setting: Primary Care | Middle-Aged Female | Urgent Presentation with Sore Throat | Recently Commenced on Antithyroid Medication

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Could I confirm your full name and date of birth, please? Thank you.

So, I understand you've come in today because of a sore throat - is that right?

Thanks for coming in - I'd like to ask a few questions to understand what's going on and then explain what we'll do next. Is that alright with you?"

2. Focused History & Symptom Clarification (ODIPARA)

"Let's start with the sore throat itself."

Onset: "When did it begin?"

Duration: "Has it been there continuously, or does it come and go?"

Intermittent/Constant: "Is the pain always there or only when you swallow?"

Progression: "Has it been getting worse, better, or stayed the same?"

Aggravating/Relieving: "Anything that makes it better or worse - like swallowing, eating, or resting?"

Radiation: "Does the pain go to your ears, chest, or jaw?"

Associated symptoms:

"Any fever or chills?"

"Any difficulty swallowing or breathing?"

"Any fatigue or general weakness?"

"Any recent infections or cold-like symptoms?"

3. Red Flag Screening – Neutropenic Risk

"I can see you were recently started on carbimazole for hyperthyroidism - I just need to check for a few rare but important side effects."

"Have you had any recent infections, ulcers, or skin wounds that are slow to heal?"

"Any unusual bruising or bleeding?"

"Any painful mouth or gum ulcers?"

"Any rashes, joint pain, or muscle aches?"

"Any abdominal discomfort or change in urination or bowel habits?"

4. Drug Safety History

"When were you started on carbimazole?"

"Have you been taking it regularly?"

"Have you had any side effects or concerns about the medication?"

"Were any blood tests done since starting it?"

5. PMAFTOSA Check

P: "Apart from hyperthyroidism, do you have any other medical conditions?"

M: "Are you on any other medications or supplements?"

A: "Any allergies to medications?"

F: "Any family history of blood disorders or autoimmune illnesses?"

T: "Do you smoke?"

O: "Do you drink alcohol?"

S: "Any recreational drug use?"

A: "How has this been affecting your day-to-day life? Do you live with anyone or have support at home?"

6. ICE – Ideas, Concerns, Expectations

Ideas: "What do you think might be causing the sore throat?" → "Maybe it's just a cold or tonsillitis."

Concerns: "Is there anything in particular you're worried about?" → "I read the leaflet about rare side effects, but wasn't sure."

Expectations: "What were you hoping I could help with today?" → "Just want to make sure it's nothing serious."

7. Effect on Life

"Has this affected your ability to work, care for family, or do daily tasks?"

"Have you had to take time off or cancel any plans?"

8. Examination (Verbalised or Observed)

"I'd like to check your temperature, heart rate, blood pressure, and examine your throat and glands if that's alright."

Expected findings (from examiner):

Fever

Erythematous throat

No tonsillar exudates

Possibly cervical lymphadenopathy

No obvious rash or ulceration

No goitre or thyroid tenderness → Vitals: Temp ↑, HR ↑

9. Provisional Diagnosis

"Based on your symptoms - especially the fever and sore throat - and the fact that you're currently taking carbimazole, I'm concerned that you may have developed a rare but serious side effect called agranulocytosis."

This means your white blood cells - which help fight infections - may have dropped too low, making it harder for your body to fight even minor infections. That's likely why your throat is sore and you've developed a fever."

10. Management Plan

"This is something we need to take very seriously - it's a medical emergency, but you've done exactly the right thing coming in."

Immediate actions:

Stop carbimazole immediately - I'll inform endocrinology

Urgent hospital admission - for monitoring and treatment

Investigations (to be done in hospital):

Full Blood Count with differential (neutrophil count)

[Note: Check the neutrophil count specifically - the total white cell count can be misleadingly normal even in agranulocytosis. If neutrophil count is $<1.0 \times 10^9/L$, carbimazole must NOT be restarted. If $1.0-2.0$, recheck the following day off treatment. Only consider restarting if $>2.0 \times 10^9/L$.]

CRP/ESR

Blood cultures

U&E, LFTs

TFTs for ongoing thyroid monitoring

Hospital management:

Empirical IV antibiotics - started immediately while awaiting results

IV fluids, paracetamol

Monitor vitals and sepsis signs

Isolate if neutropenic

Thyroid Plan:

We'll pause antithyroid treatment for now

The endocrine team may switch to other options later:

Propylthiouracil (PTU) may be considered cautiously - though there's a small chance of reacting to that as well

Or plan for radioiodine or thyroidectomy

11. Safety Netting

"If you develop any new or worsening symptoms - like confusion, dizziness, chest pain, difficulty breathing, or any bleeding - go directly to A&E or call emergency services.

We're organising hospital care right now so you can get treatment without delay."

12. Follow-Up & Leaflet

GP will follow up once discharge summary is received

TFTs to be monitored closely once treatment resumes

Offer NHS leaflet on:

Carbimazole and agranulocytosis

Hyperthyroidism and long-term treatment options

Final check:

"Before I make the referral, is there anything you're unsure about or anything you'd like me to repeat?"

Summary Note

Middle-aged female on carbimazole presents with sore throat + fever

Screened for neutropenia red flags and medication side effects

Recognised possible agranulocytosis - rare but serious side effect

Stopped drug, arranged urgent admission, and communicated clearly

Suspected Silent MI

Setting: Primary Care (Telephone) | Older Adult Male with Long-standing Diabetes | Urgent Presentation with Constitutional Symptoms | Cardiovascular Risk Factors Present

1. Introduction & Consent

Doctor: "Hello, this is Dr [Your Name], one of the doctors at the surgery. Am I speaking with Mr [Patient's Name]?"

Could I confirm your age and the first line of your address, please?

Thanks for confirming that. How can I help you today?"

2. Presenting Complaint History

Start open-ended: "Can I ask - what exactly are you experiencing right now?"

→ Patient reports feeling cold and clammy, had shortness of breath earlier, and unwell again this morning.

Clarify the episode:

"When did this start?"

"How long did it last?"

"What were you doing at the time - anything physical?"

"Did it come on suddenly or gradually?"

"Did it improve with rest?"

"Is it happening again now?"

3. Symptom Review (Silent MI + MALA + Hypoglycaemia)

"Any chest pain, tightness, or pressure?"

"Any nausea, vomiting, or sweating?"

"Any dizziness, light-headedness, or collapse?"

"Any shortness of breath at rest?"

"Any leg swelling, palpitations, or fainting?"

"Do you feel confused or unusually tired?"

4. Red Flag & Differential Screening

A. Silent MI Screening (Autonomic presentation)

"Do you feel a heavy pressure or discomfort in your chest or upper abdomen?"

"Did you feel unusually breathless with activity, like walking uphill?"

"Any pain in your jaw, back, shoulders, or arms?"

"Any cold sweats, fatigue, or light-headedness?"

B. Hypoglycaemia Screening

"Did you check your blood sugar recently?"

"Any shakiness, sweating, or confusion?"

"Any recent missed meals, skipped medication, or alcohol intake?"

C. Metformin-Associated Lactic Acidosis (MALA)

"Have you had any vomiting, diarrhoea, or signs of dehydration?"

"Any infection or fever recently?"

"Have you started any new medications?"

"Do you know if your kidney function has been checked recently?"

5. Past Medical History & Medication Review

"When were you diagnosed with diabetes?" → "About 20 years ago."

"What medications are you on for it?" → "Just Metformin."

"Any high blood pressure or cholesterol treatment?" → "Yes, amlodipine."

"Have you ever had a heart condition or similar episode before?"

6. Allergies, Family, and Social History

"Any known medication allergies?"

"Any family history of heart disease or sudden cardiac events?" → Yes, heart disease in the family.

"Do you smoke or drink alcohol?"

"Do you live alone or with someone?"

"Are you able to care for yourself right now?"

"Do you drive?"

7. ICE – Ideas, Concerns, Expectations

Ideas: "Do you have any thoughts on what this might be?"

Concerns: "Is there anything specific you're worried about?"

Expectations: "What were you hoping we could do for you today?"

8. Explanation to the Patient

"I'm really glad you called today. Based on what you've told me - especially the fact that you've had long-term diabetes, and you're feeling cold, sweaty, and breathless - I'm concerned that this could be something affecting your heart or circulation.

In some people with diabetes, heart-related issues don't always cause obvious chest pain. That's why we take symptoms like this very seriously.

There's also a small chance this could be a reaction to your diabetes medication, especially if your kidneys are under strain - but either way, this needs urgent attention."

(Note: Only mention the term "silent heart attack" if the patient brings it up - otherwise stick to "heart-related issue" or "circulation problem" to avoid causing panic.)

9. Management Plan (Urgent)

"I need you to call 999 immediately and ask for an ambulance.

Please don't drive yourself or wait for a routine appointment - this could be something serious, and we want to make sure help reaches you as quickly as possible."

"I'll send a note to the hospital team to expect you."

Safety Check:

"Is there someone with you or nearby who can stay with you until the ambulance arrives?"

Aspirin Advice (if appropriate):

"If you have aspirin at home and aren't allergic, chew one 300mg tablet while waiting for the ambulance - but only if you're not allergic and haven't been told to avoid it."

"If you have a GTN spray or tablets prescribed for heart problems, use one dose now, wait 5 minutes, and use another if needed - but still call 999 regardless"

10. What Will Happen in Hospital

"Once you arrive at hospital, they'll:

Check your heart rhythm with an ECG

Run blood tests, including one called troponin which shows any stress on the heart

Check your blood pressure, oxygen levels, and run a blood panel for:

Kidney function

Acid-base levels

Lactate levels (to rule out lactic acidosis)

Based on the results, they may monitor or treat you, but you'll be in the right place if anything needs to be done urgently."

11. Driving Concern

Patient asks: "Can I drive there myself?"

"I understand it may feel manageable, but I must strongly advise against driving.

If this is anything to do with your heart, blood pressure, or blood sugar, it could worsen quickly. For your own safety - and the safety of others on the road - please wait for the ambulance."

12. Safety Netting

"If your symptoms worsen at any point - chest pain, difficulty breathing, dizziness, or fainting - please call 999 immediately and tell them you've already spoken to your GP.

If someone is with you, ask them to stay nearby until help arrives."

13. Follow-Up Plan

"Once you've been seen in hospital and the initial tests are done, we'll follow up with you at the GP surgery to:

Go through the hospital findings

Review your diabetes and medication

Monitor your kidney function and heart health after this episode"

Diagnostic Reasoning

Why Silent MI is the most likely diagnosis:

Cold, clammy skin + breathlessness → Classic signs of sympathetic activation

Exertional dyspnoea (while walking uphill) → Suggests myocardial ischaemia

Recurrence at rest (TV) → Ongoing or unstable angina pattern

Longstanding diabetes (20+ years) → High risk of autonomic neuropathy, which can mask chest pain

Age + Amlodipine + family history of CAD → Multiple cardiovascular risk factors

PLAB 2 teaching point: In diabetics, always suspect MI if unwell without obvious cause - even if no chest pain

Why this is less likely to be MALA:

No signs of AKI, dehydration, infection, or diarrhoea

No metabolic signs like Kussmaul breathing or significant confusion

Patient is oriented, stable enough to call GP, and symptoms are exertional, which is atypical for acute lactic acidosis

MALA is possible but less likely - MI must be ruled out first

Final Summary: In a cold, clammy diabetic patient, always rule out silent MI first - especially when symptoms worsen on exertion, and there's no fever, infection, or hypoglycaemia. MALA should be considered if there's renal compromise or sepsis, but cardiac causes take priority.

Raynaud's Phenomenon

Setting: Primary Care | Young Adult Female | Episodic Digital Symptoms Triggered by Cold | Task includes history, examination, and management

Introduction

"Hello, I'm one of the doctors here at the practice. Thanks for coming in. Could I confirm your full name and date of birth, please? Great, thank you. What's been bothering you?"

Presenting Complaint

Morphology & Description:

Site: "Where exactly do you feel the pain? Fingers only? Any toes?"

Onset: "When did this first start happening?"

Character: "How would you describe the pain-burning, throbbing, or cramping?"

Radiation: "Does the pain spread to the hand or arm?"

Associated: "Do your fingers change colour when this happens-maybe go pale, blue, or red?"

Timing: "How long do these episodes last?" "Does it happen daily or only in cold weather?"

Exacerbating/Relieving: "What tends to bring it on-cold, stress, touching cold water?" "What helps-rubbing them, gloves?"

Severity: "On a scale of 1-10, how bad is the pain at its worst?"

Colour Pattern & Additional Questions:

"Do the colour changes follow a pattern-white first, then blue or red later?"

"Are all fingers affected equally? Any difference between hands?"

"Have you ever noticed ulcers, skin cracking, or wounds that take time to heal?"

"Do you have any joint pain, rashes, or muscle aches?"

Differential Diagnosis Screening

"Do you have any joint stiffness, especially in the morning?" (rheumatological cause)

"Have you noticed dry eyes, dry mouth, or difficulty swallowing?" (Sjögren's, systemic sclerosis)

"Any breathing difficulty or acid reflux?" (connective tissue disease features)

Targeted Risk Factor History

Past Medical History: "Do you have any health conditions like lupus, scleroderma, or thyroid problems?"

Medications: "Are you on any regular medications, including hormonal contraceptives?"

Allergies: "Any allergies to medications?"

Family History: "Does anyone in your family have similar symptoms or autoimmune issues?"

Smoking: "Do you currently smoke or have you in the past?" (can worsen symptoms)

Occupational Exposure: "Do you work with vibrating tools or in cold environments?"

Travel: "Have you recently been to a cold climate or high altitude?"

ICE (Ideas, Concerns, Expectations)

Ideas: "Have you come across anything about this before or know what it might be?"

Concerns: "What worries you the most about this?"

Expectations: "Is there anything you were hoping I could do for you today?"

Effect on Life

"Has this stopped you from doing daily tasks, like using your phone or driving?"

"Are you avoiding going outdoors because of this?"

Examination

General: Look for signs of systemic illness – rashes, fatigue, pallor.

Hands: Check for colour change, ulceration, skin tightening, nail fold capillaries.

Peripheral vascular exam: Pulse, cap refill, temperature of hands.

Sclerodactyly, telangiectasia, skin thickening (if suspected secondary causes)

Provisional Diagnosis

Based on the pattern of finger pain and triphasic colour change (white → blue → red) triggered by cold, with no secondary features or systemic illness, this is likely Primary Raynaud's Phenomenon.

"From what you've told me, this sounds like something called Raynaud's phenomenon. It happens when the small blood vessels in your fingers temporarily overreact to cold or stress. They suddenly tighten, reducing blood flow, which causes your fingers to turn pale or blue and feel painful or numb. When the blood flow returns, the fingers may turn red and throb.

The good news is that in most people, especially young healthy individuals like yourself, this is the primary type, which means it's not linked to any other illness. It can usually be controlled with some lifestyle changes."

Management Plan**A) Lifestyle Advice (First-line):**

"Keep your hands and feet warm - wear gloves and thick socks, especially in cold weather."

"Avoid sudden exposure to cold - like reaching into the fridge or washing with cold water."

"Try stress-relief strategies like deep breathing or mindfulness."

"If you smoke, stopping is one of the most effective things you can do - and we can offer support to help you quit."

B) Medication (If frequent or disabling episodes):

"If symptoms are frequent or not well controlled, we can try **modified-release nifedipine** - a once-daily tablet that helps relax the blood vessels and improve circulation to your fingers. We usually start at 10mg daily and can increase up to 60mg daily if needed."

C) Trigger Control:

"If your work involves vibration tools or repeated exposure to cold, we may need to look at adjustments."

D) Screening for Secondary Causes:

"In some people, Raynaud's can be part of another condition like lupus or scleroderma. Based on today's visit, I don't see any signs of that, but we'll keep an eye out for symptoms like skin tightening, joint pain, or ulcers."

We'll arrange some blood tests to screen for secondary causes:

ANA (autoimmune screen) *[Note: A positive ANA is common in primary Raynaud's and does not automatically indicate secondary disease. Referral based on positive ANA alone is only indicated for males, females >40 years at onset, or those with clinical features of connective tissue disease]*

FBC

ESR/CRP

U&E

"We'll also check your thyroid function, as an underactive thyroid can sometimes cause or worsen Raynaud's."

Safety Netting and Follow-Up

"If your symptoms worsen, you develop finger ulcers, or you notice colour changes in other areas like toes or nose, please come back for further blood tests or rheumatology referral."

"We'll review how you're doing in a few weeks. If things aren't improving, we'll consider medication or refer you to a specialist."

Final Reassurance & Addressing Concern

"I completely understand how this is affecting your confidence and daily activities. The pain and colour changes can feel alarming, but we'll manage this together. Many people live normal lives with Raynaud's by taking simple steps. You're not alone in this, and we'll make sure you get the support you need."

Diagnostic Summary

This is Primary Raynaud's Phenomenon, diagnosed clinically in a young woman with symmetric, cold-induced, triphasic colour changes and pain, without signs of secondary causes. Diagnosis is supported by absence of systemic features, normal examination, and typical trigger-response pattern. Secondary causes should be considered if features like ulcers, joint disease, or abnormal systemic symptoms are present.

Hypoglycaemia Counselling in Type 2 Diabetes

Setting: Primary Care

Patient: Adult with Occupational Driving

Context: Type 2 diabetes on insulin, presenting after hypoglycaemic episode- blackout, sweaty, cold after taking more insulin than usual following a large meal.

1. Introduction & Consent

Greet, introduce yourself, confirm patient's name/age.

"I understand you wanted to talk about a blackout you had last month. Could you tell me in your own words what happened?"

Empathise: "That must have been worrying. Let's go through what happened, why it might have happened, and how we can prevent it in the future."

2. Clarify & Explore the Event

History of the Incident

"Can you talk me through step by step what happened that day?" (Chronology helps identify trigger).

"What symptoms did you notice before blacking out - sweating, shakiness, blurred vision, confusion, palpitations?" (Confirms classic hypo features).

"Did you actually lose consciousness, or just feel faint?"

"Did anyone else see it happen or help you?" (Safety, DVLA relevance).

"How did you treat it - did you eat/drink something sugary?" (Appropriateness of response).

"How long did it take to recover fully?"

"Have you had any similar episodes since then?" (Recurrence risk).

Diabetes & Medication History

"How long have you been on insulin?" (6 months).

"What insulin do you use - do you know the type and dose?"

"Do you normally stick to this dose, or adjust it yourself?" (Cause: excess insulin).

"On the day of the incident, how much extra insulin did you take?"

"Do you usually check your blood sugar before injecting?" (Self-monitoring).

"Do you have a glucometer or continuous monitor?"

"How many times do you check your sugars in a day?"

Lifestyle & Precipitating Factors

Meals: "What did you eat that day? Do you ever skip or delay meals?"

Carbohydrates: "Do you eat starchy foods regularly (bread, rice, pasta, potatoes)?"

Alcohol: "Did you drink alcohol at the party? How much?" (Alcohol increases hypo risk).

Exercise: "Did you do any strenuous activity?"

Work: "As you work night shifts, how do you usually manage insulin and meals?"

Complications / Long-Term Risk

"Your last HbA1c was 61 mmol/mol, slightly higher than target. Have you noticed:

Blurred vision or difficulty seeing (retinopathy)?

Numbness or tingling in feet (neuropathy)?

Chest pain, breathlessness (cardiovascular disease)?

Passing more urine, frothy urine, ankle swelling (kidney disease)?"

Social & Safety

"Do you drive regularly for work? Do you always check your sugars before driving?"

"Have you ever had a hypo while driving?"

3. Explanation

What Happened

"What you had was **hypoglycaemia**, which means your blood sugar dropped too low (usually below 4 mmol/L).

This happened because you took **more insulin than you needed** after eating a large meal. Insulin works by lowering sugar, so the extra dose made your sugar fall too far."

Why It's Important

"When sugars drop, the body reacts with warning symptoms: sweating, shakiness, hunger, fast heartbeat.

If sugar drops further, it can cause confusion, collapse, seizures, or even coma. That's why we take it very seriously."

Why You Got It

Common triggers include:

- Taking too much insulin or tablets.
- Skipping or delaying meals.
- Eating less carbohydrate than usual.
- Strenuous activity without adjusting food.
- Drinking alcohol.

In your case, the cause was **overdosing insulin**.

Blackout vs Severe Hypo

"What you called a blackout may have been a **severe hypo**. That's when you lose consciousness or need help from someone else to recover. Severe hypos must be taken seriously, especially because you drive for work - DVLA needs to be informed."

4. Management

Immediate Hypo Management (The 15-15 Rule)

"If you feel a hypo:

Take **15-20g of fast-acting carbs** immediately (e.g. 150 ml sugary drink, 4-5 glucose tablets).

Recheck sugar after 15 minutes.

If still low, repeat.

Once recovered, eat a slow-release carbohydrate (bread, pasta) to prevent recurrence."

Always **carry glucose tablets/snacks** with you.

Long-Term Prevention

Insulin & Education

"It's a balance - too much insulin brings your sugar down too fast and causes hypos; too little leaves your sugar high which can cause problems over years. The good news is we can help you find the right dose that works for your routine."

"I'll refer you to the diabetic nurse and consultant to **review your insulin regimen safely**."

"We'll also arrange a structured education programme (like **DESMOND** for type 2). These teach:

- How to match insulin with food and activity,
- Carbohydrate counting (estimating carbs in a meal so the insulin dose matches),
- What to do on sick days,
- Adjusting for exercise and night shifts."

Carbohydrate Counting (Intro)

"Because insulin works against carbs, it's important to understand how much carbohydrate is in your meal.

That way, your dose can be matched safely. Education sessions will teach you practical skills - for example, how a plate of pasta is different from a plate of salad in terms of carb load."

Self-Monitoring

Check sugars **before meals, before insulin, and before driving**.

Keep a record of readings.

Target HbA1c usually ≤ 48 mmol/mol if safe, but we avoid pushing too low if you're prone to hypos.

Lifestyle

Regular meal timings, avoid skipping food.

Balanced diet with steady carbohydrate intake.

Limit alcohol to ≤ 14 units/week, never on empty stomach.

Always carry glucose when working/driving.

Wear a medical ID bracelet.

Complication Prevention

Annual checks: HbA1c, BP, lipids, kidney function, urine ACR, foot exam, retinal screening.

Cardiovascular prevention: statins if indicated, BP management.

DVLA & Driving

"Because you are on insulin and had a hypo, you must **inform the DVLA**."

"You may drive if you can feel your hypo symptoms, check sugars regularly, and don't have recurrent severe hypos."

"Always check your blood glucose no more than 2 hours before starting any journey, and recheck at least every 2 hours while driving."

Group 1 vs Group 2 - VITAL DISTINCTION:

Licence Type	Severe Hypo Reporting Requirement
Group 1 (car/motorcycle)	Must report if >2 episode of severe hypoglycaemia within 12 months (needing assistance of another person)
Group 2 (bus/lorry)	Must report ANY single episode of severe hypoglycaemia immediately - usually results in licence revocation

"Severe hypoglycaemia" is legally defined as an episode requiring the assistance of another person to treat.

For this patient (drives for work): Clarify whether they hold a Group 1 or Group 2 licence. If Group 2 (lorry/bus), this single severe episode requires immediate DVLA notification and they must stop driving until cleared.

45-Minute Recovery Rule:

"After treating a hypo, you must not resume driving until your blood glucose has been ≥ 5.0 mmol/L for at least 45 minutes - this is because the brain needs time to recover even after glucose normalises."

Driving Glucose Thresholds:

"Do not start driving if glucose is ≤ 5.0 mmol/L - eat a snack first. Never drive if glucose is ≤ 4.0 mmol/L or if you feel hypo symptoms."

CGM Update (November 2025):

Since November 2025, Group 2 drivers (lorry/bus) can now use Continuous Glucose Monitoring (CGM) systems for driving purposes. However, fingerprick testing equipment must still be carried as backup.

Taxi Driver Note:

"For taxi drivers (often Group 1 private hire, but Group 2 if driving >8 passengers), the specific requirements depend on your licence category. Check with DVLA or your licensing authority."

5. Safety Netting

"If you have another severe hypo - collapse, loss of consciousness, or needing help - call 999."

"If you develop new chest pain, vision problems, or numbness in feet, come back urgently."

6. Follow-Up Plan

Refer to diabetic nurse for insulin review.

FY2 Note: Do not adjust insulin doses without diabetes team input unless following established sick-day rules or under direct supervision. Insulin dose changes can have serious consequences and require specialist guidance.

Refer to specialist diabetes clinic for structured education (DESMOND).

Arrange repeat bloods: HbA1c, FBC, U&E, LFT, lipids, urine ACR.

Refer for retinal screening and podiatry.

Provide NHS leaflets: Hypoglycaemia, Long-term diabetes complications, Driving with diabetes.

7. Closing

Summarise:

"Your episode was hypoglycaemia from taking extra insulin.

We'll support you with proper insulin education, safe monitoring, and lifestyle advice.

You must inform DVLA since you drive for work.

Let's meet again after you've had your bloods done and completed the education course."

"Does everything make sense? Any questions before you go?"

Pneumonia in Addison's Disease

Setting: Primary Care / Emergency

Patient: Adult with adrenal insufficiency

Presenting complaint: Acute febrile illness in patient on steroid replacement therapy

Introduction & Consent

"Hello, I'm Dr ___, one of the doctors here. I understand you've been feeling feverish. I'd like to ask some questions, examine you, and then discuss what's happening and how we can help. Is that okay?"

Gain consent, reassure confidentiality.

History of Presenting Complaint**Start with fever (PC):**

"When did the fever start?"

"Have you measured your temperature? How high did it go?"

"Did it come on suddenly or gradually?"

"Have you had chills, rigors, or sweats at night?"

"Have you taken anything like paracetamol, and did it help?"

"Has the fever affected your appetite, energy, or sleep?"

Search for source of fever (systematic):**Respiratory:**

"Have you noticed any cough?"

"How long has the cough been present?"

"Is it dry or with phlegm? What colour is the phlegm - clear, yellow, green, or with blood?"

"Any chest pain when you breathe or cough?"

"Do you feel short of breath or wheezy?"

Urinary: "Any pain or burning when passing urine? Any frequency or blood in urine?"

GI: "Any vomiting, diarrhoea, or abdominal pain?"

Skin: "Any rashes, wounds, or boils?"

Other: "Any recent travel or close contact with someone who was unwell?"

Impact & red flags:

"Have you felt light-headed, dizzy, or faint?"

"Has this stopped you from doing your daily activities?"

"Any confusion or difficulty staying alert?"

Relevant Past Medical History

"Do you have any long-term medical conditions?" → Patient says Addison's disease.

Follow-up:

"When were you diagnosed?"

"Have you had severe attacks before, like an adrenal crisis?"

"What tablets do you take - hydrocortisone, fludrocortisone? At what doses and times?"

"Have you been able to take them regularly?" (→ missed yesterday and today)

"When you get ill, do you normally adjust your dose? Has anyone explained the 'sick day rules'?"

"Have you had vomiting or diarrhoea that prevented you from keeping tablets down?"

"Do you carry a steroid emergency card or an emergency hydrocortisone injection kit?"

Drug & Allergy History

"Any other regular medications?"

"Any allergies to antibiotics, especially penicillin?"

Family & Social History

"Do you smoke? If yes, how many a day and for how many years?"

"Do you drink alcohol?"

"Who do you live with? Do you have support at home if you become more unwell?"

ICE

"What worries you most about this fever?"

"What do you think could be causing it?"

"What were you hoping I could do for you today?"

Examination

Vitals: fever, likely tachycardia.

Chest: left basal crepitations and wheeze → consistent with pneumonia.

Looks unwell, possible dehydration.

Explanation

"From what you've told me and what I found on examination, you have a **lung infection called pneumonia**. That explains your fever, cough, and chest changes."

"In Addison's disease, your adrenal glands can't make cortisol - which is the hormone your body relies on to cope with stress and illness. Think of it like your body's natural 'boost button' when you're unwell - and yours doesn't work, so we need to give you extra tablets to do that job.

When healthy people get infections, their body naturally produces more cortisol. Because yours cannot, you depend entirely on tablets. If doses are missed, and especially when you are ill, the levels drop too low. This can cause a dangerous complication called an **adrenal crisis**, where blood pressure falls, sugar drops, and you could collapse."

"To prevent this, whenever you have a fever or infection, you must **increase your steroid tablets** temporarily - this is called the '**sick day rule**'."

Management

A. Assess pneumonia severity (CRB-65) - don't say to patient

CRB-65 is a scoring system used in the community to decide how serious pneumonia is and where to treat it. We check:

C: Confusion (new onset, AMT <8/10).

R: Respiratory rate ≥ 30 .

B: Blood pressure - systolic <90 or diastolic ≤ 60 .

65: Age ≥ 65 .

Score = 0: low risk → usually safe for home with antibiotics and safety net. **Score = 1–2:** intermediate risk → hospital assessment or close monitoring. **Score = 3–4:** high risk → hospital admission, urgent treatment.

B. Antibiotic treatment

Low severity (CRB-65 = 0):

Amoxicillin 500 mg three times daily for 5 days.

If penicillin-allergic → Doxycycline 200 mg on day 1 then 100 mg OD (5 days) or

Clarithromycin 500 mg BD (5 days).

Moderate (CRB-65 = 1–2):

Amoxicillin + Clarithromycin (or Doxycycline if allergic).

High (CRB-65 ≥ 3 or severe signs):

Hospital admission; IV co-amoxiclav + macrolide.

Supportive: paracetamol, hydration, oxygen if low sats.

In Addison's disease, even a low CRB-65 (0–1) does **not guarantee safe community care**. Because of the risk of **sudden adrenal crisis**, if the patient appears systemically unwell, is unable to maintain oral steroids, or has missed doses, the **threshold for hospital admission is much lower** than in the general population.

C. Addison's sick-day steroid adjustment

If able to swallow and keep tablets down:

Increase to at least 40 mg oral hydrocortisone daily in 2–4 divided doses while fever/infection lasts (this is typically **double the usual dose**, but must not be less than 40mg/day).

Continue fludrocortisone at the same dose.

If vomiting, diarrhoea, or unable to swallow:

This requires hospital admission - call 999 or arrange emergency transfer.

Hospital team will give: Hydrocortisone 100 mg IM/IV stat, then 200 mg/24h IV (continuous or 50 mg 6-hourly) + IV saline $\pm$ glucose.

While on ≥ 50 mg hydrocortisone/day, fludrocortisone is not required.

FY2 role: Recognise need for admission, arrange emergency transfer, give IM hydrocortisone if trained and kit available while awaiting ambulance.

Investigations

Even if CRB-65 is low, baseline investigations are important in Addison's disease:

Baseline bloods:

Urea & Electrolytes (U&Es): to look for **hyponatraemia** (low sodium) and **hyperkalaemia** (high potassium), which are features of adrenal crisis.

Random/finger-prick glucose: to check for **hypoglycaemia**, another hallmark of adrenal insufficiency.

ECG: Check for signs of **hyperkalaemia** (peaked T-waves, widened QRS, flattened P-waves) - if present, this is an emergency requiring immediate treatment.

Inflammatory markers: C-reactive protein (CRP), WCC to support bacterial infection.

Chest X-ray: to confirm pneumonia and exclude other causes.

Blood cultures/sputum culture if febrile or moderate-severe CAP.

Note on antibiotic duration: Immunocompromised patients (including those on long-term steroids) may require extended courses - **review at 48-72h and tailor to clinical response, severity, and microbiology results** rather than applying a blanket duration. Follow local antimicrobial guidelines.

Patient education

Teach **sick day rules** clearly:

Double your steroid tablets during illness with fever.

If you vomit within 30 minutes of taking your tablets, take another dose at **DOUBLE** the original amount once vomiting subsides. If you continue vomiting or cannot keep tablets down → **use your emergency injection immediately** (if trained) and **call 999/go to hospital** - do not wait.

Ensure patient carries an **NHS Steroid Emergency Card** at all times.

Register with local ambulance service so they have record of steroid requirement.

Ensure access to an **emergency hydrocortisone injection kit**.

Encourage family to learn how to use the kit.

Keep up to date with **flu and pneumococcal vaccines**.

Safety Netting

"If you feel more breathless, chest pain increases, you become confused, collapse, or cannot keep tablets down - please call 999 or come to A&E immediately."

"If your fever does not improve in 48 hours, come back for review."

"Once you're better and fever is gone, reduce hydrocortisone back to your normal dose."

Follow-Up

Review in **48 hours** if managed at home.

Hospital review/admission if CRB-65 ≥ 1 or patient unstable.

Endocrinology follow-up to reinforce sick day education and ensure you have an injection kit and card.

Chapter 9: Musculoskeletal, Rheumatology, Pre-op and Post-op

A Note to Learners

The cases in this resource are written in a conversational style to help you become familiar with the natural flow of clinical consultations and the language commonly used in UK healthcare settings.

These dialogues are intended as a learning guide, not a script. Please do not attempt to memorise them verbatim. Examiners assess your ability to think and communicate authentically - not to recite rehearsed phrases.

Use this material to understand the underlying clinical reasoning, then practise in your own words until the consultation feels natural to you.

For Companion OSCE Cases, Practice Scripts, Evaluation Checklists, Summary Notes, Rapid Review Notes, Mindmaps, Management Flashcards and Image Library - visit <https://www.gksplab2.com>

Disclaimer

This material is independent educational content created to help candidates develop clinical reasoning and communication skills for UK medical practice.

All cases and clinical scenarios are based on common presentations encountered in UK primary care and emergency medicine, drawn from publicly available sources including NICE Clinical Knowledge Summaries (CKS), BNF, and other official NHS/UK healthcare guidelines.

No content in this resource is derived from, represents, or claims to replicate actual GMC PLAB 2 examination material.

Ankle Sprain

Setting: Emergency Department

You are: Junior Doctor

Two possible scenarios:

Case A: Older Adult Female | Ankle Pain Following Fall | Ottawa Rules Negative | Requests Imaging

Case B: Young Adult Professional | Inversion Ankle Injury | No Red Flags | Requests Imaging

Introduction

"Hello, I'm one of the doctors here in the Emergency Department. Thanks for waiting. Just before we begin, could I confirm your full name and date of birth, please? Great - now, what's brought you in today?"

Presenting Complaint (SOCRATES)

"Let me just ask a few questions to understand your foot pain better."

Site: "Where exactly is the pain? Is it at the side of the ankle, foot, or elsewhere?"

Onset: "When did it start? Did you feel anything snap or pop at the time?"

Character: "How would you describe the pain - sharp, dull, throbbing?"

Radiation: "Does the pain move anywhere else - up the leg, into the foot?"

Associated symptoms: "Have you noticed any swelling, bruising, or inability to move your foot?"

Timing: "Is the pain constant or only when walking or standing?"

Exacerbating/Relieving: "What makes it worse - walking, turning your foot?" "Have you tried anything that helped?"

Severity: "On a scale of 1 to 10, how bad is it at the moment?"

Red Flag / Fracture Screening (Ottawa Ankle Rules)

"Just to make sure we don't miss anything serious, can I check a few things?"

Ankle X-ray is indicated if there is malleolar zone pain AND any of:

Bone tenderness along the posterior edge (distal 6cm) or tip of the lateral malleolus

Bone tenderness along the posterior edge (distal 6cm) or tip of the medial malleolus

Inability to weight-bear for four steps immediately after injury and now

Foot X-ray is indicated if there is midfoot pain AND any of:

Bone tenderness at the base of the 5th metatarsal

Bone tenderness over the navicular bone

Inability to weight-bear for four steps immediately after injury and now

Examination technique:

"I'm going to feel along the back of your ankle bones - please tell me if this is tender."

Palpate the entire posterior edge of the distal 6cm of both the tibia (medial malleolus) and fibula (lateral malleolus), not just the tip

"Any tenderness here at the base of your little toe?" (5th metatarsal base)

"What about here on the inside of your foot?" (navicular)

"Were you able to walk four steps right after the injury? Can you take four steps now?"

In both cases, Ottawa Ankle Rules are negative → X-ray not immediately required.

Note for Students: The Ottawa Ankle Rules have near 100% sensitivity for detecting fractures. The key is to palpate the *posterior edge* of the distal 6cm of each malleolus - not just the bony tip. Missing this can lead to missed fractures.

Risk Screening

Drugs/Allergies: "Are you on any regular medication? Any allergies?"

Alcohol/Smoking: "Do you drink alcohol or smoke?"

Surgical/Past medical: "Have you had any problems with your bones, joints, or muscles before?"

Occupation: "What do you do for work? Does it involve standing or walking a lot?"

Mobility: "Are you able to walk around or bear weight now?"

Driving: "Do you drive? Is the pain affecting that?"

Living Situation: "Is there anyone at home to help you?"

ICE

Ideas: "What do you think is going on?"

Concerns: "What's worrying you most about this?"

Expectations: "Were you hoping to get an X-ray today?"

Examination

Before Examination

"Thank you for answering my questions earlier."

"Now I would like to examine your ankle to help determine the cause of your symptoms."

"This won't be painful, but it might feel a little uncomfortable at times."

"The examination involves looking at your ankle, gently pressing on specific areas, checking the temperature and swelling, and moving your ankle in different directions."

"To examine your ankle properly, I'll need you to be sitting, standing, and lying down during different parts of the exam."

"I will need you to uncover your leg up to just below the knee, if that's okay."

"A chaperone will be present throughout, and I will ensure your privacy at all times."

"Do I have your consent to proceed?"

Note: If the patient is unable to expose due to pain or cultural reasons, perform as much as possible through clothing without forcing exposure.

Positioning and Exposure

Position:

Start standing (to assess gait).

Then seated with legs dangling.

Then lying supine on the examination couch for palpation and special tests.

Exposure:

Expose from below the knee to the foot, bilaterally.

Maintain dignity using a drape or sheet when not examining.

1. Inspection (Look)

Ask the patient to stand and walk a few steps, if able.

Gait: Observe for limping, instability, inability to bear weight, or abnormal gait patterns.

Then ask patient to sit or lie down and examine both ankles:

From the front, side, and back:

Swelling – generalised or focal (around malleoli or Achilles).

Deformity – valgus/varus, joint dislocation, arch abnormalities.

Skin changes – redness, bruising, scars, ulcers, skin thinning.

Muscle wasting – calf or foot muscle bulk.

Compare both sides.

2. Palpation (Feel)

Always compare bilaterally. Palpate gently but confidently. Watch the patient's face for discomfort.

Temperature: Use the back of your hand to assess for warmth across:

Dorsum of foot

Around the ankle joint

Calf

Tenderness: Palpate in this sequence (bilaterally):

Phalanges

Metatarsals

Tarsal bones

Calcaneus

Medial and lateral malleoli

Achilles tendon

Watch for wincing or flinching.

Pulses:

Dorsalis pedis artery (lateral to extensor hallucis tendon).

Posterior tibial artery (posterior to medial malleolus).

Compare both sides for strength and presence.

3. Movement (Move)

a. Active Movements (Ask the patient to do the movements on both feet):

Say: "Let me know if anything hurts or feels restricted."

"Can you curl your toes for me?"

"Can you point your toes up toward your face?" (Dorsiflexion)

"Can you push your foot down like you're pressing a pedal?" (Plantarflexion)

"Can you turn your foot inwards?" (Inversion)

"Can you turn your foot outwards?" (Eversion)

b. Passive Movements (On the affected side only):

Support the heel and gently move the foot through the same range of motion:

Dorsiflexion

Plantarflexion

Inversion

Eversion

Toe flexion/extension

Note: Compare joint movement and end feel. Any crepitus, pain, or stiffness?

4. Special Tests

a. Calf Squeeze Test (Thompson's Test) for Achilles Tendon Rupture

Ask patient to lie prone (or kneel on a chair with ankles over edge).

Squeeze the mid-calf firmly.

Observe for plantarflexion of the foot.

Normal: Foot moves.

Abnormal: No movement → suggests Achilles tendon rupture.

b. (Optional) Anterior Drawer Test (if ligament instability suspected)

Stabilize tibia with one hand, and pull heel anteriorly.

Laxity = Anterior talofibular ligament injury.

Wrap-Up

Thank the patient.

Help them dress and reposition.

Reassure and explain findings if appropriate:

"Thank you for letting me examine you. I'll discuss what I found with the team and we'll come back with the next steps."

Notes For PLAB 2

Verbalize safety-netting if pain is severe (e.g., suspected fracture).

Mention contraindications: Do not perform passive movement if fracture suspected without imaging.

Always request a chaperone if real patient is present.

Ensure cleanliness (sanitize before/after).

Provisional Diagnosis

Based on the history of twisting injury, pain over the outer ankle, absence of bony tenderness or inability to bear weight, this is most consistent with a lateral ankle ligament sprain.

Explanation

"I understand your concern about whether you need an X-ray - that's a very reasonable question."

"From what you've told me and what I found on examination, this sounds like a sprain, which means the soft tissues or ligaments around your ankle have been overstretched - usually due to twisting. I'm pleased to say there's no sign of a fracture, and you're able to walk, which means we can safely manage this without needing an X-ray right now."

"From the way you're describing the pain and how you're able to move and put weight on it, it's unlikely there's a break. We only do X-rays when there are certain signs that suggest a fracture - and you don't seem to have those signs right now. That helps avoid unnecessary X-rays and keeps things quicker and safer for you."

Management Plan

Conservative Management

POLICE Protocol (for first 48–72 hrs) *[or RICE protocol]*

Protection: "Protect the ankle from further injury"

Optimal Loading: "Gentle movement and weight-bearing as tolerated promotes faster recovery - complete rest is not recommended"

Ice: "Apply wrapped ice packs for 15–20 mins every 2–3 hours."

Compression: "Use a support bandage if needed."

Elevation: "Keep foot raised when resting to reduce swelling."

"After the first 48–72 hours, gentle movement helps recovery - complete rest isn't recommended long-term."

Pain Relief:

"Paracetamol or ibuprofen can help with the pain - use at the lowest effective dose for the shortest time needed." *[Note: Some evidence suggests oral NSAIDs within the first 48 hours may delay soft tissue healing - topical NSAIDs or paracetamol may be preferred initially.]*

"Avoid hot baths, alcohol, or massage in the first 2 days, as these can increase swelling."

Mobilisation:

"Try gentle movement once pain improves to avoid stiffness."

"Return to sport when you're pain-free with full range of movement and strength - for simple sprains this is often 1–2 weeks, but more significant injuries may take 4–6 weeks."

Recovery Advice:

"Most simple sprains improve within 1–2 weeks, though more significant injuries can take 4–6 weeks."

"We'll review you if it doesn't improve after 2 weeks or gets worse."

Driving Advice:

"Most ankle sprains won't affect your driving, but wait until you can comfortably control the pedals before driving again."

X-ray Justification:

"If pain persists, or swelling/bruising worsens, or you develop new symptoms like numbness or instability - then we'll reassess and might order an X-ray at that time."

Safety Netting and Follow-Up

"Please come back sooner if pain worsens, you develop swelling or bruising, or cannot walk anymore."

"If no improvement after 10-14 days, we can reassess and consider X-ray or refer to physiotherapy."

"If needed, we'll do blood tests or check your bones and joints more thoroughly."

"Here's a leaflet with recovery exercises and tips. Do you have any other questions before we finish?"

Note to Student

This is a classic ankle sprain with a common request for X-ray. Key to scoring well is justifying why an X-ray isn't needed using Ottawa rules, providing strong lay explanation, practical aftercare advice, and addressing the patient's expectations with empathy.

If patient insists despite reassurance, you may arrange an X-ray, especially in older adults for patient-centered care - but only after explanation.

Lumbar Back Sprain

Setting: Emergency Department / Primary Care

You are: Junior Doctor

Patient: Adult Male | Acute Mechanical Low Back Pain Following Physical Activity

Task: Take focused history, perform relevant examination, explain diagnosis, and discuss management.

Introduction

"Hello, I'm one of the doctors here today. Thanks for coming in. Could I please confirm your full name and date of birth?"

Great. So I understand you're here because you've been having back pain - could you tell me a bit more about that?"

Presenting Complaint – SOCRATES

"Let me ask a few questions so I can understand your pain better."

Site: "Where exactly is the pain? Is it in the lower back or higher up?"

Onset: "When did it start? Did anything trigger it?"

Character: "How would you describe the pain - dull, aching, sharp?"

Radiation: "Does the pain go down to your legs or buttocks?"

Associated Symptoms: "Any tingling, numbness, weakness, or loss of bladder/bowel control?"

Timing: "Is it constant, or does it come and go?"

Exacerbating/Relieving Factors: "Does anything make it worse - movement, lying down? Anything that helps?"

Severity: "On a scale of 1 to 10, how bad is the pain right now?"

Focused Additional History

"Let's check for anything that might suggest a different cause."

"Was there any fall or injury recently?"

"Have you had this pain before?"

"Did you lift anything heavy?"

"Did you warm up before your activity?"

"Do you have any trouble passing urine, or blood in the urine?" (renal colic screen)

"Any leg weakness or tingling?" (disc prolapse or cauda equina red flag)

"Any recent weight loss, fevers, or night sweats?" (infection, malignancy)

Risk Factors and Systems Review (DESA + PMAFTOSA)

Drugs/Allergies: "Are you on any regular medications? Any allergies?"

Alcohol/Smoking: "Do you drink or smoke?"

Surgical/Past Medical: "Any past problems with your back or joints?"

Mood: "Has this been affecting your sleep or mood?"

Appetite/Weight: "Any changes in appetite or recent weight loss?"

Occupation: "What kind of work do you do? Does it involve lifting or sitting long hours?"

Driving: "Are you still able to drive safely?"

Living situation: "Is anyone at home with you to help if needed?"

Effect on Life: "How is this affecting your daily activities, like walking, working, or exercising?"

ICE

Ideas: "Do you have any thoughts about what might be causing this?"

Concerns: "Is there anything you're particularly worried about?"

Expectations: "What were you hoping I could help with today?"

Examination

"I'd now like to examine you. I'll start by checking your general health - pulse, BP, temperature - and then examine your back and legs."

Observations: Normal

Inspection: No bruising, swelling, deformity

Palpation: Local tenderness over lumbar paraspinal area, no bony tenderness

Movement: Reduced range due to pain, no neurological deficit

SLR (Straight Leg Raise): Negative (no nerve root irritation)

Neuro Exam: Normal tone, power, sensation in lower limbs

Provisional Diagnosis

This is most likely a lumbar back sprain, which is a soft tissue strain - often due to overstretching of muscles or ligaments after unaccustomed activity or lack of warm-up before exercise.

Explanation

"I can imagine how frustrating and limiting this back pain must be."

"From what you've told me and what I've found on examination, it looks like you've developed a muscle strain in your lower back - likely from physical activity, especially without warming up. It's common, not serious, and usually gets better within a couple of weeks."

"It's caused by overstretching of the muscles and ligaments that support the spine - a bit like pulling a muscle in your leg."

Management Plan

Initial Treatment

Pain relief:

"An anti-inflammatory like ibuprofen or naproxen is usually most helpful for this type of pain. We use the lowest effective dose for the shortest possible time. If you have any stomach, kidney, or heart problems, let me know - we may need to add a stomach-protecting medication or consider alternatives."

Note for students: Per NICE NG59, oral NSAIDs are first-line for low back pain. Paracetamol alone is NOT recommended. Consider gastroprotection (PPI) if patient has risk factors.

Activity advice:

"Take it easy for the first day or two, but try to keep gently moving - bed rest isn't recommended. Avoid heavy lifting and long drives."

Return to activity:

"Start gentle stretching or physiotherapy exercises once pain settles. Warm up properly before sports or physical activity in future."

Referral:

"If it doesn't improve in 2–3 weeks, we can refer you to a community physiotherapist for guided exercises and recovery support."

Safety Netting

"If the pain gets worse, spreads to your legs, or if you experience numbness, weakness, or trouble passing urine or stool - please come back urgently as that could indicate a more serious issue."

"If the pain hasn't improved in 2 weeks, we'll reassess and may order further tests."

Follow-Up and Leaflet

"We'll review your progress in the GP clinic if needed."

"Here's a leaflet with some gentle back exercises and tips for recovery."

"Do you have any questions or concerns before we wrap up?"

Diagnostic Note

This case is a mechanical back sprain, diagnosed based on acute lower back pain following exertion without red flags. No nerve root signs, no trauma, no systemic features. Management is conservative, focusing on analgesia with NSAIDs first-line, mobilisation, and physiotherapy if not improving.

Disc Prolapse

Setting: Emergency Department

You are: Junior Doctor

Patient: Young Adult Male | Severe Low Back Pain with Radicular Features Following Contact Sport Trauma

Task: Take focused history, examine, explain findings, and manage appropriately.

Introduction

"Hello, I'm one of the doctors here in the Emergency Department. I understand you've had some severe back pain after your match - I'm really sorry to hear that. Could I start by confirming your full name and date of birth?"

Thanks - let's talk about what happened."

Presenting Complaint – SOCRATES

"Let me ask a few questions to understand the nature of your pain."

Site: "Where exactly is the pain? Lower back? Does it affect your legs?"

Onset: "Did the pain start immediately during the match, or shortly after?"

Character: "How would you describe it - sharp, shooting, or electric-like?"

Radiation: "Does the pain travel down your legs? Which side? Any tingling?"

Associated symptoms: "Any numbness, weakness, or pins and needles?"

Timing: "Is the pain constant or does it come and go?"

Exacerbating/Relieving: "Does anything make it worse, like movement or coughing?"

Severity: "On a scale of 1 to 10, how bad is the pain right now?"

Red Flag & Differential Screening

"Just to make sure we don't miss anything serious..."

"Do you have any difficulty passing urine or bowel movements?"

"Any numbness around the back passage or saddle area?"

"Any recent unexplained weight loss or fevers?"

"Have you noticed both legs being affected equally?" (bilateral sciatica is a red flag)

Risk Factor Screening – PMAFTOSA

Past Medical: "Any previous back problems, surgeries, or spinal injuries?"

Medications: "Are you taking anything for pain at the moment?"

Allergies: "Any allergies to medications?"

Family history: "Any history of back problems in your family?"

Smoking/Alcohol: "Do you smoke or drink?"

Occupation: "What kind of work do you do? Does it involve physical strain?"

Driving: "Do you drive? Have you been able to since this pain started?"

Support: "Is there someone at home to assist you during recovery?"

ICE

Ideas: "What do you think might be going on?"

Concerns: "Is there anything in particular you're worried about?"

Expectations: "What were you hoping I could help you with today?"

Examination Summary

"I'll do a quick examination now to assess your back and leg function."

Vitals: Stable

Inspection: Normal alignment, no bruising or swelling

Palpation: Localised tenderness over lower lumbar spine

SLR (Straight Leg Raise): Positive (reproduces leg pain)

Neurological Exam:

Leg weakness noted (e.g., L5/S1 distribution)

Reflexes may be reduced

Sensory changes in dermatomal pattern

No saddle anaesthesia, normal bladder function, normal anal tone - cauda equina ruled out.

Provisional Diagnosis

"Based on your symptoms - the severe back pain radiating down your leg, made worse by certain movements, and what I found on examination - this is consistent with a disc prolapse, also known as a slipped disc."

Explanation

"Let me explain what this means. In your spine, there are soft cushioning discs that act like shock absorbers between the bones. What's happened is that part of one of those discs has bulged out and is

pressing on a nerve. That's why you're feeling pain shooting down your leg - it's the nerve being irritated."

"The good news is that most disc prolapses get better with time and don't need surgery. About 90% of people improve within 4–6 weeks with rest and the right treatment."

Management Plan

If managing in the community:

Pain Relief:

"We'll start with anti-inflammatory painkillers like naproxen at the lowest effective dose. If NSAIDs are contraindicated or not effective, we can consider a weak opioid like codeine for the shortest duration possible."

Note for students: Per NICE NG59, consider weak opioids (with or without paracetamol) only if NSAIDs are contraindicated, not tolerated, or ineffective. Strong opioids are NOT recommended for sciatica.

Activity Advice:

"Try to stay gently mobile - complete bed rest isn't helpful. Avoid heavy lifting, bending, or twisting."

Imaging:

"If your symptoms don't improve over the next few weeks, or if we're concerned about other causes, we may arrange an MRI scan. Routine imaging isn't needed for most cases initially - MRI is reserved for persistent symptoms or when surgery is being considered."

Referral:

"If symptoms persist despite treatment, or if there are any concerns about nerve damage, we'll refer you to the spinal team for specialist review."

If requiring admission (severe pain, neurological deficit, or cauda equina concerns):

Admit for pain control and monitoring

Strong analgesia: IV paracetamol, NSAIDs, consider weak opioids if needed

Urgent MRI if red flags present

Urgent referral to spinal surgery if cauda equina suspected

Safety Netting

"I need you to be aware of some important warning signs. If you develop any of the following, please come back to A&E immediately or call 999:"

Numbness around your back passage or genitals (saddle anaesthesia) - *"If you can't feel yourself wiping after going to the toilet"*

Difficulty passing urine or loss of bladder/bowel control - *"If you can't start to urinate, or have an accident"*

Weakness in both legs

Pain in both legs equally (bilateral sciatica)

"These could suggest a more serious condition called cauda equina syndrome that needs emergency treatment. Don't wait - if any of these happen, go straight to A&E."

Recovery & Driving Advice

"Once stable, you'll benefit from physiotherapy to help you recover function and strength."

"Please avoid driving until you can safely control the pedals without pain. You don't need to notify the DVLA for a disc prolapse unless you have significant neurological problems affecting your ability to drive safely."

Note for Students

This case shows a disc prolapse with radiculopathy (nerve root irritation). Key points:

SLR positive suggests nerve root involvement

Most cases resolve with conservative management
MRI is not routine - only if considering surgery or suspecting alternative pathology
Strong opioids are not recommended per NICE NG59
Benzodiazepines (diazepam) are NOT recommended for low back pain
Always screen for and safety-net cauda equina red flags

Cauda Equina Syndrome

Setting: Emergency Department

You are: Junior Doctor

Patient: Middle-Aged Adult | Acute Severe Back Pain with Neurological Features and Sphincter Disturbance

Introduction

"Hello, I'm one of the doctors here in A&E. I can see you're in quite a bit of pain - I'll do my best to help you. Could I just confirm your full name and date of birth please?"

Presenting Complaint – SOCRATES

Site: "Where exactly is the pain - lower back? Both legs?"

Onset: "When did this start? Was it sudden?"

Character: "What does the pain feel like?"

Radiation: "Does the pain go down your legs? Both legs or one?"

Associated symptoms: "Any numbness, weakness, or pins and needles?"

Timing: "Has it been constant or coming and going?"

Exacerbating/Relieving: "Does anything make it worse - coughing, moving?"

Severity: "On a scale of 1-10, how bad is the pain?"

Red Flag Screening (Critical)

"I need to ask some very important questions:"

Bladder function:

"Have you had any difficulty passing urine?"

"Any difficulty starting to urinate, or feeling like you can't empty properly?" (*difficulty initiating micturition is an early sign*)

"Have you lost control of your bladder - any accidents or leaking?"

"Can you feel when your bladder is full?"

"Can you feel the flow when you're passing urine?"

Bowel function:

"Any difficulty controlling your bowels?"

"Have you lost any stool without meaning to?"

"Can you feel when you need to open your bowels?"

"Can you feel when your bowel is full?"

Saddle area:

"Have you noticed any numbness around your back passage, genitals, or inner thighs?"

"Can you feel yourself wiping after going to the toilet?" (*explicit practical question for saddle anaesthesia*)

Bilateral symptoms:

"Is the pain or weakness affecting both legs equally?"

Sexual function:

"Any changes in sensation in your genital area?"

Risk Factor Screening

Past Medical: "Any previous back problems or surgeries?"

Medications: "What medications are you on?"

Allergies: "Any allergies?"

Occupation: "What kind of work do you do?"

Support: "Is there someone at home with you?"

Examination Summary

"I'll now examine you carefully."

Vitals: Stable but in visible distress

Inspection: Normal alignment, no external injury

Palpation: Localised tenderness over lower lumbar spine

SLR (Straight Leg Raise): Positive bilaterally

Neurological Exam:

Leg weakness, reduced power bilaterally

Saddle anaesthesia present

Decreased anal tone on PR examination

Reflexes may be diminished or absent

Bladder scan: Post-void residual may be elevated (if available)

Provisional Diagnosis

"Based on your symptoms - including the back pain, leg weakness, difficulty with bladder control, and numbness in the saddle area - this is highly concerning for a condition called Cauda Equina Syndrome."

"This is a medical emergency and we need to act quickly."

Explanation

"Let me explain what's happening. At the base of your spine, there's a bundle of nerves called the cauda equina. These nerves control feeling and function in your legs, bladder, and bowels."

"It seems that something - most likely a disc that has slipped - is pressing on these nerves. This is causing the symptoms you're experiencing."

"This is time-sensitive, so we'll be moving quickly - but I want you to know you're in the right place and we're going to look after you."

Management Plan

Immediate Actions:

Admit immediately to hospital

Strong analgesia: IV paracetamol, IV morphine for pain control

Catheter insertion: To relieve urinary retention/incontinence

Urgent MRI scan: The scan should ideally be done within 4 hours of referral (per GIRFT 2023 guidance), with reporting within 1 hour

Bloods: FBC, U&E, LFTs, clotting (surgical preparation)

Urgent referral to spinal surgery (orthopaedics or neurosurgery)

Likely surgical decompression (laminectomy/discectomy) within 24-48 hours

Goal: Prevent permanent nerve damage

Safety Netting

"These are the signs we take very seriously, and you're absolutely right to come in."

"We'll monitor you closely and move quickly. If you notice increasing leg weakness or complete loss of bladder or bowel control before surgery, please let the team know immediately."

"You'll be followed up post-op by both the surgical team and physiotherapy, who'll help design a personal recovery programme."

Recovery & Driving Advice

"Once stable, you'll be referred to a physiotherapist for exercises to help you recover function and strength."

"Please avoid driving until cleared by your doctor, and once you're discharged, you must inform the DVLA - as spinal nerve conditions can affect driving eligibility."

Note for Students

This is a classic red-flag spinal emergency. Key diagnostic features:

Sudden severe back pain

Bilateral leg weakness/sciatica

Saddle anaesthesia

Bladder/bowel dysfunction (especially difficulty initiating micturition - an early sign)

Decreased anal tone

Positive SLR bilaterally

Bilateral sciatica

Difficulty initiating micturition (not just retention)

Impaired sensation of urinary flow

Loss of sensation of rectal fullness

GIRFT 2023 standard: MRI within 4 hours of referral

Critical teaching point: Use explicit, practical language when screening for cauda equina. Ask "Can you feel yourself wiping after going to the toilet?" - this directly assesses saddle anaesthesia in patient-friendly terms. Many candidates wait for patients to volunteer incontinence; you must proactively screen for these symptoms in every back pain history with red flags.

Early identification + urgent MRI + neurosurgical decompression are key. Patient communication must be clear, urgent, but reassuring, with safety-netting and escalation clearly explained.

Ankylosing Spondylitis

Setting: Primary Care

You are: Junior Doctor

Patient: Young Adult Male | Chronic Low Back Pain with Inflammatory Features | Occupational Driver

Task: Take focused history, examine, explain diagnosis, and discuss management and next steps.

Introduction

"Hello, I'm one of the doctors here at the practice. Thanks for coming in today.

Could I start by confirming your full name and date of birth, please?

Great - so I understand you've been having back pain?"

Presenting Complaint – SOCRATES

"Let me ask a few more questions to understand your symptoms properly."

Site: "Where exactly is the pain? Lower back, upper back, hips?"

Onset: "When did this start? You mentioned it's been about 6 to 8 months?"

Character: "How would you describe the pain - dull, deep, stiff, sharp?"

Radiation: "Does the pain go down to the buttocks or legs?"

Associated symptoms: "Any swelling in your joints? Or pain in the heels?"

Timing: "Is it worse at any particular time - like in the morning or night?"

Exacerbating/Relieving: "What makes it better - rest or movement?"

Severity: "On a scale of 1 to 10, how bad would you say the pain is?"

Diagnostic Pivots & Red Flags

"I'll just ask a few questions that help us rule out other causes and check for things we may need to act on early."

Morning stiffness > 30 min that improves with movement (suggestive of inflammatory back pain):

"Do you feel stiff when you wake up in the morning?"

"Does it get better once you start moving around?"

Night pain and wakefulness: "Does the pain wake you up at night?"

Eye symptoms: "Have you had any episodes of red, painful eyes or blurry vision?" (anterior uveitis)

Breathing: "Do you feel your chest has become tighter or restricted when breathing?"

Other joints: "Any pain in your hips, shoulders, or knees?"

Bowel symptoms: "Any history of inflammatory bowel disease or bowel problems?"

These help differentiate mechanical vs inflammatory back pain and identify extra-articular features.

Risk Factors and Lifestyle History

Occupation: "What do you do for a living?" → Driving (prolonged sitting aggravates AS)

Smoking: "Do you smoke?" (exacerbates AS progression)

Family History: "Any history of autoimmune or rheumatological conditions in your family?"

Mood: "Has the ongoing pain been affecting your mood or sleep?"

Appetite/Weight: "Any recent weight changes?"

Function: "Are you managing daily activities, like dressing or working?"

Sleep: "Is the pain worse at night or early morning?"

Other symptoms: "Any skin rashes, ulcers, or fatigue?"

ICE

Ideas: "Have you read or heard anything about what could be causing this?"

Concerns: "Is there anything in particular that's worrying you?"

Expectations: "Were you hoping for anything specific today - like tests or referrals?"

Examination Summary

"I'll now do a quick examination to check your spine and joints."

Paper findings:

Tenderness over sacroiliac joint

Positive Schober's test → limited lumbar spine flexion

SLR test: Negative (no nerve root irritation)

Provisional Diagnosis

"Based on your symptoms - the gradual onset of back pain and stiffness that's worse in the mornings and improves with movement, lasting for several months - this fits with a condition called Ankylosing Spondylitis, or AS."

"This is part of a group of conditions we call axial spondyloarthritis. It's a long-term inflammatory condition that primarily affects the spine and causes stiffness and pain."

Explanation

"In a healthy spine, the joints and ligaments are flexible. In AS, the immune system mistakenly causes chronic inflammation in those joints - especially where the spine meets the pelvis.

That's why you feel stiff in the mornings, and better with movement. It can also affect other areas - like the eyes, hips, or even breathing if the chest wall becomes stiff.

The good news is that it can be managed well with the right treatment and staying active. You've done the right thing coming in."

Management Plan**Investigations:**

Bloods: FBC, U&E, LFTs, ESR, CRP (inflammatory markers)

HLA-B27 test (genetic marker commonly associated with AS)

X-ray of pelvis/spine: To look for sacroiliitis

MRI sacroiliac joints: If X-ray normal but clinical suspicion high (more sensitive for early disease)

Fundoscopy: If eye symptoms present

Spirometry: If restricted chest movement

Consider screening for related conditions like inflammatory bowel disease

Referral:

"We'll refer you to a rheumatologist who will confirm the diagnosis and start long-term treatment. They may recommend biologic medications if NSAIDs aren't enough - these are very effective for this condition."

Symptomatic Relief:

NSAIDs: "For now, I'll start you on an anti-inflammatory like ibuprofen or naproxen to reduce pain and stiffness."

Physiotherapy:

"I'll refer you to a physiotherapist for a tailored daily exercise plan to improve mobility."

Hydrotherapy & Activity Advice:

"Activities like hydrotherapy - exercises in warm water - are excellent."

"Avoid long periods of sitting, and try to stay mobile throughout the day."

Driving + DVLA:

"Since your job involves driving, it's important to inform the DVLA, especially if stiffness affects your movement or safety behind the wheel."

Smoking Cessation:

"If you smoke, I'd strongly encourage stopping - it slows recovery and worsens inflammation."

Patient Support:

"There's a national charity called the National Ankylosing Spondylitis Society (NASS) - they offer fantastic resources and support groups."

"I'll give you a leaflet about AS and the support group."

Safety Netting

"If you develop any eye pain or redness, sudden worsening of symptoms, or difficulty breathing - please return urgently."

"If things are not improving or affecting your daily life, we'll escalate your care quickly."

Patient Question – Surgery

Patient: "Doctor, do I need surgery?"

Doctor: "That's a good question. Most people with AS do not need surgery. Treatment usually controls symptoms well. But in rare cases where a joint like the hip becomes badly damaged, surgery such as joint replacement may be considered. The rheumatology team will guide that decision if needed."

Note for Students

This is classic Ankylosing Spondylitis: gradual onset, morning stiffness improving with activity, sacroiliac tenderness, and a sedentary occupation. Confirmed with HLA-B27, X-ray, and rheumatology referral.

Key updates:

Methotrexate is NOT effective for axial spondyloarthritis - only for peripheral arthritis

Biologic medications are the next step after NSAIDs

AS is now considered part of the axial spondyloarthritis spectrum

NICE NG65 referral criteria (for educational completeness): Refer if low back pain started **before age 45 AND** lasted **>3 months AND** 4+ additional criteria OR 3 criteria + HLA-B27 positive.

Low back pain onset <35 years

Waking in second half of night

Buttock pain

Improvement with movement

Improvement within 48 hours of NSAIDs

First-degree relative with SpA

Current/past arthritis, enthesitis, or psoriasis

Management focuses on early NSAIDs, exercise, smoking cessation, and specialist care.

Musculoskeletal Chest Pain

Setting: Emergency Department

You are: Junior Doctor

Patient: Young Adult Male | Chest Pain Following Sports Trauma | Known Bleeding Disorder

Introduction

"Hello, I'm Dr. [Name], one of the doctors here in the Emergency Department.

Could I confirm your full name and age, please?

Thank you. I understand you've come in with chest pain - are you still having the pain right now?"

If yes: "Can you show me where exactly you feel the pain?"

Is it okay if I ask a few more questions to understand the situation better?"

Presenting Complaint – SOCRATES

Site: "Where exactly is the pain located?"

Onset: "When did it start? What were you doing at the time?"

Character: "Is it sharp, dull, throbbing, or pressure-like?"

Radiation: "Does the pain move anywhere else, like your arm or jaw?"

Associated symptoms: "Any breathlessness, sweating, dizziness, nausea?"

Timing: "Constant or does it come and go?"

Exacerbating/Relieving factors: "Worse with deep breaths or movement? Better with rest?"

Severity: "On a scale from 0–10, how painful is it right now?"

Differential Diagnosis Screening

"Let me also ask a few questions to rule out other causes:"
"Do you get this pain even when resting?"
"Have you felt palpitations, light-headedness, or chest pressure?"
"Any recent cough, fever, or viral illness?"
"Any pain in your legs, recent travel, or swelling?" (PE)
"Any rash or tingling over the chest wall?" (Shingles)
"Any known anaemia, or feeling more tired than usual?"

Mechanism of Injury

"Could you tell me exactly what happened?"
"What activity were you doing when it occurred?"
"Did you fall or get hit in the chest?"
"Where did the impact happen?"
"Any bruising, swelling, or cuts noticed afterward?"

PMAFTOSA

"Any long-term conditions?" (History of von Willebrand disease noted)
"Any past injuries like this?"
"What medications are you currently taking?"
"Any allergies?"
"Any family history of heart conditions or clotting disorders?"
"What do you do for work?"
"Do you smoke or drink?"
"Who do you live with? Do you drive?"

ICE

Ideas: "What do you think might be causing this pain?"
Concerns: "Is there anything you're particularly worried about?"
Expectations: "What were you hoping I could do for you today?"

Effect on Life

"Has this pain affected your breathing, sleeping, or ability to move around?"

Examination & Investigations

"I'd like to:
Inspect your chest for bruising, swelling, or skin changes
Gently press around the area to check for tenderness
Listen to your heart and lungs with a stethoscope
Check your vital signs: pulse, blood pressure, temperature, and oxygen levels
We'll also arrange:
ECG - to rule out heart involvement
Chest X-ray - to look for rib fractures or internal injuries
Troponin blood test - to ensure no hidden heart injury"
Findings: Tenderness over the lower left ribs. No ECG changes. Normal X-ray and observations.

Provisional Diagnosis

"I know chest pain can be worrying, but the good news is this is coming from the muscles and tissues of your chest wall, not your heart."

"Based on your history, examination, and initial tests, this seems to be musculoskeletal chest wall pain due to trauma - essentially a bruised or strained muscle or rib following your fall."

Ask: "Have you heard of that before?"

Explain: "The muscles and tissues around the chest can become bruised or inflamed after an injury - even if the bones aren't broken. This type of pain often feels worse when taking deep breaths, coughing, or moving the upper body. It's not coming from the heart or lungs, which we've ruled out through the ECG and blood tests. This can be painful for a few days but is usually self-limiting."

Check: "Does that explanation make sense?"

Management Plan

"Here's how we'll manage this today:"

Pain relief:

"You can take paracetamol regularly to manage the pain. If needed, we can offer co-codamol short term. Avoid NSAIDs like ibuprofen or aspirin, especially as you have von Willebrand disease, which increases your bleeding risk."

Local care:

"Apply warm compresses over the area if it feels sore or stiff. This improves blood flow and speeds up healing."

Rest:

"Avoid heavy lifting, vigorous activity, or contact sports for at least 1-2 weeks. Let the area heal."

Breathing exercises:

"Try to take regular deep breaths every few hours. This keeps your lungs expanded and prevents complications like chest infections - which can happen if you're avoiding deep breathing due to pain."

Safety Netting

"If the pain worsens significantly, starts affecting your breathing, or you develop new symptoms like dizziness, palpitations, or worsening breathlessness, please return to A&E or call emergency services. Also, if you notice unusual bruising elsewhere or prolonged bleeding, do let your haematology team know as this may relate to your clotting condition."

Follow-Up

"If your pain is not improving within 3-5 days, or if you're struggling with mobility, book a review with your GP."

Let your haematology team know about this injury as a precaution."

Diagnostic Note

Young adult male with localized left-sided chest pain following a fall during sport. Pain is sharp, reproducible on palpation, and worsens with movement and deep inspiration. No red flags. ECG and troponin normal. CXR unremarkable. History of von Willebrand disease noted. Diagnosis: Traumatic Musculoskeletal Chest Wall Pain. Managed conservatively with safe analgesia, supportive care, and follow-up advice.

Osteoporosis – DEXA Scan Follow-Up

Setting: Primary Care

You are: Junior Doctor

Patient: Postmenopausal Female | Fragility Fracture Follow-Up | DEXA Result Discussion

Task: Explain results, assess symptoms and risk factors, initiate treatment, address concerns

Introduction & Paraphrasing

"Hello, I'm one of the doctors here at the practice. It's nice to see you again.

I see that you had a fall a few months ago and fractured your wrist. We arranged a DEXA scan to check your bone strength - the results are now back, and I'd like to go over them with you and discuss the next steps. Is that okay?"

Check Understanding & Explain Diagnosis

First, clarify what the patient knows.

"Before I explain the results, has anyone told you what a DEXA scan checks for?"

"Have you come across the term osteoporosis before?"

Now deliver the diagnosis clearly:

"Your scan shows that you have osteoporosis - I know that might sound concerning, but the good news is this is a very treatable condition.

Osteoporosis means your bones have become thinner and more fragile over time. It's a very common condition, especially in women after menopause, and it makes bones more likely to break even from minor falls or bumps."

Symptom Check

"Have you had any recent falls or injuries since the wrist fracture?"

"Any back pain, loss of height, or stooped posture?"

"Any other fractures in the past?"

Risk Factor Assessment

Past Medical History:

"Do you have any medical conditions like thyroid problems, coeliac disease, or rheumatoid arthritis?"

"Have you ever taken long-term steroids?"

Lifestyle:

"Do you smoke or drink alcohol?"

"How active are you? Do you do weight-bearing exercises like walking?"

Diet:

"Do you get enough calcium in your diet - things like milk, cheese, yogurt?"

"Do you take any vitamin D supplements?"

Family History:

"Did your mother or father ever have a hip fracture or osteoporosis?"

Medications:

"What medications are you currently taking?"

"Any allergies?"

Management Plan

Treatment:

Bisphosphonate:

"We'll start you on a medication called Alendronic acid (Alendronate) - 70 mg once a week. This helps strengthen your bones and reduce the risk of future fractures."

Administration instructions:

"It's important to take this correctly:

Take it first thing in the morning on an empty stomach

Swallow it whole with a full glass of plain water

Stay upright (sitting or standing) for at least 30 minutes afterwards

Don't eat, drink anything else, or take other medications for 30 minutes

This helps the medication work properly and prevents irritation to your gullet"

Calcium and Vitamin D:

"I'll also prescribe Calcium 1000mg and Vitamin D 800-1000 units (20-25 micrograms) daily to support bone health."

Treatment Duration:

"We'll review your treatment after about 5 years to decide whether to continue, take a break, or switch to a different medication."

Side Effects Counselling

"Like all medications, bisphosphonates can have some side effects. Most people don't experience problems, but I want you to be aware of two rare but important ones:

Jaw problems (osteonecrosis of the jaw): Very rarely, the medication can affect the jawbone, especially if you need dental work. Please maintain good oral hygiene and have routine dental check-ups. If you have any concerns about your teeth or are planning any invasive dental procedures, let your dentist know you're on this medication."

Note for students: Routine dental referral before bisphosphonates is NOT required for most osteoporosis patients.

Per MHRA guidance, dental examination before treatment is only needed if the patient has poor dental status. All patients with CANCER requiring bisphosphonates should have a dental check-up before treatment.

"- **Thigh pain:** If you develop new, unusual pain in your upper thigh or groin, please let us know - very rarely, this can indicate a stress fracture."

Lifestyle Advice

"There are also some things you can do to help your bones:

Exercise: Weight-bearing activities like walking, dancing, or light strength training help strengthen bones

Reduce fall risk: Good lighting at home, removing trip hazards, wearing supportive footwear

Stop smoking if you smoke, and **limit alcohol** to no more than 14 units per week

Balanced diet with plenty of calcium-rich foods"

Investigations

"We'll arrange some blood tests before starting treatment:

FBC, U&E, LFTs - to check your general health

Calcium, phosphate, vitamin D - to check bone-related levels

Thyroid function - as thyroid problems can affect bones"

Safety Netting and Follow-Up

"If you experience severe heartburn, difficulty swallowing, or chest pain after taking the tablet, stop it and contact us.

If you develop new thigh or groin pain, please come back.

I'll give you a leaflet about osteoporosis and bisphosphonates.

We'll arrange a follow-up in 4–6 weeks to check how you're getting on with the medication and review your blood test results."

Note for Students

This is a classic case of osteoporosis with a fragility fracture, requiring DEXA follow-up and treatment initiation.

Key clinical updates:

Vitamin D dose should be 800–1000 IU (not 400 IU)

Treatment duration review at 5 years for oral bisphosphonates

Consider falls assessment in all osteoporosis patients

Management focuses on bisphosphonate + calcium/vitamin D, lifestyle modification, and appropriate oral hygiene advice (routine dental referral is NOT required for most osteoporosis patients - only for those with poor dental status or cancer patients).

Frozen Shoulder (Adhesive Capsulitis)

Setting: Primary Care

You are: Junior Doctor

Patient: Middle-Aged Adult | Progressive Shoulder Pain and Stiffness | Limited Range of Motion

Introduction

"Hello, I'm one of the doctors here today.

Could I please confirm your full name and date of birth? Thank you.

I understand you're here due to some shoulder pain - I'll begin by asking a few quick questions, and then I'll examine your shoulder to see what's going on. Is that alright?"

Focused History – Data Gathering

"I'll start with some questions about the pain and your general health."

A. SOCRATES (Pain History)

Site: "Where exactly is the pain?"

Onset: "When did the pain first start?"

Character: "Is it a sharp, dull, or aching pain?"

Radiation: "Does it spread anywhere, like to your neck or down your arm?"

Associated symptoms: "Any swelling, stiffness, or tingling?"

Timing: "Is the pain constant or does it come and go?"

Exacerbating/Relieving: "What makes it worse or better?"

Severity: "On a scale of 1 to 10, how bad is it?"

B. Red Flag Screening

"Did this start after any injury, fall, or strain?"

"Have you had any fever, swelling, or warmth in the joint?"

"Any recent infections?"

"Any numbness, tingling, or weakness in the arm or fingers?"

"Any unexplained weight loss, appetite changes, or night sweats?"

"Any other joints affected?"

C. Function and Daily Life

"Are you able to lift your arm overhead or brush your hair?"

"Is this affecting your ability to work or sleep comfortably?"

"I can imagine how frustrating it must be to struggle with these everyday activities."

D. Risk Factors – MAFTOSA**M (Medical conditions):** "Do you have any conditions like diabetes or thyroid problems?"**A (Allergies):** "Do you have any allergies?"**F (Family history):** "Any family history of joint or bone problems?"**T (Travel/temperature):** "Any recent travel or prolonged inactivity?"**O (Occupation):** "What kind of work do you do?"**S (Smoking):** "Do you smoke?"**A (Alcohol & activity):** "Do you drink alcohol? And do you exercise regularly?"**E. ICE****Ideas:** "What do you think might be causing this pain?"**Concerns:** "Is there anything you're particularly worried about?"**Expectations:** "What were you hoping we could help with today?"**Physical Examination (Shoulder Focused)****1. Pre-Examination Communication (Verbal Consent and Setup)**

"Thank you for answering all my questions earlier. Now I would like to examine your shoulder to help determine what's causing your pain. The examination won't be painful, but it might feel slightly uncomfortable at times. I'll be looking at the shoulder, gently pressing on different parts, and asking you to move your shoulder in certain directions.

I will examine you in sitting and standing positions. If possible, I'll need you to expose your shoulder and upper arm. If you are unable to do so due to pain or discomfort, don't worry - I'll examine you with clothing on as best as I can.

A chaperone will be present with us throughout the examination, and I will do my best to maintain your privacy.

Do I have your consent to proceed?"

2. Positioning and Exposure

Position: Start sitting upright on a chair or examination couch. You may ask the patient to stand briefly during movement testing.

Exposure: Ideally from neck to mid-upper arm, both shoulders visible.

Adjust if needed: If the patient is in pain or unable to remove clothing, perform over clothing with caution and note the limitation.

3. SHOULDER EXAMINATION STEPS**A. Inspection (LOOK)**

From Front & Side:

Asymmetry in shoulder height

Muscle wasting (especially deltoid or supraspinatus)

Swelling, redness, scars, skin changes

From Back:

Scapular winging (suggests long thoracic nerve injury)

Compare position of scapulae

Ask the patient to slowly raise both arms to shoulder height and lower them to assess dynamic symmetry.

B. Palpation (FEEL)

Warm your hands and warn the patient. Compare both sides.

Temperature: Use the back of your hand, compare both shoulders.

Tenderness: Start from the front, move laterally, then posteriorly:

Sternoclavicular joint

Clavicle

Acromioclavicular (AC) joint

Head of humerus

Deltoid region

Glenohumeral joint line (anterior and lateral aspects)

Borders of the scapula (spine, medial, inferior angles)

Pulse check: Palpate radial pulse bilaterally to ensure neurovascular status (especially if trauma suspected).

C. Movement (MOVE)

Active Movements (Always Bilateral)

Say: "Please copy my movements as best as you can. Let me know if anything hurts or is difficult."

Flexion: "Lift your arms forward and up as high as you can."

Extension: "Move your arms straight back behind you."

Abduction: "Raise your arms out to the side, like making a big 'Y'."

Adduction: "Bring your arm across your chest."

External rotation: "Bend your elbow to 90 degrees, now turn your hand outward."

Internal rotation: "Can you try placing your hand behind your back or as far as you can go?"

Observe for:

Limited range

Pain during specific movements

Compensation (e.g. shoulder hiking)

Painful arc between 60–120° (suggestive of impingement)

Passive Movements (On Affected Side Only)

Gently support elbow and wrist, perform all of the above motions passively. Assess joint stiffness vs muscle guarding. Note end-feel and pain.

D. Special Tests (Perform Only If Tolerated)

"Now I'd like to perform a few special tests to assess specific shoulder muscles and tendons. Please let me know if you feel pain or discomfort."

1. Empty Can Test (Supraspinatus Integrity)

Ask patient to abduct both arms to 90°, then angle forward 30°.

Instruct: "Pretend you're pouring out two cans."

Internally rotate both arms (thumbs pointing down).

Apply downward pressure and ask them to resist.

Positive if pain or weakness suggests supraspinatus tendinopathy/tear.

2. Painful Arc Test

Ask: "Please lift your arm sideways in a big arc up and then back down."

Pain between 60–120° = subacromial impingement or supraspinatus issue.

3. Coracoid Pain Test

Gently palpate: Acromioclavicular joint, Head of humerus, Coracoid process

Ask: "Which one feels most tender?"

Pain mostly at coracoid = Adhesive capsulitis (frozen shoulder)

4. External Rotation Resistance Test (Infraspinatus/Teres Minor)

Elbows bent at sides (90°), ask patient to externally rotate against your resistance.

Pain = Rotator cuff pathology (esp. infraspinatus)

E. Verbalise Completion and Extension

"That completes the shoulder examination. In a real setting, I would also examine the joint above and below - meaning the cervical spine and elbow - to ensure no referred pathology is missed."

Finding: Patient unable to tolerate special tests due to pain → consistent with frozen shoulder

Provisional Diagnosis

"This appears to be a frozen shoulder, or adhesive capsulitis. It happens when the capsule that surrounds the shoulder joint becomes stiff and inflamed, making it painful and difficult to move."

It's quite common in people between 40 and 60, and often occurs without a clear reason. It usually progresses in three stages - pain, stiffness, and gradual recovery - and can take 1–3 years to fully resolve, though most people see significant improvement within the first year, especially with physiotherapy."

Management Plan

"Here's what we'll do to help manage this."

Immediate Management

Pain relief: Paracetamol and/or Ibuprofen

Activity modification: "Avoid movements that worsen the pain, but try to keep the arm gently mobile."

Hot/cold packs: "These may help relieve pain at home."

Referral

Physiotherapy referral: "We'll arrange for you to see a physiotherapist to begin a structured rehab programme."

If no improvement in 6–12 weeks: "We'll consider referring you to the MSK clinic for a steroid injection, which can help reduce inflammation and pain."

If conservative measures fail: "Further options like hydrodilatation may be considered by the specialist."

Investigations

Bloods: FBC, CRP, ESR, glucose, thyroid function

Shoulder X-ray: "To rule out arthritis or other causes of pain"

"We're checking your blood sugar because frozen shoulder is more common in people with diabetes."

Safety Netting and Follow-Up

"If the pain worsens, starts spreading down your arm, or you begin to lose strength - please come back sooner."

"I'll give you an NHS leaflet with more information on frozen shoulder."

"We'll arrange a follow-up appointment in 4–6 weeks to monitor your progress."

"Does everything I've explained make sense so far? Is there anything you'd like me to go over again or any other concerns I can address?"

Note for Students

This is a classic case of frozen shoulder (adhesive capsulitis). Diagnosis is made clinically:

Gradual onset of shoulder pain

Limited active and passive range of motion in all directions

Risk factors include age, diabetes, and sedentary occupations

Management is conservative first, followed by physiotherapy, and steroid injection if symptoms persist.

Rule out systemic/inflammatory causes with bloods and imaging.

Suspected Scaphoid Fracture

Setting: Primary Care Telephone Consultation

You are: Junior Doctor

Patient: Working Age Adult Male | Wrist Pain Following Fall onto Outstretched Hand | Occupational Injury

Introduction

"Hello, you're speaking with one of the doctors here at the practice. My name is Dr [Your Name].

Could I please confirm your full name and date of birth before we begin?

Thank you. How can I help you today?"

Symptom Exploration

Patient reports: "I hurt my hand after falling from a ladder earlier today while at work."

"I'm really sorry to hear that. Could you talk me through exactly what happened when you fell?"

"Did you fall onto an outstretched hand or land directly on your wrist?"

"Was it your dominant hand?"

"How soon after the fall did the pain start?"

"Is the pain sharp, constant, or throbbing?"

Fracture Symptom Screening

"Do you notice any swelling, bruising, or redness in the area?"

"Are you able to move your hand or wrist at all?"

"Do you feel any numbness or tingling in your fingers?"

"Any loss of grip strength or weakness?"

"Did you hit your head, pass out, or feel dizzy after the fall?"

These help rule out other injuries (e.g., head trauma, carpal fracture, neurovascular compromise).

MAFTOSA (Focused Risk and Background)

Medical History: "Any long-term conditions like osteoporosis, diabetes, or arthritis?"

Allergies: "Do you have any known allergies?"

Family History: "Any family history of bone fragility or fractures?"

Travel/Trauma: Already addressed through mechanism of injury

Occupation: "You mentioned this happened at work - do you do this professionally?"

Smoking/Alcohol: "Do you smoke or drink regularly?"

Activity Level: "Do you use your hands a lot for work?"

ICE

Ideas: "What do you think might have happened?"

Concerns: "Is there anything specific you're worried about?"

Expectations: "What were you hoping I could help you with today?"

Over-the-Phone Examination – Guided Inspection

"I'll guide you through a few checks over the phone - let me know what you find."

Step 1: Visual Inspection

"Can you look at both hands - front and back - and tell me if the injured side looks more swollen or bruised?"

Step 2: Anatomical Snuffbox Check

"Please spread the fingers of both hands."

"Now turn your hands so the palms face the floor."

"Look just below your thumb - you'll see a small dip or hollow space (called the snuffbox) on each hand."

"Is there swelling, tenderness, or does it look missing on the painful side?"

Positive snuffbox tenderness or swelling is highly suggestive of scaphoid fracture.

Provisional Diagnosis

"Based on the fall onto an outstretched hand and the pain you're describing - especially if the area under your thumb is swollen - this may be a scaphoid bone fracture. The scaphoid is one of the small bones in the wrist and is commonly injured in this type of fall."

Explanation

"This type of injury can be tricky to diagnose, because the fracture doesn't always show clearly on the first X-ray. But the location of your pain and the way the injury happened suggest that you may have fractured your scaphoid."

"The scaphoid is a small bone at the base of your thumb that helps with wrist movement. It's particularly vulnerable when you fall onto an open hand."

Management Plan**Immediate Action**

"I'd like you to go to the nearest hospital or urgent care centre today so we can get an X-ray done."

"You may also need to have your wrist immobilised in a splint or plaster cast right away to prevent further damage."

Further Imaging

"If the fracture doesn't show up on the X-ray but clinical suspicion remains, MRI is the preferred second-line imaging. In some areas, a repeat X-ray at 10-14 days may be offered first, but MRI is more sensitive for detecting occult fractures."

Confirmed Fracture

"If a fracture is confirmed, you may be placed in a scaphoid cast for 6-12 weeks depending on the type of break."

Safety Netting

"If the pain becomes worse, if your fingers go numb, or if you notice any colour change in your hand, please go to A&E immediately."

"Please avoid lifting, gripping, or using that hand until it's fully assessed."

Follow-Up

"We'll check your X-ray result and refer you to the fracture clinic for review if needed."

"Even if nothing shows on the X-ray, we'll treat it as a fracture until it's proven otherwise - because if a scaphoid fracture isn't treated properly, it can sometimes lead to ongoing problems - that's why we're being extra careful to get this right."

"As this happened at work, you may want to report this as a workplace injury."

Patient Education & Closure

"I'll text or email you a patient leaflet on suspected scaphoid fractures for more information."

"Once the hospital has seen you, we'll follow up with you at the GP clinic based on what they find."

"Is there anything else you'd like me to explain again before we end the call?"

Note for Students

This is a classic telephone presentation of suspected scaphoid fracture:

High-risk mechanism (Fall onto outstretched hand)

Tenderness/swelling at the anatomical snuffbox

Must rule out neurovascular compromise

Requires urgent X-ray and immobilisation, even if imaging is normal

Full safety-netting and follow-up with orthopaedics/fracture clinic is essential

Avoid reassuring falsely if X-ray is normal - fracture may still be present

Post-Traumatic Elbow Swelling & Pain

Setting: Primary Care/Urgent Care

Patient: Adult

Presenting: Elbow swelling following minor trauma

1. Introduction & Consent

Greeting, role, identity check.

"I understand you've come in because of pain and swelling around your elbow, is that right?"

"Is it okay if I ask you some questions, examine your elbow, and then discuss what might be going on and how we can help?"

2. Focused History

A. Mechanism of Injury

"Can you tell me exactly what happened?"

Fall? Height? Onto hand or directly onto elbow?

Immediate pain or delayed?

Visible swelling straight away or after a few hours?

B. Pain Assessment

"Where exactly is the pain - on the point of the elbow, inside, outside, or deeper within the joint?"

"What makes it worse - bending, straightening, twisting the hand?"

"Can you fully straighten the elbow?"

"Does it click, lock, or feel unstable?"

C. Swelling Characteristics

"When did the swelling start?"

"Is it getting better, worse, or staying the same?"

"Any redness, warmth, or skin changes?"

D. Function

"Can you hold a cup?"

"Can you lift light objects?"

"Any difficulty using your hand or wrist since the fall?"

"Are you able to sleep on that side?"

E. Neurological & Vascular Screen

"Any numbness, tingling, pins-and-needles?"

"Any weakness in the hand?"

"Any changes in colour or temperature of the hand?"

F. Infection / Red Flags Screening

"Any fever or feeling unwell?"

"Is the area very red or hot?"

"Any wound or cut over the elbow?"

"Any night pain that wakes you up?"

"Pain at rest without movement?"

G. Background

Past joint issues (gout, RA, bursitis, repeated trauma).

Medications: NSAIDs, anticoagulants, steroids, immunosuppressants.

Allergies.

Diabetes or immune compromise.

H. Social / Occupational

"What kind of work do you do?" (Bricklaying, plumbing, lifting, leaning on elbows are relevant.)

"Has this affected your daily life or work?"

Dominant hand.

I. ICE

Ideas: "What do you think this might be?"

Concerns: "Worried about a fracture or long-term damage?"

Expectations: Pain relief? X-ray? Time off work?

3. Red Flags

Inability to move elbow at all

Gross deformity

Rapidly increasing swelling

Fever / systemic features

Red, hot, exquisitely tender swelling

Open wound over swelling

Numb/cold/pale limb

Wrist drop, finger weakness

Any of the above → same-day ED / Ortho.

4. Examination

Preparation

Hand hygiene, consent, expose from shoulder to hand.

"Let me know if anything is painful."

A. Look (Compare both sides)

From front, side, back.

Swelling - localised over **olecranon**, or diffuse around joint.

Erythema / warmth

Bruising

Wound or abrasion

Deformity

Muscle wasting

Carrying angle

Patient guarding

Observe functional movement

B. Feel

Temperature (back of hand)

Tenderness:

Olecranon tip

Medial epicondyle

Lateral epicondyle

Radial head (during rotation)

Joint line

Triceps tendon insertion

Swelling:

Fluctuant (bursa)

Firm (edema/haematoma)

Boggy warmth (infection)

Neurovascular:

Radial pulse

Capillary refill

Check for sensory deficits (median, ulnar, radial nerve territories)

C. Move

Compare both sides.

Active ROM:

Flexion

Extension (Note: pain on extension but ability to fully extend is reassuring and lowers fracture suspicion)

Supination

Pronation

Passive ROM:

Only if tolerated

Assess end-feel, pain

D. Special Tests

Elbow extension test for fracture suspicion

Varus/valgus stress - ligament integrity (gentle)

Radial head tenderness during pronation/supination

Screen wrist & shoulder to exclude referred injuries

E. Neurovascular Examination

Motor testing:

Radial nerve - wrist/finger extension

Ulnar nerve - finger abduction/adduction

Median nerve - thumb opposition

Sensation:

Median: index finger

Ulnar: little finger

Radial: dorsal thumb webspace

Circulation: Radial pulse, CR time.

5. Differential Diagnosis

Most likely

Post-traumatic soft-tissue injury / contusion - Trauma, swelling, tender, preserved ROM.

Traumatic olecranon bursitis - Swelling over olecranon, fluctuant tenderness, normal joint movement.

Possible

Occult fracture (olecranon / radial head) - Must rule out with X-ray even if ROM preserved.

Ligament sprain / capsular strain - Pain on movement, no major deformity.

Important but less likely

Septic bursitis - Red, hot, fever, systemic upset (absent here).

Gout / inflammatory arthritis - History-based, recurrent, severe stiffness.

6. Explanation

"From your examination, the swelling is sitting right over the small fluid-filled cushion at the back of the elbow. This swelling is most likely a **soft-tissue injury** from the fall, and specifically it may be **traumatic olecranon bursitis**, which means the small cushioning sac at the back of the elbow has become inflamed. Because you can still move the elbow fully and there's no deformity or nerve problem, a major fracture is unlikely. But since there was a fall and the elbow is swollen, the safest and standard approach is to get an **X-ray** just to be completely sure nothing is cracked."

7. Investigations

Independent educational content based on publicly available UK clinical guidelines.

Not affiliated with or derived from GMC PLAB 2 examination material.

GK's PLAB 2 Preparation WhatsApp Channel - <https://tinyurl.com/gksplab2>

1. X-ray of the elbow (AP + lateral) - Offer if indicated

Indications (offer X-ray if any of the following):

- Bony tenderness on palpation
- Reduced range of motion or inability to fully extend
- Visible deformity
- Clinical suspicion of fracture
- Significant mechanism of injury

Important radiological sign: Look for the "Fat Pad Sign" (or "Sail Sign") on lateral X-ray - displacement of the anterior or posterior fat pads indicates an **intra-articular effusion** (blood in the joint), which strongly suggests an **occult fracture** even if no fracture line is visible. Requires further imaging or orthopaedic review.

2. Bloods (only if red flags or infection suspected)

- FBC, CRP
- U&E (if NSAIDs needed)
- Uric acid (if gout suspected)

3. Bursal Aspiration - NOT routine

Only if:

- Septic bursitis suspected
- Diagnostics: MCS + crystals

AVOID aspirating simple traumatic bursitis - this introduces infection risk into a previously sterile space.

8. Management

A. First-Line Conservative Treatment

- Rest** - Avoid heavy lifting, pushing, leaning on elbow.
- Ice** - 15-20 minutes, 3-4 times/day (48-72 hours).
- Compression** - Light supportive bandage if comfortable.
- Elevation** - Keep elbow elevated when sitting/lying.
- Elbow padding** - To avoid further irritation if bursitis suspected.
- Encourage gentle movement** - Prevent stiffness; avoid total immobilisation.

B. Analgesia

- Paracetamol** regularly
- NSAIDs** if needed (ibuprofen/naproxen) unless contraindicated
- PPI cover if risk factors present
- Avoid NSAIDs if CKD/ulcers/anticoagulants

C. Antibiotics - ONLY if septic bursitis suspected

Features: fever, redness, heat, systemic signs

- Flucloxacillin** first line
- Clarithromycin** if penicillin allergic
- Admit if unwell or immunocompromised

D. Procedures

- Aspiration** only for suspected septic bursitis or large persistent swelling
- Steroid injection** rarely; only for chronic, recurrent, non-infected bursitis after exclusion of infection

E. Follow-Up

- Review **1-2 weeks**
- Review X-ray results
- If persistent + normal X-ray → consider physiotherapy / MSK referral
- If recurrent swelling → consider inflammatory or metabolic causes

F. Indications for Urgent Referral (ED / Ortho)

- Suspected fracture/dislocation
- Neurovascular compromise
- Severe swelling with fever (septic arthritis)
- Rapidly worsening swelling or redness
- Inability to move elbow
- Cold/pale limb
- Severe uncontrolled pain

9. Safety Netting

"Please come back urgently or seek emergency care if the elbow becomes very red, hot, or severely swollen, if you develop a fever, if you suddenly can't move the elbow, if your hand becomes numb or weak, or if the hand turns pale or cold."

10. Work Advice

- Temporary modification: avoid heavy lifting, pushing, carrying.
- Offer fit note if required.
- Encourage early mobilisation within pain limits.

11. Offer Information Leaflet

- Elbow injury / bursitis advice
- How to apply ice safely
- Signs of infection

12. Final Check & Closure

- "Does everything I've explained make sense?"
- "Any concerns or questions before we finish?"

Plantar Fasciitis

Setting: Primary Care

You are: Junior Doctor

Patient: Young Adult with Occupation Requiring Prolonged Standing | Chronic Heel Pain

Introduction

"Hello, I'm one of the doctors here at the practice.

Before we begin, could I confirm your full name and date of birth, please?

Thank you. So I understand you've been having some pain in your foot - would you mind telling me a bit more about that?"

Presenting Complaint – Pain Assessment (SOCRATES)

"Let me ask you a few specific questions about the pain."

Site: "Where exactly is the pain? Is it more towards the heel or the sole?"

Onset: "When did it start? Was it sudden or gradual?"

Character: "How would you describe the pain - sharp, stabbing, or dull?"

Radiation: "Does the pain travel to the toes or up the leg?"

Associated symptoms: "Any swelling, redness, tingling, or numbness?"

Timing: "Is the pain worse in the morning or after standing for long periods?"

Exacerbating/Relieving: "What makes the pain worse - walking, standing, or exercise?"

Severity: "On a scale of 1 to 10, how would you rate the pain at its worst?"

Differentiating Features

"Does the pain feel worst with your first steps in the morning or after sitting for a while?"

→ Classic for plantar fasciitis

"Does it get better after you've been moving around for a bit?"

Risk Factor Screening

Occupation: "I understand you're on your feet a lot for work. How long are you typically standing during your workday?"

Footwear: "Do you wear high heels or narrow shoes regularly?"

Injury/Activity: "Have you had any recent injuries to your foot?"

"Any change in your activity levels - like new workouts or long walks?"

Foot Shape: "Have you ever been told you have flat feet or high arches?"

Joint/Bone Conditions: "Do you have any conditions like arthritis, bunions, or previous foot problems?"

Full Medical Screening – MAFTOSA

M – Medical History: "Do you have any chronic conditions like diabetes, rheumatoid arthritis, or nerve problems?"

A – Allergies: "Any medication or food allergies?"

F – Family History: "Any foot problems or bone disorders in your family?"

T – Travel/Recent change: Not relevant unless prolonged walking involved

O – Occupation: Already addressed

S – Smoking: "Do you smoke?"

A – Alcohol/Activity: "Do you drink alcohol regularly?" "Do you exercise or run?"

ICE – Ideas, Concerns, Expectations

Ideas: "What do you think might be causing the pain?"

Concerns: "Is there anything you're particularly worried about?"

Expectations: "What were you hoping I could help you with today - pain relief, tests, or a referral?"

Examination

"Let me have a look at your foot now."

Inspection: Normal foot shape; no deformity, swelling, or erythema

Palpation: Point tenderness at the medial calcaneal tubercle (heel)

Sensation and pulses: Normal

Provisional Diagnosis

"I can imagine how frustrating it must be dealing with this pain every day, especially with your job requiring you to be on your feet so much."

"From what you've described and based on the location of your pain, this sounds like a condition called plantar fasciitis."

Explanation of the Condition

"Plantar fasciitis is a common cause of heel pain. It happens when a thick band of tissue that runs along the bottom of your foot - called the plantar fascia - becomes irritated and inflamed."

This tissue connects your heel bone to your toes and supports the arch of your foot. When you've been off your feet for a while - like when you sleep - it tightens up. That's why you feel that sharp pain with your first steps in the morning.

It's often caused by overuse, especially in people who are on their feet a lot or wear shoes without good support."

Management Plan

Immediate Treatment

Pain relief: "I'll recommend simple painkillers like paracetamol or an anti-inflammatory such as ibuprofen."

Footwear advice:

"Avoid high heels and narrow shoes."

"Try shoes with a wide toe box, arch support, and cushioning."

Insoles and Padding

"You can buy heel cushions or arch support insoles from a pharmacy to relieve pressure on the heel."

Activity Modification

"Try to avoid walking barefoot on hard floors, and take regular breaks if you're standing for long periods."

Stretching Exercises

"I'll show you some simple exercises - plantar fascia and Achilles tendon stretches - that can help. Doing these regularly, especially first thing in the morning, can make a big difference."

If Symptoms Persist (after 3 months of conservative management)

"If symptoms haven't improved after about 3 months of trying these measures, I can refer you to a physiotherapist or podiatrist."

"They may offer treatments like:

Structured physiotherapy

Custom orthotics

Corticosteroid injection (though this carries some risks like fat pad atrophy)

In some cases, shockwave therapy may be considered"

Safety Netting

"Please come back if the pain worsens, spreads to other parts of the foot, or affects your ability to walk."

"If you experience numbness, tingling, or severe swelling, we'll need to reassess for other causes."

Leaflet and Follow-Up

"I'll give you an NHS leaflet with exercises and footwear advice to help manage this condition."

"We'll review things in 4-6 weeks. Most people make a full recovery within one year - but it does require patience and consistency with the exercises."

"How does that sound? Is there anything you'd like me to go over again?"

Note for Students

This case tests your ability to recognise classic plantar fasciitis presentation:

Heel pain, worse with first steps in the morning

Pain improves with activity initially

Point tenderness at medial calcaneal tubercle

Risk factors: prolonged standing, poor footwear, obesity

Key clinical updates:

Referral timeline: 3 months of conservative management

Steroid injection is an option after conservative measures fail, but discuss risks

Most patients recover within 1 year with consistent self-management

Start with conservative measures: footwear modification, insoles, stretching exercises →

Physiotherapy/Podiatry after 3 months if no improvement → Orthopaedics/specialist only if refractory

Metatarsalgia

Setting: Primary Care

You are: Junior Doctor

Patient: Middle-Aged Adult Female with Occupation Requiring Prolonged Standing | Forefoot Pain

Introduction

"Hello, I'm one of the doctors here today.

Before we begin, could I confirm your full name and date of birth, please?

Thank you. So I understand you've been having some foot pain - could you tell me a bit more about it?"

Presenting Complaint – Pain History (SOCRATES)

"Let me ask you a few questions to get a clearer picture."

Site: "Where exactly do you feel the pain in your foot?" → Expected: Under the toes, ball of the foot

Onset: "When did the pain first start?"

Character: "What does the pain feel like - is it aching, sharp, or burning?"

Radiation: "Does it spread to the toes or up the foot?"

Associated symptoms: "Any swelling, tingling, numbness, or pebble-like sensation?"

Timing: "Is it constant or does it come and go?"

Exacerbating/Relieving: "Is it worse after walking, standing, or at certain times of day?"

Severity: "How would you rate the pain at its worst, on a scale of 1 to 10?"

Risk Factor Screening

Exercise/Activity: "Do you do any high-impact exercise like running or jogging?"

Footwear: "Do you often wear tight or narrow shoes, or high heels?"

Occupation: "I understand your job involves a lot of standing - how many hours a day would you say you're on your feet?"

Full Medical History – MAFTOSA

M – Medical History: "Do you have any foot problems like bunions, arthritis, or previous injuries?"

A – Allergies: "Do you have any allergies to medication?"

F – Family History: "Any family history of foot problems, neuropathy, or arthritis?"

T – Travel/Triggers: "Any recent travel or long walking trips recently?"

O – Occupation: Already discussed

S – Smoking: "Do you smoke?"

A – Alcohol & Activity: "Do you drink alcohol?" "How physically active are you?"

ICE – Ideas, Concerns, Expectations

Ideas: "Do you have any thoughts about what might be causing the pain?"

Concerns: "Is there anything specific you're worried about?"

Expectations: "Were you hoping for pain relief, a diagnosis, or a referral today?"

Examination

"Let me take a quick look at your foot."

Inspection: Normal foot shape; no deformity, swelling, or erythema

Palpation: Point tenderness over metatarsal heads, especially 2nd or 3rd

Sensation and pulses: Normal

Toe squeeze test: May reproduce pain (if Morton's neuroma, would expect clicking and radiating pain)

Findings consistent with metatarsalgia, not Morton's neuroma (no clicking, radiating pain, or positive Mulder's sign).

Provisional Diagnosis

"I can see this has been affecting your work - standing all day with this pain must be really difficult."

"From what you've described and based on the location of your pain, this sounds like a condition called metatarsalgia."

Explanation of the Condition

"Metatarsalgia is a common cause of pain in the ball of the foot, just behind the toes."

It's usually caused by pressure or overuse, particularly in people who are on their feet for long hours or wear narrow, unsupportive footwear.

The small bones in this area - called the metatarsals - can get inflamed from constant impact, especially if the weight is not distributed evenly."

Management Plan

Immediate Treatment

Pain relief: "I'll recommend simple painkillers like paracetamol or an anti-inflammatory such as ibuprofen."

Footwear advice:

"Avoid high heels and narrow shoes."

"Try shoes with a wide toe box, arch support, and cushioning."

Insoles and Padding

"You can buy metatarsal support insoles or pads from a pharmacy to relieve pressure on the ball of your foot."

Activity Modification

"Try to avoid walking barefoot on hard floors, and take regular breaks if you're standing for long periods."

Referral and Ongoing Care

Physiotherapy

"If symptoms don't improve in 2-4 weeks, I can refer you to a physiotherapist who will teach you calf and foot stretches to improve alignment and offload pressure."

Orthopaedic Referral (If Not Improving)

"If it continues to bother you despite conservative treatment after about 3 months, we'll refer you to an orthopaedic specialist. They may offer treatments like steroid injections or, in rare cases, surgery to relieve pressure on the area."

Safety Netting

"Please come back if the pain worsens, spreads to other parts of the foot, or affects your ability to walk."
"If you experience numbness, tingling, or severe swelling, we'll need to reassess for other causes like Morton's neuroma."

Leaflet and Follow-Up

"I'll give you an NHS leaflet with exercises and footwear advice to help manage this condition."
"We'll review things in 4-6 weeks. If you're still in pain by then, we can look into physio or refer you onward."
"How does that sound to you? Is there anything you'd like me to explain differently?"

Note for Students

This case tests your ability to differentiate forefoot pain - key pivot is:

Metatarsalgia: Pain on plantar surface, under the metatarsal heads, worsens with standing

Morton's Neuroma: Pain between the toes, often burning or radiating, with tingling or "pebble" sensation

Start with conservative measures: footwear modification, insoles, NSAIDs → Physiotherapy after 2-4 weeks if persistent → Orthopaedics only if unresolved after 3 months.

Morton's Neuroma

Setting: Primary Care

You are: Junior Doctor

Patient: Middle-Aged Adult Female Professional | Interdigital Foot Pain

Introduction

"Hello, I'm one of the doctors here today.
Before we begin, could I just confirm your full name and date of birth, please?
Thank you. So I understand you've been having some foot pain - could you tell me a bit more about it?"

Presenting Complaint – Pain History (SOCRATES)

"Let me ask you a few questions to get a clearer picture."

Site: "Where exactly do you feel the pain in your foot?" → Expected: Between the 3rd and 4th toes (webspace)

Onset: "When did the pain first start?"

Character: "What does the pain feel like - is it burning, sharp, or stabbing?"

Radiation: "Does it spread to the toes or up the foot?"

Associated symptoms: "Do you feel tingling, numbness, or a pebble-like sensation under your foot?"

Timing: "Does it come and go, or is it constant?"

Exacerbating/Relieving: "Is it worse after walking or running? Do your shoes make it worse?"

Severity: "On a scale of 1 to 10, how bad is the pain at its worst?"

Risk Factor Screening

Exercise/Activity: "Do you do any high-impact exercise like running or jogging?"

Footwear: "Do you often wear tight or narrow shoes, or high heels?"

Occupation: "Does your job involve long hours on your feet, or is it mostly sedentary?"

Full Medical History – MAFTOSA

M – Medical History: "Do you have any foot problems like bunions, arthritis, or previous injuries?"

A – Allergies: "Do you have any allergies to medication?"

F – Family History: "Any family history of foot problems, neuropathy, or arthritis?"

T – Travel/Triggers: "Any recent travel or long walking trips recently?"

O – Occupation: Already discussed

S – Smoking: "Do you smoke?"

A – Alcohol & Activity: "Do you drink alcohol?" "How physically active are you?"

ICE – Ideas, Concerns, Expectations

Ideas: "Do you have any thoughts about what might be causing the pain?"

Concerns: "Is there anything specific you're worried about?"

Expectations: "Were you hoping for pain relief, a diagnosis, or a referral today?"

Examination

"Let me take a quick look at your foot. I'll be as gentle as I can."

Inspection: No visible swelling or skin changes

Palpation:

Tenderness between the 3rd and 4th metatarsals

Squeeze test (Mulder's sign) may reproduce pain or clicking

Neurovascular exam: Normal pulses and sensation

Weight-bearing: Discomfort worsens when walking barefoot or in tight shoes

Findings consistent with Morton's neuroma

Provisional Diagnosis

"I know the burning and tingling sensations you've been having must be quite uncomfortable."

"From what you've described - including the burning pain, tingling, and pebble-like sensation between your toes - this seems to be a condition called Morton's neuroma."

Explanation of the Condition

"Morton's neuroma is a nerve-related condition that affects the area between your toes.

There's a small nerve that runs between the bones in the ball of your foot, and over time, irritation or pressure from shoes or running can cause that nerve to become thickened or compressed.

That's what's likely causing the pain and strange sensations you've been feeling - like walking on a small stone or having numbness in the toes."

Management Plan**Immediate Management**

Pain relief: "You can start with simple painkillers like paracetamol or ibuprofen to manage the discomfort."

Footwear advice:

"Avoid narrow or tight-fitting shoes."

"Switch to footwear with a wide toe box and good cushioning."

Insoles / Orthotics

"You can try metatarsal pads or insoles, available at most pharmacies - they help reduce pressure on the affected area."

Referral and Ongoing Care

Physiotherapy (if persistent symptoms)

"If the pain continues, we can refer you to a physiotherapist who can show you stretching and strengthening exercises for your foot."

Imaging (if diagnosis uncertain or not responding)

"We usually don't need scans to diagnose this, but if it doesn't respond to treatment, an ultrasound can help confirm the diagnosis."

Orthopaedic Referral (after 3 months)

"If symptoms don't improve after about 3 months, we'll refer you to an orthopaedic specialist. They may offer further treatment like:

Ultrasound-guided steroid injections to reduce inflammation

Shockwave therapy (though this isn't widely available in all NHS services)

Or in rare cases, surgical removal of the nerve thickening"

Safety Netting

"Please return sooner if the pain becomes severe, your toes go numb, or you have any difficulty walking."

"If there's no improvement after a few weeks with footwear and pain relief, we'll move forward with referral options."

Leaflet and Follow-Up

"I'll give you an NHS leaflet that explains Morton's neuroma and tips for footwear and exercises."

"We'll review you in 4–6 weeks to check how things are progressing."

"Is there anything you'd like me to explain differently?"

Note for Students

This case helps differentiate Morton's neuroma from metatarsalgia:

Feature	Morton's Neuroma	Metatarsalgia
Location	Between 3rd and 4th toes (interdigital)	Under the ball of foot (metatarsal heads)
Sensation	Tingling, burning, numbness, "pebble"	Dull ache or pressure
Trigger	Tight shoes, running	Standing long hours, high heels
Treatment	Footwear + orthotics → Ortho if needed	Padding + footwear → Physio

Clinical updates:

Add ultrasound-guided steroid injection as intermediate option before surgery

Shockwave therapy is not widely available in all NHS services

Polymyalgia Rheumatica

Setting: Primary Care

You are: Junior Doctor

Patient: Older Adult Female with Systemic Symptoms | Bilateral Proximal Muscle Pain and Stiffness

Introduction

"Hello, I'm one of the doctors here at the surgery. It's lovely to meet you.

Could I confirm your full name and date of birth, please? Thank you."

Then:

"What brought you in to see us today?"

Patient: "I've been having some muscle pain for the last couple of months."

"I'm sorry to hear that. Could you tell me a bit more about this pain? Where exactly are you feeling it?"

Presenting Complaint – History of Muscle Pain

"Where are you feeling the pain most?" → Shoulders and thighs mentioned after prompting
"When did it start?"
"Was it sudden or did it come on gradually?"
"Has it been getting worse over time?"
"Is it a constant ache, or does it come and go?"
"Is the pain worse at any particular time of day?" → Morning stiffness that improves by afternoon
"Does it improve with movement or rest?"
"On a scale of 1 to 10, how bad would you say the pain is right now?" → Pain described as dull, constant ache, around 5–6/10, worse in the morning

Associated Symptoms and Red Flag Screening

"Do you feel stiff in the mornings?"
"Roughly how long does the stiffness last after waking?"
"Have you had any fevers, chills, or flu-like symptoms recently?"
"Have you felt more tired than usual?" → Yes
"Any changes in your weight or appetite?"
"Any rashes, mouth ulcers, or other joint pain - like in your hands or feet?"
"Have you had any recent infections or illnesses?"

Rule out Giant Cell Arteritis (critical):

"Have you had any new headaches or pain over the sides of your head?"
"Any problems with your vision - like blurring or loss of sight?"
"Do you ever get pain in your jaw when eating or talking?"
→ No to all → GCA ruled out for now

Medication & Background – PMAFTOSA

"Are you on any regular medication?" → Omeprazole
"Any known allergies to medicines?"
"Any other long-term conditions apart from the heartburn?" → No diabetes, no arthritis, no known inflammatory disease
"Have you or anyone in your family had anything like this before?"
"Do you smoke or drink alcohol?" → Non-smoker
"Are you retired or still working?"
"Have you been able to manage your daily activities at home?" → "I used to play with my grandchildren, but I can't even lift them now."

ICE

Ideas: "Has anyone suggested what this could be?"

Concerns: "Is there anything you're worried about - like arthritis or something more serious?"

Expectations: "What were you hoping we could do for you today?"

"I can see how much this has affected you - not being able to lift your grandchildren must be really frustrating."

Examination

"Thanks for sharing that. I'd now like to examine you. I'll check your general observations, have a look at your shoulders, hips, and joints, and assess your muscle strength and range of motion."

Observations: Temperature, BP, HR, RR, SpO₂ - Normal

Joint exam:

No visible swelling or deformity

Passive movement full, active movement restricted by pain in shoulder and hip girdle

Eyes and temporal arteries: Normal, non-tender

No small joint involvement, no rash

Provisional Diagnosis

"From what you've described - the gradual-onset muscle pain in your shoulders and thighs, stiffness in the morning that eases during the day, your fatigue and weight loss - this all fits a condition called Polymyalgia Rheumatica, or PMR."

Explanation

"PMR is a condition where your immune system becomes a bit overactive and causes inflammation in the large muscle groups - particularly around your shoulders, hips, and neck.

It can cause aching, stiffness, and tiredness, particularly in the morning, and often develops in people over 50."

"It's not the same as arthritis. The joints themselves aren't damaged, but the muscles around them can feel quite painful and stiff."

Investigation Plan

"Before we confirm the diagnosis, I'd like to run some blood tests to support what we suspect and rule out other conditions."

Tests to order:

ESR and CRP - Inflammatory markers

FBC, U&Es, LFTs - Baseline

Creatine Kinase - To rule out myositis

Thyroid function tests - To exclude hypothyroid myopathy

Rheumatoid factor, ANA - To rule out autoimmune disease

Calcium, ALP, phosphate, Vitamin D - Bone profile

Urine dipstick - Screen for systemic disease

Serum protein electrophoresis - If there are concerns about underlying malignancy

Treatment Plan

"If the blood tests confirm our suspicion, the treatment is usually very effective."

Prednisolone 15 mg/day (once diagnosis is confirmed)

"We expect you to feel 70% better within the first week of starting treatment."

"I'll start you on treatment today and arrange close follow-up with your GP. They'll monitor your response and adjust the dose over the coming months according to specialist guidelines - this is a condition that needs careful, gradual reduction of the steroid over 1-2 years."

Tapering schedule (per BSR guidance):

15 mg for 3 weeks

Then 12.5 mg for 3 weeks

Then 10 mg for 4-6 weeks

Then reduce by 1 mg every 4-8 weeks

Gastroprotection:

Omeprazole: Increase to 20 mg daily to protect the stomach from steroid irritation

Bone Protection (start at treatment initiation):

Calcium + Vitamin D (800-1000 IU vitamin D daily)

Alendronic acid: Start now if long-term steroids expected

Steroid Emergency Card:

Provide at initiation

Explain: "It's really important that you never stop steroids suddenly, because your body gets used to receiving them from outside and needs time to adjust."

Lifestyle Advice

"Stop smoking if you do, maintain a healthy weight, and keep gently active to prevent stiffness."

"Steroids can increase blood sugar and blood pressure, so we'll monitor those regularly."

"We'll also keep an eye on your bone health during follow-up."

Safety Netting & Follow-Up

"If you develop a new headache, pain over your temples, difficulty chewing, or any changes to your vision, please call us or attend A&E immediately - that could suggest a related condition called Giant Cell Arteritis that needs urgent treatment."

Follow-up schedule:

Blood results review within 3–5 days

Then week 1, week 3, week 6, then monthly

"I'll give you a leaflet on PMR and explain next steps clearly."

"We'll also issue you a Steroid Emergency Card (blue card) at initiation."

Note for Students

This is a classic presentation of Polymyalgia Rheumatica (PMR):

Symptom duration: >2 months of bilateral muscle pain in the shoulder and hip girdles

Nature of pain: Dull, gradually worsening, with morning stiffness that improves through the day

Systemic clues: Fatigue, weight loss, and no signs of joint swelling or inflammation

No small joint involvement, no rash, no visual symptoms → makes RA, SLE, GCA unlikely

Pain worsened with activity, not inflammatory pattern → rules out osteoarthritis

No fever, trauma, or acute inflammation → septic arthritis ruled out

Bone protection (bisphosphonate) should be started at treatment initiation, not delayed to follow-up

Steroid tapering follows BSR guidance: slow reduction over 1–2 years

Always screen for GCA at every visit

Polymyalgia Rheumatica – Follow-Up

Setting: Primary Care

You are: Junior Doctor

Patient: Older Adult Male on Corticosteroid Therapy for PMR | 3-Week Treatment Review

Introduction

"Hello, it's nice to see you again."

I understand you've been on treatment for PMR for about 3 weeks now. How have things been going?"

Assessing Treatment Response

"How has your pain been since starting the steroid?"

"Are you able to move more easily now?"

"Is the morning stiffness any better?"

"Are you back to doing your usual daily activities?"

→ Expected: "Yes doctor, I'm feeling much better - about 70-80% improved."

"That's great to hear - that's exactly the kind of response we hope to see with PMR."

Screening for Side Effects

"Have you noticed any side effects from the steroid?"

"Any stomach pain, indigestion, or heartburn?"

"Any changes in your mood or sleep?"

"Any swelling in your ankles or increased thirst?"

"Any new aches in your bones or joints?"

Screening for Giant Cell Arteritis (Every Visit)

"I need to ask you a few important questions that I'll ask at every visit:"

"Have you had any new headaches?"

"Any tenderness over your temples?"

"Any jaw pain when chewing?"

"Any changes in your vision - blurring, double vision, or loss of sight?"

→ No to all - continue current plan

Review Blood Results

"Your blood tests have come back. I'm pleased to say your inflammation markers have come down nicely - your ESR is now 10 and CRP is 5, which is a good sign that the treatment is working."

Adjusting Treatment

"Since you're feeling better and your blood tests are improving, we can now start to gradually reduce your steroid dose."

Current dose: 15 mg daily

New dose: 12.5 mg daily

"That's two and a half of the 5 mg tablets each morning, or one and a quarter of the 10 mg tablets, depending on what you have."

"We reduce it slowly because your body needs time to adjust. If we drop too quickly, the symptoms might come back."

Adding Protective Medications

Alendronic Acid:

"We should have started bone protection when you first started the steroid, but it's important we add it now. Steroids can gradually weaken bones, which is why we add this medication to protect them."

Lansoprazole:

"Steroids can also irritate the stomach lining, so we'll add Lansoprazole to prevent ulcers."

Side effect counselling:

"We're adding these medications to prevent side effects, not because you've developed them."

"We'll continue checking your blood sugar, blood pressure, and monitor for any signs of infection."

Safety Netting

"If you develop new headaches, visual problems, or pain in your jaw, please get in touch urgently as those may be signs of Giant Cell Arteritis."

"Also contact us if you feel generally unwell, have a fever, or struggle with your medication."

Follow-Up Plan

"I'll arrange a blood test in 3 weeks' time to check your inflammation levels are still coming down. Then we'll see you at week 4 to review and plan the next dose reduction."

Closure

"Just to summarise: your symptoms have improved, we're reducing your steroid dose gradually, adding two medications to protect your bones and stomach, and we'll review you in four weeks.

I'll also give you a leaflet that explains your condition and these medications.

Is there anything else you'd like to ask before we finish?"

Variation: Follow-Up with Elevated ESR/CRP

Key Clinical Difference:

Patient reports subjective improvement in pain and stiffness, BUT recent blood tests show persistently elevated inflammatory markers: → ESR 55, CRP 43

Impact on Management:

Do NOT reduce Prednisolone (stay at 15 mg daily)

Emphasise that steroid tapering is based on both clinical response and blood markers

Repeat bloods in 2–3 weeks, continue current dose

Reassess at next follow-up with symptoms and updated labs

"Even though you're feeling better - which is a good sign - your blood tests still show a high level of inflammation. That means we'll need to keep the steroid dose the same for now to make sure the condition is fully controlled. We'll repeat the tests in a few weeks and decide next steps based on those results."

Polymyalgia Rheumatica – Side Effects Discussion

Setting: Primary Care – Telephone Consultation

You are: Junior Doctor

Patient: Older Adult Male on High-Dose Corticosteroids for PMR

Background:

Diagnosed with PMR 3 weeks ago

Started on Prednisolone (note: typical PMR dose is 15–20 mg; doses of 40–60 mg suggest GCA concern)

Patient is calling outside routine follow-up due to tummy pain and concern about medication

Introduction

"Hello, Mr [Surname], you're speaking to Dr [Your Name], one of the doctors at the practice.

I can see you were recently started on treatment for a condition called polymyalgia rheumatica.

You've booked this appointment yourself - is there anything in particular you'd like to speak about today?"

Expected response: "Yes, doctor. I've been having stomach pain, and I was wondering if I can stop taking the steroids."

Exploring the Concern – Stomach Pain

"Thanks for letting me know. Let's go through what's been happening so we can figure out the best way forward."

Explore naturally:

"Can you describe what the stomach pain feels like?"

"Where exactly is it - is it more in the upper part, like near your chest, or lower down?"

"When does it usually happen - after eating, first thing in the morning, or at night?"

"Have you noticed if anything makes it worse - like certain foods or medications?"

"Have you had any nausea, vomiting, bloating, or felt overly full after meals?"

"Any changes in your bowels - like diarrhoea, constipation, or passing dark stools?"

"Are you eating and drinking normally?"

Then:

"Have you had any other symptoms recently - like feeling unwell, tired, or feverish?"

Medication Review

"Let's talk through the medication you were started on. You were prescribed Prednisolone - are you still taking it every morning?"

"Have you been able to take it regularly with food?"

"Have you missed any doses?"

"Are you taking any other medications alongside it?"

"Were you started on anything to protect your stomach - like Lansoprazole?"

Review of Response to Treatment

"Now coming back to your original symptoms - when we started this medication, you had pain and stiffness in your shoulders and hips, especially in the mornings. How have things been since then?"

Explore clearly:

"Would you say your pain has improved?"

"Are you able to move more easily now?"

"Do you still feel stiff in the mornings?"

"Are you back to doing your usual daily activities?"

Expected: "Yes doctor, I'm feeling better overall, but this stomach pain has been bothering me."

Background & Risk Factors – MAFTOSA

M – Medical history: "Do you have any other medical conditions we should be aware of?" → (Expected: Hypertension, possibly diet-controlled diabetes)

A – Allergies: "Any allergies to medication?"

F – Family history: (Ask only if relevant)

T – Travel: (Not relevant here)

O – Occupation: "Are you currently retired?"

S – Social history:

"Do you drink alcohol?"

"Do you smoke?"

"Do you often eat spicy or heavy meals?"

"Are you generally able to stay active?"

A – ICE:

"Do you feel that the stomach pain is being caused by the medication?"

"Is your main concern that the steroid might be harming you?"

"Were you hoping we could stop it today?"

Management – Address the Concern

Address the concern about stopping steroids:

"I completely understand why you're concerned - and thank you for sharing this."

But just to be clear, it's not safe to stop steroids suddenly. Since your body adjusts to receiving them from outside, it temporarily stops making its own. If we stop abruptly, it could cause serious complications like low blood pressure, fatigue, and even collapse - we call this a 'steroid crisis.'"

Explain condition risk and purpose of continuing:

"Also, this medication is not just for your joint pain - PMR can sometimes be linked to a condition that affects the blood vessels to your eyes, and if left untreated, it can cause sudden permanent vision loss. The steroid helps protect against this."

Propose a solution: Treat the side effect, not stop the drug:

"But we can absolutely help you with this side effect. What you're describing sounds like a steroid-related stomach irritation. To protect your stomach, we'll prescribe a medication called Lansoprazole, which helps reduce acid and prevent ulcers."

Add preventive treatment (if not yet added):

"We'll also add a bone-protective medication called Alendronic Acid, since long-term steroid use can increase the risk of osteoporosis."

Lifestyle Advice

"In the meantime, a few lifestyle changes can help your stomach too:"

"Try to avoid spicy, fried, or acidic foods, especially late at night."

"Reduce or avoid alcohol, as it can worsen inflammation."

"Eat smaller, more frequent meals rather than large ones."

"Try to take your steroid first thing in the morning with breakfast."

"And try to stay active with gentle movement or walks - it can improve digestion."

Safety Netting

"Please don't hesitate to call us again if:"

Your stomach pain gets worse, especially if you notice vomiting, loss of appetite, or black stools

Your original PMR symptoms return

You feel generally unwell, feverish, or have vision problems or headaches

"We'll also be arranging regular blood tests and reviews to adjust your steroid dose safely over time."

Summary & Closure

"So, just to summarise:

We are not stopping the steroid today because that would be unsafe and could lead to a flare-up.

But we will treat the side effects with Lansoprazole and advise some dietary changes.

We'll continue monitoring your response and adjust your dose step by step in the coming weeks.

Does that sound okay to you?

Is there anything else you'd like to ask before we finish the call?"

Note for Students

This is a patient-initiated consultation - not a formal follow-up. You must:

Show empathy for side effects, but clarify why steroid must continue

Focus on symptom relief, not medication withdrawal

Add protective medications and lifestyle changes

Use natural, structured language

Safety-net carefully, especially for GCA warning signs and GI bleeding

Chronic Fatigue Syndrome

Setting: Primary Care **Patient:** Adult **Presentation:** Persistent Fatigue Unrelieved by Rest

1. Introduction

"Hello, I'm one of the doctors here at the practice. Thank you for coming in today. Could I confirm your full name and age, please?"

"I understand you've been feeling extremely tired lately. I'll ask a few questions to explore that further and see how we can help."

2. Presenting Complaint (ODIPARA - Fatigue)

"When did this tiredness first start?"

"Is it there all the time or does it come and go?"

"How does it feel - more like exhaustion, weakness, or sleepiness?"

"Does anything make it better or worse?"

Expected: "Even after rest I still feel tired."

"Have you noticed it affecting your ability to work, exercise, or do normal activities?"

"Does exercise improve or worsen the symptoms?"

Expected: "It makes it worse."

3. Differential Diagnosis Screening

"I'll also ask some questions to rule out other possible causes of tiredness."

Systemic:

"Have you had any fever, weight loss, or night sweats?"

"Any recent infections - like COVID, TB, or flu?"

Haematological:

"Any pale skin, tongue soreness, or breathlessness on walking?"

Endocrine:

"Have you felt cold easily or noticed constipation, dry skin, or hair loss?" (*Hypothyroidism*)

"Any increased thirst, urination, or blurred vision?" (*Diabetes*)

Cardiac/Renal:

"Any chest pain, palpitations, or ankle swelling?"

"Have you noticed changes in your urine - darker colour, frothy, or reduced amounts?"

Mood/Neuro:

"How has your mood been recently?"

"Do you feel low, anxious, or unmotivated?"

"Have you lost interest in things or had trouble concentrating?"

4. Targeted Risk Factor History

"Have you had frequent flu-like illnesses over the past year?" *Expected: "Yes, last month and before that too."*

"Do you feel stiffness when you walk or first wake up?"

"How is your sleep - is it broken, shallow, or has your sleep pattern changed?"

"Do you find it hard to remember things, concentrate, or find words?"

"Have you had any issues with doing everyday tasks like calculations or multitasking?"

5. PMAFTOSA

P: Any other long-term health conditions (thyroid, autoimmune, etc.)?

M: Are you on any regular medications or supplements?

A: Any known allergies?

F: Any family history of autoimmune conditions, thyroid disease, or depression?

T: Any recent travel or infections abroad?

O: What do you do for work? Have you had to take time off?

S: Do you live alone or with family? Are you getting support?

A: Any smoking, alcohol, or substance use?

6. ICE

Ideas: "What do you think might be causing your tiredness?"

Concerns: "Is there anything in particular you're worried this could be?"

Expectations: "Were you hoping we could run tests or offer a diagnosis today?"

7. Effect on Life

"Has this tiredness affected your ability to work or socialise?"

"Are you able to go shopping, cook, or do housework like before?"

"Has it changed your daily routine significantly?"

8. Examination

"I'd like to examine you and check a few things, including your blood pressure, heart rate, and general condition."

Vitals: HR, BP, Temp - normal

GPE: Patient appears alert but tired

BMI recorded

Cardiovascular and respiratory exams: NAD

No lymphadenopathy or localised signs

Neurological exam normal

No signs of anaemia or thyroid disease clinically

9. Provisional Diagnosis

"Based on what you've told me - especially that these symptoms have lasted more than 3 months, aren't relieved by rest, and actually get worse after activity - this may be a condition called Chronic Fatigue Syndrome, also known as Myalgic Encephalomyelitis or ME."

"For a diagnosis of ME/CFS, we look for four key features: debilitating fatigue, symptoms that get worse after physical or mental effort (called post-exertional malaise), sleep that doesn't refresh you, and difficulty with concentration or memory."

10. Lay Explanation of the Condition

"It's a condition where the body seems unable to produce enough energy for normal activity, even though there's no clear structural disease. It can affect sleep, thinking, memory, and physical ability."

"It's often triggered after an infection - many patients describe feeling like they never fully recovered from a virus."

"It's what we call a **functional condition** - which means it's absolutely real and can be very disabling, even though standard scans and blood tests often come back normal."

"The diagnosis is made after ruling out other treatable causes."

11. Management Plan

A. Blood Tests

"We'll first do a set of blood tests to rule out conditions like anaemia, thyroid issues, diabetes, kidney or liver problems, and infections."

B. Referral

"Once these are done, we'll refer you to a **specialist ME/CFS team** who can confirm the diagnosis and guide your treatment plan."

Note: Referral should be to ME/CFS specialist team, not specifically rheumatology (per NICE NG206).

C. Treatment

"There's no single cure, but you'll be offered a mix of:"

Energy management therapy (pacing activity through the day)

Physiotherapy or occupational therapy

Sleep hygiene advice (avoiding naps, improving routine)

Talking therapies (only to support management, not as treatment or cure - per NICE NG206)

Important: Graded Exercise Therapy (GET) should NOT be offered (per NICE NG206).

D. Vitamins

"Some people ask about vitamin supplements or special diets - there's no evidence these help ME/CFS specifically, though we'll check your vitamin levels aren't low. If we do find a deficiency and correcting it resolves your symptoms, then it probably wasn't CFS in the first place."

12. Safety Netting & Follow-Up

"Please come back sooner if you develop any new symptoms like persistent fever, significant weight loss, or symptoms that worry you."

"We'll call you when your blood results are back and make the referral to the specialist ME/CFS team."

"In the meantime, if you'd like to read more, I'll give you a leaflet and a reliable website."

Student Note: Patient presents with >3 months of fatigue (updated from 6 weeks per NICE NG206) not relieved by rest, worsened by exercise (post-exertional malaise is mandatory criterion), associated with flu-like symptoms, cognitive dysfunction, and non-refreshing sleep. Red flag screening and PMH do not suggest an alternative diagnosis. Clinical suspicion of **Chronic Fatigue Syndrome**. Plan includes **blood tests, referral to specialist ME/CFS team** (not rheumatologist), and **supportive therapy**. GET not offered per NICE NG206. Vitamin deficiencies will be tested, not presumed.

Acute Gout

Setting: Primary Care

You are: Junior Doctor

Patient: Middle-Aged Female with Cardiovascular Risk Factors | Acute Monoarthritis of First MTP Joint

Introduction

"Hello, I'm one of the doctors here at the surgery. Thank you for coming in today.

Could I confirm your full name and date of birth, please?

Thanks. So I understand you've been having pain in your toe - could you tell me a bit more about it?"

Presenting Complaint – Pain History

"Can you describe the pain to me in your own words?"

"When did it first start?"

"Was it sudden or gradual in onset?"

"Has it been getting worse over time?"

"Is it constant or does it come and go?"

"What makes it worse - does walking or touching it aggravate the pain?"

"Have you tried anything for it - ice, paracetamol - did it help?"

"Have you had any similar episodes in the past?"

Expected:

Sudden pain began a week ago

Worsens with movement

Nothing improves it

Swelling, redness, tenderness present

No previous similar episodes

Red Flag & Differential Screening

To rule out septic arthritis and other causes:

"Do you have a fever or chills?"

"Any discharge or breaks in the skin around the toe?"

"Any recent insect bites or injuries?"

"Any rashes or other joint pain?"

"Have you been feeling generally unwell?"

All observations: Normal

No systemic symptoms → septic arthritis unlikely but still considered in safety net

Risk Factor Screening

Focused questioning on contributors to hyperuricaemia:

"Do you have any other medical conditions?" → Known hypertension

"Are you currently on any regular medication?" → Taking Bendroflumethiazide 2.5 mg daily

"Do you smoke or drink alcohol?" → Yes, smokes, drinks beer regularly

"How is your weight?" → Overweight/obese on inspection

"Do you eat a lot of red meat, shellfish, or drink sugary fizzy drinks?"

ICE

Ideas: "Do you have any thoughts about what this might be?" → "Is this some kind of bone cancer?"

Concerns: "Are you worried it could be something serious?"

Expectations: "Were you hoping for pain relief or a diagnosis today?"

"Thanks for sharing that. I'll go through what I think is going on, and then we'll make a plan together."

Examination Summary

"From what you've described and from examining your toe:"

Findings: Swollen, red, hot, tender big toe

No visible injury

No systemic signs (observations normal)

Provisional Diagnosis

"Based on your symptoms, the location of pain, and background risk factors, this sounds like a condition called gout."

Explanation

"Gout is a type of inflammatory arthritis. It happens when there's a build-up of uric acid in the body, which forms sharp crystals that deposit in joints - most commonly the big toe.

This leads to sudden pain, swelling, redness, and heat in the affected joint. It's more likely if someone is overweight, drinks alcohol regularly, or is on certain medications - like thiazide diuretics, which you're currently taking for your blood pressure."

"It's definitely not bone cancer - I understand that concern. It can feel very painful and dramatic, but the good news is this is very treatable, and with the right approach, we can prevent it coming back."

Management Plan (Acute Flare)

A. Investigations:

Blood tests: Uric acid, FBC, CRP, renal profile, HbA1c, cholesterol

Urine dipstick

X-ray of the foot: Only if diagnosis is uncertain - not routine per NICE

Target uric acid level: "The aim is to get your uric acid level below 360 micromoles per litre."

B. Pain & Inflammation Relief:

Choose ONE of the following depending on comorbidity:

Naproxen 500 mg BD + Lansoprazole 15–30 mg OD (if no contraindications), OR

Colchicine 500 micrograms two to four times daily until symptoms resolve, maximum 6 mg per course, not to be repeated within 3 days, OR

Short course of Prednisolone (30 mg OD for 5 days)

Tailor based on renal function, GI risk, or patient preference.

C. Lifestyle & Risk Factor Advice:

Stop Bendroflumethiazide → will arrange for a safer alternative antihypertensive

Reduce alcohol: "I'd recommend cutting back on alcohol, particularly beer and spirits, as they can raise uric acid levels."

Weight management: Recommend weight loss → refer to dietitian for BMI and diet plan

Diet: Advise balanced diet, avoiding purine-rich foods (red meat, organ meats, shellfish)

Important: "While healthy eating helps, diet alone won't cure gout - you may need medication long-term to keep uric acid low."

D. RICE Measures:

Rest, Ice, Compression, Elevation – apply cold pack to reduce inflammation

Safety Netting

"You should start feeling better within a few days."

"If the pain gets worse, if you develop a fever, or the swelling spreads, please contact us urgently."

"If it doesn't improve in 2 days, we may need to re-evaluate to rule out infection."

Follow-Up Plan

"Once this acute flare settles - usually in about 1–2 weeks - we should arrange a follow-up to discuss long-term treatment to prevent future attacks."

Re-check bloods, especially urate levels

Consider starting urate-lowering therapy (e.g., Allopurinol) at least 2–4 weeks after flare has completely settled if:

Recurrent flares

Joint damage on imaging

Urate level persistently high

Tophaceous gout

Patient preference

If Allopurinol not tolerated, Febuxostat is an alternative (caution in cardiovascular disease)

Refer to hypertension clinic to adjust BP meds

Discuss smoking cessation support

Leaflet & Closure

"I'll give you an NHS leaflet on Gout or direct to NHS.uk/gout."

"So just to recap: This is very likely gout, we're treating it today with anti-inflammatory medication, and I'll also arrange blood tests and medication review.
We'll follow up in a few weeks, and we'll work on preventing future episodes.
Is there anything else on your mind before we wrap up?"

Note

Always address cancer concerns empathetically and directly
Acute gout management = treat flare + address contributors
Ideally wait 2-4 weeks after flare settles before starting allopurinol; however, if flares are frequent, ULT can be started during a flare (NICE NG219)
Always stop thiazides if gout develops
Offer both short-term relief and long-term plan
Colchicine dosing per NICE NG219: 500 micrograms two to four times daily until symptoms resolve, max 6 mg per course

Chronic Tophaceous Gout

Setting: Primary Care

You are: Junior Doctor

Patient: Older Adult Female with History of Gout | Chronic Bilateral Hand Joint Swelling

Introduction

"Hello, I'm one of the doctors here at the practice. Could I confirm your full name and date of birth, please?"

"Thank you. I understand you've come in today after the nurse at the well woman clinic noticed some swelling in your fingers - let me ask a few questions to understand this better, and then we'll discuss what to do next."

Presenting Complaint – Focused History

Start with open exploration:

"When did you first notice this swelling in your fingers?"

"Has it changed or progressed over time?"

"Does it come and go, or is it constant?"

"Have you noticed any redness, warmth, or pain in those joints?"

"Are the joints stiff, especially in the mornings?"

"Have you had any problems using your hands - like holding a pen or doing up buttons?"

Expected:

Swelling present for 5 years

No pain, no redness, no morning stiffness

No recent systemic illness

Screening for Differentials

Prompt to rule out other arthropathies:

"Have you had any fevers, chills, or felt unwell recently?" (→ septic arthritis)

"Any new joint pains or flare-ups over the past few months?" (→ active gout)

"Do the joints ever feel hot or throbbing?"

"Have you ever had painful joints with early morning stiffness lasting more than 30 minutes?" (→ RA)

"Have you ever noticed bony lumps on your finger joints?" (→ OA)

"Do your knees or hips ever get painful or swollen?"

Past Medical & Drug History – PMAFTOSA

Establish underlying cause and past treatment:

"I understand you have high blood pressure - what medications are you currently on?" → Previously on Bendroflumethiazide → now changed to Amlodipine

"Have you been diagnosed with gout before?"

"What treatment were you given back then?" → Previously on Colchicine → stopped due to side effects

"Any allergies to medications?"

ICE – Ideas, Concerns, Expectations

"Has anyone explained to you what this swelling could be?" → "Is this arthritis? Is this something serious like cancer?"

"Are you worried it could be permanent?"

"What were you hoping we could do for you today?"

Effect on Life

"Have these swellings affected your ability to do things at home?"

"Do you live alone - are you managing household tasks and cooking?"

"Any support at home, or are you fully independent?"

Examination

"Let me take a look at your hands."

Findings:

Hard, non-tender nodules around finger joints (consistent with tophi)

No active inflammation (not hot, not red)

Normal range of motion

No joint deformity typical of RA (no ulnar deviation)

Provisional Diagnosis

"It's definitely not cancer - these are just collections of crystals that have built up over time. The good news is, with treatment, they can actually shrink."

"Based on what you've told me and what I can see, these lumps appear to be something called tophi - they're a sign of chronic gout."

Explanation

"Tophi are basically deposits of uric acid crystals that have built up under the skin over time. They happen when gout isn't fully treated and uric acid levels stay high for a long period.

Unlike acute gout attacks, tophi aren't usually painful - but they can damage the joints if left untreated.

The good news is that with proper treatment to lower your uric acid, these lumps can gradually shrink over time - though it can take months or even a couple of years for them to fully reduce."

Management Plan

A. Investigations:

Blood tests: Serum uric acid, FBC, renal profile, LFTs

X-ray of both hands: To look for joint damage (punched-out erosions)

Target uric acid level for tophaceous gout: "For people with tophi, we aim for a uric acid level below 300 micromoles per litre - lower than for gout without tophi."

B. Urate-Lowering Therapy:

"If your uric acid is elevated, we'll start you on a medication called Allopurinol. We start with a low dose and gradually increase it, checking your uric acid levels along the way."

Flare prophylaxis: "When we start urate-lowering treatment, we usually give a low-dose anti-inflammatory (Colchicine) for the first few months to prevent flares while your body adjusts."

If Allopurinol not tolerated → consider Febuxostat (with caution if cardiovascular disease)

C. Rheumatology Referral:

"Given that you have chronic tophaceous gout, I'll refer you to a rheumatologist - they're the specialists who manage complex gout and can guide long-term treatment."

D. Lifestyle Advice:

Reduce alcohol intake

Maintain healthy weight

Stay well hydrated

Balanced diet (but emphasize: diet alone is not enough)

Safety Netting

"If you develop sudden pain, redness, or swelling in any joint, please contact us - that could be an acute gout flare."

"If you notice the lumps getting bigger or affecting your hand function, let us know."

Follow-Up Plan & Closure

"I'll arrange for your blood tests and X-rays, and we'll bring you back once the results are in to plan your long-term care."

"I'll also give you an NHS leaflet on gout and tophi that you can take home."

"You don't need to start medication today, but we'll review your bloods and decide together."

Septic Arthritis

Setting: Primary Care / Urgent Care **Patient:** Older Adult with Diabetes **Presentation:** Acute Monoarthritis with Systemic Features **History:** Previous Crystal Arthropathy in Different Joint **Observations:** Tachycardia, Pyrexia (Provided at Station)

Introduction

"Hello, I'm one of the doctors here today. Thank you for coming in. Just before we begin, could I confirm your full name and age, please? And what brought you in today?"

(Patient likely says: "My right knee started hurting and swelling up suddenly.")

Presenting Complaints

"Let me ask a few questions to understand the pain better."

Site - Is the pain located in just one knee or does it affect both?

Onset - When did the pain start? Was it sudden or gradual?

Character - How would you describe the pain - sharp, throbbing, constant?

Radiation - Does the pain move anywhere else?

Associated symptoms - Any swelling, redness, warmth, stiffness, or fever?

Timing - Is the pain always there or does it come and go?

Exacerbating/Relieving - What makes it worse or better - movement, rest?

Differential Diagnosis Screening

"To make sure we don't miss anything important, I'd like to ask about a few other possible causes."

Septic Arthritis (suspected)

Have you felt feverish, sweaty, or unwell recently?

Have you noticed any chills or shaking?

Have you had any open wounds or skin infections near the knee?

Any history of infections elsewhere - like your chest, urine, or stomach - in the past week?

Gout / Pseudogout

Have you ever had a similar joint problem before?

Have you missed or recently restarted any gout medications like allopurinol?

Have you had recent illness, dehydration, or dietary changes?

DVT (less likely)

Any pain in the calf?

Any recent travel, long immobility, or surgery?

Have you noticed swelling or colour change in the whole leg?

Reactive Arthritis

Any recent stomach upset or diarrhoea?

Any burning or discomfort while passing urine?

Any rashes or mouth ulcers recently?

Trauma / Haemarthrosis

Any recent injury, twist, or strain to the knee?

Are you on blood thinners like warfarin or aspirin?

Targeted Risk Factor History

Have you been diagnosed with diabetes? How is it controlled?

Do you take steroids or any medications that affect your immune system?

Have you ever had joint injections or surgery to this knee?

Any known autoimmune conditions like rheumatoid arthritis?

Do you have any metal implants or joint replacements?

PMAFTOSA

"Just a few general questions, if that's alright."

Past Medical History - Any other health conditions apart from diabetes or gout?

Medications - What medications are you taking regularly? Any recent changes?

Allergies - Do you have any allergies to medications?

Family History - Any family history of joint problems or autoimmune disease?

Tobacco - Do you smoke?

Occupation - What kind of work do you do? Any recent changes?

Social - Do you live alone or with someone? Any mobility concerns?

Alcohol - Do you drink alcohol? If yes, how much?

ICE

Ideas - What do you think this might be?

Concerns - Is there anything you're particularly worried about?

Expectations - What were you hoping we could do for you today?

Effect on Life

Has this affected your ability to walk or get around at home?

Are you able to climb stairs, get to the toilet, or manage daily tasks?

Has the pain kept you from sleeping or working?

Examination

"I'd like to have a look at your knee."

Findings:

Right knee visibly swollen, warm, erythematous

Marked tenderness, especially on movement

Decreased range of motion

No signs of trauma, no wounds

No similar findings in other joints

Vitals: **HR 105, Temp 38.4°C, RR 20, BP normal**

Diagnosis and Explanation

"I know this might feel unexpected, but I want to be honest with you about what I'm seeing."

"Thanks for telling me all that. Based on your symptoms and what I've found on examining your knee, I'm quite concerned that this could be a serious joint infection, called septic arthritis."

"It's when bacteria get into a joint - sometimes from the bloodstream - and cause sudden pain, swelling, and inflammation."

"This needs urgent treatment, as delay can damage the joint or let the infection spread."

Management Plan

FY2 Role in Primary Care/Urgent Care: Your job is to **recognise this emergency and arrange urgent transfer** - do NOT delay by attempting aspiration or starting antibiotics in the community. Call ahead to the hospital so they are prepared.

"Joint infections are a medical emergency - but the good news is, when we catch them early and treat them quickly, people usually do very well. Here's what we need to do:"

Urgent hospital admission (same-day, ideally within hours)

"You'll need to go to hospital straight away so they can confirm the diagnosis and start treatment."

Phone the medical/orthopaedic registrar to handover directly

Joint aspiration (in hospital - NOT in primary care)

"It's really important that the hospital takes fluid from your joint before starting antibiotics - this helps us identify the exact germ and choose the right treatment."

Also to check for crystals (to rule out gout or pseudogout)

Aspiration should be performed by orthopaedics or experienced medical team

Baseline imaging

"They'll likely do an X-ray of your knee as a baseline, and possibly a scan if they need more detail."

Blood tests: FBC, CRP, ESR, blood cultures, glucose control

IV antibiotics: Broad-spectrum IV antibiotics will be started immediately after aspiration

Orthopaedic review: They may need to wash out the joint (arthroscopic lavage)

Monitor vitals and blood glucose

If the patient is hesitant to go to the hospital:

"I understand you may be a bit unsure about going to hospital right now - especially since you weren't expecting that - but let me explain why it's important."

"Joint infections can be very serious if not treated quickly - that's why we're sending you straight to hospital today."

"If this is caught early, the outcome is usually good. But if treatment is delayed, it can lead to joint destruction or spread of infection. This isn't something we can treat safely in a GP clinic or with tablets at home."

"Getting hospital care now will give you the best chance of full recovery. You'll be monitored closely in hospital, and they'll keep you updated every step of the way."

Safety Netting, Follow-up, Leaflet

"If the hospital team finds that it's not an infection but something else like gout or pseudogout, they'll adjust the treatment accordingly."

"Please don't wait at home with this - even if the pain feels better later today. The infection can worsen very quickly."

Offer to call the hospital and arrange immediate transfer

Provide written info leaflet on **septic arthritis** (or explain it will be given in hospital)

Student Note:

Acute monoarthritis with systemic signs = septic arthritis until proven otherwise

History of gout but in **different joint**, and no current triggers

Diabetes = strong risk factor

Crystal arthritis and trauma are possible but less likely given systemic response

Joint aspiration + culture is diagnostic and should precede IV antibiotics

Baseline X-ray mentioned per BSR guidelines

Hospital referral is mandatory

11% case fatality rate emphasizes urgency

Whiplash Injury

Setting: Primary Care or Urgent Care

You are: Junior Doctor

Patient: Middle-Aged Adult | Neck Pain Following Road Traffic Collision

Task: Take focused history, perform a full examination (real), and discuss diagnosis and next steps

Introduction

"Hello, I'm one of the doctors here today. Thank you for coming in."

"Could I confirm your full name and date of birth, please?"

"Great, thank you."

"I'm really sorry to hear about the accident - that must have been quite a shock. How are you feeling overall?"

Presenting Complaint & Mechanism

Open with a natural anchor:

"So I understand you've come in because of some pain in your neck. Could you tell me what happened?"

"Were you the driver or a passenger?"

"Was the impact from behind or from the front?"

"Were you wearing a seatbelt?"

"Was it a high-speed or low-speed collision?"

Prompt for timing and onset:

"Did the pain start straight after the accident or the following day?"

"Has it been getting worse or staying the same?"

Symptom Assessment

Pain and movement:

"Can you point to exactly where the pain is?"

"Is it a sharp or dull pain?"

"Does anything make it worse - like turning your head or sitting still?"

"Have you been able to sleep normally?"

"Have you taken any pain relief - did it help?"

Red flags and neurological symptoms:

"Did you hit your head during the accident?"

"Did you lose consciousness, feel dizzy, or vomit afterwards?"

"Any bleeding or fluid from the nose or ears?"

"Any headaches or visual problems since?"

"Have you noticed any numbness, tingling, or weakness in your arms or hands?"

"Any difficulty with fine hand movements - like buttoning a shirt or holding objects?"

Past Medical History & Functional Impact

Focused background check:

"Any previous neck injuries or back problems?"

"Are you on any regular medications?"

"Any allergies?"

Social and occupational impact:

"What sort of work do you do?"

"Has the pain affected your ability to work or drive?"

"Are you managing your day-to-day tasks at home?"

Pre-Examination Transition

"Thank you for answering those questions.

To better understand what's going on, I'd like to examine your neck and your arms today. This will involve looking at the area, gently feeling for tenderness, checking your range of movement, and assessing the nerves and muscles in your arms."

"I'll ask you to be seated and uncovered from the waist up.

This won't be painful, but it might feel a bit uncomfortable. I'll make sure your privacy is maintained, and I'll have a chaperone present.

Is that alright with you?"

Position: Sitting upright Exposure: Neck, shoulders, arms exposed Chaperone offered Verbal consent gained

Examination – Neck & Upper Limb (Real Patient)

A. General Inspection

Observe from front, side, and behind

Look for:

Swelling or bruising

Redness or skin changes

Posture or asymmetry

Muscle wasting

B. Palpation

Begin gently, verbalising steps:

Use back of hand to assess temperature over both sides of the neck

Palpate:

Spinous processes of cervical spine (midline)

Paraspinal muscles bilaterally

Trapezius and SCM

If midline tenderness present → stop, immobilise, arrange imaging

If only muscle tenderness, proceed

C. Active Range of Motion

Instruct patient through each movement:

"Can you slowly bring your chin to your chest?" → Flexion

"Now try looking up to the ceiling." → Extension

"Now turn your head to the left... and to the right." → Rotation

"Can you try touching your right ear to your right shoulder?" → Lateral flexion

"And now your left ear to your left shoulder?"

Observe for pain, reduced movement, or guarding Note symmetry and range

D. Neurological Examination – Upper Limbs

1. *Tone* Gently roll shoulders, elbows, and wrists on both sides to assess tone

2. *Power (Motor Function)*

Ask patient to perform the following movements, comparing both sides:

Shoulder abduction (C5) – "Push your arms out sideways against my hands."

Elbow flexion (C5/C6) – "Pull your arms toward you."

Elbow extension (C7) – "Now push me away."

Wrist extension (C6) – "Pull your hands up like a stop sign."

Finger flexion/grip (C8) – "Squeeze my fingers."

Thumb opposition (T1) – "Touch the tip of your thumb to your index finger."

3. *Reflexes*

Biceps reflex – C5/C6

Triceps reflex – C7

Brachioradialis (supinator) – C6

Use the reflex hammer and verbalise findings clearly

4. *Sensation (Dermatomes)*

Use cotton wool and neuro pin:

Test light touch and pain at:

C5 – Lateral upper arm (deltoid)

C6 – Lateral forearm and thumb

C7 – Middle finger

C8 – Little finger and medial forearm

T1 – Medial upper arm

Ask patient to close eyes and report: "Let me know when you feel this."

5. *Coordination*

Radial, median, and ulnar nerve checks:

"Thumbs up" → Radial

"Make a fist/squeeze my hand" → Ulnar

"OK sign (thumb to index finger)" → Median

Optionally: Finger-to-nose test for cerebellar signs (if coordination is in doubt)

Diagnosis

"Thank you for letting me examine you."

Based on the history of a recent car accident, your current symptoms, and the findings on examination, this appears to be a whiplash injury - meaning that the muscles, ligaments, and soft tissues in your neck have been stretched during the sudden movement from the crash.

There's no sign of nerve damage, and your neurological exam was normal."

Management Plan

Pain Relief:

"I'll prescribe you an anti-inflammatory painkiller like Naproxen, along with a medication to protect your stomach, such as Lansoprazole."

Movement Advice:

"Try to keep your neck moving gently throughout the day - avoid sudden movements, but don't keep it completely still."

"Interestingly, research shows that collars can actually slow down recovery - keeping your neck gently moving is much better for healing. We don't recommend neck collars."

Prognosis:

"Most people with whiplash recover within 2-3 months, though some may take a bit longer."

Activity & Driving:

"You should be able to drive once you can turn your head comfortably to check mirrors and blind spots."

"There's no need to inform the DVLA unless the symptoms persist and affect your ability to drive safely."

Referral:

"I'll refer you to physiotherapy so you can be guided through safe exercises to improve your mobility and prevent long-term stiffness."

"If symptoms aren't improving after 4-6 weeks, we may need to consider further investigation or specialist referral."

Safety Netting

"If your pain worsens, if you develop numbness or weakness in your arms, or if you feel unwell or dizzy, please get back in touch or seek urgent care."

Follow-Up

"We'll review you in one week to check how your symptoms are improving and decide if you need further treatment or imaging."

Suspected Hip Fracture

Setting: Hospital Ward

You are: Junior Doctor

Patient: Older Adult Female Admitted with Respiratory Infection | Inpatient Fall with Hip Pain

Introduction

"Hello, I'm one of the doctors on the ward team. I understand you had a fall earlier today - I'm really sorry to hear that. How are you feeling now?"

Confirm name and date of birth

Sit at eye level and ensure the patient is comfortable

Paraphrase & Purpose

"I understand that you were being treated for a chest infection and were feeling better, but now you've had a fall. I'd like to ask you a few questions to understand exactly what happened, and then we'll decide how best to support you."

Focused History

A. Before the Fall

"Can you tell me what you were doing just before the fall?" → "I was walking to the toilet."

"Did you feel dizzy, weak, or unwell before it happened?"

"Any blurred vision, palpitations, or breathlessness?"

"Had you been coughing a lot or feeling light-headed?"

B. During the Fall

"Do you remember the fall clearly, or did you lose consciousness?"

"Did you trip over anything, or did your legs just give way?"

"Did you hit your head or bite your tongue?"

C. After the Fall

"Were you able to call for help?"

"Did anyone see you fall?"

"How long were you on the floor before someone came?"

"Are you in any pain now?" → "Yes, my right hip is very painful."

D. Red Flag Screening

"Any weakness or numbness in your arms or legs now?"

"Any chest pain or fluttering heartbeat?"

"Any confusion, incontinence, or loss of awareness during the episode?"

Risk Factor Screening – PMAFTOSA

Category	Questions
P	"Do you have any other medical conditions? High blood pressure, diabetes, Parkinson's, osteoporosis?"
M	"Are you on any medications like blood pressure tablets, water tablets, sleeping pills, or painkillers?"
A	"Any allergies to medications?"
F	"Any family history of sudden collapses or falls?"
T	"How are you getting around these days? Do you usually walk independently or use a walking aid?"
O	"What kind of work did you do before retirement?"
S	"Who do you live with?" "Do you have any carers at home?" "Are you usually able to manage on your own?"
A	"Do you smoke or drink alcohol?"

ICE (Ideas, Concerns, Expectations)

"Do you have any idea why this might have happened?"

"Is there anything you're particularly worried about?" → "Is it broken? Will I need surgery?"

"Is there anything you were hoping we could do for you now?"

Examination

"I'd now like to check your vital signs and examine your hip gently to understand what's going on."

Vitals:

BP, HR, Temp, SpO₂ - stable

No fever

Focused Hip Examination Findings:

Right leg is shorter

Externally rotated

Tenderness over right hip joint

No obvious head injury or bleeding

Provisional Diagnosis and Explanation

"Based on what you've told me and what I can see from the examination, I'm concerned that you may have a hip fracture."

"Let me explain this simply - there's a long bone in the thigh called the femur, and the top part of that bone forms part of your hip joint. From the way your leg looks - being shorter and turned outwards - and the pain you're feeling, I'm worried that the neck of that bone might be fractured. That's what we call a hip fracture."

"Unfortunately, this is quite common when people fall, particularly as bones can become a bit more fragile with age."

Immediate Management Plan

Postpone Discharge:

"I'm really sorry, but we'll need to pause your discharge so we can focus on getting this sorted first."

Investigations:

"We'll arrange an urgent X-ray of your hip to confirm the fracture."

"If the X-ray isn't clear enough, we'll do a CT scan or MRI for more detail."

Referral:

"Once confirmed, we'll refer you to the orthopaedic team - they're the bone and joint specialists who will decide on the best treatment."

Pain Relief:

"We'll make sure you get adequate painkillers now to help you feel more comfortable."

Safe Handling:

"We'll avoid moving you too much to prevent further injury until we confirm what's going on."

VTE Prophylaxis:

"We'll give you injections to prevent blood clots while you're less mobile."

Surgery Timing:

"Our aim is to get you to theatre within the next 36 hours, as this leads to better outcomes."

Orthogeriatric Care:

"You'll be looked after by a team including orthopaedic surgeons, elderly care specialists, physiotherapists, and nurses."

Treatment Outline (Expected Next Steps)

"The usual treatment for this kind of fracture is surgery - either putting in metal screws to hold the bone in place or sometimes replacing part of the hip joint. The orthopaedic team will decide what's best based on the scan results."

"After surgery, you'll have physiotherapy to help you get back on your feet. We'll also do a detailed assessment to understand why you fell and try to prevent it happening again."

"Once you're recovering, we'll check your bone health and may offer treatment to strengthen your bones."

Safety Netting and Ongoing Monitoring

"We'll monitor you closely while waiting for the X-ray, including regular checks of your pain, vital signs, and comfort."

"If you notice any new pain, breathlessness, or confusion, please let the nurse or doctor know straight away."

"Would you like us to contact anyone to let them know what's happened?"

Closure and Reassurance

"Is there anything else you'd like to ask me at the moment?"

"Thank you for your time, and again I'm very sorry this happened. You're in safe hands, and we'll keep you fully updated as we go."

Dermoid Cyst Removal – Pre-operative Assessment

Setting: Pre-operative Assessment Clinic

You are: Junior Doctor

Patient: Young Adult Female Undergoing Laparotomy for Ovarian Cyst

Procedure: Elective laparotomy for dermoid ovarian cyst removal

Consent: Already taken

Task: Pre-operative assessment, address concerns

Introduction

"Hello, I'm one of the doctors here at the surgery. Could I confirm your full name and date of birth, please?"

"Thank you. And just to clarify, you're here today for a pre-operative assessment before your upcoming surgery - is that right?"

Patient confirms

Purpose of Visit & Process Overview

"Great - just so you know, this assessment is to make sure you're fit for surgery and that everything is in order before the operation."

"We'll go over your medical background, do a quick examination, arrange some blood tests, and I'll also explain what to expect before, during, and after the surgery. Is that okay with you?"

Inquiry About Surgery

"Do you know what kind of surgery you're having?"

"Has anyone explained how it will be done?"

"Was this something you chose to go ahead with, or did a doctor recommend it based on your symptoms or scan?"

"Just so I understand better - what made you decide to have this surgery now?"

Patient understands it's for a large benign cyst - a benign growth, which means it's not cancer - removal by laparotomy

Systemic Review

"Before we go further, may I ask - have you been feeling unwell recently? Any fever, cough, or flu-like symptoms?"

Systematic screen:

Head/Neuro: Any headaches, dizziness, fainting?

Eyes: Any changes in vision?

Chest: Any chest pain, palpitations, or shortness of breath?

Lungs: Any cough, wheeze, recent infections?

Abdomen: Any new bloating, bowel changes, nausea, or vomiting?

Urinary: Any issues passing urine or urinary infections?

Skin/Joints: Any rashes, joint pains, or swelling?

No active issues reported

Past Medical History

"Do you have any other medical conditions like asthma, high blood pressure, or diabetes?"

"Have you ever had surgery before - and were there any problems with the anaesthetic?"

"Any problems with bleeding or blood clots in the past?"

No significant history

Anaesthetic-Specific Screening

"Do you have any trouble opening your mouth wide?"

"Any neck stiffness or injuries in the past?"

"Any loose or capped teeth, recent dental procedures, or jaw problems?"

Social & Functional History

"What kind of work do you do?"

"Roughly how long are you hoping to take off work for recovery?"

"Do you live alone or with someone?"

"Will there be someone at home to help you for the first few days after surgery?"

Patient works in retail, lives with partner

Lifestyle Factors

"Do you smoke or drink alcohol?"

"Any history of recreational drug use?"

Non-smoker, occasional alcohol

Examination

"I'd now perform a quick general examination - check your pulse, blood pressure, heart and lung sounds, and your oxygen level."

Investigations

"We'll arrange blood tests including a full blood count and blood group (Group & Save) before surgery, as this is major surgery."

"We'll also assess your risk of blood clots and decide if you need special stockings or injections."

Intra-operative Explanation – How the Surgery Is Performed

"Let me explain how the surgery will be done."

We'll give you a general anaesthetic - that means you'll be fully asleep throughout and won't feel anything.

The surgeon will make a small cut across your lower tummy, in the bikini line area - so any scar will be easy to hide.

They'll carefully remove the cyst along with part of your ovary if needed. We always try to preserve as much of the ovary as possible.

Once everything is removed, they'll close the wound with stitches or staples that are usually absorbable. You'll then be taken to the recovery room where you'll slowly wake up."

Fasting Instructions

"Before the surgery, follow the '2-6 rule':

No food for 6 hours before

Clear fluids only - so water, black tea, or black coffee - until 2 hours before surgery

No milk, fizzy drinks, or juice with bits in it"

Post-operative Recovery

"Once you're fully awake and feeling well enough, you'll be able to have some water, and then we'll gradually introduce food."

"A physiotherapist will visit you within 24 hours to help you start moving - this is really important for recovery."

"Most people stay in hospital for 2-3 days after this type of surgery."

Patient Questions

Patient: "Will this affect my ability to have children?"

"That's a very important question, and I completely understand the concern. We'll do our best to preserve your fertility. Removing one cyst, or even one ovary, shouldn't affect your ability to have children, as the other ovary can usually take over. But if you have any concerns, the surgeon can discuss this with you in more detail."

Safety Netting & Follow-Up

"If you feel unwell before the surgery - fever, chest pain, breathing issues - please contact the surgical team or your GP as it may affect the timing of the surgery."

"Make sure to arrange someone to help you get home after the operation and support you for the first few days."

"We'll see you for a follow-up appointment after the surgery to check your wound and recovery."

Closure

"Do you have any other questions or concerns before we finish?"

"I'll give you a patient information leaflet about laparotomy that explains everything we've discussed."

Hernia Surgery – Pre-operative Assessment

Setting: Pre-operative Assessment Unit

You are: FY2 Doctor

Patient: Adult Male Scheduled for Elective Open Inguinal Hernia Repair | Key Features: Incidentally Elevated Blood Pressure, Family History of Hernia, Occupational Concerns Regarding Recovery

Introduction

"Hello, I'm one of the doctors here today. Could I confirm your full name and date of birth, please?"

"Thanks. I understand you're here for your pre-operative assessment before your planned hernia surgery - is that correct?"

Patient agrees

Purpose of Visit & What to Expect

"It's completely normal to feel a bit anxious about surgery. That's partly why we do this assessment - to make sure everything is in order and address any concerns you might have."

"I'll ask a few questions about your health, check your vitals, examine your chest and heart, and also talk you through what to expect on the day of surgery and afterward. Does that sound okay?"

Patient's Understanding & Surgical Context

"Has anyone explained the surgery to you before?"

"When did you first notice the hernia?"

"What symptoms have you had from it?"

"What made you decide to go ahead with the operation?"

"Any questions or worries about the procedure?"

Patient understands it's a planned open hernia repair; no severe current symptoms

Focused History

Systemic Review

"Have you had any recent illness - fever, chest infection, or COVID symptoms?"

"Any dizziness, fainting, or headaches?"

"Any chest pain, breathlessness, or palpitations?"

"Any cough or sputum?"

"Any bowel or urinary changes?"

"Any joint problems or rashes?"

All negative

Past Medical History & Medications

"Have you been diagnosed with any long-term conditions like high blood pressure, diabetes, or asthma?"

BP 160/90 measured today by nurse

"Has your blood pressure been high before?"

"Are you on any regular medications or supplements?"

"Any allergies?"

"Any previous surgeries or issues with anaesthesia?"

No known hypertension or other comorbidities

Family History

"Any family history of hernias or surgery?"

Father had hernia surgery, used TRUSS

Social & Lifestyle History

"What kind of work do you do?" *Warehouse worker*

"Do you live with anyone?" *Lives with partner*

"Do you smoke or drink alcohol?" *Occasionally smokes*

"Any recreational drug use?" *Denies*

"Will you have support at home after the surgery?" *Yes*

Smoking advice: "Since you occasionally smoke, it would really help your healing if you could cut down or stop before surgery. Smoking can slow wound healing and increase the risk of chest complications. Your GP can offer support with this if you're interested."

Examination

"I'd now like to do a quick examination to check you're fit for surgery."

Vitals:

BP: 160/90 (already measured)

Pulse: Regular, normal rate

Oxygen saturation: Normal

Respiratory rate: Normal

Temperature: Normal

General Inspection:

Alert and well

No cyanosis, pallor, or ankle swelling

BMI appropriate

Cardiovascular Exam (verbalised): "I would listen to your heart for any murmurs or irregular rhythm."
"I would also check your legs for any swelling."

Respiratory Exam (verbalised): "I would listen to your lungs to check for any wheeze or signs of infection."

Patient appears fit for surgery. Only concern: borderline BP.

Explanation of Surgery

Use pen and paper while speaking. Keep talking throughout.

"Let me walk you through how the surgery works."

(Draw a basic abdominal outline) "This is your tummy."

(Draw a bulge at the groin) "When there's a weakness in the abdominal wall, part of the bowel or tissue pushes through - we call this a hernia."

(Draw the hernia pouch) "This bulge contains a bit of bowel or fat that moves with pressure, like when coughing or lifting."

Repair Process:

"In open surgery, the surgeon makes a small cut over the hernia."

"They gently push the contents back inside your tummy."

"Then they place a special mesh material over the weak area."

"This mesh becomes part of your tissue over time and strengthens the wall to prevent recurrence."

"Finally, they'll close the skin with stitches - usually absorbable, so they dissolve on their own."

Patient Questions & Concerns

Patient: "My dad used a TRUSS. Will I need that too?"

"TRUSS is a supportive belt we sometimes use in elderly patients who can't have surgery. Think of it like putting a plaster over a hole in a wall - it covers it temporarily but doesn't fix it. Surgery actually repairs the weak spot.

In your case - fit and otherwise healthy - surgery is the better option. TRUSS doesn't fix the hernia, it only temporarily holds it in."

VTE Risk Assessment

"We'll also assess your risk of blood clots and whether you need any preventive measures around the time of surgery."

Fasting Instructions

"Before the surgery, follow the '2-6 rule':

No food for 6 hours before

Clear fluids allowed until 2 hours before surgery - that means plain water, or black tea or coffee without milk

Avoid milk, fizzy drinks, or juice with bits in it"

Safety Netting & Follow-Up

"If the hernia becomes painful, red, hard, or can't be pushed back in, please go straight to A&E - it could be an emergency."

"Let us know if you feel unwell before the surgery - fever, chest pain, breathing issues - the team might need to delay it."

"Please do follow up with your GP about the blood pressure in the next couple of weeks."

Addressing Blood Pressure Concern

Patient: "Doctor, they said my blood pressure is high. Will the surgery be cancelled?"

"Your blood pressure today is 160 over 90. That's slightly higher than ideal, but it's well within the safe range for surgery - we only become concerned if it's over 180/110, or if you're having symptoms like headaches, visual changes, or chest pain."

This is quite common - we call it 'white coat effect' where blood pressure goes up a bit when you're in a medical setting because of natural nervousness.

Still, it's worth following up with your GP after surgery. If it stays high, they might consider treatment. I'll note this in your file for the anaesthetic team to be aware."

Practical Questions

Patient: "When can I go home after surgery?"

"This is usually a day-case operation, so you'll likely go home on the same day, provided you're well after recovery."

Patient: "When can I go back to work?"

"Since you work in a warehouse and do heavy lifting, we recommend 4 to 6 weeks off to allow proper healing."

Patient: "When can I drive again or have sex?"

"You can usually resume both after 4 to 6 weeks, once you're comfortable and not straining your tummy."

There are no specific DVLA requirements after hernia surgery, but you shouldn't drive until you can perform an emergency stop comfortably."

Closure

Offer a patient leaflet if available

Invite final questions

Confirm the patient is happy with the plan

Ankle Pin Removal – Pre-operative Assessment

Setting: Orthopaedics Pre-operative Clinic

You are: FY2 Doctor

Patient: Older Adult with Diabetes Scheduled for Elective Metalwork Removal | Key Features: Previous Post-operative Nausea and Vomiting, Social Concerns Regarding Pet Care

Introduction

"Hello, I'm one of the doctors here in the surgical pre-assessment team."

Could I confirm your full name and date of birth, please?"

"Thanks. I understand you're here to prepare for your upcoming surgery to remove the pin in your ankle - is that right?"

Purpose of Visit & Outline

"This visit is to check that you're medically fit for the surgery, and to make sure everything's in place for a smooth admission."

"I'll ask you a few questions about your medical history and past surgery, and we'll also talk through how we'll manage your diabetes and any other concerns. I'll keep this simple and clear, but feel free to stop me anytime if you have questions."

Focused History**Procedure Background**

"You had surgery on your ankle some weeks ago - is that correct?"

"How has your recovery been since then?"

"Are you having any current pain or difficulty with the ankle?"

No current pain or mobility issues

Past Medical History

"Can you tell me about your diabetes? How long have you had it, and how is it managed - tablets or insulin?"

On metformin (or insulin)

"Is your blood sugar usually well controlled?"

"Any other health conditions - like high blood pressure, asthma, or heart issues?"

"Any allergies or previous reactions to medications?"

Previous Surgical Experience

"I understand you had some nausea and vomiting after your last operation - is that something you're worried about happening again?"

Patient confirms

Social Concerns

"Do you live alone or with someone?"

"You mentioned you have a dog - is there someone who can help care for them while you're in hospital?"

May or may not have support

Examination

"Before I move on to the plan, I'd check your vital signs - blood pressure, heart rate, temperature, and oxygen levels - to make sure you're stable before surgery."

"I would also examine your chest and listen to your heart and lungs."

No red flags

Diabetes Management Plan

"Because of your diabetes, we'll admit you the evening before the operation. This gives us time to manage your blood sugars safely during the fasting period."

If on insulin:

"We'll provide insulin through an IV, using what we call a variable rate insulin infusion, or VRIII - this means we adjust the insulin based on regular blood sugar checks. We aim to keep your blood sugar between about 6 and 10 during the operation to reduce the risk of complications."

If on metformin:

"If you're on metformin tablets, you should take them as normal until the day of surgery, then skip the morning dose on the day of your operation. The team will advise you when it's safe to restart."

Newer diabetes medications:

"If you're on any newer diabetes medications like weekly injections (semaglutide, Ozempic) or tablets ending in 'flozin' (like empagliflozin or dapagliflozin), please let us know as these need to be stopped before surgery."

Medication instruction:

"Please do bring your diabetes medications with you - the nursing team will advise which ones to take and when."

"We'll also try to schedule your surgery as early in the morning as possible, since you're diabetic - to reduce fasting time."

Procedure Explanation

"This is usually a quick, straightforward procedure - typically under 30 minutes."

It's simply to remove the metal pin that was placed in your ankle. It doesn't involve a large cut or long stay.

The surgical team will go over the details again on the day, but there's no need to worry - it's straightforward."

"For metalwork removal, most patients go home the same day or next morning."

Preparation Instructions

"Because of your diabetes, you'll be admitted the evening before the surgery."

"You'll receive instructions about eating and drinking once you're admitted - but in general, before surgery, patients fast for 6 hours for food, and can have clear fluids up to 2 hours before."

This will be tailored to diabetes status

Post-op & Discharge Discussion

Patient: "When should I ask my friend to pick me up?"

"I understand the need to plan ahead, but unfortunately I can't give an exact time. It's better to ask the doctors or nurses on the ward once you've had the operation - they'll be able to tell you more accurately when you'll be ready for discharge."

Common Patient Questions & Responses

Q: "Will I feel sick again after this surgery?"

"We'll do everything we can to prevent it. The anaesthetic team will be informed and can give anti-sickness medications before and after surgery, but there's always a small chance."

Q: "Should I bring my insulin or tablets?"

"Yes, please do bring your diabetes medications with you - the team will let you know which to take and when."

Q: "How long will the surgery take?"

"It's usually a short procedure - typically under 30 minutes - but I don't want to give you an exact time. The surgeon will discuss that with you on the day."

Q: "Can I eat before I come in?"

"Because we're admitting you the evening before, the ward staff will give you clear guidance about when to stop eating and drinking."

Addressing Previous Anaesthetic Reaction

Patient: "Last time I had nausea and vomiting after surgery. Will it happen again?"

"Thanks for letting me know. I'll make a note of it in your records."

While we can't guarantee it won't happen again, the anaesthetic team will be informed, and they'll give you medications before and after surgery to reduce the risk of nausea as much as possible."

Addressing Pet Care Concern

Patient: "I'm worried about who will care for my dog while I'm in hospital."

"I completely understand.

Do you have a friend or neighbour who might be able to help?"

If no support:

"There are also local animal charities and short-term pet care agencies that can look after pets while owners are unwell or away. If this is an option you'd consider, we could help you find some resources."

Driving Advice

"You'll need to avoid driving until you can safely control the pedals without discomfort - usually a few weeks after the procedure."

Safety Netting & Final Reassurance

"If you feel unwell before your admission - fever, chest pain, infection - please contact the surgical team or your GP as it may affect the timing of the surgery."

"Make sure to arrange someone to help you get home after the operation."

"If you have any further concerns - especially about your diabetes or pet care - we're happy to help connect you to the right services."

Offer a patient information leaflet or direct to NHS website if appropriate

"Is there anything else you'd like me to explain, or any other worries on your mind?"

Post-operative Care – Knee Arthroplasty

Setting: Orthopaedics Department, Inpatient Ward

You are: FY2 Doctor

Patient: Older Adult Admitted for Elective Knee Replacement Surgery | Task: Discuss Post-operative Recovery and Discharge Planning

Introduction

"Hello, I'm one of the doctors looking after patients on the orthopaedic ward. Could I confirm your full name and date of birth, please?"

Confirmed

"Thanks. I understand that you're scheduled to have knee surgery - a knee replacement - likely tomorrow, and you've already been told about the operation itself, is that right?"

"I'm here to talk you through everything that will happen after the operation - what recovery looks like, how we'll support you, and what to expect once you're home. Is that okay?"

Initial Invitation to Ask Questions

"Before I go into the details, do you have any questions or concerns from your side about the recovery or how things will be managed after the operation?"

Addressing Specific Concern – Blood Clots

Patient: "I'm a bit worried about clots - my friend had one after her surgery."

"I'm really sorry to hear that. How is your friend doing now?"

Patient responds

Then continue:

"Thanks for sharing that. Let me explain how we actively prevent clots after surgery - but first, can I just ask three quick questions to check your own risk?"

"Have you ever had a clot in your leg or lungs in the past?"

"Are you on any hormonal medications - like HRT or birth control?"

"Has anyone in your family had a clot before?"

Negative (assumed here - if positive, escalate risk)

Then reassure with explanation:

"We take clots very seriously. After surgery, your blood can become a bit 'sticky' because your body is healing, and because you're moving less. This means there's a small risk of clots forming in your legs.

To prevent them, we'll use a combination of the following:"

Blood-thinning medication - usually a small injection under the skin once a day, or a tablet, depending on your situation. You'll usually need to take this for about 14 days after surgery.

Compression stockings - to improve circulation in your legs. We'll give you these to wear while you're in hospital.

Early mobilisation - our physiotherapists will help you stand and walk within 12 to 24 hours after surgery. That early movement is one of the best ways to reduce the clot risk.

Brief Medical History Check

"Just to make sure we haven't missed anything - do you have any ongoing health conditions we should know about?"

"Are you on any regular medications at the moment?"

Answers recorded - no further medical red flags

Social History

"Could I ask a few questions about your home and support - just so we can plan for a safe recovery?"

A. Living Arrangements:

"Where do you live?"

"Is it a bungalow or a two-storey house?"

"Where is your bedroom - ground floor or upstairs?"

"Is the toilet on the same floor as your bedroom?"

"Do you need to use stairs at home?"

B. Social Support:

"Who do you live with?"

"Is there anyone at home who can help you after surgery?"

"Do you have family or carers nearby who could support you with things like meals or shopping?"

C. Current Independence:

"Before this operation, how were you managing day-to-day tasks?"

"Were you able to dress, shower, and cook on your own?"

"Did you already have any support, like a carer or community nurse?"

All findings documented - this helps guide discharge planning

Post-operative Recovery – Step-by-Step Timeline

"Let me now explain what typically happens after the operation."

Immediate Recovery Room (First 1–4 Hours):

"Once the operation is done, you'll wake up in the recovery room."

"You'll be lying on your back and may notice some tubes - for fluids, pain relief, and a catheter to help pass urine."

"You might feel a little groggy or nauseous, but that usually passes quickly."

"Within 30 minutes, you'll be able to have a sip of water."

"After a couple of hours, we'll check your bowel sounds. Once we hear movement, you'll be allowed to start eating again."

Return to Ward:

"You'll be moved to the orthopaedic ward after about 3 to 4 hours."

"You'll remain on the ward until you're ready to go home - typically 2 to 3 days later."

Physiotherapy Begins Early:

"Within 12 to 24 hours, a physiotherapist will come to help you start walking with the support of crutches or a frame."

"They'll guide you through exercises that start right here on the ward and continue even after you go home."

Discharge Planning & Home Support**Before discharge:**

"You'll have a social services assessment to make sure you'll be safe and supported at home."

"You'll also be reviewed by two types of therapists:"

A. Physiotherapist:

"They'll focus on your strength and mobility, helping you regain movement and muscle control."

"They may give you exercises to do daily and may arrange follow-up sessions after discharge."

B. Occupational Therapist:

"They assess the safety of your home environment - things like whether you need grab rails, raised toilet seats, or stair adjustments."

"They'll ask about where you sleep, where the bathroom is, and whether any equipment or home modifications are needed to help you recover."

Recovery Milestones – What to Expect

Climbing stairs: "You'll start practising stairs with the physiotherapist while still in hospital. Most people are managing stairs independently by about 6 weeks."

Walking unaided / leisure activities: "You should be able to stop using walking aids and resume normal activities in about 6 weeks."

Returning to work:

Sedentary/office work: 4–8 weeks (some people manage sooner with adjustments)

Manual/lifting jobs: up to 12 weeks

Driving: "You can drive when you're able to bend your knee comfortably to get in and out of a car, and safely control the pedals. That's usually 6–8 weeks."

Pain: "Some discomfort and aching is normal for up to 3 months as you rebuild strength, but the severe arthritic pain should be much better."

Swelling: "It's normal for some swelling to come and go for up to a year - it's usually worse at the end of the day or after activity."

Full recovery: "Complete joint recovery may take around 2 years."

If Patient Asks About Running

Patient: "Will I be able to run after this surgery?"

"Did you use to run before the surgery?"

If yes:

"Some people who used to run do manage to return gradually. However, running puts a lot of force through the knee joint, and there's a risk of wearing the joint down or even dislodging the implant. It's best to speak to your orthopaedic surgeon - they'll advise you based on the type of joint used and your individual recovery."

Final Summary & Safety Netting

"To recap: after the surgery, we'll manage your pain, monitor you closely, and begin physiotherapy early. You'll likely go home within 2–3 days, and you'll continue recovery with support from therapists and, if needed, social services."

Safety Net:

"If you develop sudden pain, breathlessness, swelling in your leg, or feel generally unwell after surgery, you must contact the hospital or go to A&E, as it could be a sign of a clot or infection."

Offer a leaflet if available

Confirm understanding: "Does all of that make sense so far?"

"What questions do you have, or is there anything I haven't covered that you'd like to know?"

Reactive Arthritis

Setting: Primary Care

Patient: Young Adult

Presenting Complaint: Acute oligoarthritis following recent gastrointestinal and respiratory illness

Approach & Introduction

"Hello, I'm Dr _____, one of the doctors here today. Can I confirm your name and age please?"

"How can I help you today?"

→ **Patient:** "I've got pain in my right knee and both ankles for the last 2 days. It's quite uncomfortable."

Presenting Complaint - SOCRATES for Pain

SOCRATES	Question	Response
Site	"Where exactly is the pain?"	Right knee and both ankles.
Onset	"When did this pain start? Sudden or gradual?"	2 days ago, sudden onset.
Character	"How would you describe the pain - sharp, dull, throbbing?"	Sharp, deep aching.
Radiation	"Does it spread anywhere else?"	No.
Associated symptoms	"Any swelling, redness, or warmth in the joints?"	No swelling, just tenderness.
Timing	"Is it constant or does it come and go?"	Constant since onset.
Exacerbating/Relieving	"Does anything make it better or worse?"	Worse on standing, walking; rest helps a little.
Severity	"On a scale of 1 to 10, how bad is it?"	7–8/10, painful enough to limit walking.

System Review and Differential Screening

Eye: "Any red eyes, discharge, pain, or blurred vision?" → No.

Urinary: "Any pain while passing urine, discharge, or going more frequently?" → No.

Skin: "Any rashes, mouth ulcers, or sores?" → No.

GI: "Any recent tummy upset - diarrhoea or vomiting?" → **Yes, had diarrhoea 2 weeks ago along with flu. Both resolved now.**

Fever: "Any fever or chills recently?" → No.

Trauma: "Any recent injuries, falls, or accidents?" → No.

Back pain: "Any back pain or stiffness?" → No.

Other joints: "Any pain in fingers, toes, or neck?" → No.

General: "Any fatigue, weight loss, or feeling generally unwell?" → No.

Risk Factors

Component	Question	Response
PMH	"Any previous arthritis, autoimmune diseases, diabetes?"	No.
Medications	"Any regular medications?"	No.
Allergies	"Any medication allergies?"	None.
Family History	"Any family history of arthritis, psoriasis, inflammatory bowel disease?"	No.
Travel	"Any recent travel abroad?"	No.
Occupation	"What do you do for work?"	Office-based.
Social	"Do you smoke or drink alcohol?"	No.
Sexual History	"Are you sexually active?"	No.
	"Any history of STIs?"	→ Had STI screening recently, normal .

ICE - Ideas, Concerns, Expectations

Ideas: "I'm only 30... could this be osteoarthritis?"

Concerns: "Is this permanent arthritis? Will this stay forever?"

Expectations: "I hope this is temporary and I get something to help with the pain."

Effect on Life

"This is affecting my walking. I'm limping and avoiding going out. If it continues, it'll affect work."

Examination Findings (As per Candidate Reports)

General: Alert, well-looking, interactive, asking logical questions.

Gait: Limping slightly but walking.

Joint exam:

Tenderness only over right knee and both ankles.

No redness, no swelling, no warmth, no deformity.

Eye exam: Normal.

GU exam: Normal.

Vitals: Normal.

Working Diagnosis

Most likely: *Reactive Arthritis* (triggered by recent GI infection ± viral infection).

Differentials:

Viral arthritis (but generally affects more joints and resolves quicker).

Early autoimmune arthritis (unlikely - no family history, no back or other joint involvement).

Gout (unlikely - distribution atypical, no prior history).

Septic arthritis (ruled out - no swelling, redness, fever, or systemic features).

Explanation to Patient (Simple, Clear)

"Thank you for explaining everything clearly. From your history and my examination, it appears you have *Reactive Arthritis*."

"This happens when the immune system reacts after an infection, which could be the diarrhoea or flu you had 2 weeks ago. The infection itself has gone, but the immune response has led to inflammation in your joints."

"It typically affects large joints like knees and ankles and can cause pain and stiffness."

"This is not osteoarthritis - that's a wear-and-tear type of arthritis which is very unlikely at your age."

"The good news is that reactive arthritis usually improves over weeks to a couple of months."

Management

A. Immediate Pain Management

Start NSAIDs (e.g., Naproxen 500 mg twice daily) - check renal function, stomach issues, asthma.

Add Paracetamol regularly as needed.

B. Functional Support

Rest the affected joints but avoid total immobilization.

Use crutches/walking aid if walking is painful.

Ice packs for pain relief.

C. Investigations

Bloods: FBC, U&E, CRP, ESR (for inflammation and safe NSAID use).

HLA-B27 - if prolonged or recurrent (not immediately needed).

X-ray: Only if persistent or atypical.

Sexual health screening: Offer STI screening (chlamydia, gonorrhoea) as reactive arthritis can be sexually acquired (SARA). If positive, partner notification is required.

D. Referral

GP manages for the first 6 weeks.

Rheumatology referral if:

Symptoms persist beyond 6 weeks.

Recurrence.

Severe limitation.

E. Lifestyle Advice

Gentle movement within pain limits.

Avoid impact-heavy activities.

Physiotherapy once pain reduces.

Safety Netting

"This type of arthritis usually settles within a few weeks to a couple of months."

"If you develop red eyes, trouble passing urine, fever, joint swelling, or the pain worsens, please come back urgently."

"If it persists beyond 6 weeks or worsens, we will arrange a specialist referral."

Follow-Up Plan

Review in 2 weeks to assess progress and response to pain relief.

If persistent beyond 6 weeks, refer to Rheumatology.

Offer Leaflet

Provide information leaflet on:

Reactive Arthritis

Managing joint pain

Simple home exercises (once pain improves)

Final Check & Closure

"Is there anything else you'd like to ask or clarify before we finish?"

Recap the plan.

Thank the patient.

Carpal Tunnel Syndrome

Setting: Primary Care

You are: Junior Doctor

Patient: Middle-Aged Adult Female | Numbness and Tingling in Hand | Occupational Risk Factors

Introduction

"Hello, I'm one of the doctors here at the practice.

Could I please confirm your full name and date of birth? Thank you.

I understand you've been having some problems with your hand - could you tell me a bit more about what's been happening?"

Focused History – Data Gathering

"I'll start with some questions about your symptoms and your general health."

A. SOCRATES (Symptom History)

Site: "Which hand is affected? Is it your dominant hand?"

Onset: "When did these symptoms first start?"

Character: "What does it feel like - numbness, tingling, burning, or pain?"

Radiation: "Which fingers are affected? Does it spread anywhere else?"

Associated symptoms: "Any weakness in your hand? Have you been dropping things?"

Timing: "Are the symptoms constant or do they come and go? Are they worse at any particular time of day?"

Exacerbating/Relieving: "What makes it worse? Does shaking your hand or running it under warm water help?"

Severity: "On a scale of 1 to 10, how bad are the symptoms at their worst?"

B. Red Flag and Differential Screening

- "Do you have any pain or stiffness in your neck?"
- "Any symptoms in your little finger?" (*ulnar nerve distribution*)
- "Any weakness in your shoulder or arm?" (*cervical radiculopathy*)
- "Any numbness on the back of your hand?" (*radial nerve*)
- "Have you had any recent injuries to your wrist or hand?"
- "Any skin changes, rashes, or joint swelling?"

C. Risk Factor Screening

- "Do you have diabetes, thyroid problems, or rheumatoid arthritis?"
- "Are you pregnant or have you recently given birth?"
- "What kind of work do you do? Does it involve repetitive hand or wrist movements?"
- "Do you use a computer, vibrating tools, or do manual work?"

D. Function and Daily Life

- "How is this affecting your daily activities - things like typing, holding objects, or doing up buttons?"
- "Is it affecting your sleep?"

- "Are you able to work normally?"

"I can imagine how frustrating it must be dealing with this, especially when it's affecting your work and sleep."

E. MAFTOSA

M (Medications): "Are you on any regular medications?"

A (Allergies): "Do you have any allergies?"

F (Family history): "Any family history of thyroid problems or diabetes?"

T (Travel/triggers): "Any recent changes in your work or activities?"

O (Occupation): "You mentioned you work as a typist - how many hours a day do you spend at the computer?"

S (Smoking): "Do you smoke?"

A (Alcohol & activity): "Do you drink alcohol? And do you exercise regularly?"

F. ICE

Ideas: "What do you think might be causing these symptoms?"

Concerns: "Is there anything you're particularly worried about - like permanent damage or needing surgery?"

Expectations: "What were you hoping we could help with today?"

Physical Examination (Hand and Wrist Focused)

1. Pre-Examination Communication (Verbal Consent and Setup)

"Thank you for answering all my questions. Now I'd like to examine your hands and wrists to help work out what's causing your symptoms.

I'll be looking at your hands, checking your sensation, muscle strength, and doing some special tests.

This shouldn't be painful, but please let me know if anything is uncomfortable.

I'll need you to roll up your sleeves so I can see both your hands and forearms.

Do I have your consent to proceed?"

2. Positioning and Exposure

- Position: Patient seated comfortably with hands resting on the table, palms up
- Exposure: Both hands and forearms visible to mid-arm
- Compare both sides throughout

3. HAND AND WRIST EXAMINATION STEPS

A. Inspection (LOOK)

Both Hands – Compare Bilaterally:

- Skin changes, scars, swelling
- Muscle wasting - particularly thenar eminence (base of thumb)
- Deformity or joint swelling
- Colour changes

"I'm looking at the muscle at the base of your thumb - this can waste away if the nerve has been compressed for a long time."

B. Palpation (FEEL)

Temperature: Use the back of your hand to compare warmth bilaterally.

Tenderness:

- Palpate along the carpal tunnel (volar wrist)
- Palpate thenar and hypothenar eminences
- Check for any swelling or thickening

Pulses:

- Palpate radial pulse bilaterally

C. Sensation Testing

"I'm going to test the feeling in your fingers. Please close your eyes and tell me when you feel me touching you."

Test light touch in:

- Thumb (median nerve)
- Index finger (median nerve)
- Middle finger (median nerve)
- Radial half of ring finger (median nerve)
- Little finger (ulnar nerve - should be normal)
- Dorsum of hand between thumb and index finger (radial nerve - should be normal)

Compare affected to unaffected side

D. Motor Testing

"Now I'd like to test the strength in your hand."

Thumb Abduction (Abductor Pollicis Brevis - Median Nerve):

- "Point your thumb up to the ceiling, now push against my finger."
- Weakness suggests median nerve involvement

Thumb Opposition:

- "Touch your thumb to your little finger - now try to stop me pulling them apart."

Grip Strength:

- "Squeeze my fingers as hard as you can."
- Compare both sides

E. Special Tests

"Now I'm going to perform two special tests to check for carpal tunnel syndrome."

1. Tinel's Sign

- Gently tap over the carpal tunnel (volar wrist, between thenar and hypothenar eminences)
- Positive if tingling or electric sensation radiates into thumb, index, or middle fingers

"I'm going to tap gently over your wrist - let me know if you feel any tingling in your fingers."

2. Phalen's Test (Wrist Flexion Test)

- Ask patient to hold both wrists in full flexion (backs of hands pressed together) for 60 seconds
- Positive if symptoms reproduced within 60 seconds (typically within 30 seconds)

"Please press the backs of your hands together like this and hold the position. Let me know if you feel any tingling or numbness."

F. Additional Checks (if Indicated)

Neck Examination:

- Brief cervical spine assessment if radiculopathy suspected
- Check for neck stiffness or pain on movement

Other Nerves:

- Check ulnar nerve function (finger abduction, little finger sensation)
- Check radial nerve function (wrist extension, dorsal hand sensation)

G. Verbalise Completion

"That completes my examination. I would also briefly examine your neck to rule out any nerve problems coming from your spine."

Findings:

- Mild thenar wasting noted
- Reduced sensation in thumb, index, middle, and radial half of ring finger
- Slight weakness of thumb abduction
- Tinel's sign: Positive
- Phalen's test: Positive within 30 seconds
- Ulnar and radial nerve distribution intact

Provisional Diagnosis

"Based on your symptoms - the numbness and tingling in your thumb, index, and middle fingers, especially at night - and the findings on examination, this is most consistent with carpal tunnel syndrome."

Explanation

"Carpal tunnel syndrome happens when a nerve called the median nerve gets squeezed as it passes through a narrow tunnel in your wrist.

Think of it like a busy road going through a tunnel - if the tunnel gets narrower, traffic gets backed up. In your case, the nerve is getting compressed, which is causing the tingling, numbness, and that burning sensation you've been feeling.

The symptoms are often worse at night because when we sleep, our wrists tend to bend, which increases the pressure on the nerve. That's why you've been waking up with those symptoms.

It's very common in people who do repetitive work with their hands, like typing. The good news is that it's very treatable, and most people improve significantly with the right treatment."

Investigation Plan

"Carpal tunnel syndrome is usually diagnosed based on your symptoms and examination - we don't always need tests. However, I'd like to arrange a few things:"

Routine Bloods (to exclude underlying causes):

- FBC
- Fasting glucose or HbA1c (to check for diabetes)
- Thyroid function tests (to check for hypothyroidism)

"We're checking these because conditions like diabetes and thyroid problems can make carpal tunnel syndrome more likely."

Nerve Conduction Studies:

- Not routinely required for diagnosis
- Consider if diagnosis uncertain, symptoms severe, or before surgery

"We usually don't need a nerve test to make the diagnosis, but if your symptoms don't improve or we're considering surgery later, we might arrange one."

X-ray:

- Only if trauma suspected or other bony pathology considered

Management Plan

"Here's what we'll do to help manage this."

A. What You Can Do (Self-Care & Lifestyle)

Wrist splinting: "The most effective first-line treatment is wearing a wrist splint at night. This keeps your wrist in a neutral position and takes pressure off the nerve while you sleep. You can buy these from a pharmacy - wear it every night for at least 6 weeks."

Ergonomic advice:

- "Try to keep your wrist in a neutral position when typing - not bent up or down."
- "Take regular breaks from repetitive tasks - every 30 minutes if possible."
- "Consider using an ergonomic keyboard and mouse."
- "Your employer may be able to arrange a workstation assessment."

Activity modification: "Try to avoid activities that make your symptoms worse, but don't stop using your hand completely."

Hand exercises: "Gentle stretching and nerve gliding exercises can help - I can refer you to a physiotherapist who can show you these."

B. What We Can Offer (Medical Management)

If symptoms persist after 6–8 weeks of splinting:

Corticosteroid injection: "If the splint doesn't help enough, we can offer a steroid injection into the carpal tunnel. This works well in about 70–80% of people and can give relief for several months. However, symptoms do sometimes come back."

Referral for surgery: "If your symptoms don't improve after conservative treatment, or if you have muscle wasting or constant numbness, we'll refer you to a hand surgeon. The operation is called carpal tunnel release - it's usually done under local anaesthetic as a day case, with a high success rate of 75–90%."

Indications for earlier referral:

- Symptoms persisting beyond 6 months despite conservative treatment
- Thenar muscle wasting or weakness
- Constant numbness (suggests nerve damage)
- Severe symptoms affecting daily function

Safety Netting and Follow-Up

"Please come back sooner if:

- Your numbness becomes constant rather than coming and going
- You notice increasing weakness in your thumb or hand
- You're dropping things more frequently
- Your symptoms spread to other parts of your hand or arm"

"These could suggest the nerve is being compressed more severely and might need earlier treatment."

Follow-up: "We'll review you in 6–8 weeks to see how you're getting on with the splint. If things haven't improved, we can discuss the injection or referral at that point."

Patient information: "I'll give you an NHS leaflet on carpal tunnel syndrome with information about splints and exercises."

"Does everything I've explained make sense? Is there anything you'd like me to go over again?"

Addressing Patient Concerns

If patient asks about surgery:

"Surgery is very effective - about 75–90% of people have good results. It's usually done under local anaesthetic, takes about 15–20 minutes, and you can go home the same day. Recovery varies, but most people are back to light activities within a few weeks. You might have some scar tenderness and reduced grip strength for a few months, and if your job involves heavy manual work, you may need several weeks off."

If patient asks about permanent damage:

"If carpal tunnel syndrome is left untreated for a long time, it can cause permanent nerve damage. That's why it's important to treat it - especially if you develop constant numbness or weakness. The good news is that your symptoms are still intermittent, which suggests the nerve hasn't been permanently damaged yet."

If patient is pregnant:

"Carpal tunnel syndrome is common in pregnancy due to fluid retention. It often improves after delivery, so we usually recommend conservative treatment with splinting first. Most cases resolve within a few months of giving birth."

Note for Students

This is a classic presentation of carpal tunnel syndrome:

Key diagnostic features:

- Numbness, tingling, burning in median nerve distribution (thumb, index, middle, radial half of ring finger)
- Symptoms worse at night and wake patient from sleep
- Symptoms relieved by shaking hand ("flick sign")
- Occupational risk factors (repetitive wrist movements)
- Positive Tinel's and Phalen's tests
- Thenar wasting in advanced cases

Differential diagnoses to consider:

- Cervical radiculopathy (C6/C7) - neck pain, dermatomal distribution
- Ulnar neuropathy - little finger and ulnar half of ring finger
- Peripheral neuropathy - glove distribution, both hands
- De Quervain's tenosynovitis - thumb-side wrist pain
- Wrist arthritis - joint pain and stiffness

Clinical pearls:

- NSAIDs and diuretics are NOT routinely recommended
 - Diagnosis is clinical - nerve conduction studies not required to diagnose
 - Screen for diabetes and hypothyroidism as underlying causes
 - Surgery has 75-90% success rate
 - Pregnancy-related CTS often resolves postpartum - treat conservatively first
-

Chapter 10: Haematology

A Note to Learners

The cases in this resource are written in a conversational style to help you become familiar with the natural flow of clinical consultations and the language commonly used in UK healthcare settings.

These dialogues are intended as a learning guide, not a script. Please do not attempt to memorise them verbatim. Examiners assess your ability to think and communicate authentically - not to recite rehearsed phrases.

Use this material to understand the underlying clinical reasoning, then practise in your own words until the consultation feels natural to you.

For Companion OSCE Cases, Practice Scripts, Evaluation Checklists, Summary Notes, Rapid Review Notes, Mindmaps, Management Flashcards and Image Library - visit <https://www.gksplab2.com>

Disclaimer

This material is independent educational content created to help candidates develop clinical reasoning and communication skills for UK medical practice.

All cases and clinical scenarios are based on common presentations encountered in UK primary care and emergency medicine, drawn from publicly available sources including NICE Clinical Knowledge Summaries (CKS), BNF, and other official NHS/UK healthcare guidelines.

No content in this resource is derived from, represents, or claims to replicate actual GMC PLAB 2 examination material.

Chronic Lymphocytic Leukaemia (CLL)

Setting: Primary Care

Role: FY2 Doctor

Patient: Older Adult Male

Presentation: Follow-up for routine blood test results showing abnormal findings

Findings: Elevated white cell count with lymphocytosis, mild anaemia

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Thanks for coming in today. Could I confirm your full name and date of birth, please? Thank you. I understand you had some routine blood tests recently. Would it be okay if I asked you a few questions before we go over the results?"

2. Focused History & Context

"Just to check, have you been feeling well in yourself lately?"

→ (Actor will likely say yes, appears fit)

Symptom review to guide clinical suspicion:

Anaemia symptoms:

- "Have you had any shortness of breath when walking or climbing stairs?"
- "Do you feel more tired than usual these days?"
- "Any light-headedness or dizziness?"

Bleeding signs:

- "Any nosebleeds or bleeding from your gums recently?"
- "Do you bruise more easily than before?"

Cancer-related red flags:

- "Have you noticed any unexplained pain anywhere in your body?"
- "Any weight loss that you didn't plan for?" (Use open phrasing - likely cue from actor)
- "Any drenching night sweats?"
- "Any bone pain, especially in your back?"
- "Have you had any fever or chills?"

Infection history:

- "Have you had more infections than usual?"
- "Any sore throats or swollen glands?"

Swelling:

- "Any lumps around your neck, under your arms, or groin?"
- "Any fullness or swelling in your tummy?"

Skin symptoms:

- "Have you had any unusual rashes?"

Risk factors:

- "Any family history of blood disorders or cancer, including haematological malignancy?"
- "Have you ever had chemotherapy or radiation treatment?"
- "Could I check what kind of work you've done in the past?"
- "Any jobs involving mining, energy plants, or petroleum exposure?"

3. Explore ICE

- "What were your thoughts about the blood test-were you expecting anything in particular?"
- "Was there anything you or your family were especially worried about?"
- "Were you hoping the test would give reassurance or check something specific?"

(May say: "My wife was the one concerned-I feel fine.")

4. Clear Result Disclosure

"Thanks for being patient. I've had a look at your blood results, and one of the things that stands out is that your white blood cell count is significantly higher than normal, particularly a type of white cell called lymphocytes. Your haemoglobin is slightly low, which might explain some tiredness if present. Your sugar test was normal, so you're not diabetic."

5. Lay Explanation of the Condition

"Let me explain a little about what the blood test showed.

Your white blood cell count is significantly raised, especially a type called lymphocytes-these are cells that are part of your body's defence system. In your case, the number is much higher than expected. Unfortunately, this pattern can suggest a slow-growing condition affecting the blood called Chronic Lymphocytic Leukaemia, or CLL. I know the word 'leukaemia' can sound frightening, so let me explain what this actually means. It's a slow-growing type of blood cancer where the body produces too many abnormal lymphocytes that don't function properly and can build up over time.

These cells can crowd out the healthy ones in your blood, which might explain the slight drop in your haemoglobin. That could lead to tiredness or other symptoms later on, even if you feel well now. Many people don't notice symptoms at first, and it's often picked up during routine blood tests-just like in your case."

(Pause here and observe patient reaction.)

6. Structured Management Plan

"Now I know that's a lot to hear, but I'd like to reassure you that if it is CLL, it's often picked up early like this and can be monitored for many years before needing treatment. But we do need to confirm the diagnosis and check the exact stage."

Referral: "I'll refer you urgently to a specialist doctor in blood conditions-a haematologist-under what we call the two-week wait cancer pathway, so you'll be seen within 2 weeks."

Further tests: "They'll likely repeat your blood tests and perform a test called flow cytometry, which looks at the markers on your blood cells. A bone marrow biopsy may be needed in some cases, but not always for diagnosis. They may also do a scan to check if there's any swelling inside."

Treatment planning: "If it is confirmed, many people don't need treatment straight away-we simply monitor with regular check-ups. When treatment is eventually needed, there are now very effective options available. The specialist will discuss these with you in detail, but the good news is that outcomes have improved significantly in recent years."

7. Address Key Patient Concerns

"I can see this may come as a shock, especially since you feel completely fine. Is there anything in particular you're worried about right now-maybe about the name 'leukaemia' or what happens next?"

→ Acknowledge fears and correct misconceptions: "Yes, CLL sounds alarming, but many patients live well with this condition for years, especially when caught early."

"Many people ask what this means for their future. The good news is that CLL is often a chronic condition-a bit like diabetes or high blood pressure-that we monitor and manage over time. Many people live with CLL for a normal lifespan, especially when it's caught early like yours."

8. Safety Netting

"If you notice new symptoms-like lumps, night sweats, heavy fatigue, or signs of infection-please do get in touch. But even if nothing changes, this referral is important to confirm what's going on."

9. Follow-Up Plan

"Once the referral is processed, you'll either get a call or letter with the hospital appointment. After your assessment there, we'll see you back here or the specialist will keep you updated on next steps."

10. Offer Leaflet or Written Info

"I'll give you an NHS leaflet on CLL-it's written in accessible terms, and it might help explain what I've said today. There's also a good NHS website you can check."

11. Check Understanding

"That was a lot of information-would you like me to go over any part again?"

"How does that sound to you?"

12. Closing & Reassurance

"You've done absolutely the right thing coming in today. Catching things early gives us more options, and we'll support you throughout this process. You're not alone in this-we'll take it one step at a time."

Diagnostic Reasoning

The diagnosis is suspected Chronic Lymphocytic Leukaemia (CLL) based on:

- Marked leukocytosis with lymphocytosis on differential
- Low haemoglobin, raising suspicion of bone marrow involvement
- Age >60, fitting typical demographic
- Lack of acute symptoms, which supports a chronic process

Early CLL is often asymptomatic and picked up incidentally, exactly as in this case.

Note: CLL diagnosis requires $\geq 5 \times 10^9/L$ clonal B lymphocytes with characteristic phenotype (CD5+, CD19+, CD20 dim+, CD23+). Flow cytometry is the key diagnostic test; bone marrow biopsy is not always required for diagnosis per iwCLL guidelines.

Treatment update (BSH October 2025): First-line treatment now includes BTK inhibitors (acalabrutinib, ibrutinib, zanubrutinib) or venetoclax combinations. Chemoimmunotherapy is no longer first-line.

Suspected Multiple Myeloma

Setting: Primary Care

Role: FY2 Doctor

Patient: Older Adult Male

Presentation: Follow-up for chronic back pain with blood test results showing abnormal protein markers and blood count changes

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Thanks for coming in today. Before we begin, could I confirm your full name and date of birth? Thank you. I understand we're meeting today to go over the results from the tests we did for your back pain. Would it be okay if I asked you a few questions before we get into the results?"

2. Focused History & Context

Paraphrase and build context: "So last time you came in, you mentioned you'd had back pain for around 6 months. How has that been recently-any better, worse, or the same?"

Ask about red flag symptoms and complications:

- "Any new symptoms since we last met?"
- "How's your energy been-feeling more tired than usual?"
- "Any recent weight loss or changes in appetite?"
- "Any episodes of confusion, constipation, or increased thirst or urination?" (Screen for hypercalcaemia)
- "Any issues with bruising or unusual bleeding?"

Past Medical and Drug History (DESA/MMA):

- "Do you have any medical conditions or past surgeries?"
- "Are you on any regular medications?"
- "Any allergies I should know about?"

3. Explore ICE (Ideas, Concerns, Expectations)

- "Did you have any thoughts about what might be causing the back pain?"
- "Is there anything you've been particularly worried about while waiting for the results?"
- "Was there something you were hoping we could rule out today?"

4. Clear Result Disclosure

"Thanks for sharing that. I've had a look at your test results, and I'd like to go over them with you carefully."

5. Lay Explanation of the Condition (Using "Unfortunately")

"Your blood test showed a few important findings. Your red blood cell count is low, which may explain your tiredness. Your platelets-which help with clotting-are also lower than normal.

We also did a special test called protein electrophoresis, which showed a high level of a protein called IgG. Along with protein electrophoresis, we also did a test called serum free light chains, which helps detect certain types of abnormal proteins. And in your urine, we found something called Bence Jones protein, which is not normally present.

Unfortunately, when we see this combination-especially with long-term back pain and weight loss-it raises concern for a condition called Multiple Myeloma. It's a type of blood cancer that affects plasma cells, which are found in your bone marrow. These cells start making abnormal proteins, which can damage bones, cause anaemia, affect the kidneys, and lower your body's ability to fight infections. Now I want to reassure you-this is just a suspicion at this stage, and we need to confirm things with further tests."

6. Structured Management Plan

Referral: "I'll be referring you urgently to a haematologist, a specialist in blood disorders. You'll be seen within the next 2 weeks under what we call the 'two-week cancer referral pathway'."

Further tests: "The haematologist will arrange some more detailed investigations:

- A bone marrow biopsy, to examine the bone cells more closely
- A whole-body MRI scan, which is usually the first-line imaging for suspected myeloma as it's very good at detecting bone changes. Some centres may use whole-body low-dose CT as an alternative.
- Possibly some kidney function tests and calcium levels too."

Pain management: "While we're waiting for those tests, I'd like to make sure your back pain is under control. We can review or adjust your painkillers if needed."

Possible treatments (if confirmed): "If this does turn out to be myeloma, there are effective treatments available. These can include chemotherapy, steroids, and newer targeted therapies. Treatment depends on the stage and how your body responds, but many patients can manage the condition for years."

7. Address Key Patient Concerns

"I know that's a lot to take in. How are you feeling about what I've said so far?"

8. Safety Netting

"In the meantime, if you experience new symptoms, like worsening pain, sudden confusion, severe constipation, or excessive thirst or urination, please contact us urgently or go to A&E. These could be signs of calcium imbalance or complications.

Also, if you notice new bruising or unusual bleeding, let us know."

9. Follow-Up Plan

"You should hear from the hospital within two weeks. If you haven't been contacted by then, please let us know so we can follow up the referral for you. We'll also see you again after the hospital visit to review things together."

10. Offer Leaflet or Written Info

"I can give you an NHS leaflet about multiple myeloma-it explains what we've just discussed in a bit more detail, in case you'd like to read through it at home."

11. Check Understanding

"Is that making sense?"

12. Closing & Reassurance

"You've done the right thing by coming in and getting this checked out. We've caught these blood changes early, and the next step is to confirm what's going on. We'll support you every step of the way, and we'll take things one step at a time."

Clinical Reasoning Note for Students

This is a suspected Multiple Myeloma case based on:

- Chronic back pain
- Anaemia + thrombocytopenia
- Raised IgG on serum protein electrophoresis
- Presence of Bence Jones protein in urine
- Weight loss and loss of appetite

No spinal cord compression symptoms were present. The correct next step is a 2-week referral to haematology for confirmation with bone marrow biopsy + imaging.

Note: NICE NG12 was updated in April 2025 with amended blood test recommendations for myeloma. Serum protein electrophoresis and serum free light chains are key initial tests. Whole-body MRI is the first-line imaging modality per NICE NG35.

Pain Management in Metastatic Breast Cancer

Setting: Hospital Ward

Role: FY2 Doctor

Patient: Older Adult Female

Presentation: Known metastatic cancer with bone involvement, referred for worsening pain management

Context: Previous definitive treatment, now palliative phase

1. Introduction & Consent

"Hello, I'm one of the doctors on the ward team. Thank you for speaking with me today. Before we begin, could I confirm your name and date of birth, please?"

I understand you've been referred here by the oncology team regarding your back pain. Would it be alright if we talked a little about that so I can understand how best to support you?"

2. History of Presenting Complaint

Start open-ended: "Could you tell me how the back pain has been affecting you recently?"

Use SOCRATES to structure pain history:

- **Site:** "Where exactly do you feel the pain?"
- **Onset:** "When did it begin? Has it been gradual or sudden?"
- **Character:** "Can you describe the type of pain-is it sharp, dull, throbbing?"
- **Radiation:** "Does it spread anywhere?"
- **Associated symptoms:** "Any numbness, weakness, or changes in your legs?"
- **Timing:** "Is the pain constant, or does it come and go?"
- **Exacerbating/Relieving:** "Is there anything that makes it better or worse?"
- **Severity:** "How would you rate it out of 10?"

→ Patient reports pain is 9/10 and not controlled with paracetamol.

3. Red Flag Screening

"Just to be thorough, have you had:"

- Weakness in your legs or difficulty walking?
- Any numbness or tingling down your legs?
- Changes in bladder or bowel control-like accidents or difficulty going?
- Any fevers, night sweats, or recent infections?

→ No red flags reported.

4. Past Medical and Treatment History (MMA)

- "Do you have any other medical conditions or allergies?"
- "What medications are you currently taking, including anything over the counter?"

→ Paracetamol, possibly ibuprofen in the past. Previously tried morphine/codeine but stopped due to constipation.

- "Have you had radiotherapy or other treatments for the pain?"

→ Yes, tried radiotherapy but it didn't help.

5. Functional and Social Assessment

- "How has the pain affected your day-to-day activities-getting out of bed, walking, sleeping?"
- "Are you managing at home? Do you have anyone supporting you?"

→ Lives alone, but has good family and friend support. Doesn't want help at home.

- "How's your appetite and fluid intake?"

→ Good oral intake reported.

6. ICE – Ideas, Concerns, Expectations

- **Ideas:** "Do you have any thoughts about what's causing this pain?"
- **Concerns:** "Is there anything you're particularly worried about?"

→ Concerned she won't be able to attend her grandchild's wedding because of the pain.

- **Expectations:** "What were you hoping we could do today to help?"

7. Clinical Summary and Lay Explanation

"From what you've told me, the back pain you're having is related to the cancer that has spread to the bones in your spine. This can cause persistent pain and discomfort, especially when the usual painkillers stop working.

Pain like this is not uncommon in people with advanced cancer, but the good news is that there are stronger pain relief options we can safely use. Making sure you're comfortable is our top priority while still keeping you as active and independent as possible."

8. Management Plan

Stepwise Pain Control "We'll start by introducing oral morphine, taken regularly every 4 hours. We typically start with 20–30 mg spread across the day, either as a slow-release tablet twice daily or an immediate-release liquid every 4 hours. We'll also give you extra doses - usually around 5mg of immediate-release morphine - that you can take for any sudden increases in pain. This is typically one-sixth of your total daily dose."

"If you need relief in between doses, we can offer rescue (breakthrough) doses as well."

Managing Side Effects "It's common for morphine to cause constipation, nausea, or drowsiness at first, so we'll give you:

- A laxative to take routinely to prevent constipation
- An anti-sickness tablet to take if needed-usually metoclopramide (up to 5 days), or low-dose haloperidol if that's not suitable. The nausea usually settles after a few days."

Alternative Routes (address concern: unable to swallow) "If swallowing becomes difficult later on, the palliative care team can arrange pain relief in other ways-such as:

- Patches that go on your skin
- Injections under the skin using a small pump (called a syringe driver), which can run continuously

They'll advise on these options and any dose adjustments needed."

Supportive Measures "We can also suggest:

- Support cushions or mattresses to reduce pain from movement
- Mobility aids, if needed
- Tips to avoid things like lifting or bending that could trigger pain"

9. Involving Palliative Care

"I'll ask our palliative care team to review your case as well. They specialise in managing complex pain and can offer additional support-both medical and emotional."

10. Emotional and Psychosocial Support

"I understand how important the upcoming family event is. Our goal is to control your pain enough so you can comfortably attend your grandchild's wedding. We'll work with you closely to achieve that."

11. Safety Netting

"If at any point:

- Your pain suddenly worsens
- You develop new weakness or numbness
- You can't pass urine or open your bowels
- Or if you notice any side effects that bother you-please call us or return to the hospital immediately."

12. Follow-Up Plan

"We'll review you in 2 weeks, sooner if needed, to check how you're coping with the medication. We'll adjust the morphine dose if it's too weak or too strong, and make sure the side effects are well controlled."

Clinical Reasoning Summary

Feature	Explanation
Chronic severe back pain	Likely spinal mets from cancer
Pain poorly controlled	Step-up needed to opioids (WHO pain ladder step 3)
Paracetamol not effective	Morphine trial appropriate, with adjunctive support
Concern about swallowing	Anticipate need for patch or syringe driver
Palliative care input	For ongoing pain titration + psychosocial support

Medications Likely to Start:

- Oral morphine 20–30 mg total daily dose (NICE CG140 aligned)
- Senna/lactulose (laxative - routine)
- Metoclopramide or low-dose haloperidol (antiemetic PRN - per MASCC 2021)
- Consider morphine patch or syringe driver if oral route fails

Iron Deficiency Anaemia

Setting: Primary Care

Role: FY2 Doctor

Patient: Older Adult Male

Presentation: Asymptomatic follow-up for routine blood results showing microcytic anaemia with low iron stores

Context: No GI symptoms, coeliac screen negative

1. Introduction & Consent

"Hello, I'm one of the doctors here today. Could I please confirm your name and date of birth? Thank you. I understand you've come back for a review of your recent blood tests from your routine check-up. Would it be okay if we had a quick chat about how you've been feeling before we go over the results?"

2. Focused History & Context

Recap last visit: "When you came in for your check-up a few weeks ago, were there any particular concerns or symptoms discussed?"

Explore current status: "Since then, have you had any new symptoms at all? Things like tiredness, shortness of breath, or feeling faint?"

Screen for red flags and anaemic symptoms:

- "Have you noticed any palpitations or chest pain?"
- "Any changes in your bowel movements-like black or bloody stools?"
- "How's your energy been lately-feeling more tired than usual?"
- "Any dizziness or breathlessness when climbing stairs?"

FLAWS and background:

- "Any recent weight loss or appetite changes?"
- "Any pain in your tummy or change in how your clothes fit around the waist?"
- "Any night sweats or fever?"

IDA risk factors:

- "Have you ever had any bleeding from your stomach or bowel?"
- "Have you donated blood recently?"
- "Any long-term use of medications like aspirin or ibuprofen?"
- "Any family history of bowel cancer?"
- "Have you ever had bowel surgery or travel-related illnesses?"
- "How is your diet-do you regularly eat iron-rich foods like meat, spinach, or fortified cereals?"

3. Explore ICE (Ideas, Concerns, Expectations)

- "Did you have any thoughts about what the blood tests might show?"
- "Anything you were especially concerned about today?"
- "Were you hoping for any particular explanation for the results?"

(Patient likely has no concerns, given the asymptomatic presentation)

4. Clear Result Disclosure

"Thanks for going through that with me. I've reviewed your blood test results, and I'd like to explain what we found."

5. Lay Explanation of the Condition

"Your haemoglobin, which is the part of your blood that carries oxygen, is a bit lower than normal. That tells us that you're anaemic. We also looked at your ferritin, which is the storage form of iron in your body-that's also low. And your MCV, which tells us the size of your red blood cells, is a bit below normal too. These findings all point to something called Iron Deficiency Anaemia.

I need to be upfront with you about something important. In someone your age, we have to consider all possible causes-including the possibility that there may be bleeding from the bowel that you might not have noticed. In some cases, this kind of anaemia can be the first sign of a bowel cancer, even when there are no obvious symptoms.

I want to stress that this is simply something we need to rule out to be thorough-but we need to investigate it properly to be safe."

6. Structured Management Plan

Urgent referral: "So the next step is to refer you to a gastroenterologist-a specialist in digestive health-under what we call the 2-week wait referral pathway. This means you'll be offered an appointment within 2 weeks for further tests to rule out anything serious."

Investigations: "You'll likely have a procedure called a colonoscopy, where they use a camera to look inside the bowel, and possibly an upper endoscopy too. These help us check for any signs of bleeding, ulcers, or growths."

Iron replacement: "I'll also start you on iron tablets, which help boost your iron levels and treat the anaemia. You'll need to take one tablet daily on an empty stomach, and continue for at least 3 months even after your haemoglobin improves, to refill your iron stores."

Dietary advice: "In the meantime, eating iron-rich foods like green leafy vegetables, iron-fortified cereals and breads, red meat, lentils, apricots, and prunes can help."

Side effects explanation: "I should mention that iron tablets can sometimes cause black stools, which is normal and expected. Some people may also get tummy upset-like nausea, constipation, or diarrhoea. If that happens, you can try taking the tablet after food, or come back and we'll adjust the dose or formulation."

7. Address Key Patient Concerns

"You've mentioned you feel fine, which is good-but I understand this might sound worrying. Do you have any questions or concerns about what I've said so far?"

(Patient may ask if cancer is likely – respond: "At this stage, we don't know. It's possible, which is why we're being cautious. The goal is to rule it out early and not miss anything.")

8. Safety Netting

"If you develop any new symptoms before your appointment-like black or red stools, worsening tiredness, or stomach pain-please contact us or go to A&E.

And if you haven't heard from the hospital within 2 weeks, let us know right away so we can follow it up."

9. Follow-Up Plan

"We'll keep an eye on things from our side as well. Once you've had your tests, we'll see you again to review the results and decide the next steps together."

10. Offer Leaflet or Written Info

"I'll give you an NHS leaflet about Iron Deficiency Anaemia and the bowel camera tests-it explains what to expect in accessible terms."

11. Check Understanding

"I know that was a lot to take in-would you like me to go over any part again? Does all that make sense so far?"

12. Closing & Reassurance

"You've done the right thing by coming in for your check-up-it's helped us catch this early. We're acting quickly now to make sure everything is thoroughly checked, and we'll support you through every step."

Clinical Reasoning Note

This is IDA in an older male with no obvious cause or symptoms, which mandates a 2-week urgent referral for suspected GI malignancy per NICE NG12 guidelines. The key diagnostic clues:

- Low Hb, low MCV, low ferritin
- Asymptomatic but age >60
- Coeliac screen and vitamin levels ruled out malabsorption

Next step: Endoscopic evaluation + iron replacement

BSG Guidelines: qFIT (quantitative faecal immunochemical test) may be used in the investigation pathway but does NOT replace endoscopic evaluation in men and postmenopausal women with unexplained IDA due to cancer risk.

Iron Dosing: Once-daily oral iron is now preferred over TDS dosing. After oral iron intake, hepcidin levels rise for ~48 hours, blocking further iron absorption. This means TDS dosing doesn't improve absorption but does increase side effects. If once daily is not tolerated, alternate-day dosing is equally effective with better tolerability.

Suspected Thalassaemia Trait

Setting: Primary Care

Role: FY2 Doctor

Patient: Middle-Aged Adult Female

Presentation: Follow-up for routine blood results showing mild microcytic anaemia with normal iron studies

Context: Family history of haemoglobinopathy, asymptomatic

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Lovely to meet you. Can I just confirm your name and date of birth, please?"

Thanks for coming in today. I understand we're meeting to review your recent blood test results from your routine check-up. Before we get into that, would it be alright if I asked a few questions to understand the full picture?"

2. Focused History & Context

Clarify testing indication and check previous understanding:

- "What kind of tests were done and what was the reason for them?"
- "Had you been feeling unwell at the time, or was this just part of your routine check?"

(Patient says it was a general check-up.)

Symptom screening:

- "Since then, have you noticed any tiredness or lack of energy?"
- "Any dizziness, breathlessness, or headaches?"
- "How's your exercise tolerance-climbing stairs, walking briskly-any changes?"
- "Have you noticed your skin looking pale, or any changes in your periods like heavier bleeding?"

(Patient denies symptoms.)

Explore dietary and bleeding causes:

- "How would you describe your general diet-do you eat red meat or green leafy vegetables regularly?"
- "Any recent blood donations, heavy periods, or bowel changes like dark stools or bleeding?"

(Patient denies.)

Family history of blood disorders:

- "Has anyone in your family been diagnosed with anaemia or blood conditions?"

→ "Just my sister-she has something called thalassaemia, but I'm not sure which type."

Ethnic and personal background: "Some blood conditions are more common in people from certain backgrounds-for example, Mediterranean, Middle Eastern, South Asian, or African heritage. Would you mind sharing your family's background? It helps us understand the picture better."

→ (If applicable: "We're from Cyprus/Middle East/South Asia.")

Other medical history:

- "Have you ever been admitted to hospital or diagnosed with anything long term?"
- "Any medications, allergies, or past surgeries?"

3. Explore ICE (Ideas, Concerns, Expectations)

- "Did anyone explain what they were testing for?"
- "Have you had any concerns or thoughts about the results?"
- "Do you think this might be related to your sister's condition?"

4. Clear Result Disclosure

"Thanks for walking me through that. I've had a careful look at your blood results, and I'd like to go over them now-if that's okay with you?"

5. Lay Explanation of the Condition

"Your haemoglobin level is a little below the normal range, which means you're mildly anaemic. What's more interesting is that your MCV, or Mean Corpuscular Volume-which tells us the size of your red blood cells-is also low. But your iron levels, ferritin, B12, and folate are all completely normal, so it's not due to iron deficiency or vitamin shortage.

That pattern-microcytic anaemia without iron deficiency-raises the possibility of something called thalassaemia trait."

What is thalassaemia? "Let me explain what this means. Our red blood cells carry oxygen using a protein called haemoglobin. In thalassaemia, there's a genetic change that affects how this haemoglobin is made. People with one altered gene-what we call a carrier or trait-may have slightly low haemoglobin and smaller red cells, just like in your case. They often feel perfectly fine and may never know they have it unless tested."

Differentiation from major disease: "This is very different from thalassaemia major, which your sister might have, where people require regular transfusions. In your case, we're only seeing very mild changes, and you don't have any symptoms."

6. Structured Management Plan

Confirmation testing: "To confirm this, we'll arrange a haemoglobin electrophoresis test-this looks at the different types of haemoglobin in your blood. For beta-thalassaemia trait, this test is very reliable as it shows a raised HbA2 level. However, if the results are normal but we still suspect alpha-thalassaemia, genetic testing may be needed-alpha-thal can be trickier to diagnose from blood tests alone."

No routine haematology referral needed: "The good news is that for carriers like yourself, you don't usually need to see a specialist. We can arrange the confirmatory tests from here. Only if the results are unusual or there's significant anaemia would we consider a haematology referral."

Current management: "As you're not experiencing any symptoms, and your levels are only mildly reduced, there's no treatment needed. Importantly, carriers of thalassaemia trait do not need any regular medical treatment or follow-up."

Important warning about iron: "One thing I must emphasise-please avoid taking iron supplements unless a doctor specifically confirms you have iron deficiency. In thalassaemia trait, giving iron when you don't need it can cause harm, and the low MCV can sometimes be mistaken for iron deficiency."

7. Address Key Patient Concerns

Q1: "Could this be what my sister has?" "It's likely related, yes. But if your sister has the more serious form-thalassaemia major-then you may simply have the milder carrier version, which is very common and doesn't usually cause health problems."

Q2: "Will I need treatment or lifelong medication?" "No-not for the trait form. It's something we keep a note of, but most people don't need any medication or long-term follow-up. You can live a normal, healthy life without any changes."

8. Safety Netting

"If you ever start feeling more tired than usual, have unusual bleeding, or become pregnant, do let us know-especially because we'd want to make sure your partner's blood type is also checked if you ever plan for children. We can refer you to the local haemoglobinopathy counselling service if you're planning a pregnancy, or your midwife can arrange this when the time comes."

9. Follow-Up Plan

"Once the electrophoresis test results are back, we'll review them together. If everything confirms what we suspect, no further treatment or specialist referral will be needed-just documentation in your notes. The most important thing is to know your carrier status, especially for family planning."

10. Offer Leaflet or Written Info

"I'll give you an NHS leaflet on thalassaemia trait, which explains what we've discussed. It's easy to read and may be useful for your family too."

11. Check Understanding

"I know that's quite a lot of information-shall I go over any part again? Does everything I've said make sense so far?"

12. Closing & Reassurance

"Thanks for coming in today, and for having these tests done. We've likely found something very common and not harmful, but important to know about. It's great that you're feeling well, and we're just confirming things to be completely safe."

Clinical Reasoning Note

This is a suspected thalassaemia trait based on:

- Low Hb and low MCV
- Normal iron, ferritin, B12, folate
- Positive family history of thalassaemia
- Relevant ethnic background
- No symptoms or red flags

Key management points:

- Diagnosis confirmed by haemoglobin electrophoresis (raised HbA2 confirms beta-thal trait)
- **Alpha-thalassaemia trait** may have normal electrophoresis and require genetic testing
- **No routine haematology referral needed** for uncomplicated carriers
- **No iron supplements** unless confirmed iron deficiency-risk of inappropriate iron loading
- No treatment required-carriers are healthy individuals
- Genetic counselling and partner testing important if planning pregnancy

Common pitfall: Mistaking thalassaemia trait for iron deficiency due to low MCV and prescribing unnecessary iron.

Vitamin B12 Deficiency Anaemia (Dietary Cause)

Setting: Primary Care

Role: FY2 Doctor

Patient: Middle-Aged Adult Female

Presentation: Follow-up for tiredness investigation showing macrocytic anaemia with low B12

Context: Plant-based diet, concerned about treatment options compatible with dietary choices

Findings:

- Hb: Low
- MCV: High
- Vitamin B12: Low

- Iron, ferritin, TSH: Normal

Concern: "I don't plan to eat meat ever again. Is there any solution?"

1. Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Thank you-just to confirm, could you tell me your date of birth, please?"

I understand you had some blood tests done recently and you're here today to go over the results. Is that okay with you?"

2. Focused History & Context

Recap why the blood tests were done: "Before we go over your results, could I ask-what made you decide to get the blood tests done? Was there anything in particular you were experiencing or concerned about?"

→ *(Let patient explain tiredness or general check-up)*

Brief screen for anaemia or complications:

- "Have you had any symptoms recently, such as tiredness, feeling faint, or shortness of breath when walking or climbing stairs?"
- "Any issues with memory, concentration, or tingling in your hands or feet?"
- "Any changes to your mood or sleep?"

Differential Diagnosis Screening "I'd like to ask a few extra questions to check for other possible reasons this might have happened."

- "Have you ever had any surgery involving your stomach or bowels?" (*Gastrectomy/ileal resection*)
- "Do you take any long-term medications-like metformin for diabetes or anything for acid reflux, such as omeprazole or lansoprazole?" (*Drug-induced malabsorption*)
- "Have you ever been told you have a condition called pernicious anaemia?" (*Autoimmune B12 malabsorption*)
- "Have you ever been told you have any problems with your stomach, like gastritis or difficulty absorbing vitamins?"
- "Do you drink alcohol regularly?" (*Alcohol-related macrocytosis*)
- "Have you noticed any bowel changes, weight loss, or bleeding?" (*GI malignancy screen if relevant*)

Explore contributing factors and risk profile: "I'd also like to ask a little about your lifestyle, as it helps us understand what could be contributing."

- "Do you follow a specific diet-like vegetarian or vegan?"

→ "Vegan for about 3 years."

- "Have you been taking any supplements or fortified foods with B12?"
- "Any history of stomach conditions or surgeries?"
- "Do you take any medications like metformin or anything for reflux or stomach acid?"
- "How's your alcohol intake, if you don't mind me asking?"

Social history check (if not already known):

- "What do you do for work?"
- "Has any of this affected your daily routine or energy levels at work or home?"

3. Explore ICE (Ideas, Concerns, Expectations)

- "What did you think the blood tests might show?"
- "Was there anything in particular you were hoping to find out today?"
- "Any concerns about how this might affect your lifestyle or health long term?"

4. Clear Result Disclosure

"Thanks for explaining all that. I've reviewed your blood tests, and I'd like to go over them with you now."

5. Lay Explanation of the Condition

"Your results show that your haemoglobin is a bit low, meaning you have mild anaemia. The size of your red blood cells is slightly larger than normal—a pattern called macrocytosis. Most importantly, your Vitamin B12 level is low, which explains both of these findings.

Vitamin B12 is a nutrient your body needs to make healthy red blood cells and keep your nerves working properly. We normally get it from animal-based foods, like meat, eggs, or dairy. Because your diet doesn't include animal products for a few years, it's likely that your body hasn't been getting quite enough B12.

Over time, this can lead to low energy, trouble concentrating, and in some cases, tingling or numbness in the hands or feet if it affects the nerves. The good news is that this is completely manageable."

6. Structured Management Plan

"Since your B12 level is low due to dietary reasons, we have good treatment options that work well."

Treatment plan: "For dietary B12 deficiency without nerve symptoms like tingling or numbness, we can treat this with daily B12 tablets—usually cyanocobalamin 50-150 micrograms daily. This is effective and convenient for most people.

Alternatively, if you'd prefer, or if tablets don't suit you, we can give B12 injections every 2-3 months instead. Some people find the injections more reassuring, while others prefer taking a daily tablet. It's really about what works best for you. Dosage: IM hydroxocobalamin - initially 1mg 3 times weekly for 2 weeks, then 1mg every 2-3 months.

If you had neurological symptoms—like tingling, numbness, or balance problems—we would start with a course of injections to replenish your levels more quickly. But since you're only experiencing tiredness, oral tablets should work well."

Dietary advice: "Since you've chosen not to eat meat, we'll support you with vegan-friendly options. There are plenty of B12-fortified foods like:

- Plant-based milks
- Breakfast cereals
- Nutritional yeast
- Vegan spreads

You'd need to include these at least 2–3 times daily, or continue supplements long-term."

7. Address Key Patient Concern

Patient says: "I don't plan to eat meat again. Is there any solution?"

Response: "That's absolutely fine—this is completely manageable without eating meat. Many vegans take oral supplements or receive occasional injections to keep their levels normal. With regular support and follow-up, you can stay healthy and feel energetic without needing to change your diet."

8. Safety Netting

"If at any point you notice symptoms like tingling, memory problems, or worsening tiredness, please don't wait—come back for review.

And if your injection appointments are delayed, or you don't feel any improvement within a few weeks, we'll need to reassess."

9. Follow-Up Plan

"I'd like to see you again in about 2 to 3 months to check how you're feeling and repeat your blood tests. If you choose oral B12, we'll keep an eye on your levels. If you opt for injections, they'll be scheduled every 2 to 3 months long-term."

10. Offer Leaflet or Written Info

"I'll give you an NHS leaflet on Vitamin B12 deficiency, including guidance for those following a vegan diet. It has advice on supplements and what to watch out for."

11. Check Understanding

"I've said a lot-was that all clear? Would you like me to explain any part again?"

12. Closing & Reassurance

"You've done the right thing by coming in and checking your health. This is a common and fully manageable condition, and we'll support you in finding a treatment plan that suits your lifestyle. The goal is to get your energy levels back and prevent future complications-and we'll work together to make that happen."

Clinical Reasoning Note

Findings: Macrocytic anaemia (↑MCV), low Hb, low B12, normal iron and TSH

Likely cause: Dietary (vegan for 3 years, no B12 intake)

Next steps per NICE NG239:

- **Dietary deficiency without neurological symptoms:** Oral cyanocobalamin 50-150 mcg daily is first-line
- **Alternative:** IM hydroxocobalamin every 2-3 months if oral not suitable/preferred
- **Neurological symptoms present:** Start with IM loading (1mg alternate days for 2 weeks, then every 2 months)
- Follow-up in 2-3 months to check response
- Refer only if no response or unclear cause

NICE NG239 Note: For dietary deficiency without neurological symptoms, oral supplementation is the recommended first-line approach. Consider IM injections if the person is frail, elderly, cognitively impaired, has a rapidly deteriorating condition, or if there are concerns about adherence. Testing for anti-intrinsic factor antibodies should be considered if dietary cause is uncertain.

CRITICAL SAFETY POINT: If both B12 and folate deficiency are present, ALWAYS treat B12 first. Giving folic acid alone to a B12-deficient patient can precipitate or worsen subacute combined degeneration of the spinal cord, causing irreversible neurological damage.

Macrocytic Anaemia with Raised LFTs

Setting: Primary Care (Telephone)

Patient: Older Adult Male

Presentation: Follow-up for chronic hypertension showing incidental findings of raised liver enzymes and macrocytic anaemia on routine bloods

New findings:

- AST and ALT elevated
- MCV ↑
- Hb ↓
- BP well controlled

1. Introduction & Consent

"Hello, I'm one of the doctors here. Thanks for attending your follow-up. Before we begin, could I confirm your full name and date of birth, please?"

We're here to review some recent blood test results-would it be alright if I asked a few questions before we go through them?"

2. Clarify Background & Reason for Testing

"Just to check-was there a specific reason the tests were done? Were you feeling unwell at the time, or was it part of a routine review?"

→ Clarifies whether it was screening vs symptom-driven.

3. Anaemia Screening (Symptoms)

"I noticed from the results that there's a mild drop in your blood count, so I'd like to ask if you've experienced any of the following:"

- "Feeling more tired than usual or lacking energy?"
- "Any breathlessness with simple tasks like climbing stairs?"
- "Feeling dizzy, lightheaded, or noticing a pale complexion?"
- "Any recent unintentional weight changes or changes in appetite?"

4. Neurological and Systemic Screen (Macrocytic Anaemia Complications)

"Have you noticed any of the following recently?"

- "Tingling or numbness in your hands or feet?"
- "Problems with memory, concentration, or mood?"
- "Any changes in your coordination or walking?"
- "Persistent abdominal pain or discomfort?"

5. Differential Diagnosis Screening

"I'd like to rule out some medical causes that can lead to changes in red cell size and liver markers."

- "Have you had any previous surgeries involving your stomach or intestines?"
- "Are you on any long-term medications, especially for acid reflux or diabetes?" → (e.g. acid-suppressing tablets or blood sugar medications)
- "Have you ever been treated for a condition involving the blood or bone marrow?"
- "Have you noticed any changes in bowel movements-such as darker stools or bleeding?"
- "Have you had any recent infections or hospital admissions?"

6. Lifestyle and Dietary History

"Could I ask a little about your day-to-day routine and diet?"

- "Do you follow any particular type of diet-such as vegetarian or vegan?"
- "Do you take any regular supplements or fortified foods?"
- "How is your general eating pattern-balanced, regular meals?"
- "And just to check-do you drink alcohol?"

→ If yes:

- "Roughly how many days a week?"
- "How much would you typically have on those days?"

→ Gently explore volume, frequency, and context without judgement.

7. Explore ICE

- "What were you expecting from these blood tests?"
- "Was there anything you were worried about?"
- "Any thoughts on what might be causing the tiredness?"

8. Clear Result Disclosure

"Thanks for sharing that with me. I've reviewed your blood tests, and I'd like to explain what we found."

9. Lay Explanation of the Results

"Your blood pressure is well controlled, which is great.

However, a few blood tests came back with unexpected changes:

- Your liver enzymes-AST and ALT-are elevated, which means the liver might be under strain.
- Your haemoglobin is a bit low, which means you're mildly anaemic.
- The size of your red blood cells is increased-this is something we call macrocytic anaemia.

This pattern can be due to a deficiency in vitamin B12, or sometimes due to regular alcohol use, which can both affect the bone marrow and liver."

10. Cause and Mechanism

"One of the common effects of drinking alcohol regularly-even in moderate amounts-is that it can damage the lining of the stomach. This can make it harder for the body to absorb certain vitamins, especially B12, which is essential for making healthy red blood cells.

It may also lead to liver inflammation, which explains the elevated liver enzymes."

11. Structured Management Plan

Further Tests: "We'll need to do a few more tests to confirm the cause:

- Repeat liver function test, and add a marker called GGT, which can indicate if alcohol is affecting your liver
- Check your B12 and folate levels
- Rule out any other causes if needed"

If B12 is low (likely): "If your B12 level comes back low, we'll start treatment to replenish it. For most people, oral B12 tablets work well. However, if there's evidence of significant stomach damage or malabsorption, injections may be more reliable."

Route of treatment: "We'll check your B12 level first. If it's low and there are no concerns about absorption, we can try oral supplements initially. If your levels don't improve with tablets, or if there are signs of significant stomach or gut problems, we'd switch to injections-1 mg every 2-3 months long-term."

Alcohol counselling: "Cutting down on alcohol will help both your liver and your vitamin levels recover. I can share resources and support services if you're open to it."

When to escalate: "If your liver tests continue to rise, or if you develop any warning signs like yellowing of the skin or eyes, swelling in your tummy, or confusion, we'd need to refer you to a liver specialist urgently."

12. Address Concerns Naturally

Patient may say: "But I only drink a bit!"

"I hear what you're saying. What we're seeing in your blood suggests that even that amount may be affecting your health. It's not a judgement-just something to work on slowly and safely."

13. Safety Netting

"If you feel more tired, confused, or develop any numbness or memory problems, please get in touch sooner."

If you don't hear from us within a few days about your next tests, give us a call."

14. Follow-Up Plan

"We'll arrange the blood tests this week and book a follow-up call for next week. If B12 is confirmed to be low, we'll start the treatment immediately."

15. Close & Reassure

"You've done the right thing by getting checked. We've picked this up before any serious damage, and with some early changes, you'll feel better and prevent complications going forward."

Well Woman Clinic Follow-Up

Setting: Primary Care

Patient: Older Adult Female

Presentation: Follow-up for routine bloods showing raised liver enzymes and macrocytic anaemia

Context: Long-term PPI use, reports regular alcohol intake, abdominal discomfort

Findings: Same labs as above (high AST/ALT, high MCV, low Hb)

History: Abdominal pain, takes omeprazole, drinks 1 bottle of wine/day (~9 units)

Structure: Identical to male version, but with some key differences:

Additional History:

- "You mentioned some abdominal discomfort-could you tell me more about that?"
- "You're taking omeprazole-how long have you been on that? Was it prescribed or over the counter?"
- "How often do you drink wine-and would you say it's most nights?"
- "Any weight changes, bowel changes, or appetite loss?"

Differential Screening:

- PPI use → can reduce B12 absorption
- Female with abdominal pain → ensure no red flags (masses, bleeding, weight loss)

Lay Explanation: "Your blood results show that you have mild anaemia with enlarged red blood cells, and your liver enzymes are raised.

This pattern is usually seen when there's a vitamin B12 deficiency, and in some cases, regular alcohol intake or medications like omeprazole can interfere with how B12 is absorbed in the stomach."

Summary (for students)

Finding	Possible Cause
High AST > ALT	Alcohol-related liver inflammation
MCV ↑ + Hb ↓	Macrocytic anaemia
Omeprazole (female)	B12 malabsorption
Alcohol (both)	Direct liver damage + B12 malabsorption
Next steps	Check B12, folate, GGT; start IM B12 if low

CRITICAL SAFETY POINT: If both B12 and folate deficiency are present, ALWAYS treat B12 first. Giving folic acid alone to a B12-deficient patient can precipitate or worsen subacute combined degeneration of the spinal cord, causing irreversible neurological damage.

Nitrous Oxide-Induced Functional B12 Neuropathy

Setting: Primary Care

Role: FY2 Doctor

Patient: Young Adult

Presentation: Progressive bilateral limb weakness and sensory symptoms

Context: History emerges during consultation of recreational substance use affecting B12 metabolism

Findings on Paper:

- Bilateral lower limb power: 3/5
- Reduced sensation in both legs
- No bowel, bladder, or saddle anaesthesia
- No red flags like recent viral illness
- No other systemic illness or prior B12 deficiency

1. Introduction & Consent

"Hello, I'm one of the doctors here today. Thanks for coming in. Before we begin, could I confirm your full name and date of birth, please?"

I understand you've been experiencing some symptoms, and we're here to figure out what might be going on. Would it be alright if I asked you a few questions to understand things better?"

2. History of Presenting Complaint

Start open-ended: "Could you tell me a bit more about what you've been feeling?"

Narrow down with structured questions:

- **Location:** "Where exactly are you feeling the numbness or tingling?"
- **Onset:** "When did it first start? Was it sudden or gradual?"
- **Progression:** "Has it been getting better, worse, or staying the same?"
- **Character:** "Is the tingling constant, or does it come and go?"
- **Function:** "Has this affected your walking, gripping things, or daily tasks like buttoning clothes or holding your phone?"

Balance and coordination:

- "Have you had any difficulty keeping your balance?"
- "Any falls or near falls recently?"

3. Red Flag Screening

"Just to make sure we're not missing anything serious-have you experienced any of the following?"

- **Vision changes:** "Any blurred or double vision?"
- **Speech or cognition:** "Any confusion or trouble speaking or remembering things?"
- **Motor symptoms:** "Any weakness in your arms or legs, beyond what you've already mentioned?"
- **Autonomic symptoms:** "Any changes in bladder or bowel control-like urgency, accidents, or constipation?"
- **Mood:** "Any recent changes in your mood, anxiety, or low mood?"
- **General health:** "Any fevers, fatigue, or recent weight changes?"

4. Past Medical, Drug, and Family History (PMAFTOSA)

- "Do you have any medical conditions-like diabetes, coeliac disease, or bowel problems?"
- "Have you ever had any issues with low vitamin levels before?"
- "Any past surgeries involving your gut or spine?"
- "Are you taking any medications, vitamins, or supplements regularly?"

- "Any recent injections, energy drinks, or over-the-counter remedies?"
- "Do you have any allergies to medicines or foods?"
- "Does anyone in your family have neurological problems or vitamin deficiencies?"

5. Social History – Focused, Sensitive Substance Use History

- "Do you smoke or use alcohol at all?"
- "What do you do day-to-day-are you studying or working at the moment?"

Explore gently: "Just to be thorough-I ask all my patients this to cover all possible causes-have you used any recreational substances recently?"

If yes → Explore sensitively and non-judgmentally:

- "You mentioned nitrous oxide - can I ask when you first started using it?"
- "How often would you say you use it-daily, weekly?"
- "How many canisters or balloons do you usually go through in a session?"
- "Have you used it recently-in the past few days or weeks?"
- "Do you use it alone or with friends?"
- "Have you found yourself needing more of it over time?"

Gently link to medical concern: "The reason I ask is that nitrous oxide can interfere with how the body uses a vitamin called B12, which is crucial for keeping nerves healthy. Even if the B12 level in blood looks normal, the gas can stop it from working properly, which might explain your symptoms."

Additional consideration for young women: "Just to check-is there any chance you could be pregnant? I ask because some treatments and the effects of certain substances can be relevant during pregnancy."

6. ICE (Ideas, Concerns, Expectations)

- "What do you think might be going on?"
- "Is there anything that's been worrying you about these symptoms?"
- "What were you hoping we could do today?"

7. Clinical Summary and Explanation

"From what you've told me, it sounds like the symptoms-numbness, tingling, and mild weakness-are related to nerve irritation or damage, particularly in the legs and hands.

This kind of nerve issue is often linked to Vitamin B12, which is essential for keeping the nerves healthy. Even though your body might have enough B12 in the blood, nitrous oxide can block it from working properly, especially if used regularly over time.

Importantly, your blood B12 level might actually come back as normal or only slightly low. This is because nitrous oxide doesn't reduce the amount of B12 in your blood-it stops it from working properly. We call this 'functional B12 deficiency.'

That's why we use homocysteine or methylmalonic acid (MMA) as the initial test rather than serum B12 - these markers rise when B12 isn't working properly, even if the B12 level looks normal.

The good news is that this condition is often reversible, especially if it's caught early and the right treatment is started. But it's very important to stop nitrous oxide use completely, as ongoing use could lead to permanent nerve damage.

I should mention that recovery can take time-sometimes weeks to months. Most people see significant improvement, but some may have lingering symptoms. The most important factor for recovery is completely stopping nitrous oxide use."

8. Management Plan

Immediate Treatment "We won't wait for results-we'll start treatment straight away."

→ Start Hydroxocobalamin 1 mg IM every other day for 2 weeks. For nitrous oxide-related deficiency, either IM or oral B12 can be offered based on clinical judgement and patient preference. Given your neurological symptoms, we're recommending injections to replenish your levels quickly.

→ After that, we'll decide on long-term B12 based on your response

Further Investigations "We'll also arrange blood tests to help us confirm and track the cause:"

- Serum B12
- Folate
- Full Blood Count
- MMA and Homocysteine (if available)
- LFTs and thyroid if needed
- MRI only if symptoms worsen or gait severely affected

Referral if needed "If the symptoms don't improve or get worse, we'll refer you to a neurologist for further assessment."

9. Stop the Trigger

"The most important step is to completely stop using nitrous oxide, even though it might not seem dangerous. Continued use could make things worse or even cause permanent changes."

"If you'd like, we can offer support with stopping-there are services and helplines that can help, like the FRANK helpline-they're confidential and non-judgmental-or local support groups."

10. Lifestyle & Support Advice

- "Avoid alcohol and smoking, as they can slow down nerve recovery."
- "Eat foods rich in B12-like meat, fish, dairy, and eggs."
- "If you follow a vegetarian or vegan diet, we'll talk about long-term oral supplements after the injection course."
- "Rest and avoid activities that need fine motor control until symptoms improve."

Wellbeing consideration: "Would you like me to arrange for you to speak to someone about your wellbeing generally? Sometimes there are reasons people turn to substances, and it can help to have support."

11. Safety Netting

"If you notice any of the following, please contact us or go to A&E immediately:"

- Worsening numbness
- New weakness
- Trouble walking
- Loss of bladder or bowel control
- Sudden memory problems or confusion

12. Follow-Up Plan

"We'll arrange to see you again in 1-2 weeks to review how you're doing with the injections and to go over the blood test results."

"If things improve, we'll plan your longer-term treatment. If not, we'll refer you to neurology for further help."

13. Leaflets and Resources

"I'll give you a leaflet about Vitamin B12 deficiency and another about the effects of nitrous oxide on the body."

"You can also look at the FRANK helpline (a drug misuse support website) if you'd like help stopping."

Summary

Finding	Suggestive Of
Bilateral tingling, weakness	Peripheral neuropathy
Leg power ↓ (3/5)	Lower motor involvement
MCV possibly ↑ (not provided)	Macrocytic, functional B12 issue
Nitrous oxide use	Inactivation of B12 (methylation block)
No bladder/bowel issues	No cord involvement

Blood Culture Test Result Discussion

Setting: Telephone Consultation

Patient: Older Adult

Context: Delivering urgent test results requiring hospital re-admission

Scenario: Elderly woman, recently discharged after cellulitis, now has blood culture confirming **septicemia with resistant bacteria**

1. Introduction & Consent

"Good morning, is this Mrs [Name]?"

"My name is Dr [Name], one of the doctors who looked after you during your hospital stay. Is now a good time to talk?"

"I'm calling about some important test results and also to check how you've been feeling since going home - is that okay?"

2. Focused History & Context Check

(Brief, relevant, and focused history - avoids long general questions)

"You were in hospital recently for a skin infection on your leg - cellulitis. Do you remember that?"

"What symptoms did you have back then - pain, redness, swelling, or fever?"

"What treatment did we start you on? Was it tablets or a drip?"

"Did they tell you if they took any blood tests before discharge?"

"Have you had any new or worsening symptoms since going home?"

3. Explore ICE (Ideas, Concerns, Expectations)

"Did they explain what caused the infection and how serious it was?"

"Did you have any concerns after discharge - maybe about the leg or your diabetes?"

"Were you expecting a follow-up call or any results?"

4. Clear Result Disclosure

(State the result early and clearly)

"So, one of the blood tests we sent while you were admitted has now come back."

"It shows that the bacteria from your leg infection have entered your bloodstream. This is called **septicemia**, or blood poisoning."

"It means the infection has spread beyond the skin and is now circulating in your body. This can be serious - but we've caught it early."

5. Lay Explanation of Condition

(Use simple, reassuring but honest terms)

"Normally, infections like cellulitis stay limited to the skin, but sometimes, the germs can get into the blood. Once in the bloodstream, they can travel to other parts of the body and make you feel very unwell."

"You might not feel very sick now, but septicemia can suddenly worsen - that's why we need to act early."

"Also, the bacteria we found are not responding well to the antibiotic you were first given. That's called **antibiotic resistance** - so we need to use stronger medicine to treat it properly."

6. Management Plan

Immediate Re-admission

"We'd like you to return to hospital **today**, as this condition needs treatment through a drip. The antibiotics required aren't available at home or from the GP."

"Would you like me to arrange hospital transport, or is there someone who can bring you in?"

IV Antibiotics (e.g. Meropenem or similar)

"We'll give you a stronger antibiotic through a vein - this works faster and is more effective against resistant bacteria."

"The choice of antibiotic will depend on what the lab shows is most effective against your particular infection."

Repeat Bloods & Monitoring

"We'll do another blood test when you arrive to check how the infection is responding."

"You'll also be closely monitored for temperature, pulse, blood pressure, and oxygen levels."

Microbiology & Specialist Input

"We'll involve our infection specialists - the microbiology team - to guide the best treatment plan for you."

FY2 Note: Discuss ALL positive blood cultures with registrar/consultant and microbiology before finalising antibiotic plan. Resistant organisms require specialist input for appropriate antibiotic selection and duration.

Diabetes Monitoring

"Because you have diabetes, we'll also keep an eye on your sugar levels - as infections can cause them to rise."

7. Safety Netting

"Septicemia can progress quickly and affect major organs like the brain, kidneys, lungs, or heart."

"People can start to feel confused, develop low blood pressure, or go into shock if not treated in time."

"That's why we want to start the right treatment now - not when symptoms get worse."

8. Follow-Up Plan

"Once you're re-admitted, we'll check on you daily and adjust the antibiotics as needed."

"Usually, people stay a few days depending on how they respond, but we'll keep you updated every step of the way."

9. Offer Leaflet & Explain Further Support

"Once you're back, we'll also give you a leaflet that explains septicemia and antibiotic resistance."

"Do you have someone who can help you get to hospital? If not, I can help arrange transport."

10. Handling Refusal or Delay

(If patient says "I feel fine" or "I have plans")

"I understand it's frustrating, especially if you're feeling okay - but unfortunately, septicemia doesn't always cause symptoms right away."

"Even if you feel well now, it could become serious very quickly. This isn't something that should wait."

"Going to hospital today could make the difference between a full recovery and a dangerous complication."

11. Confirm Understanding & Agreement

"Does that make sense to you? Do you have any questions at all?"

"Can I confirm you'll be able to return to hospital today? I'll call ahead so the team is ready."

12. Close with Warmth and Reassurance

"Thank you for taking the time to speak with me today - I know it's not easy to hear unexpected results."

"We're looking forward to seeing you soon and getting this sorted safely."

Suspected Leukaemia

Setting: Primary Care

Patient: Older Adult

Presenting Complaint: Unexplained bruising and fatigue

1. Introduction & Consent

"Good morning, I'm Dr _____. I'll be seeing you today."

Confirm name, age.

"I understand you've been noticing some bruises on your body that you can't explain. Can you tell me more about that?"

2. History of Presenting Complaint

Bruising

"When did you first notice the bruises?"

"Where are they appearing - just legs, or arms and body too?"

"Did you bump into anything or have any injuries?" → No

"Are new bruises appearing, or just the same ones?"

"Have you noticed any petechiae - tiny red or purple spots on your skin, like a rash that doesn't fade?"

Bleeding Symptoms

"Have you had any nosebleeds or gum bleeding?"

"Any blood in your urine or stool?"

"Any heavy or prolonged periods?" (if relevant)

B Symptoms (Malignancy Screen)

"Have you lost any weight recently without trying?"

"Any night sweats - needing to change clothes or sheets?"

"Any fevers or feeling generally unwell?"

"Any unusual tiredness or weakness?"

Infection Screen

"Have you had more infections than usual - colds, sores, chest infections?"

"Any mouth ulcers or recurring infections?"

Other Systemic Symptoms

"Any bone or joint pain?"

"Any lumps in your neck, armpits, or groin?"

"Any abdominal discomfort, bloating, or early fullness after eating?"

3. Past Medical History

"Any previous blood disorders or cancers?"

"Any liver or kidney problems?"

"Any autoimmune conditions?"

4. Medication & Allergy History

"Are you on any medications - especially blood thinners like aspirin, warfarin, or rivaroxaban?"

"Any herbal supplements or over-the-counter medicines?"

"Any allergies?"

5. Family History

"Any blood cancers or clotting disorders in your family?"

6. Social History

"Do you smoke or drink alcohol?"

"What is your living situation - do you have support at home?"

"What is your occupation or daily activity level?"

7. ICE (Ideas, Concerns, Expectations)

"What do you think might be causing these bruises?"

"Is there anything you're particularly worried about?"

"What were you hoping I could do for you today?"

8. Examination Findings

General: Pale, fatigued appearance

Skin: Multiple bruises of varying ages on legs, arms, trunk; petechiae present

Lymph nodes: Palpable lymphadenopathy (cervical, axillary, or inguinal)

Abdomen: Hepatosplenomegaly on palpation

Vitals: Mild tachycardia, otherwise stable

9. Differential Diagnosis

Leukaemia (most likely given constellation of findings)

AML, ALL, CML, CLL - type depends on cell line and chronicity

Bone marrow failure (aplastic anaemia)

Myelodysplastic syndrome

Severe viral infection (EBV, CMV, HIV)

Immune thrombocytopenia (ITP)

Liver disease with coagulopathy

Medication-induced thrombocytopenia

10. Explanation

"Thank you for telling me all of that. I can see you've been feeling unwell and the bruising is understandably worrying."

"From what you've described and what I've found on examination, I'm concerned there may be a problem with how your blood is being made. This can happen when the bone marrow - the factory inside your bones that makes blood cells - isn't working properly."

"One possibility I need to consider is a type of blood cancer called **leukaemia**. I know that's a frightening word to hear, but I want to be honest with you so we can get to the bottom of this quickly."

"The good news is that we can do some blood tests today that will give us important information within the next day or two."

11. Management Plan

Urgent Blood Tests

FBC with differential - assess WCC, Hb, platelets, and blood film

Blood film - look for abnormal cells (blasts)

Clotting screen - PT, APTT, fibrinogen

U&E, LFT, calcium, urate - baseline and tumour lysis risk

LDH - elevated in high cell turnover

Reticulocyte count - assess marrow response

NICE NG12 Pathway - Suspected Haematological Malignancy:

"Very urgent FBC (within 48 hours) for unexplained bruising or bleeding with any of: fatigue, fever, infection, generalised lymphadenopathy, hepatosplenomegaly, or bone pain."

IMMEDIATE A&E/SDEC REFERRAL - When 48-Hour Bloods Are NOT Appropriate:

If the patient has **petechiae** (especially widespread) AND/OR "**wet bleeding**" (active bleeding from gums, nose, or mucous membranes), consider **immediate same-day referral to A&E or SDEC** rather than waiting 48 hours for GP bloods.

Rationale: With these findings, platelet count could be critically low ($<10 \times 10^9/L$), placing the patient at significant risk of spontaneous intracranial haemorrhage. This is a haematological emergency.

Decision guide:

Bruising + fatigue only (no petechiae, no active bleeding) → 48-hour urgent FBC acceptable

Petechiae + hepatosplenomegaly OR wet bleeding → Consider immediate A&E referral for same-day bloods and specialist review

If Bloods Abnormal → Immediate Referral

"If the blood tests show abnormal cells or very low counts, I will refer you **urgently to haematology** - you should be seen within days."

"They will likely do a **bone marrow biopsy** to confirm the type of leukaemia and plan treatment."

2-Week Wait Referral Criteria (NICE NG12)

Unexplained symptoms suggesting leukaemia + abnormal blood count or blood film → 2WW referral

If Bloods Normal

Consider other causes (ITP, liver disease, medication)

May still need haematology input if clinical suspicion remains high

12. Safety Netting

"While we wait for results, please come back or go to A&E immediately if you develop:"

Severe bleeding (nosebleed that won't stop, blood in vomit or stool)

High fever
Severe headache or confusion
Chest pain or breathlessness
New or worsening bruises

"I will call you as soon as the results are available - please make sure we have your correct phone number."

13. Supportive Information

"I know this is a lot to take in. Would you like me to explain anything again?"

"Is there someone you'd like to bring to the next appointment?"

Offer written information: NHS leaflet on blood cancers

Signpost to **Macmillan Cancer Support** and **Blood Cancer UK** for trusted information and support

14. Follow-Up Plan

Blood test results expected within 24–48 hours

Phone call to discuss results as soon as available

If abnormal → same-day or next-day urgent haematology referral

If normal but symptoms persist → review in 1 week, consider repeat bloods or specialist opinion

15. Closing

"I'm sorry that today's appointment has raised some worrying possibilities. I want you to know that we're taking this seriously and acting quickly."

"Please don't hesitate to contact us if you have any questions or if anything changes before we speak again."

"Is there anything else you'd like to ask before you go?"

Chapter 11: Urogenital, Nephrology, and Sexual Health

A Note to Learners

The cases in this resource are written in a conversational style to help you become familiar with the natural flow of clinical consultations and the language commonly used in UK healthcare settings.

These dialogues are intended as a learning guide, not a script. Please do not attempt to memorise them verbatim. Examiners assess your ability to think and communicate authentically - not to recite rehearsed phrases.

Use this material to understand the underlying clinical reasoning, then practise in your own words until the consultation feels natural to you.

For Companion OSCE Cases, Practice Scripts, Evaluation Checklists, Summary Notes, Rapid Review Notes, Mindmaps, Management Flashcards and Image Library - visit <https://www.gksplab2.com>

Disclaimer

This material is independent educational content created to help candidates develop clinical reasoning and communication skills for UK medical practice.

All cases and clinical scenarios are based on common presentations encountered in UK primary care and emergency medicine, drawn from publicly available sources including NICE Clinical Knowledge Summaries (CKS), BNF, and other official NHS/UK healthcare guidelines.

No content in this resource is derived from, represents, or claims to replicate actual GMC PLAB 2 examination material.

Acute Prostatitis

Scenario Setting: Primary Care or Outpatient Patient: Middle-aged Male Presenting with: Urinary Symptoms Requiring Examination Task: History, examination (DRE), diagnosis explanation, and management

Introduction

Hello, I'm one of the doctors here today. Thanks for coming in. Can I confirm your full name and age?
Great, thank you. How can I help you today?

Presenting Complaint If patient says: "I've been going to the toilet too often." Could you tell me more about what's been happening? When did it start? Is there any pain or discomfort at all - either now or earlier?

If patient mentions pelvic pain or discomfort, use SOCRATES:

- Where exactly is the pain - around the front, back, or between the legs?
- Is it sharp, dull, throbbing?
- Does it go anywhere else - like your back or testicles?
- How often do you feel it?
- Is it triggered by anything - sitting, passing urine, ejaculation?
- On a scale of 1-10, how painful would you say it is?

(If no pain is volunteered, proceed without SOCRATES and explore pain only later during PR exam)

Urinary + Constitutional Symptom Screening Let me ask you a few more things just to narrow it down:

- Are you going to the toilet more often than usual?
- Do you ever feel a sudden urge to go?
- Any burning or discomfort while passing urine?
- Do you feel like you empty your bladder completely?

Red flags:

- Any fever, chills, or feeling generally unwell?
- Pain in the lower back or testicles?
- Any blood in your urine?
- Any recent sexual contacts or concerns about STIs?

PMAFTOSA History

- Past medical history: Any previous prostate or urinary issues?
- Medications: Are you on any regular tablets or antibiotics recently?
- Allergies: Any known medication allergies?
- Family history: Anyone with prostate conditions?
- Travel or procedures: Any recent catheter use or scopes done?
- Other symptoms: Are you opening your bowels normally, or has it been hard to pass stool?

ICE

- Do you have any idea what this could be?
- Anything you're worried this might be?
- What were you hoping we'd do for you today?

Effect on Life Is this affecting your daily life - your sleep, work, or energy levels?

Examination (Mannequin – PR Exam)

Thanks for sharing all that. To complete the assessment, I'd like to do a rectal examination. It helps me feel the prostate, which sits just below the bladder.

"It might feel uncomfortable, but I'll be as gentle as I can. Please let me know straight away if anything is painful."

During exam:

- If actor says "Ow" or flinches on PR exam → Tender prostate found
- No enlargement
- No masses

Provisional Diagnosis

Based on your urinary symptoms and the tenderness during prostate examination, this looks like a case of acute prostatitis - inflammation of the prostate gland.

Explanation in Simple Terms

"Your prostate is a small gland that sits just below the bladder. Its main job is to help produce semen. In prostatitis, the gland becomes inflamed - usually from bacteria. This causes pelvic discomfort, urinary frequency, or pain during ejaculation. You may not feel constant pain, but the tenderness we found during the rectal exam confirms that it's inflamed."

Management Plan

Here's what we'll do:

Start antibiotics today - "I'll start you on antibiotics today. The options are fluoroquinolones like ciprofloxacin (500mg twice daily) because they penetrate the prostate tissue well, or trimethoprim (200mg twice daily) which also reaches therapeutic levels in the prostate.

Duration: 14 days initially, then review

- Review at 14 days: If symptoms resolved → stop antibiotics
- If symptoms ongoing → continue for a further 14 days (total 28 days)
- This is important because prostatitis can be difficult to fully clear

Note: For older patients (especially >60), be aware of MHRA fluoroquinolone warnings - increased risk of tendonitis, tendon rupture, and aortic aneurysm. Consider trimethoprim as alternative.

Important: Male UTI Duration (NICE Quality Standards)

- Uncomplicated lower UTI in men: **7-day course** (vs 3 days for uncomplicated female UTI)
- Upper UTI (pyelonephritis): 7-14 days depending on severity
- Prostatitis: 14-28 days (as above)
- Complicated UTI: guided by culture results and clinical response

Urine sample I'll ask you to provide a sample today so we can confirm the infection and make sure the antibiotics are suitable.

Pain relief You can take paracetamol as needed. Let me know if you need stronger pain relief.

Stool softener Since you've had some constipation, I can prescribe lactulose to make things easier while healing.

Hydration advice Stay well hydrated - but don't force yourself if urinating is painful.

Sexual symptoms If you experience any pain with ejaculation, that's part of prostatitis and usually settles with treatment.

Safety Netting

"If you suddenly get a fever, feel very unwell, or find yourself unable to pass urine, please go to A&E straight away - these could be signs of complications such as a prostatic abscess."

"If you develop severe lower abdominal pain or cannot pass urine at all, seek emergency help immediately - this could indicate an abscess forming."

"If you're not feeling any better after a couple of days on the antibiotics, please come back so we can review and adjust if needed."

Follow-Up Plan

- Check response in 48 hours
- If symptoms persist at 2 weeks → Consider extending antibiotics to 4 weeks (28 days total)
- Refer to urology only if symptoms become chronic or recurrent

Student Note: Why This Is Prostatitis, Not BPH

- Prostatitis: Younger male, urinary urgency/frequency, prostate is tender on DRE, no enlargement
- BPH: Older males (>50), slow stream, hesitancy, non-tender but enlarged prostate
- This patient had no classic flow issues, and the key finding was pain only during prostate exam, which is characteristic of prostatitis.
- **Prescribing Note (MHRA 2024):** While NICE NG110 lists fluoroquinolones as first-choice, the MHRA January 2024 strengthened alert means they should only be used when other antibiotics are inappropriate. For PLAB 2, demonstrate awareness of both options and the need to consider trimethoprim first where appropriate, while acknowledging fluoroquinolones remain suitable for severe infection or when trimethoprim is contraindicated/resistant.

Benign Prostatic Hyperplasia (BPH)

Scenario Setting: Primary Care Patient: Older Adult Male Presenting with: Lower Urinary Tract Symptoms (LUTS) Task: History, examination (DRE), diagnosis explanation, and management

Introduction

Hello, I'm one of the doctors here today. Thanks for coming in. Could I please confirm your full name and age? Thank you. How can I help you today?

Presenting Complaint – ODIPARA for Urinary Symptoms

I understand you've had urinary urgency for a while. Can I ask you a few questions to understand this better?

- Onset: When did the symptoms start?
- Duration: Has it been ongoing since then, or comes and goes?
- Intensity: Has it been getting worse?
- Progression: Were the symptoms sudden or gradual?
- Aggravating: Is there anything that seems to make it worse - caffeine, evening drinks?
- Relieving: Do any changes help - like changing toilet habits?
- Associated symptoms: Let me ask you a few more related questions.

Differential Screening

Let's go through a few key areas to narrow this down:

Lower Urinary Tract Symptoms (LUTS):

- Are you going more frequently than usual during the day?
- Do you wake up at night to pass urine - how often?
- Do you feel an urgent need to go?

Obstructive Symptoms / Prostatism:

- Do you have trouble starting the stream (hesitancy)?
- Does your stream feel slow or weak?
- Do you feel it dribbles after finishing?
- Do you ever feel like you haven't completely emptied your bladder?

To rule out infection / cancer:

- Any burning or pain when passing urine?
- Any fever or chills?
- Any blood in the urine?
- Any lower abdominal or back pain?

(Patient answers: Frequency, urgency, nocturia, hesitancy, slow stream, dribbling. No dysuria, no fever, no haematuria. Symptoms >1 year, gradually worsening.)

PMAFTOSA

- Past medical history: Any prostate issues in the past?
- Medications: Are you on any regular tablets?
- Allergies: Any medication allergies?
- Family history: Any prostate cancer in the family?
- Travel, Procedures, Surgeries: Any recent operations or scopes?
- Other systems: Bowel habits normal? Appetite and weight okay?

(All unremarkable. No red flags.)

ICE

- What do you think this could be?
- Is there anything you're particularly worried about - like cancer or needing surgery?
- What were you hoping we could do today?

(Patient unsure but worried if this is serious. No specific expectation.)

Effect on Life

"I can imagine this has been affecting your sleep - waking up 2-3 times a night must be exhausting. How has it been impacting your energy during the day?"

(Yes, waking up 2-3 times a night, tired during the day.)

Examination

To better understand what's going on, I'd like to do two things:

- First, check your tummy and vital signs
- Then, I'll gently examine your prostate through your back passage. It might feel uncomfortable for a moment, but I'll be as gentle as possible and guide you through.

PR findings: Prostate enlarged, smooth, rubbery texture, well-defined median sulcus → Typical of BPH

Provisional Diagnosis

This sounds like Benign Prostatic Hyperplasia, or BPH - a non-cancerous enlargement of the prostate gland.

Explanation in Lay Terms

"The prostate is a small gland near your bladder that helps produce semen. As men get older, it's very common for this gland to enlarge slightly. In BPH, this enlargement presses on the bladder and the urethra - the tube that carries urine out. That's why you've been experiencing urgency, slow stream, and waking up to pass urine at night. This is a very common, normal change that happens as men get older - it's definitely not cancer, and it's nothing you've done wrong."

"We felt that your prostate is enlarged but smooth, which is reassuring. There were no signs of infection or cancer."

Management Plan

1. Medical Treatment – If symptoms are troublesome:

- Start Tamsulosin (an alpha-blocker that relaxes the muscles of the prostate and bladder neck to improve flow)
- Review effect after 4–6 weeks
- For larger prostates, we might add another medication called finasteride that helps shrink the gland over time

Important Tamsulosin Counselling: "Before starting this medication, I should mention a couple of side effects to be aware of:

- Some men experience retrograde ejaculation - this means during orgasm, semen goes backwards into the bladder instead of coming out. It's harmless but can be surprising. Your orgasm will still feel normal, but it may be 'dry'.
- You might also feel lightheaded when standing up quickly, especially in the first few days. This is called postural hypotension. Take your time getting up from sitting or lying down."

2. Lifestyle Measures: Let me give you some tips that can help reduce symptoms naturally:

- Avoid caffeine, fizzy drinks, and alcohol - especially in the evenings
- Drink less fluid after 6pm to reduce night-time trips
- Try double voiding - after finishing, wait a moment and try again
- Make sure to empty your bladder fully when you go

3. When to refer:

- If symptoms don't improve with tablets
- If there are signs of complications like retention, recurrent infections, or abnormal PSA
- If patient prefers specialist opinion → Refer to Urology

4. Monitoring:

- PSA test may be discussed depending on symptoms, age, and patient preference
- Reassess within 4–6 weeks after starting medication

Safety Netting

"If you ever develop pain, fever, difficulty passing urine, or see blood in your urine, please come back immediately - as these could suggest infection or a more serious problem." "Let us know if your symptoms worsen or don't improve after a few weeks on treatment."

Follow-Up Plan

- Trial of Tamsulosin for 4–6 weeks
- Review in follow-up with symptom reassessment
- Discuss PSA testing depending on findings
- Leaflet provided on prostate health and BPH

Student Note: Why This Is BPH and Not Prostatitis

- BPH presents with slow-flow, hesitancy, dribbling, nocturia, and smooth prostate enlargement
 - No fever, dysuria, or prostate tenderness
 - Duration >1-year, gradual onset
 - Prostatitis typically causes acute pain, perineal discomfort, and tender prostate on DRE
 - This case: No pain, no fever, classic obstructive LUTS, and smooth, enlarged prostate = BPH
-

Prostate Cancer – Back Pain

Scenario Setting: Primary Care Patient: Older Adult Male Presenting with: Back Pain and Urinary Symptoms with Red Flag Features
Task: History, examination, explanation, and urgent pathway management

Introduction

Hello, I'm one of the doctors here today. Thanks for coming in. Could I confirm your full name and age please? Thank you. What brought you in today?

Presenting Complaint – Back Pain (SOCRATES)

Could you tell me more about your back pain?

- Site: Where exactly is the pain?
- Onset: When did it start? You mentioned something about rolling in bed?
- Character: What does it feel like - dull, sharp, throbbing?
- Radiation: Does it go down your legs or elsewhere?
- Associated symptoms: Any numbness, weakness, or bladder issues?
- Timing: Is it constant or does it come and go?
- Exacerbating/Relieving: Does anything make it worse or better?
- Severity: On a scale of 1 to 10, how bad is it?

(Patient reports dull lower back pain, constant for 3 months, first noticed while rolling in bed. No trauma. No leg weakness or radiation.)

Cancer Red Flag Symptoms

Let me ask a few more questions to understand the full picture:

- Have you noticed any unintended weight loss recently?
- Any fatigue, loss of appetite, or feeling generally unwell?
- Any blood in the urine or change in bowel habits?
- Do you have any bone pain elsewhere?

(Patient reports weight loss. No haematuria or other pain.)

Prostate Symptom Screening

"Thank you for explaining that. Since you're over 60 and having ongoing back pain, I'd like to ask a few questions about your waterworks as well - sometimes problems with the prostate can show up with both back pain and changes in urination. Is that okay?

- Do you go to the toilet more often than usual?
- Do you ever need to rush to the toilet?
- Do you ever find it hard to start peeing?
- Do you have to strain to pass urine?
- Is your urine stream weaker than before?

- Do you dribble after finishing?
- Do you feel like your bladder doesn't empty fully?
- Do you wake up at night to pass urine - how often?

(Patient reports frequency, urgency, weak stream, and nocturia. No dysuria, no pain while urinating.)

PMAFTOSA

- Past medical history: Any known prostate or back issues?
- Medications: Are you on any tablets regularly?
- Allergies: Any medication allergies?
- Family history: Any cancers in the family - especially prostate?
- Travel or trauma: Any recent injuries?
- Other symptoms: Bowel habits okay? Appetite?

(No trauma. Appetite down. Family history positive for prostate cancer in uncle.)

ICE

- You mentioned you were worried about cancer - could you tell me more about that?
- Is there anything in particular you're afraid this might be?
- What were you hoping we'd do for you today?

(Patient says friend had similar pain, turned out to be pancreatic cancer. Wants to be checked properly.)

Effect on Life

How has this been affecting your life or work? (He's a postman - says it's making daily walking difficult, worried about worsening symptoms.)

Examination (If Mannequin Present)

Thanks for explaining all that. I'd like to check your abdomen and, if you're okay with it, do a rectal exam to assess your prostate. It's done gently and usually gives useful information. "You might feel some pressure during the exam, but I'll talk you through it. Please let me know if anything feels painful or uncomfortable."

On PR (if mannequin available):

- May feel a hard or nodular prostate - OR no clear lump
- Either way, suspicion remains high based on symptoms

Provisional Diagnosis

"I know this is difficult to hear, but I need to be honest with you - your combination of symptoms does raise a concern that we need to investigate for possible prostate cancer. While other causes are possible, we'll need to investigate further to rule out something serious."

Explanation in Lay Terms

"The prostate is a small gland in men that sits just below the bladder. It can grow with age, but sometimes, it can also become cancerous. Your back pain, weight loss, and change in urination make us consider whether something more serious could be going on. Prostate cancer can spread to the bones, especially the lower spine.

I want to reassure you that even if this does turn out to be prostate cancer, it's one of the most treatable cancers when caught early - and we're catching it early by acting now."

Management Plan

Pain Relief We'll start with simple pain relief today to help with the back pain - paracetamol or a suitable anti-inflammatory, if safe.

Urgent Tests We'll organise a few important investigations:

- PSA blood test (Prostate Specific Antigen)
- Back X-ray to look for bone changes
- Possibly refer for MRI later depending on findings

Age-Specific PSA Thresholds (NICE NG12):

- Age 40-49: PSA >2.5 ng/mL warrants 2WW referral
- Age 50-59: PSA >3.5 ng/mL warrants referral
- Age 60-69: PSA >4.5 ng/mL warrants referral
- Age ≥70: PSA >6.5 ng/mL warrants referral

Referral "Based on your symptoms and the possible risk, I'll make an urgent referral to the urology team under the 2-week wait pathway. This means you should be seen by a specialist within two weeks."

Safety Netting

"If your symptoms worsen before your specialist appointment - particularly if you develop any numbness, difficulty walking, or loss of bladder or bowel control - please go straight to A&E as these could indicate a serious complication."

Note: If cancer is confirmed and spreads to bones, there may be driving implications we'll discuss at that stage.

Follow-Up Plan

- Await specialist review within 2 weeks
- Review PSA and X-ray results
- Ongoing GP support as needed

Student Note: Key Learning Points

- Back pain + weight loss + urinary symptoms in older male = high suspicion for metastatic prostate cancer
 - Even if PR exam is normal, suspicion remains high based on symptoms
 - Age-specific PSA thresholds guide referral decisions
 - 2WW referral is mandatory for suspected prostate cancer with red flags
-

Prostate Cancer – Frequency

Setting: Primary Care Patient: Older Adult Male Presenting with: Urinary Frequency Task:

Comprehensive prostate assessment including red flag screening

Note: This is a variant presentation where urinary frequency is the main complaint, with no back pain volunteered unless asked.

Key Teaching Point

Even isolated urinary frequency in older men warrants prostate cancer red flag screening. The approach follows the same structure as the back pain presentation, with emphasis on:

1. **Proactively screening for red flags:**
 - a. Unprompted weight loss
 - b. Back or bone pain
 - c. Fatigue, loss of appetite

- d. Blood in urine
2. **Complete LUTS assessment** as above
3. **PSA discussion** based on symptoms and shared decision-making
4. **Same referral pathway** if red flags present or PSA elevated

Clinical Pearl: Patients may not volunteer concerning symptoms unless specifically asked. Always screen for cancer red flags in any older male presenting with new urinary symptoms.

PSA First Presentation with LUTS

Scenario Setting: Primary Care Patient: Middle-aged to Older Adult Male Presenting with: Lower Urinary Tract Symptoms (New Presentation) Task: History, examination, PSA discussion, and management

Introduction

Hello, I'm one of the doctors here today. Thanks for coming in. Could I please confirm your full name and age? Great, thank you. How can I help you today?

(Patient presents with urinary symptoms)

Presenting Complaint – ODIPARA

I understand you've had some urinary symptoms. Can I ask a few questions?

- Onset: When did the symptoms start?
- Duration: Has it been continuous or on and off?
- Intensity: Has it been getting worse?
- Progression: Were the symptoms sudden or gradual?
- Aggravating: Anything that seems to make it worse?
- Relieving: Do any changes help?
- Associated symptoms: Any other concerns?

Lower Urinary Tract Symptom Screening

Let me ask a few specific questions about your waterworks, just to understand the pattern:

- Do you go more often than usual during the day?
- Do you feel an urgent need to go?
- Do you wake up in the night to pee?
- Is your stream weaker than before?
- Do you find it hard to get started?
- Do you dribble after finishing?
- Do you ever feel like your bladder isn't empty?

(Patient confirms frequency, urgency, nocturia, and slow stream. No hesitancy or dribbling.)

Red Flag Screening (to rule out infection or cancer)

- Any burning or pain when passing urine?
- Any blood in the urine?
- Any weight loss or back pain recently?

(No red flags reported.)

PMAFTOSA and Risk Factors

- Past medical history: Any prostate or urinary issues before?
- Medications: On any regular medicines?

- Allergies: Any drug allergies?
- Family history: Any family history of prostate cancer?
- Smoking, Alcohol, Diet: Do you smoke? Eat red meat often? Exercise regularly?

(No medical history. Moderate red meat intake. Not very active.)

ICE

- Do you have any thoughts about what might be causing this?
- Are you worried this could be something serious?
- What were you hoping we could do for you today?

(Patient says: "I was worried it might be my prostate. I just want to get it checked properly.")

Examination (PR – Mannequin)

"Thanks for sharing that. To complete the assessment, I'd like to examine your abdomen and then do a rectal examination to feel the prostate. It might feel a little uncomfortable, but I'll be gentle and talk you through it. Please let me know if you feel any pain."

Findings: Prostate enlarged, smooth, firm, with a well-defined central sulcus → Suggestive of Benign Prostatic Hyperplasia (BPH)

Provisional Diagnosis

From your symptoms and the examination findings, this looks like a condition called Benign Prostatic Hyperplasia, or BPH - which means age-related enlargement of the prostate.

Explanation

"The prostate is a small gland just below the bladder. As men get older, it often gets a bit bigger - that's called BPH. It's not cancer and doesn't increase your cancer risk, but it can press against the bladder and cause symptoms like needing to pee more often, especially at night, or feeling you haven't emptied fully."

Investigations and Shared Decision (PSA Test)

"I'd recommend we do a PSA blood test - it measures a protein made by the prostate, and helps us understand if the symptoms are just due to normal enlargement or if we need to look deeper."

"PSA isn't a perfect test - it can go up even if there's no cancer, and sometimes stay normal even if something is wrong. But together with the exam and your symptoms, it helps guide us."

(Patient agrees to test.)

Management Plan (Based on PSA Result)

If PSA is normal: "If your PSA comes back normal, we can manage this as simple BPH. That would involve starting a medication called Tamsulosin, which helps relax the prostate muscle and improves your flow."

"We'd also talk about some lifestyle changes - reducing caffeine and alcohol, limiting evening fluids, and double-voiding techniques."

"We may also arrange an ultrasound scan later just to look at the bladder and prostate in more detail."

If PSA is high (age-specific thresholds):

- Age 40-49: PSA >2.5 ng/mL warrants 2WW referral
- Age 50-59: PSA >3.5 ng/mL
- Age 60-69: PSA >4.5 ng/mL

- Age ≥ 70 : PSA > 6.5 ng/mL

"If the PSA is higher than expected for your age, we'll refer you to a specialist urologist under a fast-track cancer pathway. They would likely do an MRI scan, and if needed, a biopsy to find out what's going on."

Safety Netting and Follow-Up

"If you notice any changes - like blood in the urine, back pain, or weight loss - please come back urgently." "Otherwise, we'll contact you once the PSA results are back and decide the next step together."

Student Note: Key Learning Points

- This is not a cancer suspicion case unless the PR is suspicious or PSA comes back high
 - PR finding of a smooth, firm, enlarged prostate is typical for BPH
 - PSA is appropriate in symptomatic men > 50 before initiating treatment
 - Always explain limitations of PSA (false positives/negatives)
 - Management depends on PSA result:
 - Normal PSA $\rightarrow$ Start BPH treatment
 - Raised PSA $\rightarrow$ Refer under 2WW pathway
-

PSA Test Result – Follow-Up

Scenario Setup Setting: Primary Care (Follow-up Consultation) Patient: Adult Male Presenting for: PSA Blood Test Result Discussion Task: Result disclosure, explanation, and appropriate management pathway

Introduction & Consent

Hello, I'm one of the doctors here at the surgery. Thanks for coming back in today. Could I quickly confirm your full name and age? Great, thank you. I've had a look at your PSA test results - would it be okay if we go over them together now?

Focused History & Context Check

Before I explain the results, can I just check a few details so I interpret this in the right context?

1. Reason for Test Request:

- Was this test part of a routine health check, or did you come in with any urinary symptoms?
- Did you have any concerns that made you ask for the test - like family history or something you read?

2. Sexual and Physical Activity History:

- Just to check - did you have any sexual activity, ejaculation, or exercise/physical activity in the 48 hours before the test?
- (This can affect PSA levels temporarily)

3. Symptom Screening (if not already done): Let me confirm - have you had any of the following:

- Needing to go to the toilet more often, especially at night?
- A weak urine stream, or difficulty starting?
- Urgency or dribbling after urinating?
- Any back pain, fatigue, weight loss, or blood in the urine?

(These questions help determine whether this is a benign issue, an incidental finding, or cancer risk)

ICE (Ideas, Concerns, Expectations)

- What was on your mind when you asked for this test?
- Are you particularly worried about anything?
- What were you hoping we'd find out today?

(Patient may say: "My father had prostate cancer, and I want to be sure I'm okay" or "I just wanted to make sure everything's normal")

Result Disclosure + Interpretation

Let's go through what your PSA result shows, and what it means in your situation.

Explanation of PSA and the Prostate "The prostate is a small gland just below your bladder. It makes fluid that helps with semen production. The PSA, or Prostate Specific Antigen, is a protein made by that gland. We all have a small amount of PSA in our blood, but the level can go up for several reasons - some harmless, and some more serious."

"It's important to know that a high PSA doesn't automatically mean cancer. PSA can go up because of:

- Normal enlargement as you get older
- Inflammation or infection
- Ejaculation or exercise like cycling
- And yes, occasionally, prostate cancer"

Structured Management Plan – All PSA Scenarios**Scenario 1: PSA = 20 in Well-Man Clinic**

"Your PSA level came back as 20. For most men around your age, we'd expect the PSA to be somewhere below 4 - so your result of 20 is quite a bit higher than we'd like to see."

Management: "I'm going to refer you to the urology team on an urgent 2-week referral pathway. This doesn't mean you have cancer, but it ensures you'll be seen quickly and investigated properly."

"They'll likely start with an MRI of the prostate, and depending on that, they may suggest a biopsy to examine the cells under a microscope."

"If anything is found, treatment options can include monitoring, surgery, radiotherapy, or hormone therapy, depending on the stage."

Supportive Additions: "I understand this can feel worrying. We're not jumping to conclusions - we just don't want to delay if anything needs attention."

Scenario 2: PSA = 3.2 in High-Risk Patient

"Your PSA level came back as 3.2. For men in your age group (50-59), we generally expect PSA to be below 3.5 - so this is slightly raised."

1. Ask: "Did you have sex, masturbate, or cycle within 48 hours before the test?"

If YES: "That can cause a temporary rise in PSA. So I'd suggest we repeat the test in 7-10 days, after avoiding those activities for at least 48 hours beforehand." "If it's still raised, we'll refer you to urology for further evaluation."

If NO, or second test still raised: "Because of your increased risk from your family history/ethnic background, and the raised PSA, I'll refer you to urology under the 2-week pathway. This helps rule things out quickly and, if anything's found, address it early."

Scenario 3: Normal PSA in Asymptomatic Patient

"Your PSA level came back within the normal range, which is very reassuring."

Management: "There's nothing concerning at the moment. You don't need any further tests unless new symptoms appear in the future." "If you ever notice difficulty urinating, back pain, or changes in your

bladder habits, please don't hesitate to come in." "You're welcome to repeat the test every year or two if you like, but it's not mandatory unless something changes."

Lifestyle Advice: "Staying active, eating a high-fibre diet, reducing red meat, and stopping smoking can help reduce prostate risks overall."

Scenario 4: Normal PSA in Symptomatic Patient (LUTS)

"Your PSA level is normal, which means there's no sign of cancer from the blood test. But you're still experiencing urinary symptoms, and we can help with that."

Management Plan:

Start medication: "I'll prescribe a medicine like Tamsulosin, which relaxes the muscles in your prostate and bladder neck. This can improve your urine flow and reduce urgency."

Arrange a routine ultrasound: "We'll book an ultrasound to look at the size of your prostate and how well your bladder empties."

Follow-up: "We'll check back in around 4–6 weeks to see how you're doing with the treatment."

Safety Netting

"If you develop any new symptoms - like blood in your urine, significant back pain, fatigue, or weight loss - please come back immediately." "Also, if you ever plan to repeat the PSA test in future, it's best to avoid sex, exercise, or cycling for at least 48 hours beforehand to make sure the reading is accurate."

Follow-Up Plan

- 2WW referral: Scenario 1 and confirmed high PSA in Scenario 2
- Repeat PSA: Scenario 2 with recent sexual activity
- No further action: Scenario 3 (normal PSA, no symptoms)
- Symptom treatment: Scenario 4 (normal PSA, LUTS)

Offer Leaflet and Final Check

"Would you like a leaflet or link to an NHS page that explains PSA testing and prostate health?" "Is there anything else on your mind today that I can help you with?"

Confusion in an Elderly Male – Urinary Retention

Scenario Setting: Emergency Department Patient: Elderly Male (collateral history from family member)
Presenting with: Acute Confusion **Task:** Collateral history, examination, diagnosis explanation, and management

Introduction

Hello, I'm one of the doctors here in A&E. Thanks for being with your father. I understand he's not feeling himself today. Before we begin, could I confirm your name? And you're his daughter, right? Thanks - and just to check, have you been given permission to speak with us on his behalf? (She confirms.)

Focused History & Context (ODPARA for Confusion)

I understand he's been confused - could you tell me a bit more about what you noticed?

- Onset: When did it start - suddenly or gradually?
- Duration: Has it been constant, or does it come and go?
- Progression: Is it getting worse or better?
- Associated: Is he responding to your questions? Recognizing people?

- Aggravating factors: Anything that makes it worse - e.g., noise, time of day?
- Relieving: Has anything made it better so far?

(Daughter says he's been acting confused for two days - doesn't always recognize her, and sometimes talks nonsense.)

Symptom Screening

Let me ask a few questions to check for possible causes:

Urinary Symptoms (Ask gently in lay terms):

- Has he been needing to go to the toilet more often than usual?
- Has he mentioned any discomfort or difficulty while passing urine?
- Any dribbling, weak stream, or difficulty starting?
- Have you noticed any blood in the urine or any unusual smell?

(She says he was going very often over the last 2 days, but doesn't know if he had pain.)

Systemic Symptoms:

- Has he had any fever or chills recently?
- Has he been feeling generally unwell - tired, eating less, or sleeping more?

(Appetite and fluids have been reduced; no known fever.)

Abdominal Symptoms:

- Has he complained of tummy pain or bloating?
- Has he said anything about pain in his lower belly?

(She's not sure - she only noticed his confusion.)

Past Medical History (PMAFTOSA)

- I understand he has an enlarged prostate - has he had any issues like this before?
- Any history of urinary infections or needing a catheter before?
- Is he on any regular medications?
- Any other known health conditions - like diabetes, high blood pressure, or memory problems?

(No medications or major medical issues, just BPH.)

Functional & Social Background

- Does he live alone or with you?
- How has he been managing at home lately - with eating, drinking, washing?
- Has there been any recent change in his mobility or memory before this episode?

ICE (Ideas, Concerns, Expectations)

You mentioned you're worried this could be a stroke - could you tell me what made you think that? (She says he's been confused and elderly, and her friend's dad had a stroke like this.)

"That's a very understandable concern. We'll absolutely consider all possibilities - but confusion alone without slurred speech, weakness, or facial changes makes a stroke less likely."

Examination (on Mannequin – Abdominal Exam)

"To help understand what's going on, I'd like to examine his tummy area. I know he's not fully aware, so I'd like to proceed with your consent."

Perform Abdominal Exam on Mannequin:

- Inspection: No visible distension
- Palpation: Tender suprapubic area, palpable bladder

(Examiner gives prompt when you palpate the lower abdomen.)

"There's some tenderness and a full bladder - this may be related to retention of urine."

Digital Rectal Examination (DRE) - Important: "I would also like to perform a rectal examination. This helps us check for two important things:

1. The size and condition of the prostate
2. Whether there's any faecal impaction (severe constipation)"

Note: Faecal impaction is a common cause of BOTH urinary retention AND delirium in elderly patients. Always consider checking for this.

Note: Consider assessing patient's capacity and involving daughter in decision-making.

Provisional Diagnosis

"From what we've found - his enlarged prostate, urinary symptoms, a tender full bladder, and confusion - it looks like he may be having urinary retention, and possibly a urinary tract infection as well. In older adults, this can often lead to confusion, especially when they can't express discomfort clearly."

"This is unlikely to be a stroke, as there are no signs of weakness, slurred speech, or facial changes - but we'll still monitor carefully."

Management Plan

Immediate Actions:

- Admit him for observation and monitoring
- Insert a urinary catheter to relieve the bladder

"We'll place a soft tube into the bladder to drain the urine and relieve the pressure. This often helps improve confusion quite quickly in cases like this."

- Notify Urology for review

Investigations:

- Urinalysis and send for MC&S

Urine Dipstick Interpretation (OSCE Tip): If dipstick shows BOTH Nitrites AND Leucocytes in a symptomatic patient → strongly suggestive of UTI, start empirical antibiotics: "The dipstick shows signs of an infection. I'm going to start you on a course of antibiotics and send this sample to the lab to make sure we've chosen the right one."

- Blood tests: FBC, U&E, CRP, LFTs
- Consider ECG and chest X-ray (if any other systemic features arise)
- Arrange bladder ultrasound (if needed) to check residual volume

Symptom Control:

- Pain relief: Paracetamol
- IV fluids if dehydrated
- Start empirical IV antibiotics (as per local UTI sepsis protocol), tailored after culture results

Note: We'll only continue antibiotics if urine culture confirms infection - this follows antimicrobial stewardship guidance.

Reassurance & Communication

"This is actually quite a common situation in older men, especially those with enlarged prostates - the good news is we know how to manage it and we'd expect him to improve over the next day or two."

"By draining the bladder and starting antibiotics, we expect him to start improving in the next 24-48 hours." "We'll continue to monitor him and keep you updated throughout."

Safety Netting

"If his confusion worsens, or if he develops a high fever, new weakness, or doesn't pass urine even after catheterisation, we'll escalate immediately." "We'll also be on the lookout for other causes if his condition doesn't improve as expected."

Follow-Up Plan

- Discharge planning after improvement, with GP/urology follow-up

Student Note: How Was the Diagnosis Made?

- Elderly patient presents with acute confusion, and daughter mentions prostate enlargement
 - History reveals urinary frequency, but no pain
 - Examination shows a palpable bladder, and context suggests chronic incomplete emptying
 - UTI likely due to retention → a known cause of delirium in elderly
 - Stroke ruled out due to absence of focal neurological signs
 - Key diagnostic pivot = Confusion + palpable bladder + known BPH + urinary symptoms → UTI and retention
-

Suspected Testicular Cancer

Scenario Setting: Primary Care Patient: Young Adult Male Presenting with: Testicular Lump Task: History, examination, differential diagnosis, explanation, and urgent pathway management

Introduction

Hello, I'm one of the doctors here today. Thanks for coming in. Could I please confirm your full name and age? Great, thank you. How can I help you today?

(Patient: "I found a lump on my testicle.")

2. Presenting Complaint – MEDS Structure

M – Morphology

- Which testicle is affected – left or right?
- Is the entire testicle swollen or just a part?
- Is it near the top (epididymis), bottom, or middle?
- Can you describe the size? (pea, grape, walnut?)
- How does it feel? Hard, soft, rubbery, fluid-like?
- Is the lump regular or irregular in shape?
- Is it freely movable or stuck to the testicle?

E – Evolution

- When did you first notice the lump?
- Has it changed in size since then?
- Does the lump change with lying down or standing?
- Does it become more prominent when you cough or strain?

D – Duration

- How long has it been there in total?

S – Symptoms

- Is there any pain or discomfort?
- Any tingling, numbness, or dragging sensation?
- Any redness, heat, or swelling?
- Any visible rash, skin change, or discharge?

Screening for Differential Diagnoses (Structured Questions)

To screen for Hydrocele:

- Does the swelling seem to surround the testicle or is it in one spot?

- Is it more obvious at certain times of the day?

To screen for Varicocele:

- Does it feel like a bunch of worms or veins, especially when standing?
- Any heaviness or dragging sensation in the scrotum?

To screen for Epididymal Cyst:

- Does the lump feel like it's attached to the back of the testicle?
- Is it soft and fluid-like?

To screen for Torsion:

- Did the pain come on suddenly and severely?
- Any nausea or vomiting with the pain?

To screen for Epididymo-orchitis:

- Any pain when passing urine or discharge?
- Any fever or chills recently?

To screen for Hernia:

- Does the swelling go away when lying down?
- Does it get worse with coughing or lifting things?

Systemic Cancer Symptoms:

- Any back pain or loin pain?
- Any breast enlargement or nipple tenderness?
- Any recent weight loss or fatigue?

Sexual & Fertility History**STI and Sexual History:**

- Any recent unprotected sex or new partners?
- Any burning sensation while urinating?
- Any previous history of STIs?

Fertility History:

- Do you currently have any children?
- Are you planning to have children in the future?

Past Medical and Risk Factor History

- Were there any issues with your testicles when you were born? (e.g. undescended testis)
- Have you had surgery on the testicles before?
- Any family history of testicular cancer?
- Any other major health conditions?

ICE

- What are your thoughts about what this might be?
- Are you worried this might be something serious like cancer?
- What were you hoping I could help you with today?

(Patient says: "My brother was diagnosed with testicular cancer 3 months ago.")

Examination

1. Introduction and Consent (Verbalised Before Exam) "Thank you for answering my questions earlier. Now I would like to examine your scrotum to help find the cause of your symptoms. This will involve looking at the area, feeling the testicles gently, and performing a few specific checks for tenderness or swelling. This examination should not be painful but may feel slightly uncomfortable at times. For this, I will need you to be standing and exposed from the waist down, including removing

your underwear. A member of the medical team will be present as a chaperone, and I will do everything I can to ensure your privacy and dignity. Do I have your consent to proceed?"

Wait for verbal confirmation. Document that a chaperone was offered or present.

2. Positioning and Exposure

- Position: Patient should be standing upright for best scrotal visualisation.
- If standing is not possible (e.g. pain, unwell), perform in supine position.
- Exposure: Fully expose the lower abdomen, groin, penis, and scrotum.
- Ask the patient to remove underwear but allow them to keep shirt on.
- Drape appropriately to preserve dignity.

3. Testicular Examination Steps

A. Inspection (LOOK) Inspect the groin and lower abdomen:

- Swellings, scars, skin changes, surgical marks
- Hernial bulges

Inspect the penis:

- Retract foreskin (if uncircumcised, with permission) to check for discharge or lesions

Inspect the scrotum:

- Ask the patient to lift the penis upward to expose the scrotum
- Then ask the patient to lift the scrotum up to inspect posteriorly
- Look for: Swelling (unilateral or bilateral), Erythema, Skin thickening, Ulcers or bruising, Asymmetry or displacement of the testicles, Position and lie of testicles

B. Palpation (FEEL) Always warm your hands first. Warn the patient before touching.

Temperature comparison:

- Use the back of your hand to compare scrotal temperature to the upper inner thighs.

Tenderness:

- Palpate each testicle gently using thumb and index finger while observing patient's face for signs of discomfort.

Systematic palpation of each side:

- Testis – feel size, consistency, tenderness
- Epididymis – lies posterior-lateral; check for swelling or pain
- Spermatic cord – trace upward to the superficial inguinal ring
- Inguinal canal – check for masses or hernia
- Any swelling – assess using site, size, shape, surface, consistency, contour, mobility, tenderness, trans-illumination

C. Special Tests (Performed as needed)

Special Tests for Painful Testicles:

Prehn's Test:

- Gently lift the affected testicle upwards.
- Ask: "Does this relieve your pain?"
- Pain relieved = suggests epididymitis
- Pain unchanged or worsens = suggests testicular torsion

Cremasteric Reflex:

- Stroke inner thigh with finger or blunt object (pen).
- Normal response: Testicle on same side elevates.
- Absent reflex = may suggest torsion

Special Tests for Swelling:

Get Above the Swelling:

- Try to palpate above the swelling.
- Able to get above = scrotal swelling (e.g. hydrocele, epididymal cyst)

- Not able = likely inguinoscrotal hernia

Fluctuation Test:

- Use both hands to palpate a mass:
- Apply pressure from one side, feel for displacement of fluid on the other side.
- Positive in fluid-filled swellings (e.g. hydrocele)

Transillumination Test:

- Verbalise: "I would now dim the room lights."
- Shine a pen torch from behind the scrotal swelling.
- Red glow = fluid (e.g. hydrocele)
- No glow = solid mass (e.g. tumour)

Verbalise to examiner: "In a full assessment, I would also examine the inguinal region, abdomen, and assess for lymphadenopathy in the inguinal and supraclavicular areas, depending on clinical suspicion."

4. Finish the Examination Thank the patient and offer reassurance.

Findings:

- Non-tender, firm, irregular lump in testis
- No transillumination → solid mass

Provisional Diagnosis

"I know this must be especially worrying given what your brother went through. Based on everything we've found today - the feel of the lump and your family history - I do think we need to investigate for testicular cancer. But I want you to know that if it is cancer, it's one of the most curable types, especially when found early like this."

Explanation

"The testicles are glands that produce sperm. A firm lump inside one testicle, especially if it doesn't transilluminate or move freely, can sometimes be due to cancer. You also have a family history and had an undescended testicle as a child, which increases the risk."

"Testicular cancer is the most common cancer in young men, but it's also one of the most treatable - the cure rates are very high."

Management Plan

IMPORTANT: If Torsion Suspected - This is a Surgical Emergency If sudden severe pain with nausea/vomiting, high-riding testicle, or absent cremasteric reflex:

- Do NOT wait for ultrasound - this delays surgery and risks testicular loss
- Immediate senior urological referral for surgical exploration
- Surgery should ideally occur within 6 hours of symptom onset
- "Negative surgical exploration is preferable to a missed diagnosis"

For Suspected Testicular Cancer (as in this case):

- Urgent 2WW referral to urology - do not delay for tumour markers
- Urgent ultrasound of the scrotum (arranged via 2WW pathway)
- *Note: Tumour markers (β -hCG, LDH, AFP) will be done by the specialist team - do not delay referral waiting for these results in primary care*
- Offer sperm banking before any possible surgery or radiotherapy
- Emotional support and offer access to counselling services if needed

"You'll be seen within 2 weeks by a specialist. They may do more scans and possibly a biopsy, which sometimes means removal of the testicle for confirmation."

Safety Netting & Follow-Up

"If you develop new symptoms like back pain, breast changes, or the lump increases in size, let us know immediately." "We'll call you with your blood results and referral details, and we're always here if you need support."

Student Note: Diagnostic Reasoning Summary

- Young male with non-tender, firm, irregular testicular lump
 - No transillumination, no infection symptoms
 - Positive risk factors: family history, undescended testicle
 - Differential diagnoses ruled out through structured history
 - Features highly suspicious for testicular cancer → 2WW referral made
-

Epididymal Cyst

Scenario Setting: Primary Care Patient: Young Adult Male Presenting with: Testicular Lump (Benign Features) **Task:** History, examination, diagnosis explanation, and conservative management

Introduction

Hello, I'm one of the doctors here today. Thanks for coming in. Could I please confirm your full name and age? Great - how can I help you today?

(Patient: "I've found a lump on my testicle.")

Presenting Complaint (MEDS Structure for Lump)

M – Morphology

- Which testicle is affected - left or right?
- Is the whole testicle swollen or is the lump separate from the testicle?
- What size would you say it is - can you compare it to something?
- Is the lump hard, soft, or fluid-like?
- Is it round, irregular, or attached to surrounding tissue?

E – Evolution

- When did you first notice it?
- Has it changed in size or shape since you found it?
- Is it constant or does it vary?

D – Duration

- How long has the lump been present?

S – Symptoms

- Is the lump painful?
- Any tingling, discomfort, or pressure?
- Any redness or warmth over the area?
- Any rash, itching, or breaks in the skin?

Additional History (Differential Screening)

To rule out other causes of testicular swelling/lumps:

- **For testicular tumour:** Have you noticed any hard or fixed lumps? Any back pain, breast swelling, or recent weight loss?
- **For Epididymo-orchitis:** Have you had any pain, fever, burning when passing urine, or discharge?
- **For hydrocele:** Is the swelling affecting the whole scrotum and does it feel like a fluid-filled sac?

- **For hernia:** Does the lump increase in size when coughing or straining? Does it disappear when lying down?
- **For testicular torsion:** Did the pain come on very suddenly? Was it severe and associated with nausea?

Sexual History:

- Are you currently sexually active?
- Any new or multiple partners?
- Do you use condoms regularly?
- Any discharge or pain while passing urine?

Cancer Red Flags (FLAWS):

- F – Fever: Any recent fever or infection symptoms?
- L – Loss of appetite: Any changes?
- A – Anaemia symptoms: Feeling unusually tired?
- W – Weight loss: Any unintentional weight loss?
- S – Sweats: Any night sweats?
- Past Medical History: Any known testicular or scrotal conditions in the past?
- Family History: Any family history of testicular cancer?
- Functionality: Any difficulty walking, working, or exercising due to the swelling?

ICE

- What do you think this lump could be?
- Is there anything in particular you're worried about?
- What were you hoping we could do for you today?

Examination

"To assess this properly, I'd like to examine your testicles. I'll ensure privacy and have a chaperone present. Is that okay with you?"

Inspection: No visible swelling or skin changes

Palpation:

- Non-tender, soft, well-defined cystic lump separate from the testicle
- Feels attached to the epididymis (posterior to testis)
- Testicle itself feels normal

Transillumination: Lump transilluminates, indicating a fluid-filled nature

Findings: A smooth, fluctuant, transilluminating lump suggestive of epididymal cyst

Provisional Diagnosis

Based on your examination and history, this appears to be an epididymal cyst - a fluid-filled sac in the coiled tube behind the testicle called the epididymis, which stores sperm. It's benign and quite common.

Explanation

"You've got something called an epididymal cyst, which is a harmless fluid-filled sac in the area behind the testicle. It's not cancer and doesn't affect fertility or testosterone levels. Many men have them and may not even realise it." "These often settle by themselves over 6–9 months. In some cases, they remain the same size or grow slowly, but they're rarely dangerous."

Management Plan

- **Reassurance:** Benign condition, no urgent concern
- **Routine ultrasound:** To confirm diagnosis and rule out rare causes
- **Tumour markers (beta-hCG, LDH):** Tumour markers (AFP, beta-hCG, LDH) are NOT routinely required for clearly benign epididymal cysts. Only consider if any diagnostic uncertainty exists.

If bothersome or enlarging:

- Refer to urologist for surgical excision if needed

Note: Cryotherapy is rarely used for epididymal cysts.

- No antibiotics unless secondary infection suspected

"We'll arrange a routine scan just to confirm it's definitely a cyst. We'll also check a couple of blood markers as a precaution because of your age, though I'm very confident this isn't anything worrying."

Safety Netting & Follow-Up

"If you develop sudden pain, the lump grows rapidly, or you notice any changes like hardness or loss of shape, please come back urgently. Very rarely, cysts can twist or get infected." "Also, if you ever notice a firm, non-moveable lump, or any weight loss, back pain, or breast swelling, do come in immediately. These can be signs of other conditions we'd want to check early." "Otherwise, we'll monitor it over time. If it becomes uncomfortable, we can discuss minor procedures to remove it."

Student Note: Diagnostic Reasoning Summary

- Painless, fluctuant, transilluminating lump behind the testis in young man
 - No red flags or systemic signs
 - Most consistent with epididymal cyst
 - Confirm with ultrasound + reassure + safety net for complications
-

Mumps Orchitis

Scenario Setting: Primary Care Patient: Young Adult Male Presenting with: Testicular Swelling and Pain with Systemic Features Task: History, examination, viral vs bacterial differentiation, and management

Introduction

Hello, I'm one of the doctors here today. Thanks for coming in. Before we begin, could I confirm your full name and age? Great - how can I help you today?

(Patient: "I have some pain and swelling in my testicle.")

Presenting Complaint (MEDS Structure for Testicular Pain/Swelling)

M – Morphology

- Which testicle is affected - left or right?
- Is the entire testicle swollen or just part of it?
- Is it hard, soft, or tender to touch?

E – Evolution

- When did the pain and swelling start?
- Has it been getting worse, better, or staying the same?

D – Duration

- How long has this been going on?

S – Symptoms

- Any fever, chills, or feeling unwell?
- Any nausea or abdominal pain?
- Any urinary symptoms like burning, frequency, or discharge?
- Any rash, itching, or skin changes around the testicle?

Cancer Red Flag Screening (FLAWS-style)

- F – Fever: Have you had any fever or felt generally unwell recently?
- L – Loss of appetite: Have you had any loss of appetite?
- A – Anemia symptoms: Any breathlessness, tiredness, or pale skin?
- W – Weight loss: Have you lost any weight recently without trying?
- S – Sweats: Any night sweats or waking up soaked in sweat?
- Also ask: Any firm lumps or bumps inside the testicle?

Infection and Viral Screening History

- Have you had any other swellings recently? (e.g. around the neck or ankles?)
- Any swelling or pain in your jaw or neck before this started?
- Have you ever been diagnosed with mumps?
- Do you know if you've been vaccinated against mumps?

(Patient: Reports ankle swelling a few days ago; unsure of vaccine status)

Sexual History (Standard)

- Are you sexually active?
- Any recent new partners?
- Do you use protection (e.g. condoms)?
- Any discharge from the penis or pain while urinating?
- Any past history of STIs?

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- Past Medical History: Any history of testicular problems or infections?
- Medications: Any regular medications or recent antibiotic use?
- Allergies: Any known drug allergies?
- Family History: Any family history of testicular conditions?
- Smoking/Alcohol: Do you smoke or drink alcohol?
- Travel: Any recent travel?
- Occupation: Any exposure to children or unvaccinated groups (e.g. teacher, nursery worker)?
- Social Support: Do you live alone or with family?

ICE

- What do you think this could be?
- Is there anything in particular you're worried about?
- What were you hoping we could do today?

(Patient may be worried about cancer or a serious infection)

Examination

"I'd like to examine your testicles to get a clearer idea of what's going on. I'll make sure a chaperone is present and do it respectfully. Is that okay with you?"

Inspection: Observe for swelling, asymmetry, redness, skin changes

Palpation:

- Confirm swelling involves entire testicle
- Tender to touch, diffusely enlarged
- No discrete lump or suspicious mass

Transillumination: May show transillumination due to swelling, but variable

Findings: Diffusely swollen, tender testicle with no focal lump May resemble hydrocele on mannequin

Provisional Diagnosis

Based on the swelling of the entire testicle, associated symptoms, and recent swelling elsewhere, this is most likely mumps orchitis.

Mumps is a viral illness that typically affects the salivary glands but can sometimes cause inflammation of the testicle, which we call orchitis. It's more common in people who haven't been vaccinated or have had partial immunity.

Explanation

"You have a condition called mumps orchitis, which is when the mumps virus causes inflammation of the testicle. It usually starts with swelling of the salivary glands in the cheeks, and in some people, it can move to the testicle."

"I want to reassure you that this isn't a sexually transmitted infection - it's caused by the mumps virus, which usually affects the salivary glands but can sometimes travel to the testicle."

Management Plan

CRITICAL: Torsion Exclusion First

- If diagnosis uncertain OR torsion cannot be confidently excluded → **urgent same-day surgical assessment**
- Do NOT reassure with "no imaging needed" without first ruling out torsion
- Classic mumps features (bilateral parotid swelling, prodrome) increase confidence in diagnosis

If Confident Mumps Orchitis Diagnosis:

- **Pain relief:** Paracetamol or ibuprofen for pain and inflammation
- **Supportive care:** Rest, fluids, scrotal support (e.g. briefs or folded towel)
- Advise reduced activity while pain is present
- No antibiotics unless bacterial infection suspected

"You don't need any antibiotics unless signs of bacterial infection appear. It's important to rest, stay hydrated, and wear supportive underwear until the swelling settles." "We'll keep an eye on it. If it doesn't start to improve in 7–10 days or gets worse, come back for review."

Fertility Counselling

"In some cases, mumps orchitis can affect fertility if both testicles are involved or if the inflammation is severe. We'll keep an eye on this, and if you have any concerns about fertility in the future, we can arrange further tests."

Public Health Notification

Mumps is a notifiable disease in England and Wales.

- Notify the local Health Protection Team (HPT) of suspected/confirmed cases
- HPT will arrange oral fluid testing for confirmation

Isolation/Exclusion Advice:

- "You should stay away from work/school/university for 5 days after the onset of swelling"
- "Avoid close contact with others who haven't been vaccinated, especially pregnant women and immunocompromised individuals"

- "The virus spreads through respiratory droplets and saliva"

Safety Netting & Follow-Up

"If you get sudden worsening of pain, fever, difficulty passing urine, or the swelling gets much worse, please come back or go to A&E immediately." "Let us know if you're not improving after a week or so. If needed, we can arrange an ultrasound for further assessment." "If you ever notice a firm lump inside the testicle, or any new symptoms like back pain, breast swelling, or unintentional weight loss, do come in - that would need checking separately."

Student Note: Diagnostic Reasoning Summary

- Whole testicle swollen and painful, following recent gland/ankle swelling
 - History of possible mumps, no high-risk sexual or cancer features
 - Examination shows diffuse tenderness without focal mass
 - Most consistent with mumps orchitis
 - Managed with symptomatic care, cancer red flags excluded via FLAWS screening, and clear safety netting
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Epididymo-orchitis

Scenario Setting: Primary Care Patient: Young Adult Male Presenting with: Testicular Pain and Swelling with STI Risk Factors
Task: History, examination, diagnosis, and GUM referral management

Introduction

Hello, I'm one of the doctors here today. Thanks for coming in. Before we begin, could I confirm your full name and age? Great - how can I help you today?

(Patient: "I've got pain and swelling in my testicle.")

Presenting Complaint (MEDS Structure for Testicular Pain/Swelling)

M – Morphology

- Which side is affected - left or right?
- Is the swelling affecting the whole testicle or just part of it?
- Does it feel hard, soft, or tender?
- Is it constant or does it change throughout the day?

E – Evolution

- When did this start?
- Has the swelling been increasing in size or stayed the same?
- Has the pain worsened, improved, or stayed constant?

D – Duration

- How long have you had the pain and swelling?

S – Symptoms

- Any fever or chills?
- Any burning sensation while urinating?
- Any urethral discharge?
- Any abdominal or back pain?
- Any rash or skin changes?

Sexual History (Essential in This Case)

"I ask everyone the same questions - it helps us give you the right treatment."

- Are you currently sexually active?
- When was your last sexual encounter?
- Do you use condoms consistently?
- Any new or multiple partners recently?
- Have you ever been treated for an STI?
- Has your partner reported any symptoms or diagnosis recently?

FLAWS Red Flag Screening

- F – Fever: Any recent episodes of fever or feeling hot and cold?
- L – Loss of appetite: Have you noticed any change in appetite?
- A – Anaemia symptoms: Any fatigue, shortness of breath, or dizziness?
- W – Weight loss: Any unintended weight loss recently?
- S – Sweats: Any night sweats?

PMAFTOSA

- Past Medical History: Any past testicular infections or surgeries?
- Medications: Any medications you're currently taking?
- Allergies: Any allergies, especially to antibiotics?
- Family History: Any family history of testicular cancer or infections?
- Smoking/Alcohol: Do you smoke or drink?
- Travel: Any recent travel?
- Occupation: Type of work and exposure risk
- Social support: Do you have someone to accompany you to appointments?

ICE

- What do you think this might be?
- Is there anything you're specifically worried about?
- What were you hoping I could do for you today?

Examination

"To assess this properly, I'd like to examine your testicles. I'll make sure a chaperone is present and we maintain your dignity and comfort throughout. Is that okay?"

Inspection: Swelling and redness of scrotum on affected side

Palpation:

- Tenderness over both the testicle and epididymis
- No discrete mass or high-riding testicle

Transillumination: Negative (non-transilluminating solid swelling)

Findings: Swollen, tender testicle and epididymis on one side, consistent with epididymo-orchitis

Diagnosis and Explanation

"You have a condition called Epididymo-orchitis, which means that the tube behind the testicle - called the epididymis - and the testicle itself have become inflamed and swollen. This is a common cause of pain and swelling in young men."

"In people who are sexually active, this is often caused by a bacterial infection, which can be passed through unprotected sex - commonly from infections like chlamydia or gonorrhoea. These bacteria can travel upwards through the urinary passage and cause inflammation in the testicle area."

"The good news is that this is treatable. We usually give antibiotics to clear the infection, and we'll also ask you to attend a sexual health clinic to confirm the cause and ensure your partner can be tested and treated too if needed."

"With prompt treatment and rest, most people recover fully without complications."

Management Plan

Referral: Urgent referral to GUM clinic for full STI testing and partner notification

Antibiotics :

Likely STI cause (young, sexually active, urethral discharge):

- Ceftriaxone 1g IM single dose PLUS
- Doxycycline 100mg twice daily for 14 days

Likely enteric cause (older >35, low STI risk, recent instrumentation, UTI history):

- Ofloxacin 200mg twice daily for 14 days, OR
- Levofloxacin 500mg once daily for 10 days
- (Note: Ofloxacin/levofloxacin preferred over ciprofloxacin for enteric organisms per UK guidance)

Insertive anal intercourse (risk of BOTH STI + enteric organisms):

- Ceftriaxone 1g IM single dose PLUS
- Ofloxacin 200mg twice daily for 14 days
- (Covers both gonorrhoea/chlamydia AND enteric pathogens)

HIV Testing: We'd also recommend an HIV test as part of your full screening

Symptom Relief: Paracetamol or ibuprofen for pain

Advice:

- Avoid sexual activity until fully treated
- Use condoms in future to prevent recurrence
- Encourage partner(s) to also be tested and treated

Safety Netting & Follow-Up

"If your pain worsens, you develop a high fever, or the swelling increases rapidly, please come back or go to A&E immediately." "If you haven't been contacted by the GUM clinic within the next couple of days, do let us know so we can follow up." "If you or your partner notice any new symptoms, or you're unsure about anything discussed, feel free to come back for review."

Student Note: Diagnostic Reasoning Summary

- Patient presented with gradual testicular pain and swelling, sexually active, STI risk
 - Exam showed epididymal and testicular tenderness, consistent with epididymo-orchitis
 - Gonorrhoea or chlamydia likely cause → referred to GUM, managed supportively with antibiotics and partner notification
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Epididymal Cyst (Variation)

Scenario Setting: Primary Care Patient: Young Adult Male Presenting with: Painless Testicular Lump (Benign Features) **Task:** History, examination, diagnosis, and conservative management

Note: This is a variation of the earlier Epididymal Cyst case. The same clinical principles apply. Consider this as additional practice with slightly different presentation details.

The clinical approach remains the same as detailed in Case 9 above. Key learning points:

1. **History:** Use MEDS structure for lump assessment
2. **Examination:** Confirm lump is separate from testicle, soft, fluctuant, and transilluminates
3. **Diagnosis:** Benign epididymal cyst

4. **Management:** Conservative management, reassurance, routine ultrasound, safety netting
5. **Red flags:** Always exclude testicular cancer features

Varicocele

Setting: Primary Care/Clinic

Patient: Young Adult Male

Task: Examine scrotal swelling and counsel on findings

1. INTRODUCTION & CONSENT

"Hello, I'm Dr ..., one of the doctors in the clinic today."

Confirm patient's name, age, and identity.

Ask: "I understand you've noticed some discomfort or swelling down there. Is that right?"

Clarify: "Before I examine you, I'd like to ask you a few quick questions to understand what's been happening."

Consent & chaperone: "For this type of examination, I'll need to look and feel the area around your testicles and scrotum. It shouldn't be painful and will take only a few minutes. A chaperone will be present throughout to maintain your comfort and dignity - would that be okay?" *Ensure chaperone is arranged, privacy maintained, and patient is comfortable.*

Positioning & environment:

Ensure warm hands and warm room.

Patient initially **standing**, later **lying down** for assessment of positional change.

Drape appropriately.

2. HISTORY OF PRESENTING COMPLAINT

Onset & duration: "When did you first notice the swelling?"

Progression: "Has it changed in size since you first noticed it?"

Discomfort / pain: "Do you have any pain or is it more of a dragging or heavy feeling?"

Variation with posture: "Does it feel worse when you're standing for a long time or at the end of the day? Does it go down when you lie down?"

Laterality: "Is it on one side or both?"

Associated symptoms: "Any redness, fever, or tenderness?"

Urinary symptoms: "Any pain when passing urine, or any change in frequency or colour?"

Trauma / strain: "Any recent injury or heavy lifting?"

Sexual / fertility history: "Have you noticed any change in your sexual function or fertility concerns?"

Systemic symptoms: "Any recent weight loss, night sweats, or tiredness?"

Previous history: "Any past surgery or swelling in the scrotal area before?"

ICE (if asked pre-exam): "Is there anything in particular you're worried this could be?"

Summary of findings from this case: Two-week history of gradually increasing scrotal swelling, described as a dragging sensation, more noticeable on standing, no pain, no urinary or bowel complaints, and no systemic symptoms.

3. GENERAL INSPECTION

Patient standing, adequately exposed.

Observe **scrotum front and sides:**

Asymmetry - one side (usually left) appears enlarged.

No erythema, ulceration, scars, or obvious tenderness.

Normal penile and perineal appearance.

Dilated veins may be visible through scrotal skin.

Observe **movement with respiration or cough impulse** (suggests hernia - absent here).

Ask patient to **strain (Valsalva manoeuvre)** - swelling becomes more prominent.

4. PALPATION

Before palpation:

Ask permission: "I'm now going to gently feel the area. Please tell me if anything feels uncomfortable."

Warm hands; stand on patient's right if right-handed.

A. Temperature & tenderness:

Back of hand across both sides - no increased warmth.

Gentle palpation - non-tender.

B. Identify the testis:

Each testis examined separately:

Smooth, firm, oval, non-tender, normal size.

Epididymis palpable behind each testis.

C. Palpate the swelling:

Palpable above and around the upper pole of the affected testis.

Feels like **multiple soft, tortuous, compressible structures** - "bag of worms."

Non-tender, fluctuant, no distinct margins.

Testis palpable separately from the mass.

D. Cough impulse:

Absent - no expansion felt. (*Helps exclude inguinal hernia.*)

E. Transillumination test:

In dim light, use pen torch - **does not transilluminate** (not fluid-filled).

F. Postural variation:

Ask patient to **lie supine** - swelling **reduces in size or disappears**.

Reappears on standing or with Valsalva.

G. Spermatic cord and inguinal region:

Trace cord upwards to external ring - veins palpable but compressible.

No tenderness or thickening.

No palpable inguinal hernia or lymphadenopathy.

H. Contralateral side:

Normal testis and epididymis.

No varicosities.

5. EXAMINATION FINDINGS

Left-sided soft, non-tender, compressible swelling above and around the testis.

Feels like a **bag of worms**, **increases on standing**, **reduces on lying**, **does not transilluminate**, **no cough impulse**, and **testis palpable separately**. This is consistent with a **left-sided varicocele**.

6. DIFFERENTIAL DIAGNOSIS

Condition	Key Differentiating Features
Varicocele	Bag of worms, above testis, negative transillumination, reduces on lying, common on left.
Epididymal cyst	Smooth, fluctuant, above testis, <i>positive</i> transillumination, no postural change.

Hydrocele	Testis not separately palpable, transilluminates, uniform swelling, constant size.
Indirect inguinal hernia	Expands with cough, reducible through inguinal ring, often has impulse.
Testicular tumour	Hard, irregular, non-compressible, does not transilluminate, fixed to testis.

7. RELEVANT PATHOPHYSIOLOGY

Varicocele = dilatation of **pampiniform plexus veins** of spermatic cord.

Most often left-sided (due to perpendicular drainage of left testicular vein into left renal vein, leading to higher venous pressure).

Causes venous congestion leading to **dragging sensation or scrotal heaviness**, often after prolonged standing.

Common in young men; may impact **sperm quality and fertility**.

Sudden onset, especially on **right side in older men**, may suggest **retroperitoneal mass compressing venous return**.

8. INVESTIGATIONS

Investigation	Purpose
Scrotal ultrasound with Doppler	First-line: confirms varicocele, assesses venous flow, excludes solid or cystic masses.
Semen analysis	In men with fertility issues or subfertility.
Renal ultrasound	For <i>sudden-onset, right-sided, or non-reducing varicoceles</i> (to exclude retroperitoneal obstruction).
Urinalysis	To exclude infection (epididymo-orchitis).
Tumour markers (AFP, beta-hCG, LDH)	Only if solid component or suspicion of malignancy.

9. MANAGEMENT

A. General Principles

Varicocele is **benign** and **often asymptomatic**.

Management depends on **symptom severity** and **fertility concerns**.

B. Conservative Measures

Reassure - "I can reassure you that this is **not** cancer. It's a very common condition caused by enlarged veins, similar to varicose veins that some people get in their legs."

Supportive underwear (scrotal support) to reduce dragging discomfort.

Avoid prolonged standing, straining, or heavy lifting.

Simple analgesia (paracetamol or ibuprofen) for mild pain.

Monitor size and symptoms; most remain stable or regress.

C. Indications for Specialist Referral

Refer to **Urology** if:

Pain or discomfort persists despite conservative care.

Cosmetic concern or large varicocele.

Associated **infertility or abnormal semen analysis**.

Sudden onset, right-sided, or non-reducing varicocele (exclude renal/retroperitoneal pathology).

In adolescents, referral is indicated if there is ipsilateral testicular size difference greater than 2mL or greater than 20%.

D. Interventional Options (Urologist)

Percutaneous embolisation of the internal spermatic vein - often considered **first-line** as it is minimally invasive, performed under local anaesthesia, with faster recovery.

Varicocele ligation (open or laparoscopic) - alternative if embolisation fails or is not suitable.

These aim to **improve venous drainage** and, in some cases, **enhance sperm quality**.

Recurrence possible; risk of hydrocele formation post-surgery discussed pre-procedure.

E. Fertility Considerations

Per NICE CG156 (2017), men should **not** be offered surgery for varicoceles as a form of fertility treatment because it does not improve pregnancy rates. However, the European Association of Urology (EAU) suggests treatment may be considered if: (1) varicocele is clinically palpable, AND (2) semen analysis is abnormal, AND (3) infertility is otherwise unexplained.

Discuss referral to fertility services if conception delay persists greater than 12 months.

F. Follow-Up

Arrange **review after ultrasound**.

Continue conservative measures while awaiting results.

If intervention indicated, refer routinely to urology.

10. SAFETY NETTING

Advise patient to seek review if:

Swelling rapidly increases or becomes painful.

Becomes hard, irregular, or fixed.

Develops fever or urinary symptoms.

Encourage **monthly self-examination** for early detection of any new or hard lumps.

Overactive Bladder

Scenario Setting: Primary Care Patient: Elderly Male Presenting with: Urinary Urgency and Frequency with Incontinence Episode Task: History, examination, bladder assessment, and conservative management

Introduction

Hello, I'm one of the doctors here today. Thanks for coming in. Could I confirm your full name and age, please? Great. How can I help you today?

(Patient: "I've been needing to go to the toilet very frequently, and I even lost control once while driving.")

"I can imagine this must have been quite distressing, especially the episode in the car."

Presenting Complaint (ODIPARA)

- O – Onset: When did you first notice this issue?
- D – Duration: Has it been continuous or on and off?
- I – Intensity: How bothersome is it on a daily basis?
- P – Progression: Has it been getting worse or staying the same?
- A – Aggravating factors: Any particular situations that make it worse?
- R – Relieving factors: Anything that helps or reduces the symptoms?
- A – Associated symptoms:
 - Hesitancy when starting to urinate?

- Dribbling after finishing?
- Weak urinary stream?
- Do you need to get up at night to urinate? How many times?
- Any leakage when coughing, sneezing, or lifting?

Focused History & Differential Screening

Fluid and Irritant Intake:

- How much alcohol do you drink?
- How much coffee, tea, or fizzy drinks do you usually have?
- Have you reduced your water intake because of the symptoms?

Red Flags:

- Any blood in the urine?
- Any lower back or side pain?
- Have you had recurrent urine infections?

FLAWS:

- F – Fever: Any recent fever or chills?
- L – Loss of appetite
- A – Anaemia symptoms: Feeling tired or breathless?
- W – Weight loss: Any unintentional weight loss?
- S – Sweats: Especially night sweats?

DESA:

- D – Diet: Any changes in diet?
- E – Exercise: Level of physical activity?
- S – Smoking: Do you smoke?
- A – Alcohol: Already covered above

PMH & Medications:

- Any known prostate issues?
- Known diabetes, heart disease, or kidney problems?
- Are you on any regular medications? (Confirmed amlodipine + ramipril)

Family History:

- Any family history of bladder or prostate cancer?

Impact:

- How is this affecting your daily activities?
- Have you avoided outings or social events because of fear of incontinence?

ICE

- What do you think might be causing this?
- Is there anything in particular you're worried about?
- What were you hoping I could do to help today?

(Patient concern: "Why is this happening to me?")

Examination Summary

"To understand better, I'd like to perform a general check, examine your abdomen, and do a rectal exam to feel the prostate. We'll also dip a urine sample. Would that be okay?"

- Observations: BP, HR, Temp – within normal limits
- GPE: No signs of infection or dehydration
- Abdominal Exam: Soft, non-tender, no palpable bladder
- DRE: Normal-sized prostate, non-tender, no nodularity
- Urine Dipstick: No blood, leukocytes, or nitrites

Provisional Diagnosis

"You're likely experiencing a condition called Overactive Bladder (OAB). This is actually very common - you're definitely not alone in experiencing this. It happens when the bladder becomes more sensitive and contracts too often - even when not full. This leads to urgency, frequent urination, and sometimes incontinence."

"Things like excess caffeine, alcohol, and even certain medications (like ramipril or amlodipine) can irritate the bladder. Ironically, cutting down water may worsen things, as more concentrated urine can trigger the bladder more."

Investigations

- Blood tests: FBC, U&E, renal function, random blood sugar
- Urinalysis (done)
- Bladder scan (post-void residual volume) - to rule out incomplete emptying

Management Plan

Lifestyle Changes:

- Reduce caffeine, alcohol, and fizzy drinks
- Encourage regular water intake - diluted urine reduces bladder irritation

Bladder Training Techniques:

- Keep a bladder diary - track how often you go and any leaks
- Practice delayed voiding: if you feel urgency, try to delay urination for a few minutes at first, then increase the delay gradually
- Schedule toilet visits every 2–3 hours even if no strong urge - helps retrain the bladder

Medical Treatment (only if lifestyle fails after 6 weeks):

First-line (if medication needed): Antimuscarinic drugs

- Avoid oxybutynin immediate-release in frail/cognitively vulnerable elderly patients (risk of confusion, memory problems)
- Alternatives with lower anticholinergic burden: solifenacin, tolterodine, darifenacin

Second-line – Mirabegron/Vibegron (beta-3 agonist): Per NICE TA290, mirabegron is recommended ONLY when:

- Antimuscarinics are **contraindicated**, OR
- Antimuscarinics are **clinically ineffective**, OR
- Antimuscarinics have **unacceptable side effects**

Important Mirabegron Safety Points:

- **Check blood pressure** before starting and monitor during treatment
- **Contraindicated in severe uncontrolled hypertension** (systolic ≥ 180 or diastolic ≥ 110 mmHg)
- Can increase BP significantly in some patients

If symptoms persist after 4–6 weeks of conservative measures:

- Start antimuscarinic (avoid oxybutynin IR in frail elderly)
- If not tolerated/ineffective/contraindicated → consider mirabegron (monitor BP)

Patient Education:

- OAB is not dangerous, and many people improve with habit changes
- Emphasise importance of continuing fluids to prevent dehydration

DVLA Consideration: The incontinence episode while driving is concerning - if this continues, we may need to discuss driving safety.

Safety Netting & Follow-Up

"If you notice any blood in the urine, worsening pain, fevers, or further incontinence, please come back immediately." "Let us know if symptoms aren't improving with lifestyle changes. We can re-evaluate and consider medications or refer you to a specialist if needed." "We'll follow up in 4-6 weeks to assess progress and discuss the next steps if required."

Student Note: Diagnostic Reasoning Summary

- Elderly patient with urgency, frequency, 1 episode of urge incontinence
- No infection, normal prostate on DRE, no red flags
- High caffeine/alcohol, low fluid intake, age and medications = strong triggers
- Most consistent with Overactive Bladder
- Management: Education, bladder training, hydration, monitor + follow-up
- For urgency, stress and mixed incontinence, refer the women's health chapter.

Suspected Bladder Carcinoma

Scenario Setting: Primary Care Patient: Older Adult Male Smoker Presenting with: Painless Visible Haematuria **Task:** History, risk factor assessment, examination, and urgent cancer pathway referral

Introduction & Consent

Hello, I'm one of the doctors here at the surgery. Thanks for coming in today. Could I confirm your full name and age, please?

"I understand you've noticed some blood in your urine. I'd like to ask you a few questions to understand what might be causing it - is that okay with you?"

Presenting Complaint & History

"Can you tell me more about the blood you've noticed in your urine?" (Expected: "I've seen blood twice, and sometimes clots. It wasn't painful.")

- Onset: "When did this first happen?"
- Duration: "How long did each episode last?"
- Intermittency: "Has it happened again since then?"
- Progression: "Has it increased, decreased, or stayed the same?"
- Associated features: "Any pain while passing urine? Any increased frequency or urgency?"
- Relieving/Aggravating: N/A

Additional Symptoms: "Any fever, weight loss, fatigue, or night sweats?" "Any back pain or difficulty passing urine?"

Painless haematuria with clots in a smoker should always raise suspicion of bladder carcinoma.

Risk Factor Exploration

"Have you had any previous episodes like this before?" "Do you smoke - or have you ever smoked?" (Expected: "Yes, I've been smoking for many years.") "How much do you smoke daily? And for how long?" "Any occupational exposures to chemicals, dyes, or industrial work?"

Prostate Symptom Screening

"Have you noticed any issues with starting urination, weak stream, or dribbling at the end?" "Do you feel like you completely empty your bladder?" (Expected: "No issues.")

PMAFTOSA

- Past Medical History: Any previous urinary issues, kidney stones, UTIs?
- Medications: Any anticoagulants or long-term NSAIDs?
- Allergies: To contrast dye or others?
- Family History: Any cancers or kidney diseases?
- Tobacco: Confirmed positive, smoker
- Occupation: Industrial or dye exposure?
- Social: Living alone or with family?
- Alcohol: Any excess intake?

ICE

- Ideas: "Do you have any thoughts on what might be causing this bleeding?"
- Concerns: "Is there anything in particular you're worried about?"
- Expectations: "What were you hoping we could do today?"

Examination

- Abdominal examination: "I'd like to check your abdomen for any tenderness or abnormal swelling."
- Digital Rectal Examination (DRE): "Given your age, I'd also like to examine your prostate by checking through the back passage. Is that okay with you?"

[Note: If examiner says "prostate enlarged" - acknowledge but do not change diagnosis. Prostate enlargement is common with age and not typically the cause of painless haematuria.]

Diagnosis

"I'm concerned that the blood in your urine could be due to a problem in your bladder. In some cases, this can be a sign of bladder cancer, especially in patients who smoke."

Anyone aged 45 or over with unexplained visible haematuria should be referred on a 2-week pathway.

Explanation

"Your bladder is the organ that stores urine. Sometimes in smokers, the lining of the bladder can develop abnormal changes that cause painless bleeding - and that's why we're worried this might be bladder cancer." "It's important to investigate this quickly, even if you feel otherwise well."

Management Plan

Referral:

- Two-week urgent referral to urology
- Explain: "You'll be seen by a specialist within two weeks for further assessment."

IMPORTANT: Do NOT delay the 2WW referral

- If concurrent UTI suspected, treat with antibiotics BUT still refer urgently
- "Even if we find a urine infection, we still need to refer you because the haematuria could have more than one cause"

- Do not wait for UTI treatment to complete before making the referral

Investigations: Cystoscopy (explanation): "The urologist will perform a test called a cystoscopy. This involves inserting a thin tube with a camera into your bladder through your urine tube to check the inside lining of the bladder. They may take a small tissue sample if needed."

Further Management (Specialist-led):

- Surgery (partial or full bladder removal)
- Chemotherapy or radiotherapy depending on staging

Safety Netting

"If the bleeding worsens, if you pass large clots, or develop pain or fever, please come back immediately or attend A&E." "Even if the symptoms settle, we still need to complete the tests, as bladder cancer can cause intermittent bleeding."

Follow-Up & Leaflet

- Reassure about timeline: "You should get your appointment within two weeks. If you don't hear by then, please let us know."
- Provide NHS leaflet: "Bladder Cancer – Tests and Referral"
- Offer to answer further questions

Student Note: Diagnostic Justification

- Male smoker with painless visible haematuria with clots
 - No urinary infection symptoms, no prostate symptoms, no systemic signs
 - History + risk factor profile strongly supports bladder carcinoma suspicion
 - NICE criteria for urgent 2WW referral clearly met
 - Maintained clarity in communication: named cancer risk early, avoided vague phrases
 - Balanced empathy with appropriate urgency, including explanation of tests and treatment
-

Bladder Cancer Suspicion from Test Results

Scenario Setting: Primary Care (Follow-up Consultation) Patient: Middle-aged Adult Male with Diabetes Presenting for: Incidental Microscopic Haematuria on Routine Screening Task: Result disclosure, risk assessment, and urgent referral

Introduction & Consent

"Hello, I'm one of the doctors here at the practice. Thank you for coming in today. Could I confirm your full name and age, please?"

"You're here to follow up on your diabetes review. The good news is that your diabetes is well controlled. However, there are a couple of other things from your test results that I'd like to talk about, if that's okay?"

Presenting Complaint & Contextual History

Ask: "How have you been feeling generally? Any changes in energy levels, appetite, or weight?" Ask about urinary symptoms:

- "Have you seen any blood in your urine?"
- "Any stinging, burning, or discomfort while passing urine?"
- "Any increase in frequency or urgency?"
- "Any back, side, or lower abdominal pain?"
- "Have you passed any stones before?"

Patient: No symptoms.

Focused Red Flag Screening

"Any unexplained weight loss recently?" "Any fevers or night sweats?" "Any fatigue or feeling unusually unwell?" "Any changes in your bladder habits or flow pattern?"

Patient: No systemic red flags.

Risk Factor Assessment

"Do you currently smoke?" "No." "Have you smoked in the past?" "Yes, I quit last year." "Roughly how long did you smoke for?" (Expected: Long-term, e.g. 20+ years)

Past smoking is a significant risk factor - guideline equates recent ex-smokers with current smokers for risk stratification.

PMAFTOSA

- P – Past medical history: Type 2 diabetes
- M – Current medications: Antidiabetics (e.g., metformin); check for ACE inhibitors or anticoagulants
- A – Allergies: Any known drug allergies?
- F – Family history: Any family history of urinary cancers, kidney disease?
- T – Tobacco: Long-term smoker (quit last year)
- O – Occupational exposures: Any history of working with dyes, rubber, or chemicals?
- S – Social background: Independent, living with partner?
- A – Alcohol intake and lifestyle

ICE

- Ideas: "Did you have any idea why we might be repeating your urine tests during your diabetes check-ups?"
- Concerns: "Was there anything in particular you were concerned about today?"
- Expectations: "What were you hoping we'd go over or sort out today?"

Examination

"As part of a complete review, I would check your abdomen for any tenderness or masses. Given your age and the nature of the findings, I'd also suggest examining your prostate through a rectal exam. We'd also review your vital signs and hydration status."

Result Disclosure

"Your diabetes results are well controlled - your HbA1c is at a healthy level. However, on both your recent urine tests, we found something called microscopic haematuria, which means small traces of blood in the urine not visible to the naked eye."

"Additionally, your blood test showed a raised white cell count, which could suggest inflammation or a possible infection - but together with your smoking history, we need to rule out more serious causes."

Lay Explanation of the Concern

"Normally, blood in the urine can be caused by infections, stones, or inflammation, but you've had no symptoms and no infection was found. In your case, given your age and your history of long-term smoking, we must consider and rule out bladder cancer."

"Bladder cancer can present early with only blood in the urine and no other symptoms. That's why we don't want to ignore it."

Management Plan

Urgent Referral:

- Two-week wait referral to urology specialist
- "We'll arrange for you to be seen by a specialist within two weeks to perform further investigations."

Investigations: Cystoscopy (explain clearly): "This is a test where a thin, flexible camera is passed through the urinary passage to look inside the bladder. It allows us to directly check for any growths or abnormalities."

Ultrasound or CT as per urologist decision

If Cancer Confirmed: Treatment will be guided by urology:

- Surgical removal (transurethral or cystectomy)
- Chemotherapy / radiotherapy

Safety Netting

"If you develop visible blood in urine, back pain, fever, or any worsening symptoms, please return immediately or attend A&E." "Even without symptoms, please attend your referral appointment."

Follow-Up & Reassurance

"Most times, blood in the urine turns out to be benign, but we don't want to take any chances. Getting the referral done will give you peace of mind and make sure everything is investigated thoroughly."

Provide NHS leaflet on bladder cancer investigations

Student Note: Diagnostic Justification

- Incidental microscopic haematuria in diabetic man on routine screen
- No urinary symptoms, but long-term smoking history (quit recently)
- NICE NG12: Refer if aged ≥ 60 with unexplained non-visible haematuria AND either dysuria or raised WCC
- 2WW referral appropriate given risk factors

Erectile Dysfunction Patient – Request for Viagra

Scenario Setting: Primary Care Patient: Adult Male Homosexual Presenting with: Erectile Dysfunction and Medication Review Request Task: Inclusive history-taking, medication review, and appropriate ED management

Introduction & Consent

Hello, I'm one of the doctors here at the practice. Thanks for coming in. Could I please confirm your full name and age?

"I understand you'd like to discuss something related to sexual health today - would you feel comfortable telling me a bit more about what's been going on?"

(Patient: "I'd like something like Viagra.")

"Thanks for being open. I'll do my best to help. Would it be okay if I asked you a few questions first so we can understand what's going on and ensure the treatment is safe and suitable for you?"

History – Data Gathering

A. Erectile Dysfunction Assessment

- "How long have you noticed this issue?"
- "Was it a sudden change or gradual?"
- "Do you notice any difference with morning erections or during masturbation?"
- "Are you able to achieve or maintain an erection at all?"
- "Do you think there's any link to stress, anxiety, or relationship issues?"

B. Associated Symptoms & Screening

- Low mood, tiredness, reduced libido?
- Snoring, daytime drowsiness (sleep apnoea)?
- Urinary symptoms or penile pain?
- Visual changes or headaches?

C. Sexual & Relationship Context (non-assumptive and inclusive)

- "Are you currently in a relationship?"
- "Do you feel safe, respected, and supported in your relationship?"
- "Have there been any changes or challenges recently that you think might have contributed to this?"

PMAFTOSA

- Past medical history: Hypertension, no other chronic illness
- Medications: On beta-blocker (likely atenolol or bisoprolol)
- Allergies: None known
- Family history: Diabetes, cardiovascular disease?
- Tobacco use: Any history of smoking?
- Occupation: Work-related stress?
- Social history: Living situation, support network
- Alcohol & recreational drugs: Quantity per week, use of stimulants or poppers

ICE

- Ideas: "Do you have any thoughts about what might be causing this?"
- Concerns: "Is there anything you're particularly worried about?"
- Expectations: "Were you hoping for a prescription today, like Viagra or something similar?"

Examination (if applicable)

"If you're happy, I'd like to check your blood pressure, pulse, and general health to ensure any medication we prescribe is safe." (Genital examination only if red flags or physical abnormality suspected.)

Provisional Diagnosis

Erectile dysfunction likely secondary to beta-blocker use, possibly compounded by vascular factors and psychological impact

Explanation

"Erectile dysfunction can be caused by several factors - physical, emotional, or medication-related. In your case, one likely contributor is your current blood pressure medicine. Beta-blockers are known to reduce blood flow to the penis and affect performance." "The good news is that there are both medication changes and safe treatments available to help."

Management Plan**1. Medication Review:**

- Discuss with GP/hypertension clinic about switching from beta-blocker to another class (e.g., calcium channel blocker like amlodipine)
- Ensure no contraindications based on comorbidities

2. Prescribe Sildenafil (Viagra):

- Start at 50 mg, take ~ 1 hour before intercourse, max once daily
- Avoid if patient is on nitrates or has unstable angina

IMPORTANT – Poppers Interaction Warning: "Do you ever use recreational drugs, particularly poppers (amyl nitrite)?" *Poppers interact dangerously with sildenafil and can cause life-threatening hypotension. This is particularly important to ask in MSM population where poppers use may be more common.*

3. Lifestyle Advice:

- Stop smoking if applicable
- Reduce alcohol intake
- Encourage regular exercise and weight control

4. Mental Health & Relationship Support:

- Offer support if psychological or relationship stress is identified

5. STI risk assessment and safe sex advice if applicable

Safety Netting

"If the medication doesn't help, causes side effects, or you notice any chest pain or visual disturbances, please stop and let us know immediately." "If things don't improve despite treatment, we can refer you to a specialist clinic."

Follow-Up Plan

- Medication review with GP/hypertension team
- Review response to sildenafil in 4–6 weeks
- Consider referral to urology or psychosexual therapy if symptoms persist

Student Note: Diagnostic Justification

- Male in same-sex relationship presenting with erectile dysfunction
- Erectile dysfunction likely secondary to beta-blocker for hypertension
- NICE CKS-compliant: Reviewed contributing factors, adjusted medication, and safely initiated sildenafil with clear education and follow-up
- Inclusive communication used throughout
- Important to screen for poppers use due to dangerous interaction with PDE5 inhibitors

Erectile Dysfunction in Elderly Man

Scenario Setting: Primary Care Patient: Elderly Male Presenting with: Low Mood and Erectile Difficulties Task: Holistic assessment, psychological screening, and appropriate management

Introduction & Consent

Hello, I'm one of the doctors here at the practice. Thank you for coming in. Could I confirm your full name and age, please?

"What's been bothering you lately?"

(Patient: "I just feel rubbish. I'm not able to perform down below.")

"Thank you for being honest. That's something many men experience at some point. Would it be alright if I asked a few questions to understand what's going on so we can help you better?"

History – Data Gathering

A. Erectile Dysfunction Assessment

- "When did the issue with erections begin?"
- "Did it come on suddenly or gradually?"
- "Are you still getting morning erections or erections during masturbation?"
- "Are there times where things work better than others?"
- "How has this been affecting you emotionally or in your relationship?"

B. Psychological Screening

- Mood: Low mood, hopelessness, fatigue?
- Interest: Loss of pleasure in activities?
- Sleep and appetite changes?
- Anxiety or performance pressure?

C. Relationship & Social Context

- "Are you in a relationship currently? How is that going?"
- "Have there been any recent stresses or changes at home?"
- "Have you felt supported emotionally or felt isolated recently?"

PMAFTOSA

- Past Medical History: No diabetes, hypertension, or prostate disease
- Medications: None or only stable meds unrelated to ED
- Allergies: None known
- Family History: No family history of prostate or heart conditions
- Tobacco use: No smoking
- Occupation: Retired
- Social history: Married, stable relationship, living with wife
- Alcohol: Occasional, no excess

ICE

- Ideas: "Do you have any thoughts about what might be causing this?"
- Concerns: "Is there anything in particular you're worried about - like your health or your relationship?"
- Expectations: "Is there anything you were hoping we could do today - like discuss treatment options?"

Examination (if offered)

- General appearance and mood
- Blood pressure and pulse
- No need for genital or DRE unless red flag symptoms

Investigations

- Check testosterone level - low testosterone can contribute to both mood and erectile difficulties in older men
- Consider PHQ-9 if low mood persists

Provisional Diagnosis

Likely psychogenic erectile dysfunction (no physical risk factors, clear psychological contributors)

Explanation

Independent educational content based on publicly available UK clinical guidelines.

Not affiliated with or derived from GMC PLAB 2 examination material.

GK's PLAB 2 Preparation WhatsApp Channel - <https://tinyurl.com/gksplab2>

"Erectile difficulties are more common than many people think, especially as we get older. It can be caused by both physical and psychological factors."

"In your case, there's no indication of a physical cause, which suggests that stress, mood, or anxiety could be playing a big role - this is something we can absolutely help with."

Management Plan

1. Offer PDE5 Inhibitor (e.g., Sildenafil):

- Start with Sildenafil 50 mg as needed (max once per day, 1 hour before sexual activity)
- In patients ≥ 65 years, consider starting at 25mg due to higher plasma levels
- Explain how it works and when to take it
- Ensure no contraindications

2. Address Psychogenic Triggers:

- Explore stress, mood, and support options
- Offer referral to talking therapy or counselling if low mood suspected
- Consider PHQ-9 screening if low mood persists

3. Lifestyle Advice:

- Encourage regular activity, social interaction, emotional wellbeing
- Reduce alcohol if high, improve sleep routines

Safety Netting

"If the medication doesn't help, or you notice any side effects like headaches, dizziness, or changes in vision, let us know." "If symptoms persist despite treatment, or you feel your mood is worsening, please come back - we may explore further support or referral."

Follow-Up Plan

- Review in 4–6 weeks to evaluate response to treatment
- Consider PHQ-9/GAD-7 if low mood persists
- Offer referral to counselling services if symptoms continue

Student Note: Diagnostic Justification

- Elderly male with new-onset ED and no physical red flags
 - History and examination point to psychogenic aetiology (clear mood symptoms, low stress tolerance, no vascular risks)
 - Managed with low-risk PDE5 inhibitor and offered supportive mental health pathway per NICE guidance
-

Erectile Dysfunction in Patient with Heart Disease

Scenario Setting: Primary Care Patient: Adult Male with Cardiac History Presenting with: Hidden Complaint (Erectile Dysfunction) with Nitrate Contraindication Task: Sensitive history-taking, contraindication recognition, and safe alternative management

Introduction & Consent

Hello, I'm one of the doctors here at the practice. Thanks for coming in. Could I confirm your full name and age, please?

"What's been troubling you lately?"

(Patient: "I feel rubbish.")

"I'm sorry to hear that. Would it be alright if I asked a few questions to understand what's going on - both physically and emotionally?"

(With further questioning): "I'm not able to perform sexually."

"Thank you for sharing that - I know that can be a difficult thing to talk about. You're not alone in this, and I'll do everything I can to help."

History – Data Gathering

A. Erectile Dysfunction Assessment

- "When did this start?"
- "Is it every time or does it vary?"
- "Any morning or spontaneous erections?"
- "Any pain or discomfort?"
- "How has this been affecting your mood or relationship?"

B. Associated Symptoms & Mood Screen

- Fatigue, shortness of breath?
- Reduced libido or mood symptoms?
- Any urinary issues or genital pain?

C. Relationship & Social Context

- "Are you in a relationship?"
- "Is your partner aware of what's been going on?"
- "Has this affected your confidence or caused strain at home?"

PMAFTOSA

- Past Medical History: Heart failure, MI, low ejection fraction
- Medications: Nitrates, thiazide, simvastatin
- Allergies: None
- Family History: Cardiovascular disease
- Tobacco use: Quit after MI
- Occupation: Retired
- Social history: Lives with spouse, supportive home
- Alcohol: Drinks occasionally

ICE

- Ideas: "Do you think this is related to your heart condition or something else?"
- Concerns: "Are you worried this might be permanent?"
- Expectations: "Were you hoping to try something like Viagra or another treatment?"

Examination (if applicable)

- Blood pressure, pulse
- General wellbeing
- No DRE/genital exam unless red flag

Provisional Diagnosis

Erectile dysfunction secondary to cardiovascular disease and medication (nitrates)

Explanation in Layman's Terms

"Erectile difficulties are common in men with heart conditions, especially after a heart attack. The blood vessels in the penis are very sensitive, and both the heart disease and some of the medications can affect blood flow and performance."

"One of the medications you're on - nitrates - interacts dangerously with tablets like Viagra. It can cause a significant drop in blood pressure, which could be life-threatening. That's why we can't prescribe it in your case."

Management Plan

1. Do NOT prescribe Viagra:

- Contraindicated with nitrates
- Risk of life-threatening hypotension

2. Offer safer alternatives:

- Recommend vacuum erection device (pump), which is available from pharmacies or specialist suppliers
- Explain how the pump works (draws blood into penis and uses ring to maintain erection)

3. Refer to Urology:

- For specialist review and discussion of local treatments (e.g., penile injection therapy or intraurethral alprostadil)

4. Address emotional and psychological support:

- Offer counselling if confidence or mood is significantly affected

5. Optimise cardiovascular care:

- Ensure good blood pressure, lipid, and lifestyle control
- Continue routine cardiac reviews

Safety Netting

"If your symptoms worsen or you feel very low, please don't hesitate to reach out. We can arrange support and review your treatment plan." "If you ever experience chest pain or shortness of breath, especially during intimacy or exertion, please seek urgent help."

Follow-Up Plan

- Refer to urology for erectile dysfunction options
- GP follow-up in 4–6 weeks to reassess physical and emotional wellbeing
- Continue cardiac management and routine reviews

Student Note: Diagnostic Justification

- Male patient with known heart failure and nitrate use presenting with hidden ED complaint
 - Viagra contraindicated due to nitrate interaction (risk of life-threatening hypotension)
 - NICE and BNF-aligned: non-pharmacological option advised (pump), with urology referral for local treatments
-

Erectile Dysfunction Post-MI (Stable Cardiac Status)

Scenario Setting: Primary Care Patient: Middle-aged Male, Stable 3 months Post-MI Presenting with: Erectile Dysfunction in Cardiac Rehabilitation Phase Task: Risk assessment for PDE5 inhibitor initiation in stable cardiac patient

Patient Profile

- Middle-aged man

- Concern: Erectile dysfunction for 2 months
- Symptoms: Can get erection but unable to maintain it
- Libido: Normal
- Relationship: Stable and supportive
- Mood: No depressive symptoms
- No trauma, no STI or urinary symptoms

Relevant Medical History

- Myocardial infarction 3 months ago
- Now stable: no chest pain, breathlessness, or complications
- Medications: Aspirin, Ticagrelor, Ramipril, Bisoprolol, Atorvastatin
- Ex-smoker (quit after MI)

Assessment Highlights

- ED likely related to post-MI vascular changes and β -blocker (Bisoprolol)
- Libido intact, early morning erections reduced
- No psychogenic features, no current cardiac red flags
- No contraindicated medications (e.g., nitrates)

Management Plan

Investigations:

- FBC, HbA1c, Lipid profile
- TFTs, Testosterone
- ECG (if not done recently)

Treatment:

- Trial of Sildenafil 50 mg, once cardiac stability confirmed
- Safe to prescribe if no nitrates and no angina
- Start low, monitor BP if necessary
- Current guidelines suggest waiting at least **6 months** post-MI before starting PDE5 inhibitors in stable, low-risk patients. For patients within 6 months post-MI (like this case at 3 months), consider:
 - Cardiology input or
 - Exercise tolerance assessment (can patient walk 1 mile in 20 mins or climb 2 flights of stairs in 10 seconds?)
 - ECG and cardiac stability confirmation

Lifestyle Support:

- Encourage regular aerobic exercise
- Weight control and healthy diet
- Limit alcohol, avoid long cycling sessions

Other options:

- Pelvic floor training
- Vacuum erection device if no response to oral meds

Counselling & Reassurance

"Erectile dysfunction is common after heart conditions, and often improves over time. Your heart is now stable, and it's safe to try treatment. Let's start with something mild and see how you get on."

Follow-Up

- Review response and blood tests in 2–4 weeks
- Refer to urology if no improvement or complex factors emerge
- Provide leaflet: "Erectile dysfunction and heart disease" (NHS)

For Performance anxiety and Erectile dysfunction due to SSRI side effects, refer Psychiatry chapter

Psychogenic Erectile Dysfunction

Setting: Primary Care

Patient: Adult Male

Presenting: Sexual health concern (disclosed during consultation)

1. Introduction & Consent

Greet and introduce yourself.

Confirm identity and take a seat.

Ask: "How can I help you today?"

Allow the patient to respond freely.

2. Opening the Consultation

Begin with an **open question**: "Tell me a bit more about what's been going on."

Patient is initially hesitant or embarrassed. Respond with sensitivity:

"I can see this is a bit difficult to talk about, and that's completely understandable. These conversations are more common than you might think, and you can take your time. Everything we talk about is confidential unless there's a serious risk to you or someone else. Would it help if we talked through things step by step?"

Once the patient feels more comfortable, the erectile difficulty is disclosed.

3. Focused History

a. History of Presenting Complaint

After disclosure, continue with structured, sensitive questioning:

Onset: "When did this first start happening?"

Course: "Has it been getting worse, better, or stayed the same?"

Nature: "Is it more difficulty getting an erection, maintaining it, or both?"

Situational vs Generalised: "Does this happen every time, or only in certain situations - for example, with your partner, during masturbation, or with other partners?"

Frequency: "How often has this been happening?"

Morning/Night Erections: "Do you still get morning or spontaneous erections?"

Libido: "Have you noticed any change in your sexual desire overall?"

Ejaculation: "Any changes with ejaculation - such as pain, timing, or inability?"

Associated Symptoms: "Any penile pain, discharge, curvature, numbness, or urinary problems?"

Psychological Context: "Have there been any recent events or stresses in your personal life that might be affecting you?"

The history reveals sudden situational erectile dysfunction following infidelity, preserved morning erections, no pain or urinary issues.

b. Relevant Background / Risk Factors

Medical: "Any conditions like diabetes, high blood pressure, heart disease, or neurological issues?"

Medications: "Do you take any regular prescribed medicines, over-the-counter tablets, or recreational drugs?"

Lifestyle: "Do you smoke, drink alcohol, or use recreational substances? How is your physical activity and sleep?"

Mental Health: "How has your mood been? Any guilt, anxiety, or low mood that's been weighing on you?"

Sexual Health: "Have you had any new partners recently?" "Have you been tested for sexually transmitted infections?" (Offer STI screen.)

Fertility goals: "Are you and your partner considering having children in the future?"

Findings show no systemic risk factors, no medications, negative STI screen, but significant guilt and psychological stress.

c. ICE (Ideas, Concerns, Expectations)

Ideas: "What do you think might be causing this?"

Concerns: "What's worrying you most about this problem?"

Expectations: "What were you hoping I could help with today?"

The patient attributes the issue to guilt, fears permanence, and seeks reassurance and support.

4. Examination (Mention)

Offer appropriate examination if indicated (BP, BMI, genital exam, secondary sexual characteristics, neurological).

State you would perform urine dip, fasting glucose, lipids, and BP if risk factors were present or psychogenic cause was unclear.

No red flags here → defer examination for now.

5. Differential Diagnosis

Psychogenic erectile dysfunction - sudden onset, situational, preserved nocturnal erections, clear psychological trigger.

Organic causes - unlikely here.

Medication/substance-induced ED - ruled out.

Relationship or performance anxiety factors.

6. Explanation

"From what you've described, there's no sign of a physical or medical problem causing this. Because this started suddenly and happens in specific situations rather than all the time, this strongly suggests a psychological cause. Feelings like guilt or anxiety can affect the brain's signals during sexual activity even when everything physically is fine. This is one of the most common reasons for erection problems."

"The good news is that this kind of difficulty is usually temporary and improves with the right support."

7. Management Plan

a. Addressing Underlying Psychological Factors

Acknowledge guilt and emotional burden.

Offer referral to **psychosexual therapy or counselling**.

Explore couples therapy or relationship support if appropriate.

b. Lifestyle & Preventive Health

Promote regular exercise, reduce alcohol, stop smoking, improve sleep.

Basic cardio-metabolic risk check: "Even though this seems psychological, erection problems can sometimes be an early sign of heart issues. I'd recommend we check your blood pressure, weight, cholesterol, and blood sugar - especially as these are good health checks for any man."

c. Medical Options

CRITICAL safety check before prescribing PDE5 inhibitors: Ask about **nitrate use** - GTN spray, isosorbide mononitrate, nicorandil. **PDE5 inhibitors are absolutely contraindicated with nitrates** due to risk of severe, potentially fatal hypotension.

PDE5 inhibitors (e.g., sildenafil) can be considered if symptoms persist despite psychological measures and there are no contraindications.

Daily tadalafil (2.5-5mg) is an option for some men but is restricted on NHS prescribing in some areas.

Emphasise psychological therapy as the first line.

d. Testosterone Testing (if indicated)

If testosterone testing is needed, the blood sample should be taken **in the morning (ideally before 11am)** when levels are highest. Fasting is preferred but not essential.

e. Sexual Health

STI screen has been done; offer retesting if indicated.

Reinforce safe sex practices and emotional wellbeing.

f. Referral

IAPT or psychosexual therapy.

Urology/endocrine if organic causes suspected later.

8. Safety Netting & Follow-Up

Reassure that psychogenic ED usually resolves with emotional support and time.

Arrange review in 4-6 weeks.

Return earlier if symptoms worsen or new symptoms (e.g., loss of morning erections) appear.

Future hormonal screen: *"If things don't improve or if you notice a drop in your overall sex drive, we can consider some blood tests to check your hormone levels, though it isn't needed right now."*

Provide written information or leaflets.

9. Communication & Empathy Points

Sensitive, inclusive language throughout.

Offer confidentiality **when hesitation is observed**, not at the start.

Handle questions about infidelity gently and only with rapport.

Avoid judgment, acknowledge embarrassment, give space for disclosure.

10. Summary to Patient

"Based on everything we've discussed, this looks like a psychological reaction rather than a physical problem. This is very common and usually improves once the emotional factors are addressed. I'd like to refer you to a psychosexual therapist or counsellor, and we'll also take the opportunity to check your heart health, which is good practice for anyone with erection difficulties. We'll review this in a few weeks, and if needed, there are medical options as well. How does that sound to you?"

ACE Inhibitor-Induced Nephropathy

Scenario Setting: Primary Care Patient: Adult on Antihypertensive Therapy Presenting with: Abnormal Renal Function Test Results
Task: Result disclosure, ACE inhibitor review, and appropriate renal management

Introduction & Consent

Hello, I'm one of the doctors here at the practice. Thank you for coming in today. Could I confirm your full name and age, please?

"We've received your recent blood test results. Would it be okay if I explain the findings and ask a few questions before we go through what needs to happen next?"

"I know this might feel concerning, but you've done the right thing coming in for your follow-up blood tests - that's exactly why we do them."

Focused History & Clinical Context

A. Symptom Review "Have you noticed any tiredness, nausea, swelling in your legs, or changes in how often you're passing urine?" "Any dizziness or light-headedness, especially when standing?"

B. Medication Timeline & Contributing Factors "When did you start this blood pressure tablet (e.g. Ramipril)?" "Any recent illnesses, vomiting, diarrhoea, or reduced fluid intake?" "Have you taken any new medications, especially painkillers like ibuprofen, or water tablets (diuretics)?"

C. Risk Factor Screening

- Any history of diabetes, chronic kidney disease, heart failure?
- Previous kidney issues or urinary problems?
- Typical fluid intake per day?

PMAFTOSA

- Past Medical History: Hypertension, possibly diabetes or heart failure
- Medications: ACE inhibitor, possibly diuretic or NSAID
- Allergies: No known drug allergies
- Family History: Kidney or cardiovascular disease
- Tobacco: Smoking status
- Occupation: Risk of dehydration?
- Social history: Home situation and support
- Alcohol: Relevant if excessive intake or affecting hydration

ICE

- Ideas: "Do you know why we usually monitor kidney function with blood tests after starting certain medications?"
- Concerns: "Are you concerned something might be wrong with your kidneys?"
- Expectations: "Was there anything in particular you were hoping for today?"

Result Disclosure

"Your blood test shows that your kidney function has declined from your baseline. Your creatinine level has risen significantly, which we consider unsafe - likely related to your ACE inhibitor."

"These medicines help protect the heart and kidneys in the long run, but in some people - especially if dehydrated or on other medications - they can reduce kidney blood flow too much."

Explanation in Layman's Terms

"Your kidneys filter waste from your blood. ACE inhibitors lower blood pressure and reduce strain on the kidneys, which is usually helpful. But if there's dehydration or other stress on the kidneys, this drop in pressure can reduce blood flow too much - and the kidneys struggle to do their job properly."

"That's why we always repeat blood tests within 1-2 weeks of starting these tablets - to catch this early and prevent long-term damage."

Management Plan

If ACE Inhibitor Was Started Recently (≤ 3 Weeks)

Diagnosis: Suspected ACEi-induced acute kidney injury

Actions:

- Stop ACE inhibitor immediately
- Start a calcium channel blocker (e.g. amlodipine) if blood pressure control is needed
- Repeat blood tests (U&Es, creatinine, potassium) in 2 weeks using the same lab

- Monitor blood pressure during the follow-up period
- If kidney function doesn't improve: Refer to nephrology (Mnemonic: RIFA – Refer If Function Abnormal)

If on ACE Inhibitor Long-Term (>1 Year)

Diagnosis: Sudden deterioration of renal function on chronic ACEi

Actions:

- Stop ACE inhibitor immediately
- Initiate beta blocker (e.g. bisoprolol) if BP control is required
- Urgent nephrology referral - do not wait for repeat bloods
- Continue non-ACEi antihypertensives (e.g. amlodipine) if appropriate
- Investigate for underlying causes: renal artery stenosis, dehydration, NSAIDs, infection, obstruction

Red Flags Requiring Urgent Renal Referral:

- Creatinine rise $>100 \mu\text{mol/L}$ or $\geq 30\%$ increase from baseline
- Potassium $>6.0 \text{ mmol/L}$
- Symptoms of uraemia: vomiting, confusion, extreme fatigue
- Sudden drop in urine output (oliguria or anuria)

AKI Recognition (OSCE Tip):

- A rise of $>26 \mu\text{mol/L}$ in 48 hours OR 1.5x increase from baseline = AKI threshold

Sick Day Rules Education (CRITICAL)

"Going forward, there's something very important I need to teach you about your kidney-affecting medications. When you're unwell - especially with vomiting, diarrhoea, fever, or not drinking enough fluids - certain medications can harm your kidneys."

DAMN Drugs to Stop During Acute Illness:

- **D** – Diuretics (water tablets like furosemide, bendroflumethiazide)
- **A** – ACE inhibitors / ARBs (ramipril, lisinopril, losartan, candesartan)
- **M** – Metformin
- **N** – NSAIDs (ibuprofen, naproxen, diclofenac)

"If you become unwell and can't keep fluids down, temporarily stop these medications and contact us. Once you're eating and drinking normally again, you can restart them - but always check with us if unsure."

Provide written sick day rules card to patient

Safety Netting

"If you begin to feel more unwell, become very tired, notice new leg swelling, or pass less urine than usual - please come back urgently." "We'll continue monitoring your kidney function to ensure this doesn't progress further."

Follow-Up Plan

- Repeat U&Es in 2 weeks if ACEi was started recently
- Urgent nephrology referral if patient was on ACEi long-term or shows red flag criteria
- Monitor blood pressure during follow-up

Leaflet & Reassurance

"This kind of response is not uncommon, and in many cases, kidney function returns to normal once the medication is stopped." Provide NHS leaflet: "ACE Inhibitors and Kidney Monitoring"

Student Note: Diagnostic Justification

- Significant creatinine rise after starting ACEi (or in long-term user)
 - NICE/BNF-compliant approach: medication stopped, reassessment planned or urgent referral made
 - Used structured explanation and safety netting to reassure and guide the patient
-

Analgesic Nephropathy

Scenario Setting: Primary Care Patient: Middle-aged Adult with Chronic Pain Condition Presenting with: Incidental Renal Function Decline Task: Result disclosure, medication review, and nephrology management pathway

Introduction & Consent

Hello, I'm one of the doctors here at the practice. Thank you for coming in today. Could I confirm your full name and age, please?

"We've received the results of your recent blood tests, and I'd like to go through them with you and ask a few questions - is that alright with you?"

Focused History & Clinical Context

A. Exploring Background & Reason for NSAID Use "Before I explain the blood test, could I ask - do you have any long-term conditions like joint problems or arthritis?" (Patient: "Yes, I have rheumatoid arthritis.")

"How long have you had RA? How are things at the moment - any recent flares or changes in joint pain?" "What medications do you currently take for your arthritis? Have you been prescribed anything like methotrexate or steroids?"

B. NSAID Use "Do you take anti-inflammatory medications like ibuprofen or naproxen?" "Roughly how often do you take them - is it most days or only occasionally?" "Do you use any other pain relief, like paracetamol, topical gels, herbal remedies, or anything else over the counter?"

C. Screening for Additional Risk Factors "Have you had any episodes of dehydration recently - such as vomiting, diarrhoea, or feeling unwell in general?" "Do you drink enough fluids each day, especially water?"

D. Symptom Check (Naturally Integrated) "Since we're looking at your kidneys today - have you noticed anything new like increased tiredness, swelling in your ankles or legs, or any changes in how often you pass urine?"

PMAFTOSA

- Past Medical History: Rheumatoid arthritis, possibly hypertension
- Medications: Regular NSAIDs, possibly DMARDs, paracetamol
- Allergies: None
- Family History: Kidney disease or autoimmune disorders?
- Tobacco: Smoking status
- Occupation: Physical strain or activity level?
- Social history: Mobility, independence, support at home
- Alcohol: Frequency, hydration impact

ICE

- Ideas: "Do you know why we monitor kidney function when someone's on long-term medications like anti-inflammatories?"
- Concerns: "Were you worried these painkillers might be affecting your health?"
- Expectations: "What were you hoping we could help you with today regarding your results?"

Result Disclosure

"Your blood test shows your kidney function is lower than expected - the eGFR, which tells us how well your kidneys are filtering waste, has dropped. Given your regular use of anti-inflammatory painkillers, one possibility is something called analgesic nephropathy - kidney damage that can happen after long-term NSAID use."

Explanation

"Your kidneys act like filters that clean your blood. When someone uses certain painkillers - especially anti-inflammatories like ibuprofen - for a long time, it can slowly reduce the blood supply to the kidneys and start causing damage."

"This often happens without obvious symptoms, which is why we keep an eye on it through regular blood tests."

"I know this is difficult news, especially as you've been using these painkillers to manage your arthritis symptoms."

Management Plan

Immediate Actions:

- Stop NSAID medications immediately
- Document decision
- Explain risk of further kidney damage

Switch to safer alternatives:

- Paracetamol as first-line
- Consider topical NSAIDs only under close supervision

Supportive strategies:

- Refer to physiotherapy for joint support and pain relief
- Discuss heat/cold therapy and lifestyle factors (e.g., weight, mobility)

Further Investigations:

- Repeat U&Es and eGFR in 2 weeks
- Urine ACR (albumin:creatinine ratio)
- Blood pressure monitoring
- FBC if fatigue/anaemia suspected

Referral Criteria:

- eGFR <60 with decline on repeat
- Proteinuria or structural abnormality
- No improvement after 2 weeks off NSAIDs
- Refer to nephrology if any of the above are present

SGLT2 Inhibitors for CKD Protection (NICE NG203/TA775): If confirmed CKD with urine ACR ≥ 3 mg/mmol (on two measurements ≥ 90 days apart) OR eGFR <60 (regardless of diabetes status):

- Consider SGLT2 inhibitor (e.g., Dapagliflozin 10mg OD) to slow CKD progression
- This is a significant guideline update - discuss with nephrology or initiate per local protocol
- Also provides cardiovascular protection

Sick Day Rules Education (CRITICAL)

"Going forward, I need to teach you about 'sick day rules'. When you're unwell with vomiting, diarrhoea, or fever, certain medications can harm your kidneys."

DAMN Drugs to Stop During Acute Illness:

- **D** – Diuretics
- **A** – ACE inhibitors / ARBs
- **M** – Metformin
- **N** – NSAIDs (already stopped in your case)

"If you become unwell, temporarily stop these and contact us."

Safety Netting

"Please let us know urgently if you start to feel more tired, notice swelling in your legs, feel unwell, or see any changes in urination." "We've taken action now to remove the likely cause, and we'll keep a close watch - but if kidney function doesn't improve, we'll refer you to a specialist."

Follow-Up Plan

- Repeat kidney tests in 2 weeks
- Monitor symptoms and blood pressure
- Coordinate pain management with rheumatology if involved
- Refer to nephrology if function doesn't improve

Leaflet & Reassurance

"Many people's kidney function improves once we stop the painkiller - so there's a good chance things will get better." Provide NHS leaflet on kidney health

Student Note: Diagnostic Justification

- Middle-aged patient with RA on long-term NSAIDs presenting with incidental low eGFR
 - No acute symptoms, but clear NSAID exposure history
 - NICE CG182-compliant: NSAIDs stopped, paracetamol substituted, monitoring arranged
 - Referral criteria clearly explained
-

Renal Colic

Scenario Setting: Emergency Department Patient: Adult Presenting with: Acute Loin Pain Radiating to Groin Task: Assessment, diagnosis, analgesia, and investigation pathway

Introduction

Hello, I'm one of the doctors here in A&E. I can see you're in a lot of pain - we'll get you comfortable first and then work out what's causing it. Could I quickly confirm your full name and age?

"Can you tell me about the pain?"

Presenting Complaint (SOCRATES)

- Site: "Where exactly is the pain?"
- Onset: "When did it start? Was it sudden?"
- Character: "Can you describe the pain - sharp, dull, cramping?"
- Radiation: "Does the pain go anywhere else - like towards your groin or testicle/labia?"
- Associated symptoms: "Any nausea or vomiting? Any blood in the urine? Any fever?"
- Timing: "Is it constant or does it come in waves?"

- Exacerbating/Relieving: "Does anything make it better or worse?"
- Severity: "On a scale of 1-10, how bad is it?"

(Expected: Sudden onset of severe loin pain radiating to groin, colicky in nature, associated with nausea. Patient writhing in pain, unable to get comfortable.)

Additional History

- Any previous kidney stones?
- Any urinary symptoms - burning, frequency, hesitancy?
- Any fever or chills?
- Any recent dehydration or reduced fluid intake?
- Any blood in the urine?

PMAFTOSA

- Past Medical History: Previous stones, gout, IBD, recurrent UTIs?
- Medications: Any regular medications?
- Allergies: Any drug allergies?
- Family History: Family history of kidney stones?
- Diet: High protein, oxalate-rich foods?
- Occupation: Risk of dehydration (outdoor work)?
- Social: Support at home?

ICE

- Ideas: "Do you have any thoughts on what might be causing this?"
- Concerns: "Is there anything you're particularly worried about?"
- Expectations: "What were you hoping we could do for you today?"

Examination

- General: Patient appears in severe pain, restless, unable to find comfortable position
- Vital signs: May be tachycardic, normal temperature (unless infected)
- Abdominal: Soft, may have loin tenderness, no peritonism
- Renal angle tenderness: Present on affected side

Provisional Diagnosis

"Based on your symptoms - the sudden, severe pain starting in your back and going down towards your groin, along with the nausea - this sounds like renal colic, which is caused by a kidney stone passing through the tube from your kidney to your bladder."

Explanation

"You have what we call a kidney stone. This is a small, hard deposit that forms in your kidney from minerals in your urine. When it tries to pass down the tube connecting your kidney to your bladder - called the ureter - it can cause very intense, cramping pain."

"The pain comes in waves because the tube squeezes to try to push the stone along. The good news is that most small stones pass on their own with pain relief and plenty of fluids."

Management Plan

Immediate Pain Relief:

- IM Diclofenac (or rectal if preferred) - first-line per NICE NG118
- IV paracetamol as alternative if NSAIDs contraindicated (e.g., renal impairment, aspirin allergy)

- Antiemetic if needed (e.g., ondansetron)

Investigations:

- Urinalysis: Check for blood, infection
- Bloods: FBC, U&E, CRP, calcium
- Non-contrast CT KUB within 24 hours for suspected stones (gold standard)

Stone Management Based on Size (NICE NG118):

Stone Size	Location	Management
<5mm	Any	Conservative - likely to pass spontaneously
<10mm	Distal ureteric	Consider medical expulsive therapy (see below)
>10mm	Any	Urology input - may need lithotripsy or surgical removal

Medical Expulsive Therapy (MET) - NICE NG118:

- Consider alpha-blockers (e.g., Tamsulosin 400mcg OD for up to 4 weeks) for **distal ureteric stones <10mm**
- *Note: This is offlabel use; shared decision-making with patient*
- Evidence strongest for stones >5mm; limited benefit for stones ≤5mm
- Not for renal stones or proximal/mid ureteric stones

Hydration Advice:

- During acute pain: Maintain normal hydration; do NOT force excessive fluids
- "Stay hydrated, but don't feel you need to drink huge amounts right now - that won't help pass the stone faster and might make you feel worse."
- Once pain controlled: "Drinking 2.5-3 litres per day helps prevent future stones" (recurrence prevention, not acute passage)

Urine Straining: "We'll give you a strainer to use when you pass urine. If you catch the stone, bring it in so we can analyse what it's made of and help prevent future stones."

Safety Netting

"If you develop fever, chills, or feel very unwell, come back immediately - this could mean infection, which needs urgent treatment." "If you can't pass urine at all, or if the pain becomes unbearable despite medication, please return to A&E." "If symptoms don't improve in 48-72 hours, come back for review."

Follow-Up Plan

- Review CT results
- Urology referral if stone >6mm, doesn't pass, or complications
- Metabolic workup if recurrent stones
- Dietary advice to prevent recurrence (reduce salt, increase citrus, moderate protein)

Student Note: Diagnostic Justification

- Classic presentation: sudden severe loin-to-groin pain, colicky, patient restless
- Nausea common, haematuria may be present
- NICE NG118-compliant: NSAID analgesia first-line, CT KUB within 24 hours
- Medical expulsive therapy (tamsulosin) for stones 5-10mm
- Clear safety netting for infection and obstruction

Chlamydia in Infant – Maternal Counselling

Scenario Setting: Primary Care Patient: Postnatal Woman Presenting for: Counselling Following Infant's Chlamydia Diagnosis Task: Sensitive explanation, maternal STI history, partner notification, and GUM referral

Introduction

Hello, I'm one of the doctors here at the practice. Thank you for coming in today. Could I confirm your full name and date of birth?

"I understand you've been asked to come in to discuss some results relating to your baby. I know this might be worrying, so I'll explain everything clearly and we can go through any questions you have."

Focused History & Context

A. Background "When was your baby born?" "How have you both been since the birth?" "Has your baby had any problems with their eyes - any discharge, redness, or swelling?"

B. Understanding of the Situation "What have you been told so far about why you're here today?"

Sensitive Disclosure

"Your baby has been diagnosed with an eye infection called chlamydia conjunctivitis. This is an infection that babies can pick up during birth if the mother has chlamydia at the time of delivery."

"I want to reassure you - this doesn't mean you've done anything wrong. Chlamydia is very common and often has no symptoms at all, so many women don't know they have it."

Maternal Sexual History (Sensitive)

"To help us understand what's happened and make sure you get the right treatment, I need to ask some personal questions about your sexual health. Is that okay?"

- When was your last sexual contact?
- Are you currently in a relationship?
- Have you had any other partners in the past 6 months?
- Have you ever been tested or treated for STIs?
- Have you had any symptoms - unusual discharge, pain, bleeding?

PMAFTOSA

- Past Medical History: Any previous STIs?
- Medications: Currently on any medications?
- Allergies: Any drug allergies?
- Breastfeeding: Are you currently breastfeeding?

ICE

- Ideas: "Do you have any thoughts about how this might have happened?"
- Concerns: "Is there anything in particular you're worried about?"
- Expectations: "What would you like us to help you with today?"

Addressing Concerns About Fidelity

(If patient expresses concern about partner's fidelity):

"I understand this might raise questions about your relationship. It's important to know that chlamydia can remain in the body for months or even years without causing symptoms. So either you or your partner could have had it before your relationship began, without knowing."

"This doesn't necessarily mean either of you has been unfaithful during your relationship."

Explanation of Management

For Baby: "Your baby will be treated by the paediatric team - usually with oral erythromycin or azithromycin. The eye infection should clear up with treatment."

For You: "We need to test and treat you as well. The good news is chlamydia is easily treated with antibiotics."

Treatment Options for Breastfeeding Mothers:

- **First-line:** For breastfeeding women: Azithromycin 1g single dose is appropriate as doxycycline is contraindicated during breastfeeding per UK guidance.
Note: For non-breastfeeding patients, Doxycycline 100mg BD for 7 days is now first-line per BASHH guidance.
- Alternative: Amoxicillin 500mg TDS for 7 days
- Alternative: Erythromycin 500mg BD for 10-14 days

Note: Doxycycline is NOT recommended in breastfeeding per UK guidance (NICE CKS), even though some international sources consider short-term use acceptable. For PLAB 2, follow UK guidelines and use azithromycin.

"You can continue breastfeeding during treatment with azithromycin - it's safe for your baby."

GUM Referral: "I'll refer you to the sexual health clinic for a full STI screen, including HIV and other infections. They'll also help with partner notification."

Partner Notification

"It's really important that your partner is also tested and treated. Otherwise, you could be reinfected."

"If you prefer, the sexual health clinic can contact your partner anonymously - they won't mention your name."

"We can arrange for him to be seen at the clinic, or he can see his own GP."

Safety Netting

"Please abstain from sex until both you and your partner have completed treatment." "If you develop any new symptoms - pain, discharge, bleeding - please come back." "Make sure to attend your follow-up appointments."

Follow-Up Plan

- GUM clinic appointment for full STI screen
- Partner notification and treatment
- Paediatric follow-up for baby
- GP review if any concerns

Student Note: Diagnostic Justification

- Neonatal chlamydia conjunctivitis indicates maternal chlamydia at delivery
 - Sensitive, non-judgmental approach essential
 - Mother requires testing and treatment (azithromycin preferred if breastfeeding)
 - Partner notification crucial to prevent reinfection
 - Excellent case for demonstrating sensitive communication around fidelity concerns
-

Reactive Arthritis (Chlamydia)

Scenario Setting: Primary Care Patient: Young Adult Male Presenting with: Joint Pain and Urethral Discharge
Task: STI-associated reactive arthritis assessment and management

Introduction

Hello, I'm one of the doctors here today. Thanks for coming in. Could I confirm your full name and age? How can I help you today?

(Patient presents with joint pain and mentions some urinary symptoms)

Presenting Complaint

Joint Symptoms:

- Which joints are affected?
- When did the joint pain start?
- Is it one joint or multiple?
- Any swelling, redness, or warmth?
- Does it affect your movement?

Urinary/Genital Symptoms:

- Any discharge from the penis?
- Any burning or pain when passing urine?
- Any sores or ulcers?

Eye Symptoms:

- Any redness, pain, or discharge from your eyes?
- Any sensitivity to light?

Classic Triad Teaching Point

Reactive arthritis classically presents with the triad:

- **Conjunctivitis** (can't see)
- **Urethritis** (can't pee)
- **Arthritis** (can't climb a tree)

Mnemonic: "Can't see, can't pee, can't climb a tree"

Sexual History

"To understand what might be causing this, I need to ask some questions about your sexual health."

- Are you sexually active?
- When was your last sexual contact?
- Any new partners recently?
- Do you use condoms?
- Any previous STI diagnoses?
- Has your partner mentioned any symptoms?

PMAFTOSA

- Past Medical History: Previous STIs, arthritis, IBD, psoriasis?
- Medications: Any current medications?
- Allergies: Any drug allergies?
- Family History: Autoimmune conditions, HLA-B27 disorders?

ICE

- Ideas: "Do you have any thoughts about what might be causing these symptoms?"

- Concerns: "Is there anything you're particularly worried about?"
- Expectations: "What were you hoping we could do today?"

Examination

- Joint examination: Look for swelling, warmth, tenderness, range of motion
- Eye examination: Conjunctival injection, discharge
- Genital examination (with consent): Urethral discharge, ulcers

Provisional Diagnosis

"Based on your symptoms - the joint pain, urinary symptoms, and the timing - this looks like a condition called reactive arthritis. This is when your immune system reacts to an infection, usually a sexually transmitted infection like chlamydia, and causes inflammation in the joints."

"It's not the infection itself in the joint - it's your body's immune response to the infection elsewhere."

Explanation

"Reactive arthritis happens when your body fights an infection - in your case, likely a chlamydia infection - and the immune response also attacks your joints. This can cause pain, swelling, and stiffness."

"The good news is that treating the underlying infection usually helps the joint symptoms improve over time."

Management Plan

CRITICAL: Exclude Septic Arthritis First If the patient has:

- Hot, swollen single joint (especially knee)
- Systemically unwell (fever, rigors)
- Unable to weight-bear → **Urgent same-day hospital referral** for joint aspiration to exclude septic arthritis
- Do NOT assume reactive arthritis without excluding infection IN the joint

1. GUM Referral:

- Urgent referral to sexual health clinic for full STI screen
- Chlamydia and gonorrhoea testing essential

2. Chlamydia Treatment:

- Doxycycline 100mg twice daily for 7 days

3. Joint Management:

- NSAIDs (e.g., naproxen, ibuprofen) as first-line for joint pain and inflammation
- Rest affected joints

4. Partner Notification:

- All partners in past 6 months should be contacted and tested

5. If symptoms persist:

- Rheumatology referral if arthritis doesn't improve after treating infection
- Consider HLA-B27 testing if recurrent or severe

Safety Netting

URGENT Eye Red Flags → Same-day Ophthalmology/A&E:

- Eye pain (not just irritation)
- Photophobia (sensitivity to light)
- Blurred vision or visual changes

- Hypopyon (pus level in eye) → These suggest **uveitis/iritis** which requires urgent specialist assessment to prevent permanent vision loss → "If you develop severe eye pain, sensitivity to light, or any changes to your vision, you must go to A&E or an eye casualty immediately - this needs same-day specialist review."

Note: Uveitis occurs in up to 25% of patients with reactive arthritis

"If your joint symptoms get worse, you develop new joints affected, or fever, please come back urgently."

"The joint symptoms can take several weeks to fully settle, even after treating the infection." "Abstain from sex until you and your partner have completed treatment."

Follow-Up Plan

- GUM clinic for STI screen and treatment
- Review joint symptoms in 2-4 weeks
- Rheumatology referral if no improvement

Student Note: Diagnostic Justification

- Young male with urethritis + arthritis = high suspicion for reactive arthritis
 - Classic triad: conjunctivitis, urethritis, arthritis ("can't see, can't pee, can't climb a tree")
 - Chlamydia is the most common trigger
 - **CRITICAL: Always exclude septic arthritis** if hot swollen single joint + systemically unwell
 - **Eye red flags (pain, photophobia, vision change) = urgent same-day ophthalmology** - uveitis in 25% of cases
 - Management: treat infection + NSAIDs for joints + partner notification
-

Gonorrhoea

Scenario Setting: Telephone Consultation Patient: Adult Male Presenting with: Dysuria and Urethral Discharge Task: Remote assessment, STI diagnosis, partner notification counselling, and GUM referral

Introduction

Hello, this is Dr [Name] calling from the GP surgery. Am I speaking to [Patient Name]? "Is this a good time to talk? Are you somewhere private?"

"I understand you called about some symptoms you've been experiencing. Would you mind telling me what's been going on?"

Presenting Complaint

(Patient describes burning when passing urine and discharge)

- When did this start?
- Can you describe the discharge - colour, amount, consistency?
- Any pain or discomfort elsewhere?
- Any sores, ulcers, or rash?
- Any fever or feeling unwell?

Sexual History (Sensitive Telephone Approach)

"To help me understand what might be causing this, I need to ask some personal questions about your sexual health. Is that okay?"

- When was your last sexual contact?
- Was this with a regular partner or someone new?
- Male partner, female partner, or both?

- What type of sexual contact? (oral, vaginal, anal)
- Did you use protection?
- Any other partners in the past 3 months?
- Have any partners mentioned symptoms or infections?
- Any previous STI diagnoses?

PMAFTOSA (Brief)

- Any allergies, especially to antibiotics?
- Any other medical conditions?
- On any regular medications?

ICE

- "What do you think might be causing this?"
- "Is there anything you're particularly worried about?"
- "What were you hoping we could arrange today?"

Provisional Diagnosis

"Based on what you've described - the discharge and burning - this sounds like it could be gonorrhoea, which is a sexually transmitted infection. We need to get you tested and treated as soon as possible."

Explanation

"Gonorrhoea is a bacterial infection that spreads through unprotected sex. It causes discharge and pain when passing urine. The good news is it's treatable with antibiotics, but we need to act quickly to prevent complications and stop it spreading."

Management Plan

1. GUM Clinic Referral: "I'm going to refer you to the sexual health clinic urgently. They can see you today or tomorrow for testing and treatment."

2. Treatment:

- Ceftriaxone 1g intramuscularly as a single dose

3. Additional Testing: "They'll also test for other infections including chlamydia, HIV, syphilis, and hepatitis."

4. Test of Cure (BASHH 2025 Update):

Routine TOC is NOT required for everyone:

- If anogenital infection AND ceftriaxone 1g given AND susceptibility confirmed → TOC not routinely needed

TOC IS recommended for:

- Pharyngeal infection (throat)
- Persistent symptoms after treatment
- Antimicrobial susceptibility unknown
- Alternative antibiotics used (not ceftriaxone)
- Pregnancy

"If you develop any symptoms in your throat or if the clinic finds you have a throat infection too, you'll definitely need to come back for a follow-up test. Otherwise, they'll advise you at your appointment whether a test of cure is needed."

Timing: If TOC needed, perform at least 2 weeks after treatment using NAAT

Partner Notification (Complex Scenario)

Patient: "Are you going to tell my wife?"

"No, we won't contact your wife directly without your consent. However, I do need to strongly advise you that she needs to know so she can get tested and treated too."

"If she has the infection without knowing, it could cause serious health problems for her, including infertility."

Patient: "I don't want to tell my wife."

"I understand this is difficult. The sexual health clinic has trained advisors who can help you have this conversation, or they can contact her anonymously without ever mentioning your name. She would simply be told she may have been exposed to an infection."

"What I can tell you is that if you continue to have sex with your wife without telling her, and she develops complications, there could be legal implications."

"The health advisors at the clinic are very experienced with these situations and can support you through it."

Safety Netting

"While waiting for your appointment, please don't have any sexual contact to avoid spreading the infection." "If you develop severe pain, fever, or swelling in your testicles, go to A&E immediately."

"Make sure to attend your follow-up appointment for the test of cure."

Follow-Up Plan

- Urgent GUM clinic appointment
- Test of cure at 2 weeks if indicated (pharyngeal infection, persistent symptoms, unknown susceptibility)
- Partner notification (with support from health advisors)
- Full STI screen

Student Note: Diagnostic Justification

- Male with dysuria and urethral discharge = high suspicion for gonorrhoea
- Telephone consultation requires careful, sensitive approach
- Ceftriaxone 1g IM single dose per BASHH 2025 guidelines
- Partner notification is essential - health advisors can help
- TOC not routinely required for uncomplicated anogenital infection with confirmed susceptibility (BASHH 2025)
- TOC IS required for: pharyngeal infection, persistent symptoms, unknown susceptibility, pregnancy

Trichomoniasis – Asymptomatic Male

Scenario Setting: Primary Care Patient: Young Adult Male Presenting for: STI Contact Tracing
Following Partner Notification Task: Asymptomatic STI assessment, empirical treatment, and partner management

Introduction

Hello, I'm one of the doctors here. Thanks for coming in. Could I confirm your full name and age?
How can I help you today?

(Patient: "I got a message from my ex-girlfriend saying I should get tested for an infection.")

History

"Thank you for coming in - that was the right thing to do. Can you tell me more about what she said?"

"When did you last have sexual contact with her?" "Do you have any symptoms yourself?"

- Any discharge?
- Any burning when passing urine?
- Any itching or irritation?
- Any sores or rashes?

(Patient: No symptoms)

Sexual History

- Are you currently sexually active?
- Any other partners since your ex?
- Do you use condoms?
- Any previous STI diagnoses?

ICE

- Ideas: "Do you know what infection she might have been diagnosed with?"
- Concerns: "Is there anything you're worried about?"
- Expectations: "What were you hoping we could do today?"

Explanation

"It sounds like your ex-girlfriend may have been diagnosed with trichomoniasis. This is a sexually transmitted infection caused by a tiny parasite. In men, it often causes no symptoms at all, which is why you might feel fine but still have the infection."

"Even without symptoms, it's important to get treated to prevent passing it to future partners and to prevent any complications."

Management Plan

1. Empirical Treatment: "Since you've been exposed and trichomoniasis often doesn't cause symptoms in men, I'll prescribe treatment today."

- Metronidazole 400 mg twice daily for **7 days** (preferred - 95% cure rate) OR
- Metronidazole 2g single dose (alternative - higher failure rate 6-18%)

2. Alcohol Advice: "It's very important to avoid alcohol while taking this medication and for 48 hours afterwards. Mixing metronidazole with alcohol can cause severe nausea, vomiting, and flushing."

3. STI Screening: "I'd also recommend a full STI screen to check for other infections that might not have symptoms. We can do some tests here, or I can refer you to the sexual health clinic."

4. Partner Management: "Any current or recent partners should also be treated - even if they don't have symptoms."

5. Abstinence: "Please avoid sex until you've completed treatment."

Test of Cure

"For trichomoniasis, we don't routinely need a test of cure unless your symptoms persist. If you're still having problems after treatment, come back."

Safety Netting

"If you develop any symptoms - discharge, burning, or irritation - please come back." "Make sure to complete the full course of treatment." "Remember: no alcohol until 48 hours after finishing the medication."

Follow-Up

- Complete treatment
- Ensure partners notified and treated
- Full STI screen if not done

Student Note: Diagnostic Justification

- Asymptomatic male contact of trichomoniasis case
 - Empirical treatment appropriate per BASHH guidelines
 - Metronidazole is treatment of choice
 - Alcohol advice essential (disulfiram-like reaction)
 - Partner treatment crucial to prevent ping-pong infection
-

Trichomoniasis – Symptomatic Male

Scenario Setting: Primary Care Patient: Young Adult Male Presenting with: Urethritis with Discharge
Task: STI assessment, diagnosis, treatment in GP setting (patient declining GUM), and confidentiality counselling

Introduction

Hello, I'm one of the doctors here today. Thanks for coming in. Before we begin, could I confirm your full name and age? Great - how can I help you today?

(Patient: "I've got some redness and discharge down below.")

Presenting Complaint – ODIPARA

- O – Onset: When did this start?
- D – Duration: Has it been persistent or come and go?
- I – Intensity: Is there discomfort, pain, or itching?
- P – Progression: Has it worsened or stayed the same?
- A – Aggravating factors: Any friction, urination, or tight clothing making it worse?
- R – Relieving factors: Have you tried creams or hygiene changes?
- A – Associated symptoms:
 - Any burning during urination?
 - Any swelling, sores, or pain in testicles or groin?
 - Any fever or general unwellness?

Focused Sexual History

"To properly assess this, I need to ask some routine questions about your sexual health - they're private and help guide management. Would that be alright?"

- Are you sexually active currently?
- Any new partners in the past 6 months?
- Male, female, or both?
- Do you normally use condoms?
- Have any partners mentioned infections?

- Previous STI diagnoses or treatment?

ICE

- Ideas: "I'm guessing it's some kind of infection."
- Concerns: "I'm not going to GUM clinic - my sister works there."
- Expectations: "I just want it treated here and kept private."

Examination

"If you're comfortable, I'd like to do a quick genital examination to confirm the findings. This will help us rule out other infections. Is that okay with you?"

Consent obtained.

Inspection:

- Redness and mild swelling around urethral meatus
- Yellowish discharge present
- No ulcers, skin breaks, or visible lesions

Palpation:

- Testicles soft, non-tender
- No scrotal swelling or inguinal lymphadenopathy

Urine dipstick (if available): Negative for nitrites, may show trace leukocytes

"Thanks - I can see some irritation and discharge, but no signs of severe inflammation or complications."

Explanation

"It looks like you have a condition called trichomoniasis - a sexually transmitted infection caused by a tiny parasite. In men, it often causes no symptoms, but in some cases like yours, it can lead to irritation, redness, and discharge."

"It's passed through unprotected sex and is not dangerous if treated early, but it can spread to others or persist if left untreated."

Management Plan

1. Testing and Treatment Options: "We usually recommend attending a sexual health (GUM) clinic for full screening." "However, since you're uncomfortable with that, we can fully manage it here."

2. Antibiotic Treatment:

- Metronidazole 2g single dose, OR
- 400 mg twice daily for 7 days (if preferred for better tolerance)
- Avoid alcohol during and 48 hours after treatment
- No sexual activity until treatment is completed and any partners treated

3. Partner Notification: "It's important that any recent partners are told so they can get tested and treated too - otherwise, you may get reinfected."

4. STI Screening: "Since STIs often come in clusters, I'd recommend a full STI screen - we can do this here or refer you if preferred."

Addressing Concerns

Patient: "I'm not going to GUM - my sister works there."

"That's absolutely fine. Everything you've shared stays confidential, and we can manage everything here at the GP surgery."

Patient: "Will anyone else find out?"

"No - all your medical information is kept private. Even if you know someone at a clinic, they cannot see your records unless you give permission."

Patient: "Do I have to tell my partner?"

"It's strongly advised - even if they don't have symptoms, they might be carrying the infection and could pass it back to you. GUM clinics can also help notify partners anonymously."

Safety Netting

"If the symptoms worsen, if you get new pain, fever, or swelling, or if your partner also develops symptoms, please come back immediately." "Let us know if you need help accessing results or partner testing."

Follow-Up

"We'll review you in 1 week to check your response to treatment and arrange results if screening was done."

Student Note: Diagnostic Summary

- Penile redness + yellow discharge
 - Unsafe sex + no condoms
 - Likely trichomoniasis, confirmed by symptoms and exclusion
 - Management: Metronidazole, partner notification, alcohol abstinence, no sex until cleared
 - GUM referral ideal but GP-led treatment acceptable if declined
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Primary Syphilis

Scenario Setting: Primary Care Patient: Adult Male Presenting with: Painless Genital Ulcer Task: History, STI assessment, penicillin allergy management, and GUM referral

Introduction

Hello, I'm one of the doctors here at the practice. Thanks for coming in today. Could I confirm your full name and age? Thank you. What brings you in today?

(Patient: "I've noticed a spot or rash on my penis. I'm a bit worried.")

Presenting Complaint – ODIPARA

"Thanks for letting me know. I'll ask a few questions to understand more about the rash."

- O – Onset: When did you first notice it?
- D – Duration: Has it been there continuously?
- I – Intensity: Is it painful or itchy? (Expected: No)
- P – Progression: Any changes in size, colour, or texture?
- A – Aggravating factors: Any friction, trauma, or contact that worsens it?
- R – Relieving factors: Have you used any creams or taken anything?
- A – Associated symptoms:
 - Any discharge or bleeding from the sore?
 - Any rash elsewhere on the body?
 - Fever, fatigue, or swollen glands?

Differential Diagnosis Screening

"Just to make sure we're not missing anything, I'd like to ask about a few other possible causes."

- **Herpes:** "Have you ever had painful blisters, ulcers, or tingling around the area?"

- **Chancroid:** "Has the sore ever been painful?"
- **Balanitis:** "Do you have any itching or irritation under the foreskin?"
- **Fungal/dermatitis:** "Any history of groin rashes or reactions to soaps or creams?"
- **Trauma/friction:** "Could it be due to shaving, friction, or recent sexual activity?"
- **HIV-related or systemic rash:** "Any mouth ulcers, night sweats, or rashes elsewhere?"

Focused Sexual History

"To help figure out what this might be, I'd like to ask you some personal but routine questions about your sexual health. Is that alright?"

- Are you currently sexually active?
- Do you have sex with men, women, or both?
- When was your last sexual encounter?
- Was protection used? If yes, how consistently?
- Any new or multiple partners recently?
- Has any partner been diagnosed with an STI?
- Previous STI history?

Medical History

- Do you have any long-term health conditions?
- Are you on any regular medications?
- Do you have any drug allergies? (Patient: Yes, to penicillin)

"Could you tell me what kind of reaction you had?" (Clarify if true allergy)

- Have you ever been tested for HIV or other STIs before?

ICE – Ideas, Concerns, Expectations

- What do you think this might be?
- Is there anything you're particularly worried about? (*Expected: "I'm worried it might be something serious or contagious."*)
- What were you hoping I could do today?

Examination

"If it's okay with you, I'd like to examine the area to help confirm what might be causing this. Is that alright?"

Findings:

- One firm, round, painless ulcer (chancre) on shaft of penis
- No discharge or inflammation
- No scrotal swelling
- No inguinal lymphadenopathy
- Systemic exam unremarkable

Explanation

"From the examination and what you've described, this looks like a condition called primary syphilis. It's a sexually transmitted infection caused by a bacterium. The sore you have is called a chancre, and it's typically painless, which makes it different from other infections. If left untreated, syphilis can progress to more serious stages, but the good news is that it is easily treatable."

Management Plan

1. Referral to GUM Clinic: "I'll refer you to the genitourinary medicine (GUM) clinic. They specialise in managing STIs and will carry out confirmatory tests."

2. Confirmatory Testing:

- Swab of the sore
- Blood tests (TPPA, RPR for syphilis; HIV, hepatitis B and C, and full STI screen)

3. Treatment: "Normally, syphilis is treated with a single injection of penicillin. But since you have a penicillin allergy, they'll likely prescribe an antibiotic called doxycycline."

IMPORTANT UPDATE (BASHH 2024):

- For primary syphilis with penicillin allergy: **Doxycycline 100mg twice daily for 14 days** (updated from 28 days)

Note: Benzathine penicillin with lidocaine is now licensed in UK (2024). Macrolides (azithromycin) are no longer recommended due to resistance.

4. Partner Notification: "Any partners in the last 3 months should also be informed, tested, and treated. The GUM clinic can help you do this anonymously if you prefer."

5. Safe Sex Advice: "Until treatment is complete and blood tests confirm the infection is gone, you should avoid all sexual contact, or always use condoms to avoid passing it on."

6. Follow-Up: "They'll arrange blood tests every few months to check that the infection has been cleared."

Addressing Concerns

Patient: "Will I have this for life?" "No - with proper antibiotics and follow-up, syphilis can be completely cured."

Patient: "Do I have to tell my partners?" "You don't have to do it directly - the GUM clinic can notify them confidentially for you."

Patient: "Will this affect my fertility?" "No, not if treated early. You've come at the right time."

Safety Netting

"If you develop any new symptoms - rashes, fever, swollen lymph nodes, or mouth ulcers - please return or contact the GUM clinic. These could indicate progression." "Let us know if you have trouble accessing follow-up or your medication."

Follow-Up Plan

"We'll confirm that you've been seen at the GUM clinic, and you'll have regular follow-up blood tests over 6 to 12 months." "If you experience any issues with medication due to your penicillin allergy, contact us or the clinic right away."

Student Note: Diagnostic Summary

- Painless genital ulcer + MSM history = high suspicion for primary syphilis
 - Key differential questions ruled out HSV, chancroid, balanitis
 - Management includes GUM referral, confirmatory tests, doxycycline 14 days due to penicillin allergy (BASHH 2024), partner notification, and strict abstinence
 - Follow-up with RPR titres to confirm cure
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Secondary Syphilis – Test Result Discussion

Scenario Setting: Sexual Health Clinic Patient: Adult Male Presenting for: Positive Syphilis Result

Discussion Task: Result disclosure, Jarisch-Herxheimer reaction counselling, treatment, and follow-up planning

Introduction

Hello, I'm one of the doctors here at the GUM clinic. Thanks for coming in today. Before we go over your test results, can I first confirm your full name and age? Thanks - I'd like to ask a few questions about your symptoms and background to help guide us through the next steps. Is that alright?

Focused History

A. Previous symptoms: "Have you had any symptoms recently or in the past few weeks or months that you were concerned about?"

- Rash? Where was it located? (Especially on palms, soles, or trunk?)
- What did it look like - spots, peeling, scaly?
- Did you experience a sore or ulcer before the rash (chancres)?

B. Current symptoms: "Are you experiencing any of the following now?"

- Fatigue, fever, sore throat?
- Patchy hair loss?
- Headaches or trouble concentrating?
- Vision or hearing issues?
- Swollen glands?
- Palpitations or chest pain?

C. Sexual history: "To help identify possible transmission and support partner care, could I ask a few questions about your recent sexual activity?"

- When was your last sexual encounter?
- Were any encounters during a party or event?
- Were partners male, female, or both?
- Do you use condoms consistently?
- Any regular partners or were they anonymous?

D. Medical history:

- Any long-term conditions or medications?
- Have you had syphilis or other STIs before?
- Any allergies, especially to penicillin? (Patient: No allergies)

ICE – Ideas, Concerns, Expectations

- "What were you expecting from today's appointment?"
- "Is there anything in particular you're worried this might be?"
- "Do you have any concerns about what we might find or about next steps?"

Result Disclosure

"Thanks for answering those questions. Your blood test has come back positive for syphilis antibodies. Based on your history and previous rash, this suggests you're in the secondary stage of syphilis. That means the infection has spread in your bloodstream - but it is still fully treatable."

Explanation

"Syphilis is a bacterial infection that's passed on through sexual contact. In the early stage, it can cause a painless sore, and in the secondary stage, it spreads in the body and may cause rashes, hair thinning, or swollen glands. If untreated, it can lead to more serious complications later on - but we're treating it at a very manageable stage."

Note: For secondary syphilis with neurological symptoms, lumbar puncture and neurosyphilis workup may be needed.

Management Plan

1. Treatment "We'll treat you today with a single intramuscular injection of benzathine benzylpenicillin. This is the first-line, gold standard treatment for syphilis."

- One-time injection into the buttock
- Highly effective for clearing the infection at this stage

2. Jarisch-Herxheimer Reaction Warning "After the injection, some people experience a short reaction within 24 hours - like flu-like symptoms, mild fever, or a temporary flare-up of the rash. It's called a Jarisch-Herxheimer reaction. It's harmless and goes away on its own in a day or two, but please let us know if it's severe."

3. Partner Notification "It's really important that your sexual partners are also informed and tested. I understand some encounters were anonymous - do you remember any names or the location of the event?" "We have a team of experienced health advisors who can help notify partners confidentially and anonymously, without ever using your name."

4. Additional STI Screening "As STIs can sometimes come together, we'll also offer tests today for HIV, hepatitis B and C, and other common infections."

5. Abstinence & Prevention Advice "Until your follow-up tests confirm the infection is gone, please avoid sexual contact. If you do have sex, make sure to use condoms." "We also recommend regular STI screening - especially if you have new or multiple partners. For many patients, every 3 months is a good interval."

Addressing Concerns

Patient: "Is this going to affect me long-term?" "No - once treated properly, syphilis won't cause any lasting harm. The key is ensuring follow-up is completed."

Patient: "Do I need to tell all my partners?" "No, you don't need to contact them personally - our clinic can help with anonymous notification if needed."

Patient: "What if I've had this for months without knowing?" "That's actually quite common - syphilis can stay silent for a while. The important thing is we've identified it now and are treating it at a curable stage."

Safety Netting

"If you develop any new symptoms - especially eye problems, hearing issues, or strong flu-like symptoms after the injection - let us know straight away." "We also have emotional health services if you feel overwhelmed. You don't need to go through this alone."

Follow-Up Plan

"We'll repeat your blood tests at 3 months, and again at 6 months, to confirm the infection is fully cleared." "These follow-ups are essential - they also help us spot any reinfection early."

Student Note: Diagnostic Summary

- Adult male attending for STI result discussion at GUM
 - Treponema pallidum antibody positive + past rash → secondary syphilis
 - No penicillin allergy → treated with single IM dose of benzathine benzylpenicillin
 - Explained Jarisch-Herxheimer reaction, arranged partner notification support
 - Offered HIV/hepatitis screen, advised abstinence, scheduled 3- and 6-month follow-ups
-

HIV First Presentation

Scenario Setting: Primary Care Patient: Adult Male Presenting with: Non-specific Systemic Symptoms and Lymphadenopathy Task: HIV risk assessment, sensitive counselling, urgent GUM referral, and partner notification discussion

Introduction

Hello, I'm one of the doctors here at the practice. Thanks for coming in today. Could I confirm your full name and age? Thank you. What's brought you in today?

(Patient: "I've got some swelling down below.")

"Okay, thank you for telling me. I'd like to ask you some questions to understand what's going on. Is that alright?"

Presenting Complaint

"Can you tell me more about the swelling?"

- Where exactly is the swelling?
- When did you first notice it?
- Is it painful?
- Has it changed in size?

(On examination/discussion: Generalised lymphadenopathy rather than scrotal swelling)

Associated Symptoms

"Have you experienced any of the following?"

- Fever or flu-like illness?
- Weight loss?
- Night sweats?
- Fatigue?
- Sore throat?
- Rash?
- Diarrhoea?
- Mouth ulcers?

Sexual History (Sensitive)

"To help understand what might be causing this, I need to ask some personal questions about your sexual health. Everything you tell me is confidential."

- Are you sexually active?
- When was your last sexual encounter?
- Was this in the UK or abroad? (Patient: Abroad, in Thailand)
- Was it with a regular partner or someone new?
- Male partner, female partner, or both?
- Was it protected or unprotected?
- Was your partner a sex worker?
- Any other recent partners?
- Have you ever been tested for HIV?
- Any previous STIs?

PMAFTOSA

- Past Medical History: Any long-term conditions?

- Medications: Any regular medications?
- Allergies: Any drug allergies?
- Smoking/Alcohol/Drugs: Any recreational drug use? Injecting drugs?

ICE

- Ideas: "Do you have any thoughts about what might be causing these symptoms?"
- Concerns: "Is there anything you're particularly worried about?"
- Expectations: "What were you hoping we could do today?"

Examination

- General: Appears unwell, may have weight loss
- Lymph nodes: Generalised lymphadenopathy (cervical, axillary, inguinal)
- Skin: Check for rash
- Mouth: Check for oral candida, ulcers

Provisional Diagnosis

"Based on what you've told me - the recent unprotected sex abroad, and the symptoms you're experiencing now including the swollen glands - I'm concerned this could be related to HIV. I want to be honest with you about this possibility so we can get you tested and treated as quickly as possible."

Explanation

"HIV is a virus that affects the immune system. The symptoms you're experiencing - the swollen glands, possibly fever and fatigue - can happen when someone first gets infected. This is called acute HIV or seroconversion illness."

"The important thing to know is that if HIV is confirmed, treatment involves antiretroviral therapy (ART) - lifelong medication that helps people live a normal life with a nearly normal life expectancy."

Add U=U Messaging: "With effective treatment, the virus becomes undetectable - this means you can't pass it on to partners. We call this 'Undetectable equals Untransmittable' or U=U."

Addressing Concerns

Patient: "Will this ruin my life or relationship?" "This is understandably a lot to process, but many people live full lives with HIV. We'll support you every step of the way."

Patient: "Will I die from this?" "No - with modern treatment, HIV is a chronic but manageable condition. Early diagnosis improves outcomes greatly."

Patient: "Can I still have a family?" "Yes - with treatment and monitoring, HIV-positive individuals can safely have children without passing the infection."

Management Plan

1. Urgent Referral:

- Same-day urgent referral to GUM clinic for HIV testing

2. Testing:

- HIV antibody/antigen test (4th generation)
- Full STI screen including syphilis, hepatitis B and C

3. Partner Notification: "If HIV is confirmed, it's important that any sexual partners are also tested. The clinic can help with this sensitively and anonymously."

Safety Netting

"If you experience high fever, weight loss, new rashes, or feel emotionally overwhelmed, please come back or call us immediately. We also offer confidential counselling support." "You're not alone - there's a team of specialists who will support you through this."

Follow-Up Plan

- Await GUM clinic results
- GP follow-up once diagnosis confirmed
- Emotional and psychological support referral if needed

Student Note: Diagnostic Summary

- Young male with recent unprotected sex abroad (high-risk setting)
 - Presenting with generalised lymphadenopathy and systemic symptoms
 - Clinical picture consistent with acute HIV seroconversion
 - Urgent GUM referral for testing and management
 - U=U messaging important for reducing stigma and encouraging treatment adherence
-

HIV Test Result Discussion

Scenario Setting: Sexual Health Clinic Patient: Adult Male Presenting for: Positive HIV Test Result
Disclosure Task: Sensitive result delivery, explanation, treatment initiation, and support planning

Introduction

Hello, I'm one of the doctors here at the clinic. Thanks for coming in today. Could I confirm your full name and age, please?

"I know waiting for results can be stressful. Before we discuss them, is there anything you'd like to ask me?"

"Is there anyone with you today, or would you like to have someone present while we talk?"

Result Disclosure (Sensitive Approach)

"I have to share some difficult news with you today. Your HIV test has come back positive."

Pause - allow time for the patient to process.

"I know this is a lot to take in. Please take your time, and we can talk through what this means when you're ready."

Addressing Immediate Reactions

Patient appears shocked/silent: "It's completely normal to feel overwhelmed right now. There's no rush - I'm here to support you."

Patient asks: "Are you sure?" "Yes - the test was confirmed with a second test to make sure. I'm sorry this isn't the news you were hoping for."

Patient asks: "Am I going to die?" "No - HIV is no longer a death sentence. With modern treatment, people with HIV live long, healthy lives. The key is starting treatment and staying on it."

Explanation

"HIV stands for Human Immunodeficiency Virus. It affects your immune system, specifically the cells that help fight infections. Without treatment, the virus can weaken your immune system over time."

"But with treatment - called antiretroviral therapy or ART - the virus is controlled. Most people on treatment have an 'undetectable' viral load, which means the virus is at such low levels that it cannot be passed on to others."

U=U Messaging: "This is what we call U=U - Undetectable equals Untransmittable. When you take your medication consistently and your viral load is undetectable, you cannot pass HIV to your sexual partners."

Management Plan

1. Baseline Investigations:

- CD4 count (immune function)
- Viral load
- Resistance testing (genotype)
- FBC, U&E, LFTs, lipids
- Hepatitis B and C serology
- Syphilis and other STI screening
- Tuberculosis screening if indicated

2. Treatment Initiation: "We'll start you on antiretroviral therapy as soon as possible. We now know that starting treatment straight away gives the best outcomes - it protects your health and reduces the risk of transmission."

Per BHIVA 2024: Same-day or rapid ART initiation is recommended for all newly diagnosed patients.

Common first-line regimens include:

- Integrase inhibitor-based regimens (e.g., bictegravir/emtricitabine/tenofovir alafenamide)

"The medication is usually one tablet once a day. Side effects are generally mild and often improve over time."

3. Partner Notification: "It's important that any recent sexual partners are informed so they can be tested. We have trained health advisors who can help with this - they can contact partners anonymously without ever mentioning your name."

4. Support Services: "Living with HIV can bring up a lot of emotions. We have counsellors, peer support groups, and community organisations who can help."

"You may also want to connect with HIV charities like Terrence Higgins Trust or NAM who provide excellent information and support."

Addressing Common Concerns

Patient: "Do I have to tell people?" "You don't have to tell everyone. However, you should inform sexual partners before having sex, and your healthcare providers need to know so they can provide the best care. There's no legal requirement to disclose to employers or friends."

Patient: "Can I still have a relationship/family?" "Absolutely. With treatment and an undetectable viral load, you can have safe sexual relationships and healthy children. We'll support you through family planning if that's something you want."

Patient: "Will I have to take medication forever?" "Yes, currently ART is lifelong. But it's very effective, and many people find it becomes a simple part of their daily routine."

Patient: "What about work/travel?" "HIV shouldn't stop you from working or travelling. Some countries do have entry restrictions, so it's worth checking before you travel."

Safety Netting

"If you feel unwell - fever, new infections, significant weight loss - please contact us immediately." "If you're struggling emotionally or having thoughts of self-harm, please reach out to us or contact a crisis line. You don't have to face this alone."

Follow-Up Plan

- Review in 2-4 weeks to check treatment response
- Viral load monitoring at 4 weeks, then 3-6 monthly
- CD4 monitoring
- Annual health checks including cardiovascular risk assessment
- Ongoing adherence support

Student Note: Diagnostic Summary

- Adult male attending for HIV result discussion
 - Positive HIV test confirmed
 - Sensitive disclosure with time allowed for processing
 - Explained U=U messaging to reduce stigma
 - Baseline investigations ordered, rapid ART initiation per BHIVA 2024
 - Partner notification support offered
 - Emotional support and community resources discussed
-

HIV Follow-Up – Stable Patient

Scenario Setting: HIV Clinic / Primary Care Shared Care Patient: Adult with Established HIV on ART
Presenting for: Routine Follow-Up Appointment Task: Review treatment adherence, monitor complications, and address ongoing concerns

Introduction

Hello, it's good to see you again. How have you been since our last appointment? Could I just confirm your full name and age for the records?

"How are things going with your medication?"

Focused History

A. Treatment Adherence:

- "Have you been taking your medication every day?"
- "Any missed doses? If so, how many?"
- "Any problems with the tablets - side effects, difficulty swallowing, or timing issues?"

B. Symptoms Review:

- "Any new symptoms since we last met?"
- "Any fevers, night sweats, or weight changes?"
- "Any skin problems, mouth issues, or infections?"
- "Any neurological symptoms - headaches, memory problems, numbness?"

C. Mental Health Check:

- "How are you feeling emotionally?"
- "Any low mood, anxiety, or stress?"
- "How are things at home and work?"

D. Sexual Health:

- "Are you currently sexually active?"
- "Any new partners?"
- "Are you using condoms or is your partner aware of your status?"
- "Any symptoms like discharge, sores, or pain?"

E. Lifestyle:

- "How's your diet and exercise?"
- "Any smoking or recreational drug use?"
- "Alcohol intake?"

Review of Results

"I've got your recent blood results here. Let me go through them with you."

Key Parameters to Review:

- Viral load: "Your viral load is undetectable - that's excellent news. It means the medication is working well and you cannot pass the virus to partners."
- CD4 count: "Your CD4 count is [X] - this shows your immune system is healthy."
- Renal function: "Your kidney function looks fine."
- Lipids: "Your cholesterol is [normal/slightly raised] - we'll keep an eye on this."
- Other relevant results

Explanation & Reinforcement

"You're doing really well. Staying on treatment consistently is the most important thing you can do for your health. Remember - undetectable means untransmittable."

Management Plan**1. Continue Current ART:**

- Review current regimen
- Confirm patient happy with current medication
- Discuss any simplification options if applicable

2. Vaccinations:

- Annual flu vaccine
- Pneumococcal vaccine (if not given)
- Hepatitis A and B (if not immune)
- HPV vaccine (if eligible)
- COVID-19 boosters as recommended

3. Health Screening:

- Cardiovascular risk assessment (QRISK)
- Bone density screening if indicated
- Cervical/anal cytology for cancer screening where appropriate
- Mental health screening

4. Ongoing STI Screening: "Even with an undetectable viral load, it's important to screen for other STIs regularly, especially if you have new partners."

5. Partner Support: "Would your partner benefit from information about PrEP (pre-exposure prophylaxis)? This can provide additional protection."

Addressing Concerns

Patient: "I sometimes forget my medication when travelling." "That's understandable. Let's discuss strategies - setting phone reminders, keeping a pillbox, or adjusting timing when crossing time zones. Even occasional missed doses can be managed, but consistency is key."

Patient: "I'm worried about long-term side effects." "Modern HIV medications are much safer than older ones. We monitor for any complications regularly. If you notice anything concerning, let us know and we can review your regimen."

Patient: "Can I ever stop taking the pills?" "Currently, ART is lifelong. There's ongoing research into HIV cures, but for now, staying on treatment is essential. The good news is that treatment keeps you healthy and prevents transmission."

Safety Netting

"If you develop any new symptoms - especially fever, infections, or neurological changes - please contact us straight away." "If you're struggling with adherence or experiencing side effects, let us know. We can often find solutions."

Follow-Up Plan

- Routine follow-up in 3-6 months
- Viral load and CD4 monitoring
- Annual comprehensive health review
- Ongoing mental health and adherence support

Student Note: Summary

- Stable HIV patient on ART for routine follow-up
 - Undetectable viral load = treatment success and U=U
 - Reviewed adherence, symptoms, mental health, sexual health
 - Discussed vaccinations, health screening, and partner PrEP
 - Reinforced importance of consistent treatment
 - Arranged routine follow-up
-

Suspected Penile Squamous Cell Carcinoma (SCC)

Setting: Primary Care

Patient: Older Adult Male

Presenting Complaint: Persistent genital lesion

1. INTRODUCTION & CONSENT

Greet, confirm identity

Explain role: "I understand you've noticed a skin change on your penis. Would it be okay if I ask some detailed questions about it and then examine the area to better understand what it could be?"

2. PRESENTING COMPLAINT - FULL HISTORY

Start with Open Questions:

"Can you tell me more about the lesion you've noticed?"

"Where exactly on the penis is it?"

"Would you be able to describe what it looks like?"

Morphology

"Is it flat, raised, or ulcerated?"

"What colour is it - red, white, brown?"

"Is the surface smooth, rough, crusted, or shiny?"

"Is it a single lesion or are there multiple?"

"Is there any scaling, bleeding, or foul smell?"

"Any discharge from the lesion?"

Evolution

"When did you first notice it?"

"What did it look like initially?"

"Has it changed in shape, size, colour, or texture since then?"

"Is it gradually increasing or staying the same?"

"Has it spread to nearby areas?"

Associated Symptoms

"Is it painful or itchy?"

"Have you had any burning or discomfort while passing urine?"

"Any redness, swelling, or irritation in the surrounding skin?"

"Any recent difficulty retracting your foreskin?"

"Have you noticed any lumps or swelling in your groin or around the genitals?"

Findings from patient

Single red lesion on glans

Present for months (2–6 months)

Slowly increasing in size

Not painful or itchy

Shiny or reddish appearance, no ulceration

No discharge, bleeding, or bad smell

Borders regular

No groin lumps

No difficulty with foreskin

3. DIFFERENTIALS

Sexual History (STI screening)

"Are you currently sexually active?"

"In a stable relationship or any recent new partners?"

"Do you usually use protection like condoms?"

"Any past history of sexually transmitted infections - syphilis, herpes, warts?"

"Any history of genital ulcers, rashes, or discharges in the past?"

"Any similar complaints in your partner?"

Lifestyle & Risk Factors

"Do you smoke? If so, for how many years?"

"Have you been circumcised?"

"Have you ever been vaccinated against HPV?"

"Any difficulties maintaining personal hygiene in the area?"

Systemic Symptoms (Malignancy screen)

"Any unexplained weight loss?"

"Any ongoing fatigue or night sweats?"

"Have you noticed any swelling or lumps in your groin area?"

"Any other skin lesions anywhere on the body?"

Findings:

Stable partner for 35 years

No casual partners or condom use

Never had STI

Smoker

Not circumcised

No known HPV vaccination
No constitutional symptoms
No lymphadenopathy

4. RED FLAG QUESTIONS

Ask clearly and directly:

"Has the lesion started bleeding spontaneously?"
"Has it developed an ulcer or open wound?"
"Is there a foul smell from the area?"
"Any rapid increase in size recently?"
"Have you felt any firm, non-painful lumps in the groin?"
"Any issues with urination or blood in urine?"

Findings:

None of the above were present.

5. SYSTEMIC SCREEN

"Any rashes elsewhere on the body?"
"Any joint pains, ulcers in the mouth, or eye issues?" (psoriasis, reactive arthritis)

6. ICE (Ideas, Concerns, Expectations)

Ideas: "I thought it might be an infection or something like that."
Concerns: "I'm worried it could be cancer."
Expectations: "I'd like to know what it is and get the right treatment."

7. EXAMINATION

Request chaperone

Inspection of lesion:

Site: glans penis
Raised, red, smooth/shiny
No visible ulceration

Palpation:

No inguinal lymphadenopathy
No local tenderness
No phimosis or paraphimosis

8. EXPLANATION

"Thanks for letting me examine you. Based on everything you've told me and what I've seen, this does not look like a typical infection or sexually transmitted condition. It's a single, persistent lesion that's slowly growing and not healing.

Because of that, one of the things we need to rule out is a skin cancer of the penis. I know the word 'cancer' can be frightening to hear. I want to reassure you that penile cancer is rare, and the fact that you've come in early means we're in the best possible position to deal with whatever this turns out to be."

9. DIFFERENTIAL DIAGNOSES

Most likely: Penile squamous cell carcinoma (SCC)

Less likely:

Zoon's balanitis
Primary syphilitic chancre

HPV-induced wart
Candidal balanitis
Psoriasis / lichen planus (if scaling present)

10. MANAGEMENT PLAN

Urgent Referral

Suspected cancer pathway referral to urology/dermatology

Refer urgently if patient has **unexplained or persistent penile lesion** (ulceration, mass, or induration)

Do NOT prescribe empirically

No antifungal/antibiotic/steroid treatment without diagnosis

No STI label or swabs unless STI signs/symptoms present

Other actions

Smoking cessation support

Offer basic **HPV and cancer leaflet**

Document clear referral reasoning in notes

Reassure about confidentiality and early intervention

11. SAFETY NETTING

"If you notice any changes like bleeding, pain, foul smell, sudden increase in size, or lumps in the groin, please come back immediately."

"Also, if you don't hear from the hospital in 2 weeks, call us and we'll follow it up."

12. CLOSING

"You've done exactly the right thing by coming in early. This may be something minor, but we'll treat it seriously and get it checked properly."

"Do you have any questions or anything you'd like me to go over again?"

Genital Herpes

Setting: Sexual Health Clinic

Patient: Adult

Presenting Complaint: Painful genital lesions

1. Introduction & Consent

Introduce self with name and role

Confirm patient's full name and DOB

"What brought you in today?"

→ "I noticed some painful spots down below."

2. Presenting History

Onset & course:

"When did you first notice them?"

→ "A couple of days ago."

"Have they increased in number or changed in appearance?"

→ "Yes, a few more appeared."

Character:

"Can you describe what they look like?"

→ "Small white blisters, painful to touch."

"Any itching, burning, or tingling before they appeared?"

→ *Not mentioned*

"Have any of the blisters burst or formed ulcers?"

→ *Not specified*

Associated symptoms:

"Any fever, body aches, or feeling generally unwell?"

→ *Fever present*

"Have you noticed any lumps in your groin area?"

→ *Yes, both sides*

Urinary & discharge history:

"Any pain or burning when you pass urine?"

→ *No*

"Are you managing to pass urine normally, or is the pain stopping you from going?"

(RED FLAG: In primary HSV, urinary retention due to pain or autonomic dysfunction is a red flag requiring urgent assessment and possible admission/catheterisation)

"Any discharge from the penis?"

→ *No*

"Any blood in urine or semen?"

→ *No*

Sexual history:

"Are you currently sexually active?"

→ *Yes, with my wife*

"Have you had any other partners in the last 12 months?"

→ *No*

"Do you use protection such as condoms?"

→ *No*

"Have you or your partner ever been diagnosed with an STI?"

→ *No*

"Any symptoms in your partner - rashes, ulcers, pain?"

→ *No visible symptoms*

Past history:

"Have you had anything like this before?"

→ *No*

"Any history of eczema, psoriasis, or allergic skin reactions?"

→ *No*

"Any recent trauma, shaving, or new products used in that area?"

→ *No*

Lifestyle:

"Do you smoke or drink alcohol?"

→ *Smoker*

3. ICE

Ideas: "What do you think this could be?"

→ *"Is this some kind of infection? Could it be from my wife?"*

Concerns: "What's worrying you most?"

→ *"I'm worried if it's something serious or an STI."*

Expectations: "What were you hoping I could help you with today?"

→ *"I want this gone. Please treat it."*

4. Examination Findings

- 3 small white fluid-filled lesions on penile shaft
- Tender to touch
- Bilateral inguinal lymphadenopathy
- Afebrile at time of consultation, but fever reported earlier
- No urethral discharge
- No signs of systemic illness

5. Differential Diagnosis

Most likely:

Genital herpes simplex virus (HSV-1 or HSV-2) - first presentation

Others to consider:

- Genital warts (HPV): unlikely as they are typically painless, cauliflower-like
- Syphilitic chancre: usually painless, solitary ulcer
- Molluscum contagiosum: dome-shaped, not typically painful
- Contact dermatitis or fixed drug eruption: rare with these features
- Balanitis: often diffuse inflammation, may not have discrete vesicles

6. Explanation

"Based on your history and what we're seeing, the most likely cause is a **viral infection called genital herpes**."

"It's caused by the **herpes simplex virus (HSV)**, which is a common virus that can be passed during close skin-to-skin contact, including sex."

"The virus enters through small breaks in the skin and causes these **painful blisters**, often with flu-like symptoms."

"Many people carry the virus without symptoms. So even if your partner looks fine or has no symptoms, they could still carry it."

"Also, this could have been dormant in either of you for a long time and become active now due to a trigger like stress or illness."

"It's important to know this doesn't necessarily imply recent infidelity."

7. Management

A. Confirm diagnosis & Referral:

Refer to **Sexual Health Clinic** for:

- Diagnostic swab (PCR from lesion if <5 days old)
- Full STI screen (including chlamydia, gonorrhoea, HIV, syphilis)
- Contact tracing and counselling

Psychological support is available through sexual health services if needed

B. Treatment (if lesions <5 days or new ones still forming):

Aciclovir 400 mg PO three times daily for 5 days

Alternative: Aciclovir 200 mg five times daily, or Famciclovir/Valaciclovir if available

Note: BASHH 2024 allows for extended treatment if symptoms persist beyond 5 days

Treatment Extension Advice: "If you are still getting new blisters appearing on day 4 or 5 of treatment, contact the clinic - we may need to extend your course of tablets."

C. Supportive Measures:

- Salt water bathing to reduce discomfort
- Keep the area dry and clean
- Oral analgesia (paracetamol or ibuprofen)
- Avoid tight clothing

Abstain from sexual contact until lesions completely heal

D. Education & Public Health:

Partner should also be tested, even if asymptomatic

Condoms reduce risk but don't eliminate it (shedding can occur from uncovered areas)

Discuss risk of **recurrence**; many people have milder repeat episodes

Suppressive therapy may be considered if >6 episodes/year (not at this stage)

8. Addressing Concerns

"I know this diagnosis might feel overwhelming right now, but I want you to know two things: first, you're definitely not alone - herpes is incredibly common; and second, it's very manageable.

Most people with herpes go on to have completely normal lives and relationships."

"It's not always possible to say when or from whom it was acquired."

"Let's refer you to a specialised clinic where they'll do further tests and help you notify your partner confidentially if needed."

"I'll also give you treatment today to help these sores heal faster."

9. Safety Netting

"If you develop high fever, difficulty passing urine, or spreading redness, go to A&E."

"If the pain becomes severe or you feel generally unwell, please seek help promptly."

"Avoid intercourse even with a condom until fully healed."

10. Follow-Up

Sexual Health Clinic appointment within 48 hours

No need for GP follow-up unless worsening symptoms

Future review if recurrences become frequent

11. Leaflet & Resources

Offer **BASHH or NHS herpes leaflet**

Direct patient to NHS Sexual Health online resources

"Would you like a written summary or any links to read about this?"

12. Final Check

"Was that all clear?"

"Do you have any other concerns or questions?"

"Would you like me to repeat anything I explained?"

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