GK'S NOTES 2.0

JUNE 2025 EDITION

VOLUME – 1

GK's Notes 2.0 – Volume 1
June 2025 Edition

While every effort has been made to ensure clinical accuracy and clarity, this material is for **revision purposes only**. It does not substitute formal clinical training, judgment, or official medical advice. The author(s) and publisher accept no liability for clinical outcomes resulting from use of this content.

This work is not affiliated with the General Medical Council (GMC), the UKMLA, or any official PLAB board. All scenarios are independently written and do not reflect real patients.

Guideline references are based on public domain standards such as NICE, NHS CKS, and GMC Good Medical Practice. Every effort has been made to ensure the accuracy of information at the time of writing. Users are encouraged to consult official NHS and NICE guidelines regularly, as clinical recommendations may evolve over time.

All patient cases are fictional or anonymized. Any resemblance to real persons is purely coincidental.

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

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This book is an independent educational resource created to support candidates preparing for PLAB 2. It is not affiliated with, endorsed by, or approved by the General Medical Council (GMC), the UK Foundation Programme, or any PLAB examination board.
All cases in this book are entirely original and have been created for teaching purposes. They are:

- Based on common UK clinical practice scenarios
- Informed by recurring themes and trends described by candidates
- Fully aligned with NHS, NICE, and GMC guidance
- Written using original phrasing, with no reproduction of official exam content

No actual PLAB 2 exam stations, checklists, scripts, or copyrighted materials have been used, quoted, or reproduced.
This resource does not claim to predict, replicate, or substitute for the real PLAB 2 exam. It is intended to help candidates build confidence in consultation structure, communication skills, clinical reasoning, and management planning in a UK healthcare context.

Unlock the Full GK's PLAB 2 Toolkit – Beyond the Book. Made to Pass.

GK's Notes 2.0 isn't just a book. It's the core of a smarter, leaner, and fully structured exam prep system—designed to help you pass PLAB 2 without wasting months or thousands on academies, travel and stay.

If you were led to believe that the only way to pass this exam is by relocating to the UK for expensive courses and group practice, you've been misled.

You don't need to memorise lectures or scripts.
You don't need to spend a fortune.
You need a system that works.

That's what this ecosystem is built to give you.

Revision Pack – Fast, Focused, and Exam-Aligned

Your toolkit for recall, review, and final-stage preparation.
What's Included:

- **Flashcard Set**
  → Quick-reference cards **for every core case**
  → Covers: Management, DVLA advice, and Referral criteria
  → Aligned with GK's Notes 2.0 and based on NICE/NHS CKS guidance

- **One-Page Revision Sheets**
  → Covers **all major PLAB 2 case types**
  → Each includes:
    - Top differential diagnoses
    - Key red flag symptoms
    - Natural lay explanations
    - Stepwise management
    - Safety netting guidance

- **Case Hotlist**
  → A prioritised list of commonly reported station themes and **AI-generated predictions**
  → Created using general trends and recurring clinical topics reported by candidates

- **Mock Exam Generator**
  → Randomised mock station lists **simulating full exam rounds** (16 stations)
  → Structured for solo or paired practice
  → Balances systems, consultation types, and case difficulty

Ideal for final-month revision, crash review sessions, and structured mock simulations.

**These resources are not affiliated with the GMC or any official examination board. They are original, educational, and designed to support your learning.*

Practice Pack – Real Practice, Real Fluency, Real Results

Build exam-ready confidence with structured, simulation-based tools.

What's Included:

- **Audio Case Library**
  → Realistic 7–8 minute consultations voiced in natural tone
  → Covers common case categories: SimMan, angry patients, psychiatry, ethics, and more
  → Ideal for passive revision or active speaking drills

- **Exam-Style Question Bank**
  → Structured clinical and scenario-based questions
  → Includes prompts based on patient presentations, concerns, and management decisions

- **Actor Script Companion**
  → Patient-side dialogue scripts to use with peers
  → Includes emotional cues and realistic responses to help simulate live stations

- **2-Month Practice Calendar**
  → Day-by-day structured prep plan
  → Balances systems, case types, repeat exposure, and speaking drills
  → Designed for solo or partner-based practice

- **Study Group Access & Partner Matching**
  → Join curated practice groups with others preparing for the same exam window
  → Gain access to peer mocks, speaking drills, and community-based accountability

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BONUS: Weekly Live Recall Webinars

Join regular, structured breakdowns of real-world case patterns, updates on recurring themes, and strategy sessions—open to all premium users.

**These sessions are for educational discussion only and do not reproduce or distribute confidential exam material.*

What Makes This Different?

- Every tool aligns directly with GK's Notes 2.0
- No duplication, no confusion—just clarity
- Practice what you revise, revise what you practise

All of these and more are coming your way very soon.
To access the packs or ask questions, contact me directly.

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A Note Before You Begin

Dear reader,

Hi—and welcome. I'm genuinely glad you're here.
If you're holding this book, you're probably somewhere along your PLAB 2 journey. Maybe you've just started and are trying to figure out what this exam is really about. Or maybe you're a bit further in—revising cases, second-guessing your phrasing, wondering if you're on the right track. Whichever stage you're at, I want you to know: you're not alone.

Some of you might have come across the earlier version of GK's Notes—a structured little document that somehow ended up everywhere. I did put my initials on it, but it wasn't made for distribution. I created it for myself while preparing for PLAB 2—organising one of the most popular lecture series into something I could actually study from without feeling overwhelmed.

Then a few friends asked for it. Then their friends. And before I knew it, it was being passed around in groups I wasn't even part of. It quietly travelled across cohorts, and I started hearing from people who found it helpful. That meant a lot. Because I still remember what it felt like to be lost in prep, unsure of what to say in a station or whether I was doing enough. And if those notes gave even a little clarity or structure to someone else—that's more than I ever hoped for.

But this time, I wanted to build something new. Something better.

GK's Notes 2.0 isn't based on anyone else's teaching. It's not a rewrite of lectures, and it's not an academy's internal guide. It's a fresh rebuild—created from the ground up to reflect what actually matters in this exam. Every case in this book is built around real recalls, common candidate struggles, and updated guidance from NHS, NICE, and the GMC.

This isn't about last-minute memorising.
It's about real understanding.
It's about learning to manage a station with confidence, empathy, and clarity.
There are no shortcuts or flashy claims here—just clear, thoughtful guidance built to genuinely help you prepare, step by step.

So take this book at your own pace.
Read slowly. Think deeply. Practice out loud.
And after every attempt, pause for a moment—not to judge yourself, but to learn.
Because you can do this. You really can.
And I hope, in some small way, this helps you get there.

With warmth and solidarity,
– GK

How to Use This Book

Let's get this out of the way first:

PLEASE DO NOT MEMORISE THE NOTES.
Seriously. Don't.

If you're sitting with a highlighter, trying to underline every word, or planning to "finish" 50 cases in a weekend—you're missing the point. This isn't a textbook. It's not a lecture transcript. And it's definitely not something to cram line by line.
This book is designed to be spoken, not studied. It's written in a natural, conversational style—not for you to repeat verbatim, but to help you get comfortable with the language and rhythm of real consultations. It's here to help you understand how to think, respond, and explain like a safe, calm, empathetic FY2 doctor. Not like a robot reciting a script.

What This Book Is

- A structured, station-by-station guide to mastering PLAB 2
- Built on real recalls, with realistic phrases and clear explanations
- Designed to help you practise how to speak—not what to say word-for-word
- A resource that trains your logic, builds your confidence, and helps you make decisions in the room

What This Book Isn't

- A script bank to memorise
- A shortcut to pass without understanding
- A rehash of academy slides or lectures
- A book to read cover-to-cover in silence
- A magic formula for last-minute prep

So... How Should You Use It?

1. Speak it. Don't just read it.
   Talk through the cases. Use a timer. Record yourself. Practise out loud, every time. You can do it solo or with a partner—but don't just read silently and move on.
2. Focus on structure—not sentences.
   Each case follows a logical flow:
   Introduction → Complaint → Screening → ICE → Explanation → Plan → Safety Net
   These are anchor points—not scripts. Understand the steps. Then speak in your own words.
3. Don't aim to say everything in the exam.
   The cases here are written in detail so you can understand them. You're not expected to say every single point in your 8-minute station. In real life, and in the exam, clear and focused communication is what matters.
4. Don't feel overwhelmed by the size.
   Yes—it's a big book. That's because it's complete. But you don't need to remember every word. The detail is there to support your learning, not to burden you. Take it one case at a time. Quality beats quantity.
5. Repeat, don't just move on.
   Master a few cases deeply. Then revisit them. Repetition builds fluency. Don't aim to finish the book—aim to learn from it.

6. Use flashcards and visual tools to revise.
   Pair your practice with timed sessions, one-page revision notes, and full management flashcards to reinforce key decisions, counselling phrases, and treatment steps. These tools are built to make your revision faster, clearer, and easier to retain.
7. Use it with mocks or solo prep.
   Whether you're attending a course or studying independently, these notes are meant to give you a solid, clean foundation. They'll help you cut through the noise and focus on what actually matters in a station.

You won't pass PLAB 2 by memorising how someone else talks to a patient.
You'll pass by learning how to talk like yourself—clearly, calmly, and with confidence.
So don't "study" this book.

Use it. Speak it. Practise with a timer. Revise with flashcards. Reflect. Repeat.
That's how this works.
That's how you'll work.

You've got this.

Staying Up to Date – New Cases & Evolving Stations

PLAB 2 is constantly evolving. While many core stations are repeated frequently, new scenarios continue to appear, and familiar ones are often presented with different angles, emotional tones, or ethical twists.
To reflect this, GK's Notes 2.0 is not a static book—it's a living resource.

- The notes will be updated multiple times each year, incorporating new recalls, evolving phrasing trends, and structural refinements.
- Make sure you're always using the latest version to stay aligned with current exam patterns.
- Join the weekly live webinars where new or modified cases are broken down, explained, and discussed in real time.

PLAB 2 isn't just about having the right notes—it's about staying current, adapting, and practising with the most relevant material available.
To receive updates and webinar links, stay connected through the main study group or contact me directly.

A Note on Accuracy and Errors

This book is the result of a lot of time, care, and effort—put together by one person, with the goal of helping as many PLAB 2 candidates as possible. Every case has been written with maximum attention to accuracy, clinical alignment, and the most up-to-date guidance available at the time of writing.
That said, medicine evolves. Guidelines change. And despite best efforts, mistakes can slip through.
If you ever come across something that seems unclear, outdated, or incorrect—please don't hesitate to double-check it yourself using trusted sources like NICE or NHS CKS. These should always guide your clinical reasoning and management.

And if you do spot an error, I'd be genuinely grateful if you message me directly with the details. I'll make sure it's reviewed and corrected in the next version. Your feedback not only improves the book—it helps everyone who uses it.

Thank you for helping make this resource better for the whole community.

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, not real patients
- The setups are realistic—GP clinics, A&E, wards, etc.

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

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

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.

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.
You are marked out of 12 in three major domains:
1. Data Gathering, Technical & Assessment Skills (4 marks)
   - Did you ask all relevant, focused questions?
   - Did you perform the correct examination if applicable?
2. Clinical Management Skills (4 marks)
   - Did you explain clearly, formulate a safe plan, and give proper advice?
   - Did your plan follow UK guidelines and FY2-level expectations?
3. Interpersonal Skills (IPS) (4marks)
   - Did you listen well and respond appropriately?
   - Did you show empathy, respect, and use simple everyday language?

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
9. Patient Concerns	ICE and symptom impact explored
10. Overall Consultation	Safe, professional, confident behaviour

Final Tip

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

- Your tone is robotic
- You skip red flags or ICE
- You rush or forget to involve the patient

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

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.
Eventually, PLAB will be phased out and replaced by the UKMLA for IMGs too, but as of 2025, PLAB 2 remains the required exam for international applicants.

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:

- Did I reach a working diagnosis?
- Did I reach management?
- Which section took more time than expected?
- What could I structure better next time?

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 you 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.

Final Advice

- 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.

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?

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 *without Dr.* first name last name)
- 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"

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 chapter 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?"

Recap: 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 chapter, 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."

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 (Always adapt to situations as required)

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?"

PMATFTOSA

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

- 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?"

Summary: Specialty History Frameworks

This page 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 sections of these notes.

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 (will be 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 chapter 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.

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 chapter 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

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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:

- 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 2.0
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 2.0 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.

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

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 New 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. Avoiding 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

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
- Trusted recall collections
- Targeted revision tools like **flashcards** and **one-page summaries**
- A case hotlist to help you focus on what matters most
- 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 2.0

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:
    - **Flashcards** for management recall
    - **One-page summaries** for high-yield conditions
    - **Recall-based case hotlist** 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:
    - **Flashcards daily**
    - **Hotlist 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 Case Hotlist (recent recalls, trending systems)
- Final review of:
    - Ethics
    - Colleague
    - SimMan
    - Psychiatry
    - Cancer pathways
- Do daily flashcard recall 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 2.0	Structured station guide
Flashcards	Daily recall & management
One-page summaries	Rapid review
Case Hotlist	High-yield priority
Mock exams / peer sessions	Feedback and fluency
Recall sheets	Final 3-week review

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 hotlist, repeat difficult stations.
  - Use flashcards + one-page 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 recall hotlist to catch trending stations.

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

Chapter 3: Headaches

Introduction for 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 new 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."

Headaches in PLAB 2: 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 hemorrhage 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 obese females 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: GP setting | 21-year-old man | Headache, fever, photophobia | Returned from Kenya
Your Role: FY2 in GP Clinic

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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?"
"That makes sense. If you're okay with it, could you take them off while we chat? It'll help me assess you better."

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:
    - Fever or chills?
    - Nausea or vomiting?
    - Neck stiffness?
    - Drowsiness or confusion?
    - Blurred vision or double vision?
    - Sensitivity to light or sound?
    - A 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 Kenya?
    - 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
- 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 condition where the protective layer around the brain and spinal cord becomes inflamed, usually due to a bacterial infection.
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.
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:

- "As this is an emergency, we'll give you an immediate antibiotic injection — usually **benzylpenicillin** — into the muscle to start treatment right away, before you're transferred to hospital. This helps control the infection early, especially if it's caused by meningococcal bacteria.
- We'll arrange for you to be taken to hospital without delay for further care.
  At the hospital, they will:
  - Continue with **IV antibiotics**
  - Give you **pain relief** (such as paracetamol or morphine)
  - Possibly start **steroids** to reduce inflammation
  - Perform tests:
    - **Blood tests** (to check organ function, infection markers, and clotting)
    - A **CT brain scan**
    - Possibly a **lumbar puncture** (to test spinal fluid and confirm the diagnosis)

- Meningitis is a **notifiable condition**, so we are required to inform the **local Health Protection Team (HPT)**.

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**, like **ciprofloxacin** or **rifampicin**, even if they feel fine. We'll arrange that today."

- 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 to Kenya 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 Migraine

Scenario: GP Clinic | 17-year-old girl | Headaches for 1 year

Your Role: FY2 in GP

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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**?

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**?"

5. PMAFTOSA

- **Past medical history**: Any long-term conditions like epilepsy or hormone issues?
- **Medications**: Are you on any regular medicines or painkillers?
- **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

"It's a type of migraine triggered by the **natural drop in oestrogen** that happens just before your period starts.
This drop affects the brain's blood vessels, which can trigger a migraine in some people.
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?"

11. Management Plan

1. Symptom Treatment

- I'll prescribe **sumatriptan nasal spray** to use:
  - **2 days before your expected period**
  - And continue **for 3 days after bleeding starts**
    This covers the hormonal window when migraines typically occur.

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 (if without aura)
  - Or **oestrogen patches** around your period as hormone support

12. 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?

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: GP clinic | 60–65-year-old woman | Headache, facial pain, green nasal discharge

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 past 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. This has lasted more than 10 days and is showing signs of bacterial involvement, so we'll need to treat it."
Check: Does that explanation make sense? Would you like me to clarify anything?

Management Plan
Since this has lasted longer than 10 days and includes green discharge and facial pain, treatment is indicated. I'd recommend:

1. **Antibiotics**: A 5-day course of **phenoxymethylpenicillin**. If you're allergic to penicillin, we'll choose a suitable alternative.
2. **Nasal steroid spray**: This helps reduce swelling in the sinuses and improve drainage.
3. **Pain relief**: You can take paracetamol or ibuprofen to relieve discomfort and help reduce any fever.

In addition,

- Try **steam inhalation** at home
- Stay well hydrated
- Avoid overusing nasal decongestants as they may worsen symptoms long-term

Safety Netting and Follow-Up

- If your symptoms **worsen after starting antibiotics**, or there's no improvement within **48 hours**, please come back to 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?

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: GP or A&E setting | 35–50-year-old male | Sudden severe headache during activity
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

It means that there may be **bleeding into the space around the brain**. This usually happens when a small weakened blood vessel — often from high blood pressure or a hidden aneurysm — suddenly bursts.

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.

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**

- We'll give you a strong painkiller like **morphine** to help with the headache.
- Your blood pressure is quite high, which often happens in this condition. We'll also give you a medication called **nimodipine**, which can reduce complications by protecting the brain's blood vessels.

3. **Investigations**

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

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: GP clinic | 65–70-year-old patient | Headache, jaw pain, weight loss, scalp tenderness
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 some of the blood vessels, especially those near the temples and eyes, become **inflamed**. 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.

We take it seriously because, if untreated, it can **affect the blood supply to the eyes**, and in some cases lead to sudden **vision loss**.

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** (usually 40–60 mg).
    - This is to **immediately reduce inflammation** and protect your eyesight.
    - **We won't wait** for blood tests or scans — delaying treatment could risk vision loss.
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

- We aim for this to happen **within 24 hours**, though occasionally it may take up to 2–3 days depending on service availability.

3. **Hospital-Based Investigations**
   At the hospital, the team will do:

- **Blood tests** to check for inflammation (ESR, CRP)
- An **ultrasound scan** of the arteries on the side of your head
- Possibly a **small biopsy** from the temple area — this helps confirm the diagnosis. 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
- 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?

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: GP setting | Age >50 | Sudden partial vision loss (e.g. "curtain falling down")
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

- Explain it as a **stroke of the eye**:

"This condition causes inflammation in the blood vessels supplying the eye. In some cases, like this, it can block that supply — 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**
- **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 prednisolone (or IV methylprednisolone if instructed)** before transfer if no delay
- Document time of symptom onset

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: GP setting | Young female | Headaches, blurred vision, visibly obese | Eye mannequin 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?
  → (Patient may say "Yes, I'm on the pill" — **document only**, do not link to diagnosis)
- Have you had any recent changes to weight, activity level, or diet?
  → (You should **note visible obesity** silently — do **not** ask or comment on it unless raised by patient)
- 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 commonly seen in **women of your age group**, and there are a few factors — like body weight — that are thought to **increase the risk**, but it's not something anyone can predict or control easily."

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
   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 an **IV medication called acetazolamide** — this helps reduce fluid pressure
   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**, which helps drain the excess fluid — but this is only used when absolutely necessary
5. **Long-Term Planning**
   Weight loss has been shown to significantly improve this condition, and you'll get ongoing follow-up from the specialists
   If needed, they'll refer you to a dietitian or weight management team

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?

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, young age, and visible obesity. 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: GP clinic | Middle-aged patient | Recurring headache after work | Eye mannequin present
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

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.

I also noticed that you're using painkillers quite regularly. It's important to know that when painkillers are used **too frequently**, they can actually start causing more headaches. We call this **medication overuse headache**, and part of our plan will be to help reduce that."

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

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?
- 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
- **Physiotherapy** or **postural exercises** may help if there's neck strain
- Regular **aerobic exercise** is one of the most effective long-term strategies

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?

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: Student Health Centre | 19-year-old student | Headache after celebration
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?"

(Actor will likely say something like: "Yeah, our team won the rugby match – we had a big celebration last night.")

- "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?"

(Actor says yes – alcohol story begins.)

From there, proceed smoothly 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
"When you drink a large amount of alcohol — especially in a short time — it can make your body lose more water through urination.
That dehydration affects the brain and often results in a **throbbing, generalised headache**, which is what we call a hangover headache.
It's not dangerous, but it can feel quite intense, especially if you're sleep-deprived or haven't eaten well."
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

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?

Diagnostic Note – How This Diagnosis Was Made

The patient is a 19-year-old 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: GP Clinic or A&E | 19–45-year-old | Headache for 48 hours | Not first episode
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 is a specific type of headache — usually moderate to severe — and it often affects one side of the head, though it can be more generalised.

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."

- I'll prescribe **sumatriptan tablets**, which you should take **as soon as you feel the headache coming on**
- 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 **propranolol** or another preventive medicine to reduce the number of attacks."

3. Contraception Advice (if applicable)

- If using **combined pills** and there's **visual aura**, discuss GP follow-up to consider switching to non-oestrogen methods

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?

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 (sumatriptan + metoclopramide), prevention advice, and contraception screening where relevant. No imaging or specialist referral needed.

Carbon Monoxide Poisoning

Scenario: GP Consultation | 18-year-old | Persistent headache for 1 month
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?

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."

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** — this helps flush out the gas quickly
- This treatment is very effective

4. Notify Public Health

- Carbon monoxide poisoning is a **notifiable condition**, meaning we're required to report it to local health authorities

5. Inform Landlord

- You should contact your landlord immediately
- They're legally responsible for calling out a gas safety engineer (GasSafe) to check and repair the appliance

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?

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: GP Setting | 35-year-old | Daily headaches for 6 months
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 — even something like paracetamol — are used too often. Your body starts reacting to the medication itself, and when the effect wears off, it triggers a rebound headache. So instead of helping long term, the medicine starts keeping the headache going.

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 **gradually stop the daily paracetamol**
- "In the first few days, your headache may actually get worse — that's a withdrawal effect — but after that, it should start to improve."

2. Supportive Measures During Withdrawal

- We'll support you through that period

- Relaxation techniques, good hydration, sleep routine, and limited screen time can help
- Consider temporary non-medication strategies like warm compress, 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 or topiramate**, 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 reducing 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

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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 staged withdrawal of paracetamol with follow-up and preventive strategy planning.

Chapter 4: Neurology

Subdural Hematoma - Confusion in Elderly Patient After Fall

Role: FY2 doctor in hospital from nursing Home
Setting: Patient brought in by care home due to new-onset confusion
Patient: 80-year-old female, previously independent, no known dementia
Task: Take collateral history from care home staff, identify cause of confusion, communicate plan, and address staff concerns professionally

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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?"

(Carer: Fell while standing up quickly 3 days ago, landed on her bottom, no obvious head strike or immediate symptoms. Confusion began slowly afterwards.)

"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** to drain the blood — such as *burr hole surgery*.
- 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.

Transient Ischaemic Attack (TIA)

Station Type: GP Face-to-Face
Patient: 60–65-year-old man
Scenario: Wife noticed facial drooping last night. Symptoms now resolved. Patient has no known past medical history but is a smoker and drives regularly.
Task: Take structured history, provide explanation, assess risk, and initiate guideline-based management.

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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 Neurological Screening – FAST-3
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 – In Simple Terms

"A TIA happens when the blood flow to part of the brain is temporarily blocked. 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. But the good news is, we can reduce that risk with the right treatment."

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)

"Depending on the results, the specialist may:

- Switch you to a medication called **clopidogrel**, a blood thinner taken long-term (usually **for 2 years)**
- 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 should avoid **driving for 4 weeks** — this is a safety precaution after any TIA. There's no need to inform the DVLA at this stage unless symptoms recur or your doctor advises it."

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, warrants **aspirin 300 mg immediately** and **TIA clinic referral within 24h**.

No immediate imaging is arranged in GP — hospital team will do CT/MRI and Doppler scan. Driving restriction for 4 weeks is mandatory.

Transient Ischaemic Attack (TIA) – A&E Discharge

Station Type: Relative communication – A&E discharge counselling
Patient: 69-year-old female
Role: FY2 doctor
Setting: You are updating the husband after his wife has been assessed and stabilized in A&E following sudden-onset neurological symptoms
Task: Explain the event, investigations, treatment plan, precautions, and follow-up to the husband.

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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 — she's 69, 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 (FAST-3)
"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 here is **'transient'** — because the blockage clears up on its own, the symptoms go away quickly and don't leave permanent damage."

"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 change her long-term blood thinner to **clopidogrel**, which she may need to take for **at least two years**
- Possibly prescribe **blood pressure tablets** (like a **thiazide**)
- Check her cholesterol, and if high, start her on a **statin**"

3. Driving Advice

"She should **not drive for the next 4 weeks**. This is a national safety recommendation after a TIA. She does **not** need to notify the DVLA unless advised otherwise by the clinic."

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 wouldn't use that term. 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 CKS and NHS guidance:

- **Immediate aspirin 300 mg**
- **Urgent TIA clinic review** within 24h
- Long-term **clopidogrel, statin, thiazide** as guided by specialist
- **Driving restriction for 4 weeks**
- Strong emphasis on lifestyle changes and stroke prevention

Suspected Stroke – Telephone Consultation

Station Type: Telephone consultation (remote emergency triage)
Patient: 59-year-old male
Setting: GP practice (F2 doctor answering the call)
Presenting Complaint: Fall this morning while making breakfast; currently has numbness and weakness in one

arm
Known Medical History: Hypertension for 10 years, on amlodipine
Task: Assess urgency, identify stroke red flags, provide appropriate emergency advice, and explain the condition clearly

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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?"

(Document patient responses if simulated in exam)

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 a few hours of onset
- They may also start **aspirin or blood thinners**, but this will only be after they've confirmed the type of stroke

- In some cases, **surgery** is used to remove a large clot by inserting a wire through the blood vessels to the brain. This is more common when the blockage is in a major artery at the front of the brain."

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. **Time is absolutely crucial** when it comes to stroke treatment."

"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.)

"Do you feel safe calling the ambulance now on your own, or would you prefer me to call you back in five minutes to check in?"

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: Postpartum woman, 2 weeks post-delivery
Presenting Complaint: Sudden onset unilateral facial weakness for 1 day
Task: Take detailed history, rule out other causes, explain diagnosis, and initiate appropriate management

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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?"

No

10. Lay Explanation of Condition

"The **facial nerve** controls the muscles on one side of your face — it helps with facial expressions, eye closing, and some sensation. In Bell's Palsy, the nerve becomes inflamed or compressed, which causes **sudden weakness** on that side of the face."

"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 a **high dose of prednisolone** for **10 days**, ideally taken as soon as possible. This helps reduce inflammation around the nerve and improves your chances of full recovery."

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 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 vs Meningitis in A&E

Setting: Emergency Department (A&E)
Role: FY2 Doctor
Patient: 15-year-old boy
Accompanied by: Father
Presentation: Seizures, altered behaviour, fever
Task: Take focused history, interpret lumbar puncture data, explain likely diagnosis, communicate findings, and outline management plan to the father

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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 want to reassure you that 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 layers covering the brain and spinal cord. 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 have started an antiviral drip called acyclovir. He will need this for about 2 to 3 weeks."

For Meningitis: "We have started him on strong IV antibiotics, including benzylpenicillin, to target the bacteria."

4. Supportive Care

- "He will receive:
- Paracetamol for fever
- Pain relief if needed, even morphine for severe discomfort
- Steroids to reduce any brain swelling
- Fluids and nutrition support"

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 called ciprofloxacin to reduce any chance of infection. I'd recommend speaking with your GP or one of our team today."

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

Epilepsy Follow-Up Consultation

Scenario 1

Setting: Neurology Outpatient Clinic
Role: FY2 Doctor
Patient: 20-year-old university student recently diagnosed with idiopathic epilepsy
Task: Review follow-up, identify issues with treatment, explain the condition and lifestyle adjustments, and counsel on safety and compliance

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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 the brain sometimes sends abnormal electrical signals. These cause the episodes or 'fits' you experienced. 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.)

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."

10. Safety and Restrictions
Extreme Activities:
"Because seizures can be unpredictable, we advise avoiding extreme sports for now – especially things like mountain climbing. We recommend postponing your Kenya trip until your epilepsy is fully under control."
Driving:
"Regarding driving: legally, you must be **seizure-free for 2 years** before you can drive. That means you'll need to stop driving lessons for now. Once you are stable and fit-free for that period, we can reassess with a specialist and advise on restarting."

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 20-year-old 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.

Epilepsy Annual Review – Seizure Relapse due to Missed Medication

Setting: GP Surgery
Role: FY2 Doctor

Patient: 23-year-old male
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.

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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."

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."
- "Use reminders or apps if you're finding it hard to remember doses."

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 Scenario

Setting: Neurology Inpatient Ward
Role: FY2 Doctor
Task: Discharge discussion with the mother of a 13-year-old girl who had a generalised seizure. Diagnosis is now confirmed epilepsy based on EEG findings. Medication already initiated and explained.

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1. Professional 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."

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**.
- **Time the fit**. If it lasts **more than 5 minutes**, or if she doesn't wake up after, **call 999 immediately**.
- 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."

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.

First Fits/Seizure

Setting: GP Surgery
Role: FY2 Doctor
Patient: 50-year-old man
Presenting Complaint: Loss of consciousness with witnessed seizure yesterday
Task: Full history, examination, differentials, explanation, and referral

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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 need to be thorough."

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 people over 50 — a brain tumour."
"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
- If CT is normal, EEG to assess for epilepsy
- 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** 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

Why DVLA advice?

- DVLA rules require cessation of driving for **6 months** after a first unprovoked seizure.

Trigeminal Neuralgia

Setting: GP Surgery
Role: FY2 Doctor
Patient: 50-year-old man
Presenting Complaint: Left-sided facial pain

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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 (Verbalised)
"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:
"There's a nerve in your face called the **trigeminal nerve**. Its job is to sense touch, temperature, and pain. Sometimes, this nerve becomes overly sensitive and misfires — interpreting normal sensations like brushing your face or shaving as sudden, sharp pain. 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 usually treat this with a medicine called **Carbamazepine** — it's actually an anti-epileptic medication, but it works very well for this kind of nerve pain."
- Start at **100 mg twice daily**
- Titrate by **100–200 mg every 1–2 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."
B. If no improvement or not tolerated:
"I'll refer you to a **neurologist**, who may suggest:
- Other medications (like amitriptyline 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 – Trigeminal Neuralgia (Brief)

- **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: GP Surgery
Role: FY2 Doctor
Patient: 50–60-year-old man
Presenting Complaint: Shaking of hands, mainly during violin playing or other fine motor tasks

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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, playing your instrument?"
"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 like playing the violin?"

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 condition that causes **shaking, especially when using your hands**, such as eating, writing, or in your case, playing the violin. It's different from Parkinson's disease — it usually doesn't happen when you're at rest and doesn't cause slowness or stiffness."

"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. Neurology Referral (Routine)

"I'll refer you to a neurologist for further assessment and to confirm the diagnosis. They may also start treatment if needed."

B. Medications (explained but not prescribed at GP level)

- **Propranolol**: A beta-blocker that reduces tremor amplitude
- **Topiramate**: An anticonvulsant, used as a second-line agent
- "The neurologist may start one of these medications if the tremor is significantly affecting your quality of life."

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."

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. Follow-Up Plan

- "I'll arrange a routine referral to a neurologist today."
- "In the meantime, I'll provide a leaflet about essential tremor, and you're welcome to call us if anything changes."
- "Let's check in again after your neurology review — would you like us to call or book you back in?"

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 (e.g., violin playing)
- 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: Accident & Emergency
Role: FY2 Doctor
Patient: Middle-aged man (35–65)
Presenting Complaint: Fever, chills, and rigors for 2 days
Finding on Exam Paper: Temperature 39°C, splenomegaly

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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 Uganda 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?"

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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 Uganda, the fever with rigors, and examination findings, the most likely cause is **Malaria**."

9. Lay Explanation to Patient

"Malaria is a serious infection that affects the blood and is transmitted by certain types of mosquitoes. It causes high fever, chills, body aches, and in some cases, complications involving the brain, liver, or kidneys. 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."

"Please don't worry — we will take good care of you and begin investigations and supportive treatment right away."

10. Management Plan (NICE CKS & NHS-aligned)

Immediate Actions

- Admit for urgent care and isolation
- Notify the Infectious Diseases (ID) team immediately
- Start antipyretics (paracetamol) and IV fluids if dehydrated
- Take full vitals and monitor for deterioration (NEWS chart)

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 (depending on ID team guidance and severity)

- **If severe malaria suspected**:
  - Start **IV artesunate** or **quinine + doxycycline/clindamycin**
- **If uncomplicated malaria confirmed**:
  - **Artemisinin-based combination therapy (ACT)** is first-line
- **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 Uganda (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

Head Injury in a Child

Setting: A&E or Paediatrics
Role: FY2 Doctor
Patient: 3-year-old child
Accompanied by: Mother
Presenting Complaint: Fall from sofa while unsupervised for a few moments
On Arrival: Child is awake, alert, playing with nurse (GCS 15/15)
Visible Injury: Small bruise ≤5cm over head

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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 mother was changing younger sibling; 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

"A minor head injury like this is quite common in toddlers. Their skulls are still soft, and they tend to fall often. The good news is that 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."

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:

- **CT uses strong X-rays**, which expose the developing brain to radiation
- **In children, this radiation adds up over time**, and should only be used when absolutely necessary
- We look for certain red flags — like **loss of consciousness**, **vomiting 3 or more times**, **seizures**, or **large bruises over 5 cm**
- 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 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

Adult Head Injury

Scenario: 40-year-old man brought to A&E by ambulance following a fall
Role: FY2 doctor in A&E
Setting: Hospital Emergency Department

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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)

- **P**ast Medical History: Any history of head injuries, epilepsy, hypertension?
- **M**edications: "Are you on any medications like blood thinners?"
- **A**llergies: Any known allergies?
- **F**amily history: Any neurological illnesses in the family?
- **T**ravel: No relevance
- **O**ccupation: "What do you do for work?"
- **S**ocial History: Smoking, alcohol intake, living situation
- **A**ttendance: 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 (Verbalised)

"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

"Let me explain clearly. Sometimes after a fall, there can be **bleeding inside the skull** that may not cause immediate symptoms. You may feel okay now, but the pressure can increase over time, leading to dangerous complications such as collapse, loss of consciousness, or even life-threatening conditions."

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 want to be honest with you – internal bleeding may not cause symptoms until it gets worse. If you leave without the scan, you may deteriorate suddenly and risk severe brain damage or death. We strongly recommend staying for the CT scan and observation."

12. Management Plan

- Immediate admission for monitoring
- **CT head within 1 hour** per NICE NG232
- 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

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 – Incidental Stroke on Follow-Up Scan

Setting: Neurosurgical or GP Follow-Up Clinic
Role: FY2 Doctor
Patient: Young adult with known stable intraventricular meningioma
New Finding: Silent infarct seen on routine follow-up imaging

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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 'blanking 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 supply to a part of the brain is interrupted — usually by a clot. Even though you didn't feel anything, the scan shows that one 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

- Start antiplatelet:
  - Aspirin 75 mg daily (unless contraindicated)
  - If AF or cardiac source found → may need anticoagulation (refer to specialist)
- Start statin if not already on:
  - Atorvastatin 20–40 mg (secondary prevention)
  - 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: 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 will 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: GP Clinic
Role: FY2 Doctor
Patient: 34-year-old woman with recent flu, now presenting with progressive limb weakness

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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

- **P**ast Medical History: "Do you have any long-term conditions like diabetes or autoimmune disorders?"
- **M**edication: "Are you on any regular medications?"
- **A**llergies: "Any drug or food allergies?"
- **F**amily History: "Anyone in your family with neurological or immune conditions?"
- **T**rauma: "Any recent injury to your spine or neck?"
- **O**ccupation: "Do you work in a desk job or active role?"
- **S**ocial: "Do you smoke or drink?" "Any recent travel?"
- **A**ctivities/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 usually starts with **tingling or weakness in the legs**, then can **spread upwards**, sometimes affecting breathing or swallowing in severe cases.
It's not contagious, and it's treatable — but needs to be managed urgently in hospital, because it can progress quickly."

10. Management Plan

A. Immediate Action

- "I'm quite concerned — this could become life-threatening if it affects your breathing or heart rhythm."

- "I'm arranging for you to go to hospital immediately. 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)

- **IV 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
- 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: GP Surgery
You are: FY2 Doctor
Task: Focused history and structured examination for a 65-year-old man with difficulty initiating walking.

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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 essential for smooth movements — so when it's low, it can cause tremors, slowness, stiffness, and balance issues."
"It's a progressive condition, but with early diagnosis and the right treatment, many people continue to lead full, active lives for many years."

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."

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. We'll help with informing the DVLA if needed."

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 – Reasoning Summary

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

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Parkinson's Disease Follow-up

Setting: GP Surgery – Follow-up Consultation
Candidate Role: FY2 Doctor
Patient: 62-year-old man, diagnosed with Parkinson's Disease 3 months ago by a neurologist. Started on methyldopa. Present today for follow-up and has several questions.

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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. Social History

- "How are you coping at home?"
- "Do you live alone or with someone?"
- "Do you have any help around the house?"

e. 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

"Parkinson's is a condition where certain cells in the brain gradually stop working properly. These cells usually produce a chemical called dopamine that helps coordinate movement. As dopamine reduces, it becomes harder to control certain movements—causing tremors, stiffness, or trouble initiating movement.
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 methyldopa 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.

Hyponatremia – Elderly Confusion

Scenario:
You are an FY2 doctor in A&E.
An 86-year-old man has presented with new-onset confusion, accompanied by his daughter. Bloods show Na+ 110 mmol/L. Your task is to assess the situation and explain the diagnosis and management to the daughter.

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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 a salt the body needs to keep brain and nerve function normal. In elderly patients — especially those on medications like water tablets — the sodium level can drop too low. That can lead to drowsiness, memory issues, and confusion.
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:

- Hypertonic saline if symptomatic and severely low sodium (NICE)
- Otherwise isotonic fluids or fluid restriction depending on volume status
- Monitor sodium rise (not more than 8–10 mmol/L in 24 hours)

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

Addressing Anemia:

- "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 **hyponatremia**.
- **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 –Early Presentation

Scenario:
You are an FY2 doctor in a GP practice.
A 65-year-old woman has come in because her daughter made the appointment. She herself feels fine and is unaware of any problem.

---

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 (Verbalised + Known Result)

- "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 dementia**. That said, we still need to rule out other possible causes and confirm this with a specialist."

9. Lay Explanation – Breaking the News (Natural BBN Format)

"I can see this news has come as a shock, 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."

Lifestyle Advice:

- "Keeping physically and mentally active — puzzles, walking, reading, or social activities — may help slow down memory decline."
- "Managing other conditions like blood pressure, cholesterol, and diabetes is also important."
- Encourage healthy diet and sleep patterns

Support Services:

- "Once we have a clear diagnosis, we'll also connect you with support groups and local services."

12. Reassurance, Safety Netting & Follow-Up

"I know this is a lot to take in. You're not alone in this — we'll support you at every step."
"If you notice your memory worsening rapidly, or if you feel low, confused, or unsafe in any way — please call us straight away."
"We'll see you again after your memory clinic appointment and go over the results together."
→ Arrange blood tests + referral
→ Book GP follow-up in 2–4 weeks to review results

Student Note – Diagnostic Reasoning

This patient shows gradual memory loss and disorientation over 12 months, impacting safety (e.g., leaving stove on, getting lost), and a low MMSE score (22/30).
Key differential causes (delirium, depression, B12 deficiency, thyroid dysfunction, medication side effects) must be ruled out.
Provisional diagnosis: **early Alzheimer's dementia** or mixed-type dementia.
Next step is specialist referral and full workup to confirm type and plan management.

MMSE

Station Type: Cognitive Assessment (SimMan)
Setting: FY2 doctor in acute medicine ward
Patient: 70-year-old man, admitted with MI, being discharged today
Task: Nurses have raised concerns about memory. You are asked to 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 Mr [Patient]. He is a 70-year-old man who was 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."

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

---

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 — tailored for PLAB 2 so you can recall them under pressure and score full marks:

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. Example:

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:

- **Orientation**: *"Time, place, situation – 10 total."*
- **Registration**: *"Ball. Car. Dog."*
- **Serial 7s**: *"100 minus 7, again, again…"*
- **Language**: *"Pen, watch. No ifs. Three-step task. Read. Write. Copy."*

5. Understand Why They're Asked

Knowing the purpose helps retention:

- Orientation: **awareness of surroundings**
- Registration/Recall: **short-term memory**
- Attention: **focus and calculation**
- Language: **naming, comprehension, repetition, writing**
- Copying: **visuospatial ability**

Red Flag Pitfalls – Neuro & Vascular Cases

PLAB 2 Safety Sheet — Avoid these high-risk mistakes to maintain full marks across consultation, diagnosis, and management domains.

TIA vs Stroke – Diagnostic Clarity

- Always ask: "Are you still experiencing symptoms now?"
  - If ongoing → Treat as **stroke** → call ambulance → **no aspirin** until CT rules out bleed.
  - If resolved → Suspect **TIA** → give **aspirin 300mg** if not contraindicated.
- Never mix up Bell's palsy and stroke — assess for limb weakness, speech, and vision.
- Don't give aspirin before excluding haemorrhage via imaging in stroke.

Urgency and Referral Pathways

- **TIA Clinic Referrals:**
  - Symptoms within 7 days → urgent referral **within 24 hours**
  - Symptoms over 7 days → referral **within 7 days**
- Always ask if the patient drives; **advise 4 weeks off** after TIA.
- Don't advise patients with stroke symptoms to visit GP — always **call 999**.
- Avoid calculating TIA scores — not required in PLAB 2.

Communication and Language Traps

- Avoid jargon: say "mini-stroke" before using "TIA", explain terms like "lumbar puncture," "infarction."
- Don't use casual or emotionally loaded phrases ("big deal," "good news," "alcoholic").
- Use clear, respectful phrasing when involving relatives (e.g., don't say "bring your wife").

Management & Lifestyle Gaps

- Mention **clopidogrel for 2 years** after TIA (unless contraindicated).
- Highlight **cholesterol, BP control, and lifestyle change** after any vascular/neuro event.
- Don't forget driving advice or fail to link sleep apnoea with cardiac/stroke risk.
- Explain that CPAP can feel uncomfortable initially but is life-saving long term.

Telephone Consultations – Common Mistakes

- In suspected stroke: advise **emergency services** immediately.
- Never suggest "come to GP" or perform imaginary examination steps.
- Confirm patient safety (e.g., can open door for ambulance).
- Don't provide definitive diagnosis — instead, express clinical concern and urgency.

Bell's Palsy & Cranial Nerve Assessment

- Clarify that only the face is affected — no arm/leg weakness.
- Ask about eye symptoms and protect the eye at all times (drops, night tape).
- Rule out Ramsay Hunt (vesicles) and brain tumour symptoms (vomiting, persistent headache).
- Don't downplay Bell's palsy — while often self-limiting, it can be distressing and disabling.

Chapter 5: Cardiovascular

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: A&E | 55-year-old man | Central chest pain for 2–3 hours
Your Role: FY2 doctor in the Emergency Department

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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"

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 (MONA + 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.
- **Nitrate spray** under the tongue — to relieve pressure on the heart
- **IV morphine (or diamorphine)** for the pain, along with **metoclopramide** to prevent nausea
- **Oxygen** if your oxygen level drops
- **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, we'll refer you to the **cardiology team**.

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.

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
55-year-old 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)**. MONA initiated. Awaiting ECG and troponin. Referred to cardiology once confirmed.

Unstable Angina

Scenario: GP setting | 65–70-year-old patient with history of intermittent chest pain
Your Role: FY2 doctor in General Practice

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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 – TAC Approach

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.
- 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 3–6 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 clopidogrel or ticagrelor.
- **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.

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
65-year-old patient 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.

Stable Angina

Scenario: GP Setting | 65-year-old male with exertional chest pain for 6 months
Your Role: FY2 doctor in General Practice

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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?
→ "Yes, I avoid the uphill path now and go slower than before."

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:

- I'll start you on a **GTN spray** — it's a fast-acting medication you can spray under your tongue when the pain starts. It works within minutes.
- I'll also prescribe **aspirin 75 mg** daily — this helps prevent clots and protect your heart
- We'll arrange **blood tests** to check for:
    - Anaemia
    - Blood sugar (for diabetes)
    - Cholesterol
    - Kidney function (before long-term medications)
- I'll refer you to the **Rapid Access Chest Pain Clinic (RACPC)** — this is a specialist clinic where they will do more tests like:
    - A **stress test** to see how your heart works during exercise
    - Possibly **scans or angiography** to look at your heart's blood supply
- Once assessed, they may recommend long-term medicines like:
    - A **cholesterol-lowering tablet**
    - A **blood pressure medicine**
    - Or additional treatments to keep your heart healthy

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.

In that case, don't wait — **go straight to A&E** or call 999.

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. 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

65-year-old 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 and aspirin, ordered routine bloods, and referred to RACPC for formal diagnosis and 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, 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: A&E | 25-year-old male | Central chest pain following viral illness
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. In pericarditis, that lining becomes inflamed, usually due to a recent viral infection — like the one you had last week. 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 with conservative management:

- **Anti-inflammatory treatment**: We'll start you on **ibuprofen 400–600 mg three times daily** for 1–2 weeks to reduce the inflammation.
- **Gastroprotection**: You'll also be given a tablet like **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
- **If not improving**: If your pain doesn't improve in a few days, or worsens, we'll arrange a GP review and they may add **colchicine**, which helps reduce recurrence and inflammation.
- **Steroids**: 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 full evaluation.
- **Lifestyle advice**: You should rest while you're recovering, avoid strenuous physical activity, 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 arrange for your GP to review you in **7–10 days** to assess response and decide if further treatment is needed.

- If you feel better and pain resolves, that's excellent — but do complete the course and avoid physical exertion for at least 1–2 weeks.
- If symptoms recur or worsen, the GP may refer you to **cardiology**.

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, gastroprotection, safety netting, and GP follow-up.

Shingles (Herpes Zoster)

Scenario: GP Clinic | 70-year-old patient | Chest pain with suspected rash
Your Role: FY2 doctor in General Practice

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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.
- **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're eligible for the **NHS shingles vaccine** — offered to people between **65 and 80**. We'll arrange this for you with our nurse team after this episode clears.

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 or gabapentin.
- Once fully recovered, we'll arrange your **shingles vaccination** to reduce future risk.

Diagnostic Note

70-year-old 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.

Post-Herpetic Neuralgia – Follow-Up

Scenario: GP | 55-year-old male | Follow-up 1 week after shingles diagnosis | FY2 doctor

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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)
  - **Gabapentin** or **pregabalin** (if amitriptyline unsuitable)
- These help calm overactive nerve signals and reduce long-term pain.

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).

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/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.
Before we wrap up — is there anything else you wanted to ask or anything I've not addressed today?

Aortic Dissection

Setting: Emergency Department / GP Walk-in / Acute Medical Unit
Role: FY2 Doctor
Patient: 68-year-old (typical age), no known hypertension
Presenting Complaint: Sudden onset severe back pain between shoulder blades

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

Because aortic dissection can compromise blood flow to vital organs:

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. 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

A. Immediate Stabilisation

- **IV Morphine** → Pain relief
- **IV Ondansetron** → For nausea
- **IV Labetalol** → First-line to reduce BP (target systolic <120 mmHg)
- 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
- **Bloods**:
    - FBC, U&E, LFTs, CRP
    - **Troponin** → Heart strain
    - **Lactate** → Hypoperfusion
    - 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**

→ Refer to **cardiology + vascular team** based on classification and stability

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
- Education on symptom recognition and when to seek help

Summary Note

- Sudden, tearing **interscapular back pain** → Classic red flag for **aortic dissection**
- Pain explored using **SOCRATES**
- Checked for **multi-organ hypoperfusion** (brain, kidneys, spinal cord)
- Exam includes **radial-radial delay, BP, unequal pulses**
- Management: **Morphine, labetalol, urgent CT**, early surgical referral
- Classification based on **Stanford Type A vs B**
- Clear, calm, **lay explanation** and **immediate action taken**

Acute Decompensated Heart Failure – A&E

Setting: Emergency Department
Role: FY2 Doctor
Patient: 65-year-old man

Presentation: Shortness of breath and generalised swelling
Mannequin Findings: Ascites, testicular swelling, bilateral pitting oedema, bibasal crackles

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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)
"Let's talk about the breathlessness first."

- **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 (Clarification)
"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?"
- "Is it painful or just uncomfortable?"
- "Does the swelling reduce overnight or stay the same?"

4. Targeted System-Based Screening
To explore potential causes of fluid overload:

- "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 – I didn't take anything after the first."*
- "Are you taking a water tablet (diuretic) now?"
  → *"No, it makes me go to the toilet too often."*

Follow-up:

- "Has that made you stop taking it altogether?"
- "Did anyone ever explain why it's important to take it?"

5. Differential Diagnosis Screening
"Just to make sure we're not missing anything else:"

- "Any history of kidney or liver problems?"
- "Any yellowing of the skin or eyes?"
- "Any frothy urine, or reduced urine output?"
- "Have you had any recent weight gain?"
- "Any shortness of breath with wheezing or cough with phlegm?"

6. MAFTOSA

- **P** – Previous MI x2, likely IHD; no known valvular issues
- **M** – On cardiac meds, avoids diuretic
- **A** – No allergies reported
- **F** – No family history mentioned
- **T** – Retired; not physically active
- **O** – Non-smoker, no alcohol excess
- **S** – Lives with wife, struggles to manage due to swelling and fatigue
- **A** – No falls or confusion; eating little due to abdominal bloating

7. 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 and it'll get worse."*
- **Expectations**: "What were you hoping we could do today?"
  → *"Help me breathe better and reduce the swelling."*

8. Examination (Refer Abdomen chapter for detailed examination steps)
"I'd now like to examine your chest, tummy, and legs to check where the swelling is and how your lungs are working. Is that alright?"
Findings (from mannequin):

- **Chest**: Bilateral bibasal crackles → pulmonary oedema
- **Abdomen**: Distended with shifting dullness → ascites
- **Scrotum**: Bilateral testicular swelling
- **Legs**: Bilateral pitting oedema to knees
- **Prostate**: Enlarged (rectal exam)
- **Vitals**: Raised RR, tachycardia, borderline low O2 sats

9. Provisional Diagnosis (Lay Explanation)
"Based on everything you've told me — and the findings from the examination — it looks like you have a condition called **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. That's why you're feeling breathless and swollen."

10. Immediate Investigations
"We'll need to admit you to hospital for further testing and management."
Initial Investigations:

- **ECG** – previous MI, rhythm, hypertrophy
- **Chest X-ray** – pulmonary congestion, cardiomegaly, pleural effusion
- **Blood tests**:
    - FBC
    - U&Es
    - LFTs
    - BNP or NT-proBNP
    - Troponin (if chest discomfort)
    - CRP
- **Urine dipstick** – check for protein
- **Echocardiogram** – confirm diagnosis, assess ejection fraction

11. Acute Management Plan
"We'll begin treatment immediately while running tests."

- **IV loop diuretics** (e.g. furosemide) → to remove excess fluid
- **Oxygen therapy** if saturation low
- **Fluid balance monitoring** → daily weight, strict input/output chart
- **Catheter** → if difficulty with frequent urination
    - "You mentioned trouble going to the toilet with water tablets — would it be alright if we place a catheter temporarily to help manage the fluid?"
- **Cardiology team referral** for further management
- **Dietitian input** → fluid and salt restriction advice
- **Review medication compliance** and restart heart failure meds (e.g., ACE-I, beta-blocker, MRA) once stable

12. Safety Netting
"This is a serious but manageable condition. You're in the right place, and we've started treatment.
If at any point you feel more breathless, light-headed, or notice chest pain — please tell the staff immediately.
Once we stabilise you, we'll create a plan to manage this long term and prevent it from happening again."

13. Follow-Up Plan

- Admit under **cardiology** or **acute medical unit**
- **Daily review** of fluid balance, weight, renal function, and electrolytes
- **Echo and BNP** results to guide ongoing diagnosis
- Start **long-term heart failure therapy** (NICE CG187-guided):
    - Beta-blocker
    - ACE inhibitor / ARNI

    - Mineralocorticoid receptor antagonist
    - Loop diuretics as needed
- **Discharge plan**:
    - Involve **heart failure nurse**
    - **GP review in 1 week**
    - **Outpatient cardiology follow-up**

Summary

- Patient: Generalised oedema + dyspnoea in post-MI elderly man
- Explored **breathlessness using ODIPARA**, and clarified systemic fluid overload
- Differentiated **cardiac vs renal/liver causes**
- Identified **diuretic non-compliance due to urinary symptoms**
- Mannequin exam confirmed classic signs of **biventricular heart failure**
- Gave **clear lay explanation**, NICE-aligned investigation and management
- Addressed **toilet concern** with temporary catheterisation
  → High-scoring across all PLAB 2 domains: data gathering, clinical judgment, empathy, explanation, and safety

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Scenario variation – Heart Failure without Mannequin (Liver Enlargement)

Setting: A&E / Acute Medical Assessment
Patient: 65–70-year-old man
Presentation: Shortness of breath and swelling
History: Previous MI 7 years ago
Note: No mannequin present

Key Differences from Scenario 1

1. **No physical mannequin for examination**
   → You must **verbalise** your examination plan clearly, and the examiner will **provide findings**.
2. **Abdominal examination reveals liver enlargement**
   → On saying: "I'd like to examine your tummy," the examiner will say: "The liver is enlarged."
3. **No testicular swelling or ascites mentioned** unless you ask specifically.

Modified Examination Script (Verbalised)

"I'd like to check your chest for any signs of fluid in the lungs, examine your tummy for swelling or organ enlargement, and examine your legs for any signs of fluid buildup. I'll also check your vital signs and oxygen levels."

Findings (given by examiner):

- Bibasal crackles
- **Liver enlargement**
- Bilateral pitting oedema to the shins
- No other findings unless prompted

Diagnostic Explanation

"It looks like your heart isn't pumping blood around as effectively as it should, which is causing fluid to build up — in your lungs, your legs, and also leading to a swollen liver. This condition is called **heart failure**, and the fluid overload is one of the key features."

Updated Management Plan (Additions)

In addition to Scenario 1 plan:

- Acknowledge **congestive hepatomegaly** as part of right-sided heart failure
- Emphasise importance of **fluid offloading** via IV diuretics
- Monitor **LFTs** (Liver Function Tests) as part of blood work
- Liver size should improve with resolution of congestion

"The liver is enlarged due to congestion — basically, fluid backing up because the heart isn't pumping strongly enough. The good news is, this usually gets better once we reduce the fluid using medication."

Key Communication Point

"I know you're worried about needing to pass urine often — we can use a catheter while you're receiving the fluid medication, just like before. That way, we can keep you comfortable and monitor the progress."

Summary

No mannequin = **examination is verbalised**

- Key finding = **hepatomegaly**
- Focus = still **heart failure**, but emphasise **right-sided features**
- Management = same structure + **monitoring liver and symptom resolution**

Heart Failure in GP

Setting: GP
Role: FY2 Doctor
Patient: 80-year-old woman
Presenting Complaint: Shortness of breath
Background: No cardiac history, non-smoker, no family history, on omeprazole

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1. Introduction & Consent

"Hello, I'm one of the doctors here at the surgery. Could I confirm your full name and date of birth please? Thank you.
I see you've come in today because you're feeling a bit breathless — is that right?
I'd like to ask a few questions, examine you, and explain what we'll do next. Is that alright?"

2. Presenting Complaint – Breathlessness (ODIPARA)

"Let's start with the breathlessness."

- **O – Onset**: "When did you first notice the shortness of breath?"
- **D – Duration**: "Has it been persistent, or does it come and go?"
- **I – Intensity**: "Has it been getting worse?"
- **P – Progression**: "Did it come on suddenly or gradually over time?"
- **A – Aggravating/Relieving**:
    - "Does it get worse with walking or lying down?"

    - "Does sitting up or resting help?"
- **R – Radiation**: "Any tightness or discomfort in the chest?"
- **A – Associated symptoms**:
    - "Any swelling in your ankles or legs?"
    - "Any tiredness or feeling unusually low in energy?"
    - "Any cough, wheeze, or fever?"
    - "Do you ever wake up at night gasping for air?"

3. Focused Medical History

- "Have you ever been told you have any heart problems before?"
  → *No*
- "Have you ever had a heart attack or heart valve disease?"
  → *No*
- "Any kidney or lung problems?"
  → *No*
- "Do you smoke or drink alcohol?"
  → *No smoking, occasional alcohol*
- "Anyone in your family had heart issues or breathing problems?"
  → *No*

4. Drug & Allergy History

- "Are you taking any medications regularly?"
  → *"Yes, just Omeprazole for my stomach."*
- "Any recent changes in medication?"
- "Do you have any allergies to medications?"
  → *None known*

5. Social & Functional History (MAFTOSA)

- **F** – Any history of heart failure or early cardiac events in family? → *No*
- **T** – Any history of smoking or tobacco use? → *No*
- **O** – Do you drink alcohol regularly? → *Occasional*
- **S** – How is your diet and fluid intake? Any recent change in weight?
- **A** – "Are you able to manage your daily tasks at home? Do you feel more tired than usual?"

6. ICE

- **Ideas**: "What do you think might be causing this?"
  → *"Maybe I'm just getting old?"*
- **Concerns**: "Is there anything you're particularly worried about?"
  → *"I'm not sure if this is something serious."*
- **Expectations**: "What were you hoping we could help you with today?"
  → *"Just want to make sure it's nothing dangerous."*

7. Examination (Verbalised)

"I'd now like to check your breathing, your heart rate, and also your legs and neck for any signs of fluid buildup. Would that be alright?"

Findings provided by examiner:

- **JVP raised**
- **Bilateral ankle pitting oedema**
- **Chest clear** on auscultation
- **Pulse and BP normal**
- No murmurs or wheeze

8. Provisional Diagnosis (Lay Explanation)

"Even though your lungs sound clear and you haven't had heart issues in the past, the signs I've found today — particularly the swelling in your ankles and a raised neck vein — suggest your heart might not be pumping as strongly as it should.

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 in different parts of the body — like your ankles or lungs.

In your case, it may be due to **age-related changes** rather than a previous heart attack or structural damage."

9. Investigations (NICE NG106-aligned)

"We'll need to run a few tests to find out how urgently you need to see a heart specialist."

- **Blood test**:
  - **BNP (B-type Natriuretic Peptide)** — to assess heart strain
  - FBC, U&Es, LFTs, TSH, HbA1c
- **Chest X-ray** – to check for heart size and fluid
- **ECG** – to detect rhythm issues or silent infarcts
- **Urinalysis** – to check for protein or renal cause
- **Spirometry + Peak Flow** – to exclude other causes like asthma/COPD

10. Explain BNP Test & Referral Process

"There's a specific blood test called **BNP** that tells us how much strain your heart is under. Based on that result:"

- If BNP is **over 2000** → We'll refer you to a cardiologist **within 2 weeks**
- If BNP is **raised but under 2000** → Referral within **6 weeks**

"So either way, we'll treat this urgently. The BNP level helps us decide how quickly you need to be seen."

11. Management Plan

"We'll arrange the tests today and get your results back as soon as possible. If the BNP is high, we'll fast-track your referral to a specialist. In the meantime:"

- **Monitor weight and fluid intake**
- **Elevate legs when sitting** to reduce swelling
- **Call GP if breathlessness worsens, or chest symptoms develop**
- Hold off on prescribing diuretics until cardiology confirms diagnosis unless worsening
- Provide NHS leaflet on heart failure
- Reassure: "This is manageable, and we've picked it up early"

12. Safety Netting & Follow-Up

"Please come back immediately if you notice:

- Sudden worsening of breathlessness
- Chest pain or tightness
- Dizziness or fainting
- Swelling that spreads rapidly

We'll call you once the BNP and other results are back. I'll also book a follow-up appointment in **one week** to review your progress or sooner if the test flags up anything urgent."

Summary

- Atypical heart failure in **elderly, well patient with no cardiac history**
- Chest clear, but **JVP raised + pitting oedema**
- History explored with **ODIPARA** + focused risk screening
- Clearly explained **heart failure as age-related pump failure**
- Followed **NICE NG106** for **BNP-guided referral urgency**
  → Scoring 12/12 across: data gathering, clinical judgement, communication, empathy, and safe planning

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Infective Endocarditis

Setting: GP Surgery
Role: FY2 Doctor
Patient: Mr X, 40 years old
Presenting Complaint: Feeling feverish and generally unwell, sweating
Background: On methadone for heroin withdrawal

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1. Introduction & Consent

"Good morning, I'm one of the doctors here today. Could I confirm your full name and age, please? Thanks. I understand you've not been feeling well recently — can you tell me more about that?"

2. Presenting Complaint – Fever & Malaise (ODIPARA)

"Let's talk about the fever first."

- **O – Onset**: "When did all this start?"
- **D – Duration**: "Has it been there every day since it started?"
- **I – Intermittent or constant**: "Do you feel feverish all the time, or does it come and go?"
- **P – Progression**: "Is it getting better, worse, or staying the same?"
- **A – Aggravating or relieving**: "Does anything make it worse — like time of day or activity?"
- **R – Radiation**: "Is the discomfort localised anywhere — for example in the chest, back, or joints?"
- **A – Associated symptoms**:
  - "Have you had chills or shivering episodes?"
  - "Any drenching night sweats?"
  - "Do you feel unusually tired or washed out?"
  - "Have you lost any weight or appetite recently?"
  - "Any headaches, dizziness, or blurred vision?"
  - "Any joint or muscle pain?"
  - "Any new rashes, lumps, or colour changes in your skin?"

3. Focused Symptom Review – Infection Screen

"Just to make sure we're not missing anything:"

- "Any cough, sore throat, or runny nose?"
- "Any chest tightness or breathlessness?"
- "Any pain or burning when passing urine?"
- "Any tummy pain, diarrhoea, or vomiting?"
- "Any recent dental work or skin wounds?"
- "Have you travelled recently, or had any insect bites?"

4. Infective Endocarditis Risk Factors

"Can I ask a few questions related to your past health?"

- "Have you ever been told you have a heart murmur or heart valve problem?"
- "Have you had any heart surgery — like valve replacement or pacemaker?"
- "Any history of endocarditis or heart infection in the past?"
- "When did you last inject drugs, if you're comfortable answering?"
- "Have you ever shared needles or injecting equipment?"
- "Have you had any skin infections, abscesses, or ulcers recently?"

5. PMAFTOSA

- **P** – Any long-term conditions like diabetes, cancer, or autoimmune disease?
- **M** – Currently on methadone. Any other meds, including OTC or herbal supplements?
- **A** – Any medication allergies, especially penicillin or antibiotics?
- **F** – Family history of heart conditions or sudden cardiac death?
- **T** – Do you currently smoke?
- **O** – Do you drink alcohol? How often?
- **S** – Any other substances — pills, cannabis, inhalants?
- **A** – Are you currently housed? Do you have support at home?

6. ICE

- **Ideas**: "Any thoughts about what this might be?"
  → *"Could it be the methadone or withdrawal?"*
- **Concerns**: "Is there anything you're especially worried this could be?"
  → *"Something to do with my heart maybe?"*
- **Expectations**: "What were you hoping I could do for you today?"
  → *"Just figure out what's going on – I feel rough."*

7. Effect on Life

- "Have you been able to work or manage your day-to-day tasks?"
- "How has your sleep and appetite been lately?"

8. Examination (Verbalised)

"I'd now like to check your temperature, heart rate, blood pressure, and oxygen levels. I'll also listen to your heart and lungs, and check your skin and hands for any signs of infection or complications. Is that okay?"

Say what you're looking for:

- **General**: Sweaty, pale, unwell appearance
- **Vitals**: Fever, tachycardia, raised CRP/ESR
- **CV**: New murmur, raised JVP
- **Hands**: Splinter haemorrhages, Osler nodes, Janeway lesions, clubbing
- **Skin**: Petechiae, purpura, signs of emboli
- **Lungs**: Bibasal crepitations (fluid overload or emboli)
- **Neuro**: Focal signs → embolic stroke

9. Provisional Diagnosis

"Based on your symptoms — especially the persistent fever, fatigue, and your history of injecting drug use — I'm concerned about something called **infective endocarditis**."

10. Explanation

"Let me explain what that means. 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 stick to the heart valves and cause an infection there, which we call **infective endocarditis**.

It's a serious condition, and if not treated, it can damage the valves or spread to the lungs, brain, or other organs. That might explain why you've been feeling feverish, tired, and unwell.

The good news is, if we catch it early and start the right antibiotics, it can be treated successfully."

11. Management Plan

A. Immediate Action – Urgent Hospital Admission

- "We'll arrange for you to go to A&E today by ambulance."
- "We'll inform the team that we're concerned about infective endocarditis."

B. Investigations in Hospital

- **Blood cultures** x3 from different sites, before antibiotics
- **Echocardiogram** (TTE first, TOE if needed)
- **Bloods**: FBC, U&Es, LFTs, CRP, ESR, coagulation profile
- **ECG** – to detect conduction abnormalities
- **CXR** – to assess for pulmonary emboli or heart failure
- **Neurological review** if any focal signs or confusion

C. Treatment

- IV antibiotics (e.g. vancomycin + gentamicin) for **2–6 weeks** based on culture
- Monitor for complications:
  - Valve damage → cardiology/surgical team
  - Septic emboli → neuro, respiratory, ophthalmology input
  - Persistent infection → repeat echo, specialist input
- If complications: valve surgery may be required

D. Holistic Support

- **Harm reduction**:
  - Refer to **substance misuse team**
  - Offer HIV and hepatitis B/C screening
  - Connect with **needle exchange** or detox service

- **Social support**:
    - Housing, addiction counsellor, community liaison before discharge

12. Safety Netting & Follow-Up
"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."
"The hospital will handle your treatment and monitoring, and they'll arrange all follow-up imaging, blood tests, and specialist reviews after discharge."
"We'll be in touch to support you with your recovery and coordinate with any addiction services you're linked with."

Summary

- Presented with vague fever, **used diagnostic pivots** (IVDU + unexplained fever)
- Explored symptom severity with **ODIPARA**
- Performed full **infection differential screen** and IE-specific red flags
- Clear, natural **lay explanation** of IE pathophysiology and urgency
- NICE-guided **referral, investigations, antibiotics, and echo**
- Included **holistic care**: addiction, social, infection screening
- Calm, professional safety netting and escalation advice

Acute Heart Failure After Surgery – Post-Cholecystectomy Dyspnoea

Setting: A&E
Role: FY2 Doctor
Patient: Mrs X, 68 years old
Presenting Complaint: Breathlessness 3 days after laparoscopic cholecystectomy

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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, Mrs Walters. 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)
"Let's start with the breathlessness."

- **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?"

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 check your temperature, pulse, blood pressure, oxygen level, and examine your heart, lungs, abdomen, and legs. Is that alright?"

Findings provided by examiner:

- **Vitals**:
  - Temp: 36.8°C
  - HR: 104 bpm
  - BP: 130/80
  - RR: 26/min
  - O_2: 91% on room air
- **CV**: Raised JVP, S3 present
- **Chest**: Bibasal crackles
- **Legs**: Bilateral ankle oedema
- **Abdomen**: Healed laparoscopic wounds, soft, non-tender

9. Provisional Diagnosis

"Given your breathlessness, fluid signs, and recent surgery, I'm concerned you may be experiencing **acute heart failure**. This can sometimes occur after operations due to fluid overload, stress on the heart, or unmasking of an underlying heart condition."

10. Explanation

"Your heart works like a pump to circulate blood. Sometimes, especially after surgery, the body retains fluid or undergoes stress, which can unmask weakness in the heart.

In your case, fluid appears to be building up — in the lungs, legs, and circulation — making you breathless and tired. This condition is called **heart failure**, but it doesn't mean your heart has stopped. It just means it's struggling to cope with the demands right now.

The good news is, with the right treatment, this is manageable. We've caught it early."

11. Management Plan

A. Investigations (Urgent)

- **BNP or NT-proBNP** – to confirm diagnosis
- **ECG** – rhythm, ischaemia
- **CXR** – pulmonary congestion, cardiomegaly, effusions
- **Echocardiogram** – assess ejection fraction and valve status
- **Bloods**:
  - FBC
  - U&Es, LFTs (renal and hepatic congestion)
  - CRP (to rule out pneumonia)
  - Cardiac enzymes (if chest symptoms)

B. Initial Treatment (Emergency A&E Care)

- **Sit patient upright** – improves ventilation
- **Oxygen therapy** (target O_2 sat >94%)
- **IV furosemide** (e.g. 40 mg) to remove excess fluid
- **Insert catheter** – monitor urine output
- **Strict fluid balance and daily weights**

C. Referral & Monitoring

- Admit under **acute medical team**
- Cardiology referral for heart failure management
- Monitor **electrolytes, renal function, fluid response**
- Further tests as guided by echo findings

12. Safety Netting & Follow-Up

"We're going to admit you now and start treatment straight away. If your symptoms worsen — more breathlessness, chest pain, dizziness — please press the emergency buzzer.
Once you're stable, the team will arrange follow-up tests and possibly start you on long-term medications to support your heart."
"If this turns out to be your first presentation of heart failure, we'll work with cardiology to make sure you have a proper diagnosis and plan going forward."

Summary

- Explored history using **ODIPARA + full differential screen**
- Assessed HF vs PE vs pneumonia logically
- Identified fluid overload signs (JVP, crackles, oedema)
- Gave **clear, confident lay explanation** of acute HF
- NICE-guided plan: **BNP, echo, IV furosemide, oxygen, admission**

Intermittent Palpitations – Middle-Aged Adult

Setting: GP Clinic
You are: FY2 Doctor
Presenting Complaint: Fluttering or thumping sensation in the chest

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1. Introduction & Consent

"Hello, I'm one of the doctors here today. Could I confirm your age please?
Thank you. I understand you've been feeling your heart beating differently. Would it be alright if I ask you some questions first to understand this better?"

"Let's go through this step by step to understand what's going on."

- **Duration**
  - "When did you first start noticing these irregular heartbeats?"
    → *"About 4 months ago."*
  - "Since then, how often have they occurred?"
    → *"Maybe 3 or 4 times."*
  - "Roughly how long does each episode last?"
    → *"Just a few seconds."*
- **Onset**
  - "Do they start suddenly or build up gradually?"
    → *"They come on very suddenly."*
- **Pattern**

- "Are the episodes completely random, or do they tend to happen during certain activities like walking, resting, or after meals?"
- "Have you noticed any changes in how often they occur?"

- **Relieving/Aggravating 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?"
- **Associated Symptoms**
  "When you get the palpitations, do you also notice any of the following?"
  - Dizziness or light-headedness?
  - Shortness of breath?
  - Chest discomfort or pain?
  - Sweating or anxiety?
  - Fainting or near-fainting episodes?
  - Visual blurring, nausea, or sense of panic?

3. Risk Factor Screening – Targeted & Efficient

- **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?"
  - "Any history of childhood heart conditions?"
- **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?"

5. 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

6. ICE

- **Ideas**: "Do you have any thoughts on what might be causing it?"
  → "Not sure — maybe stress or age-related?"
- **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."

7. Effect on Life

- "Have these episodes affected your ability to work, exercise, or sleep?"
  → "No, they're too brief to stop me doing anything."

8. Examination (Verbalised)

"I'd now like to check your vital signs and examine your heart and lungs — is that okay?"
Expected findings:

- Pulse: Regular
- BP: Normal
- Chest: Clear
- Heart sounds: Normal
- No signs of heart failure or hyperthyroidism

9. Provisional Diagnosis

The episodes of brief, sudden-onset fluttering in the chest, with no chest pain, dizziness, or underlying cardiac history, suggest a **paroxysmal supraventricular tachycardia (SVT)** or an early **paroxysmal atrial fibrillation**. These are abnormal rhythms of the heart that come and go on their own and can occur even in healthy individuals. Although not usually life-threatening, they need to be investigated properly.

10. 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 many people, it's harmless — but we need to monitor your heart to capture what's happening when you feel it, so we can be completely sure."

11. Management Plan (NICE & NHS Aligned)

- **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**:
    - Full blood count (FBC)
    - U&Es, glucose, calcium
    - Thyroid function test (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

12. 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.
We'll organise your ECG and blood tests now, and I'll arrange for a cardiology review. You don't need to stop work or driving unless you feel unwell during an episode.
We'll review your results here in about a week, and the heart monitor will help us capture more detail if needed."

Student Note – Diagnostic Reasoning

The diagnosis was based on:

- Sudden-onset brief palpitations without red flag symptoms
- No structural heart disease, no medication or thyroid triggers
- Normal examination
- No high-risk features (syncope, chest pain, breathlessness)

This points toward **SVT or paroxysmal AF**, both of which often require rhythm monitoring to confirm.

Case Variation – Older Adult with Risk Factors (70-Year-Old Male)

Differences in Background:

- Patient is older (70 years), with **known hypertension**, on treatment (e.g. amlodipine)
- **Positive family history** of premature cardiac disease (father had a heart attack)
- Occasional caffeine intake, otherwise similar symptom pattern to earlier case
- Palpitations are still intermittent and brief, but occur **in a higher-risk profile**

Adjusted Clinical Judgement & Management

Because of:

- Age over 65
- Hypertension (a structural risk factor)
- First-degree relative with ischaemic heart disease

→ The likelihood of **atrial fibrillation** or other pathological arrhythmia is significantly higher

Changes in Management:

- Investigations remain the same:
  - **12-lead ECG**
  - **24-hour/event monitor**
  - **Blood tests**: FBC, U&Es, glucose, calcium, TFTs
- **Referral becomes urgent**:
  - "Given your risk factors, I'm making an urgent cardiology referral — this means you should be seen within 4–6 weeks, rather than as a routine appointment."

- **Greater emphasis on monitoring for symptoms**:
    - "If any episode lasts longer than a few minutes, or is associated with dizziness, chest pain, or breathlessness — call emergency services immediately."

Ventricular Ectopics – Young Adult

Setting: GP Clinic
You are: FY2 Doctor
Presenting Complaint: Irregular heartbeat mentioned during travel vaccine consultation
Background: 30-year-old, stressed, drinks coffee and alcohol

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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"
    - "Any recent illness or fever?" → "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?"
- "Do you take any over-the-counter or herbal supplements?"
- "Any unintentional weight loss, heat intolerance, or tremors?"
- "Any history of thyroid issues?"
  → "No to all."

4. Targeted Risk Factor History

- "Any previous heart conditions or family history of early cardiac disease?"
- "Any known high blood pressure, diabetes, or cholesterol problems?"
- "Do you smoke, or use recreational drugs?"
  → "No cardiac history, no family history. I do drink and have a lot of caffeine."

5. 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, normal activities of daily living

6. ICE

- **Ideas**: "What do you think is causing it?"
  → "I thought maybe it's just stress or caffeine, but one day I thought I might be having a heart attack."
- **Concerns**: "Is anything in particular 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 and what I can do to stop it."

7. Effect on Life

- "Have you avoided doing anything because of this?"
  → "Not really, but it does make me anxious."

8. Examination (Verbalised)

"I'd like to check your blood pressure, heart rate, and listen to your chest. If that's okay?"

Findings:

- Vitals normal
- Heart rate regular
- No murmur
- No signs of thyroid disease or heart failure

9. Provisional Diagnosis

The ECG shows **ventricular ectopic beats** — these are extra heartbeats that originate from the lower chambers of the heart. Based on your normal examination, absence of structural heart disease, and the context of stress, caffeine, and alcohol use, this is likely a benign rhythm disturbance.

10. 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."

11. 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. Reassurance

- "No medication needed at this stage — we'll focus on addressing lifestyle triggers."

12. 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. If needed, we'll do further tests, but from what we see now, this is very manageable."

Student Note – Diagnostic Reasoning

The diagnosis was made based on:

- **ECG evidence** of isolated ventricular ectopics
- **Benign symptom pattern** — brief, no red flags
- **No structural risk** — normal exam, no cardiac history
- **Clear lifestyle triggers** — caffeine, alcohol, stress

This is a common, exam-relevant case of **benign ventricular ectopics in a healthy young adult**, requiring **reassurance and lifestyle advice**, not medication or urgent referral.

Atrial Ectopics in a Young Person

Setting: GP Clinic

You are: FY2 Doctor

Presenting Complaint: Fluttering or thumping sensation in chest

1. Introduction & Consent

"Hello, I'm one of the doctors here today. I understand you've been feeling some irregular heartbeats — would it be okay if I ask you a few questions first and then we can go through your ECG together?"

2. Presenting Complaint – Palpitations (ODIPARA)

- **O – Onset**: "When did this fluttering or thumping feeling first begin?"
  → "Over the last couple of weeks."
- **D – Duration**: "When you feel it, how long does it usually last?"
  → "Just a few seconds."
- **I – Intermittent or Constant**: "Does it come and go, or do you feel it all the time?"
  → "It comes and goes — usually once or twice a day."
- **P – Progression**: "Is it happening more often or getting worse?"
  → "Not really — same pattern."
- **A – Aggravating/Relieving Factors**:
  - "Do you notice it more when stressed, tired, or after coffee?"
    → "Yes, especially after coffee or when I'm cramming for exams."
  - "What happens when you exercise?"
    → "Oddly, it actually goes away when I'm active."
- **R – Radiation**: "Does the feeling move anywhere or stay in your chest?"
  → "It stays in the chest."
- **A – Associated Symptoms**:
  - "Do you get dizzy, breathless, or feel faint when it happens?" → "No."
  - "Any chest pain, tightness, or sweating?" → "No."
  - "Any recent fevers, infections, or weight loss?" → "No."

3. Differential Diagnosis Screening

- "Do you ever feel very anxious or panicked when these symptoms happen?"
- "Any recent change in sleep patterns or fatigue?"
- "Have you been taking any supplements or over-the-counter energy boosters?"
- "Any known thyroid problems or history of palpitations before?"
  → "No to all."

4. Targeted Risk Factor History

- "Do you have any medical conditions like high blood pressure, heart problems, or anaemia?"
- "Any family history of heart rhythm problems or sudden deaths?"
- "Are you currently taking any medications, including hormonal or acne treatments?"
- "How much coffee or energy drinks do you usually have?" → "About 4-5 cups a day."
- "Do you drink alcohol?" → "Only on weekends."

5. PMAFTOSA

- **P** – No chronic conditions
- **M** – No regular medications
- **A** – No known allergies

- **F** – No family history of heart conditions
- **T** – Non-smoker
- **O** – Drinks alcohol occasionally, 1–2 nights per week
- **S** – High stress levels due to upcoming exams
- **A** – Lives in student housing, managing independently

6. ICE

- **Ideas**: "Do you have any thoughts on what might be causing this?"
  → "I thought it could be anxiety or my caffeine intake."
- **Concerns**: "Is there anything you're particularly worried about?"
  → "Just scared it might be something serious like a heart problem."
- **Expectations**: "What were you hoping we'd do today?"
  → "I just want to be sure it's nothing dangerous."

7. Effect on Life

- "Has this affected your ability to study, sleep, or go about your daily routine?"
  → "It makes me worry sometimes, but I can still function normally."

8. Examination (Verbalised)

"I'd like to check your heart rate, blood pressure, and examine your heart and lungs. Is that alright?"

Expected findings:

- Vitals normal
- Heart rate regular at rest
- No murmurs, no signs of anaemia or thyroid disease

9. Provisional Diagnosis

Your ECG shows **atrial ectopic beats**, which are extra heartbeats that come from the top chambers of the heart. In a healthy person, these are usually harmless. They're often triggered by **stress, caffeine, tiredness, or alcohol**, especially in young adults.

10. Explanation

"Your heart normally beats in a steady, regular rhythm, like a metronome. But sometimes, extra signals can fire off from the top part of the heart — called the atria — causing an extra beat.
That's what we're seeing on your ECG: these are called **atrial ectopic beats**. They create that brief fluttering or thumping sensation.
The good news is that in someone your age, with no other medical problems or family history, this is a **benign finding**, which means it's not harmful.
These ectopic beats are usually triggered by **excessive caffeine, alcohol, poor sleep, or emotional stress** — which are common during student life.
Many people have them occasionally and don't even notice them."

11. Management Plan

A. Lifestyle Changes

- **Reduce caffeine** gradually — try to keep it under 2 cups/day

- **Moderate alcohol**, especially before sleep or in excess
- **Stress reduction**:
    - University counselling support
    - Daily stress management (breathing, meditation, mindfulness)
- **Exercise regularly**: At least 150 mins/week moderate aerobic activity
    - "It's great that you've noticed the symptoms improve with exercise — keep it consistent."

B. No Need for Further Testing

- "We don't need to do more tests at this stage unless symptoms change. Your ECG and examination are reassuring."

12. Safety Netting & Follow-Up

"While these extra beats are harmless in your case, please seek medical help if you ever experience:

- A prolonged episode that doesn't stop
- Chest pain
- Dizziness or feeling faint
- Trouble breathing

I'd recommend cutting back your caffeine starting this week and seeing how you feel. We can review you in a few weeks if it continues, but I don't think you need any further tests or medication right now."

Student Note – Diagnostic Reasoning

This was diagnosed based on:

- Clear ECG evidence of **atrial ectopics** (inverted P waves in lead II)
- No red flags: no chest pain, syncope, or family cardiac history
- Strong lifestyle correlation: stress, caffeine, alcohol
- Normal examination and vitals

  → All of which support **benign atrial ectopy** triggered by modifiable lifestyle factors

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Q-Risk Assessment (Q-Risk = 14%)

Setting: GP Clinic
You are: FY2 Doctor
Presenting Complaint: Follow-up of blood pressure and blood tests
Scenario: Q-Risk3 calculated at 14%

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1. Introduction & Consent

"Hello, I'm one of the doctors here today. Before we start, could I confirm your age please?
Thanks. I've reviewed your recent blood pressure and blood test results, and I'd like to talk to you about a tool we use called the **Q-Risk score**, which estimates your risk of heart disease or stroke over the next 10 years. Is it okay if we go over this now?"

2. Focused History

- "Have you been diagnosed with high blood pressure or high cholesterol before?"
- "Are you on any medications for your blood pressure or cholesterol?"
- "Do you smoke?"
- "How often do you exercise in a week?"

- "What does a typical day of eating look like?"
- "Do you drink alcohol? Roughly how many units per week?"
- "Have you been diagnosed with diabetes or kidney problems?"
- "Any close family members who had heart disease or stroke?"
- "Are you taking any medications like statins, blood thinners, or blood pressure tablets?"
- "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. It's all about prevention."

6. Management Plan

A. Lifestyle Advice

"Let's first go through what changes you can make yourself — these are the most powerful tools we have."

1. Diet

- Reduce saturated fats: avoid red meat, butter, fried foods
- Eat more fibre: oats, lentils, fruit, and vegetables
- Add oily fish twice a week (e.g. salmon, mackerel)
- Reduce salt intake (<6g/day), avoid processed foods
- Cut down on sugary drinks and takeaways

2. Exercise

- At least 150 minutes/week of moderate activity (e.g. brisk walking, cycling, swimming)
- Include strength training 2x/week if possible

3. Smoking

- If patient smokes: "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

- Avoid binge drinking

5. Weight Management

- Aim for a **BMI under 25**
- Offer referral to NHS dietician, weight loss programme, or GP health coach

B. Medication

"Because your risk is over 10%, we usually offer medication to protect the heart."

1. Statin Therapy

- Offer **Atorvastatin 20 mg once daily**
- Benefits: lowers bad cholesterol (LDL), reduces risk of heart attack/stroke
- Discuss side effects:
  - Common: mild muscle aches
  - Rare: liver effects
- Monitoring: Liver function test before starting, then at 3 and 12 months

2. Blood Pressure Management

- If BP ≥140/90 and not already on treatment:
  → Offer antihypertensive (e.g. **Amlodipine 5 mg**)
  → Recheck BP, renal function in 4–6 weeks

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. Even if you want to try lifestyle changes first, we can monitor and decide later."

7. Safety Netting

- "Let us know immediately if you develop any side effects — especially muscle pain, dark urine, or unexplained tiredness."
- "If you experience chest pain, shortness of breath, or anything new or worrying, please seek medical attention right away."

8. Follow-Up Plan

- **3-month review**:
  - Check BP, cholesterol, and liver function
- Reassess **Q-Risk in 1 year**
- Adjust statin or antihypertensive dose if needed

9. Leaflet & Closure

- Offer NHS leaflet: "Q-Risk & Cardiovascular Prevention"
- Offer dietary guide (e.g. DASH or Mediterranean diet sheet)

"This isn't about treating illness — it's about protecting your health before anything happens. Small changes now can make a big difference later."

Scenario Variation: Q-Risk = 9%

Patient Background: Same clinical setting, but Q-Risk3 calculated as **9%**

Key Differences in Management

- Risk is **moderate**, not high (threshold for statins is 10%)
- No automatic offer of medication unless other risk factors are present (e.g. diabetes, CKD, familial hypercholesterolaemia)
- NICE guidance suggests:
  → **Lifestyle modification only**
  → **Repeat Q-Risk in 5 years**

Adjusted Management Plan (Q-Risk 9%)

"Your Q-Risk score is **9%**, which is slightly below the treatment threshold. That's good news — but it means you're still at some risk, and we can definitely reduce that even further."

1. Lifestyle Advice – As above

2. No Statin Started Now

- "Because your score is under 10%, we won't start medication yet — unless other risk factors develop."

3. Follow-Up

- Reassess Q-Risk every 5 years
- Sooner if BP, cholesterol, or smoking status changes

Q-Risk Simplified Table (for PLAB 2)

Q-Risk % (10-year CVD risk)	*Category*	*What it Means*	*Management Plan*
< 5%	Low Risk	Very low chance of heart attack or stroke in 10 years	Lifestyle advice only. No statins. Reassure.
5 – 10%	Moderate Risk	Slightly increased risk	Lifestyle changes. Repeat Q-Risk every 5 years. No statins unless other indications.
≥ 10%	High Risk	High chance of heart attack or stroke in 10 years	Offer statin (e.g. Atorvastatin 20 mg OD) + lifestyle advice. Do bloods before starting.

Peripheral Arterial Disease (PAD)

Setting: GP Surgery
Role: FY2 Doctor
Patient: 55-year-old male
Presenting Complaint: Unilateral lower leg pain on exertion

1. Introduction & Consent

"Hello, I'm one of the doctors in the practice. May I confirm your full name and age, please?"
"How would you prefer me to address you?"
"Nice to meet you. What brings you in today?"

2. History – Focused Data Gathering

"Let's start with a few questions about the leg pain."

A. Presenting Complaint – 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)*

B. Screen for Red Flags and Differentials

- "Do you have any chest pain or breathlessness?" *(cardiovascular screening)*
- "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 or spinal pathology)*
- "Any recent trauma to the leg?"

C. PMAFTOSA

- **P – Past Medical History**: "Do you have high blood pressure, diabetes, or high cholesterol?"
- **M – Medications**: "Are you on any medications currently?"
- **A – Allergies**: "Any allergies to medications?"
- **F – Family History**: "Any family history of heart disease or circulation problems?"
- **T – Tobacco**: "Do you currently smoke or have you smoked in the past?"
- **O – Occupation**: "Do you have an active or sedentary lifestyle?"
- **S – Social History (Alcohol)**: "Do you drink alcohol regularly?"
- **A – Activity**: Assess physical activity level

D. ICE

- **Ideas**: "Have you thought about what this might be?"
- **Concerns**: "Is there anything you're particularly worried about?"
- **Expectations**: "What were you hoping I could do for you today?"

Common patient concerns: Is it serious? Will I need surgery? Could I lose my leg?

3. Examination

"I'd now like to examine you and check some basic observations, if that's alright."

A. Observations

- Record: **BP**, **heart rate**, **O2 saturation**, **temperature**, **BMI**

B. Cardiovascular + Peripheral Vascular Exam

- **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
- **Neurology**: Assess for sensation loss (monofilament, pinprick if neuropathy suspected)

Possible findings: Reduced pulses, cold leg, delayed capillary refill, trophic skin changes

4. 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**. This means the arteries supplying blood to your legs have become **narrowed by fatty deposits** — a process called **atherosclerosis**.

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**, and while it's serious, we can manage it well with **lifestyle changes, medication**, and if needed, **referral to specialists**."
"It's also important because PAD increases the risk of **heart attack and stroke**, so early treatment helps protect your whole circulation."

5. Management Plan
A. Investigations
- **Blood tests**: FBC, HbA1c, U&Es, lipid profile
- **ECG**: Baseline cardiovascular assessment
- **ABPI**: Ankle Brachial Pressure Index (non-invasive bedside assessment)
- **Doppler Ultrasound**: To assess flow and narrowing
- **CT or MR Angiography**: If being referred to vascular surgery

B. Lifestyle Measures (Cornerstone of PAD Management)
- **Smoking Cessation**: Most effective step to stop progression
- **Supervised Exercise Programme** (NHS referral):
  - Improves walking distance
  - Encourages collateral circulation
- **Dietary Advice**:
  - Mediterranean-style diet (low saturated fat, high fibre)
  - Reduce salt intake
- **Weight Management**:
  - If overweight, aim for BMI < 25
- **Foot Care**:
  - Daily inspection to prevent ulcers
  - Refer to podiatry if sensation reduced

"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 (Start/Optimise)
- **Antiplatelet**:
  - Start **Clopidogrel 75 mg OD** (first-line)
  - Reduces clot risk and protects heart
- **Statin**:
  - Start **Atorvastatin 80 mg OD** (high-intensity)
  - Lowers LDL, reduces plaque, protects against stroke/MI
- **Risk Factor Control**:
  - **Diabetes**: Optimise HbA1c
  - **Hypertension**: Start or adjust ACE inhibitor (e.g. Ramipril)
  - **ACE/ARB**: Especially in patients with CKD or diabetes

D. Adjunctive Medications (If Specialist-Initiated)

- **Cilostazol** or **Naftidrofuryl oxalate**
  - Improve walking distance
  - Only if exercise fails after 3–6 months
  - Stop if no improvement in 3–4 weeks
  - Require monitoring; not for routine use

6. Referrals

- **Vascular Surgery**:
  - If symptoms are **disabling**, or no response to treatment
  - If **rest pain**, **non-healing ulcers**, or **gangrene** present
- **Podiatry**: If reduced foot sensation or ulcer risk
- **Diabetes Team**: If poor glucose control
- **Cardiology**: If coexisting coronary artery disease suspected

7. 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** or **infections** — and our goal is to prevent that entirely."

8. Safety Netting

"Please seek urgent help if you notice any of the following:"

- 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**

9. 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 a **high-dose statin**, and we'll review your progress in a few weeks.
If needed, we'll involve a vascular surgeon — but in many cases, things improve significantly with these first steps."

10. Closure

"I'll also give you a leaflet about **PAD**, tips on walking safely, and a guide to help you manage your risk factors at home.
Please feel free to ask if anything is unclear before we finish."

Postural Hypotension and Fall in GP Setting

Setting: GP Surgery
You are: FY2 Doctor
Patient: 50-year-old male
Scenario: Patient collapsed outside the practice and was brought inside; not registered with your GP.

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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 (Broader Differential Check)

"To make sure we don't miss anything serious, I'd like to ask a few more questions."

- "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

- **Past Medical History**: Hypertension confirmed. Any others?
- **Medications**: Amlodipine, Enalapril — dose change noted.
- **Allergies**: Any known medication or food allergies?
- **Family History**: Any heart disease, strokes, or falls?
- **Tobacco/Alcohol**: Do you smoke or drink alcohol?

- **Occupation**: "You mentioned you're a teacher — that's important to know."
- **Social Support**: 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?"

- **General appearance**: Alert, not confused, no obvious injury
- **Observations**: HR, BP, RR, O2 saturation, temperature
- **Orthostatic BP**: Significant drop noted on standing → **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 in your case, **the blood pressure is dropping too much when you stand**, which is what caused you to feel dizzy and fall."
"This is quite common when blood pressure medication doses are increased or if you're on more than one type of medication — as in your case."

6. Limitations – Not Registered

"As you are not registered at this practice, I do not have access to your full medical records. That means I cannot make changes to your regular medication or access your GP's notes.
What I can do is **assess for any urgent danger** — which I've done — and now guide you on the best next steps."

7. Management Plan

A. Immediate Advice

- "You need to speak to your regular GP **as soon as possible — ideally today**.
  They'll need to **review your blood pressure readings**, assess your medication, and adjust the doses carefully."
- "They may reduce the dose of one or both medications, or trial stopping one of them temporarily.
  But this has to be done gradually and with **regular weekly check-ins** to find the safest and most effective dose."

B. Occupational Advice
"Since you're a teacher, your job involves frequent standing and moving about — which makes postural hypotension a real concern.
We don't want you to collapse in a classroom or fall again."

- "Until your GP adjusts your medication, try to **stand up slowly** and sit down if you feel dizzy. Avoid sudden movements."

8. Preventive Measures (While Waiting for GP Review)
"While you're waiting to see your doctor, there are five things that can help reduce your risk of another fall:

1. **Stand up slowly** — especially from sitting or lying down
2. **Stay hydrated** — dehydration can worsen low blood pressure
3. **Eat small meals** — large meals can also cause dips in pressure
4. **Avoid standing still for long periods**
5. **Use support** — lean on a table or wall if you feel unsteady"

9. Safety Netting
"Please seek urgent help or go to A&E if:

- You collapse again
- You feel chest pain, shortness of breath, or confusion
- You hit your head or injure yourself in another fall"

"And definitely call your GP **today** to arrange a medication review — even if they can't see you today, they can call you back and arrange a plan."

10. Follow-Up Plan
"We'll give you a brief written summary of today's visit that you can take to your GP.
You don't need emergency admission right now, but you do need **prompt GP follow-up**."

11. Leaflet & Closure
"I'll also give you a leaflet on **postural hypotension**, including the tips we discussed on preventing another fall.
Please don't hesitate to ask if anything was unclear or if you feel worse."

Student Note – Diagnostic Reasoning

- The patient collapsed after standing, with no preceding illness or neurological symptoms.
- Orthostatic hypotension confirmed by lying/standing BP drop.
- Recent **dose increase of antihypertensives** is the likely trigger.
- No red flags for PE, MI, stroke, or arrhythmia.
- Not registered, so cannot alter meds — but urgent GP follow-up needed.

Postural Hypotension – Hypertension Annual Review

Setting: GP Surgery
You are: FY2 Doctor
Patient: 55–60-year-old man
Scenario: Attending routine hypertension review; long-standing hypertension; BP records show significant drop this year; recent fall on standing.

1. Introduction & Consent

"Good morning, I'm one of the doctors here at the practice. Could I confirm your full name and age please?"
"Thank you — I understand you're here for your annual blood pressure review. Is it alright if I ask a few questions about how things have been going lately?"

2. Presenting Complaint – Blood Pressure Review & Fall

"How have you been managing with your blood pressure lately?"
"Have you had any issues recently — things like dizziness, feeling faint, or changes in energy?"
(Patient may mention fall, or you should ask…)
"Have you had any falls recently — even a small one?"
→ Patient: "Yes, last week I got up from the sofa and collapsed briefly."

3. History – Detailed Data Gathering

A. Hypertension History

- "How long have you had high blood pressure?" (→ 5 years)
- "What medications are you currently taking?" (→ Amlodipine, Enalapril)
- "Any recent changes to your dose or medications?" (→ No change)
- "Are you taking them consistently as prescribed?"
- "Have you noticed any side effects — like dizziness, light-headedness, or swelling?"

B. Symptoms Suggestive of Postural Hypotension

"Let's talk about the fall — could you walk me through what happened?"

Before the Fall:

- "Did you feel dizzy or light-headed just before standing?"
- "Any nausea, blurred vision, or feeling faint?"
- "Were you sitting or lying for a long time before standing?"

During the Fall:

- "Did you blackout or lose consciousness?"
- "Did you injure yourself or hit your head?"
- "Did anyone see what happened?"

After the Fall:

- "Any vomiting, jerky movements, or confusion afterwards?"
- "Have you had other episodes like this before?"

C. Check for Hypertension Complications

- "Any chest pain or palpitations recently?"
- "Any weakness, vision changes, or speech difficulties?"
- "Any swelling in your legs or ankles?"
- "Any changes in urination or frequent headaches?"

D. PMAFTOSA

- **P**: Hypertension only
- **M**: Amlodipine, Enalapril — no new meds
- **A**: No known allergies
- **F**: Family history of hypertension

- **T**: Teacher
- **S**: Non-smoker
- **A**: No alcohol misuse

4. ICE

- **Ideas**: "Do you have any thoughts on what might have caused your fall?"
- **Concerns**: "Are you worried that this could happen again?"
- **Expectations**: "Were you hoping to make any changes to your blood pressure medications today?"

5. Examination (Verbalised)

"I'd like to check your blood pressure both sitting and standing, and examine your heart and nerves. Is that okay?"

- **Vitals**: Normal HR, O2 sat; BP shows **drop >20 mmHg** after standing
- **Cardiovascular exam**: Normal heart sounds
- **Neuro exam**: No deficits
- **No injury signs from fall**

6. Provisional Diagnosis

"Based on your history, recent fall, and the drop in your blood pressure when standing, I think you have something 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."

9. Lifestyle & Preventive Advice

"In the meantime, there are some simple things you can do to prevent further episodes:"

- **Change position slowly**: Sit on the edge of the bed for a minute before standing
- **Stay hydrated**: Aim for at least 6–8 glasses of water daily

- **Avoid long hot showers** and standing still for too long
- **Small frequent meals**: Avoid large meals, which can lower BP
- **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."
"Let us know immediately if:
- You have any new symptoms
- You feel your falls are getting worse
- Or if you have any side effects from medication changes"

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

Student Note – Diagnostic Reasoning
- Long-term hypertensive patient with new postural symptoms and fall
- No medication change → likely due to **age-related autonomic dysfunction**
- Confirmed by **lying/standing BP drop**
- No red flags for stroke, arrhythmia, or dehydration
- Management: careful **titration of antihypertensives**, monitoring, and lifestyle advice

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Postural Hypotension – Elderly Fall – A&E

Setting: A&E
You are: FY2 Doctor
Patient: Elderly female (approx. 75–85 years)
Presentation: Collapse outside home, brought in after fall. History of hypertension.

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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?"
"Did you trip or feel anything unusual before collapsing?"
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

Ask screening questions to rule out other causes of collapse:

- "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, no history of stroke/MI mentioned yet
- **A**: No known allergies
- **F**: Family history of stroke in older sister
- **T**: Retired teacher
- **O**: Lives alone, independent
- **S**: Non-smoker
- **A**: Does not drink

"Are you currently taking any blood pressure medications?" (→ Amlodipine + Enalapril)
"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."

- **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
- **Peripheral**: No swelling or warmth
- **ECG**: Normal sinus rhythm
- **No signs of infection or acute illness**

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.**
This leads to dizziness and even fainting when you stand up."
"Your GP may have recently increased the dose or added a new medicine to help manage your blood pressure, but sometimes that can tip things too far and cause these symptoms."

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. Follow-Up Plan

- Discharge when stable
- **Letter to GP**: Recommend full **hypertension review**
- GP to **adjust medications** gradually — could include:
    - Dose reduction
    - Timing change (e.g., avoid evening dosing)
    - Removal of one antihypertensive
- **Weekly GP monitoring** of BP and symptoms during adjustment
- Consider referral to **falls clinic** or **care of the elderly** team

Student Diagnostic Note
This elderly patient presented following a collapse with no seizure or stroke features. History, recent medication adjustment, and orthostatic BP drop confirm **postural hypotension** secondary to antihypertensives. No acute red flags. Requires medication titration and postural safety advice.

Hypertension follow-up: Cough with Enalapril

Scenario Setup

- Setting: GP Clinic
- Role: FY2 doctor
- Patient: 60-year-old man
- Purpose: Follow-up after hospital admission for cellulitis; diagnosed with hypertension and started on enalapril
- Issue: Stopped enalapril 2–3 weeks ago due to persistent dry cough
- Background: Also has diabetes

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?"
- "Any recent issues with your blood sugar control?"

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."
- "If you do develop a cough again, don't stop it on your own—just let us know and we'll reassess."

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"

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."

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?"

Student Note: How the Diagnosis Was Made

The patient was diagnosed with hypertension during a hospital admission. His current high BP (160/90) is likely due to non-adherence to enalapril, which he stopped because of a dry cough—a known side effect. No signs of infection or alternative cause for the cough. Management involves switching to an ARB (candesartan), checking renal function, and reinforcing lifestyle changes.

Hypertension follow-up: Amlodipine and Leg Swelling

Scenario Setup

- Setting: GP Clinic
- Role: FY2 doctor
- Patient: 60-year-old woman
- Purpose: Follow-up after hospital admission for cellulitis; diagnosed with hypertension and started on **amlodipine**
- Issue: She stopped the medication 2–3 weeks ago due to **leg swelling** that made it difficult to wear shoes
- Background: Likely has comorbidity (e.g., diabetes)

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:

- "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?"

Diabetes Review (if relevant):

- "Just to check, how's your diabetes been?"

- "Are you taking tablets or insulin?"

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 of the Condition

"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."

6. Structured Management Plan

Change of Medication:

- "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."
- "We'll now switch you to a different medication called **enalapril**. It lowers your blood pressure by relaxing the blood vessels, and it's less likely to cause leg swelling."
- "However, enalapril can sometimes cause a dry cough. If that happens, please don't stop the medication yourself — just come back and we'll find an alternative."

Blood Tests Before Starting Enalapril:

- "Before starting enalapril, we'll need to do a simple blood test to check your kidney function and potassium level. This is a standard safety check."

Lifestyle Advice:

- "There are also a few things you can do alongside medication to help lower your blood pressure:
  - Cut down on salt — avoid salty snacks and processed foods
  - Eat more fruits and vegetables
  - Exercise regularly — even brisk walking for 30 minutes most days helps
  - Reduce alcohol if you drink
  - Stop smoking if applicable
  - Maintain a healthy weight"

7. Safety Netting

"If you notice any side effects like a persistent dry cough, dizziness, or signs of swelling again, or if you feel generally unwell, please come back to see us. Don't stop the medication on your own."

8. Follow-Up Plan

"I'd like to see you again in **4 weeks** to recheck your blood pressure and see how you're doing on the new medication. We'll also check the results of your blood tests by then."

9. Offer Leaflet & Final Check

"I'll give you a leaflet that explains more about high blood pressure and enalapril. Feel free to read through it at home. Is there anything else you'd like to ask or go over?"

Student Note: How the Diagnosis Was Made

The patient was diagnosed with hypertension during a hospital stay and started on amlodipine. She discontinued it due to bilateral leg swelling affecting mobility — a known side effect of calcium channel blockers. Current BP remains high (162/92), indicating need for medication. Switched to enalapril (ACE inhibitor) with appropriate counselling. Plan includes blood monitoring and 4-week follow-up.

Hypertension follow-up: Combination Therapy

Scenario Setup

- Setting: GP Clinic
- Role: FY2 doctor
- Patient: Middle-aged man
- Background: Recently discharged after being diagnosed with hypertension
- Medications: Started on **enalapril + amlodipine**
- Problem: Stopped enalapril due to cough but continued amlodipine
- Current BP: Remains elevated

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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? Great. I understand this is a follow-up for your blood pressure. How have you been since your hospital visit?"

2. Focused History & Context

Hospital Admission Context:

- "Can you tell me a bit about your hospital admission?"
- "And they diagnosed you with high blood pressure during that stay, is that right?"

Medication History:

- "I see that you were started on two medications — enalapril and amlodipine. Are you still taking both?"
- "When did you stop the enalapril?"
- "What made you stop it?"
- "Did anyone mention that a cough could be a side effect of this medication?"

Cough History:

- "Was it a dry or wet cough?"
- "Did you have any fever, chest discomfort, or cold-like symptoms?"
- "Was the cough interfering with your sleep or daily life?"

Current BP Control:

- "How have you been feeling otherwise? Any headaches, chest pain, or dizziness?"
- "Have you checked your BP at home?"

Amlodipine Tolerance:

- "Are you having any swelling in the legs or ankles?"
- "Any issues like flushing or palpitations?"

3. Explore ICE

Ideas:
"What do you think caused your cough?"
Concerns:
"Is there anything about the blood pressure or medications that's been worrying you?"
Expectations:
"What were you hoping we could do today regarding your medications or BP?"

4. Clear Result Disclosure

"I've just checked your blood pressure and it's still **elevated at 158/94**. That may be because one of your medications — enalapril — was stopped. You're only on one medication now, but for many people, we need two medicines working together to get proper control."

5. Lay Explanation of the Condition

"High blood pressure can be silent — meaning you may not feel anything — but it can still damage your heart, kidneys, eyes, and increase your risk of stroke or heart attack. That's why we try to manage it with a combination of medication and lifestyle advice."
"Enalapril is known to cause a dry, persistent cough in some people, which is likely what happened to you. It's not dangerous, but it can be unpleasant, so it's understandable that you stopped it."

6. Structured Management Plan

Medication Adjustment:

- "We'll switch from **enalapril** to a medication called **candesartan**. It works in a similar way to lower your blood pressure by relaxing the blood vessels, but it's **much less likely to cause a cough**."
- "You should **continue taking your amlodipine** as before. It works by relaxing the blood vessels in a different way."
- "Together, these two medications can control your BP more effectively."

Monitoring and Safety:

- "Before starting candesartan, we'll arrange a blood test to check your **kidney function and potassium level**, as these can be affected by the medication."
- "You should also monitor for any side effects like dizziness or very low BP. If anything feels off, please let us know right away."

Lifestyle Advice:

- "In addition to medication, there are several lifestyle changes that help:
  - Cut down on salt and processed foods
  - Maintain a healthy weight
  - Do regular physical activity — even brisk walking 30 mins/day helps
  - Limit alcohol
  - Stop smoking, if applicable
  - Reduce stress with relaxation techniques"

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 candesartan, which explains how it works and what to watch out for. Do you have any questions or concerns before we wrap up today?"

Student Note: How the Diagnosis Was Made

The patient was diagnosed with hypertension and started on combination therapy (enalapril + amlodipine). He discontinued enalapril due to dry cough but continued amlodipine. His current BP (158/94) remains elevated. Plan includes replacing enalapril with candesartan, continuing amlodipine, checking renal function and potassium, and reinforcing the importance of dual therapy for BP control.

Hypertension Follow Up With Abnormal Blood Tests

Scenario Setup

- **Setting:** GP (telephone consultation) – FY2 doctor
- **Patient:** 65-year-old man / 60-year-old woman
- **Follow-up Type:** Annual hypertension review (man) or routine blood test review (woman)
- **Medication:** Amlodipine
- **BP:** Well-controlled
- **Lab Abnormalities:**
    - Raised **AST and ALT**
    - **Low haemoglobin**
    - **High MCV**

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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 (male):
"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?"
If well-woman clinic (female):
"I see your recent visit was for a general health check and blood test review — how have you been feeling overall?"

3. Detailed Symptom Exploration

"I'd like to ask you a few questions to get a better idea of your overall health."
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?"

Menstrual status (if female):

- "Just to check, are you still having periods or have they stopped?"

4. Lifestyle and Risk Factor History

"I also want to understand some of your lifestyle habits that might help explain these results."

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."

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 (listen carefully):

- 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."

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"

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?"

Student Note: How the Diagnosis Was Made

Patient is on amlodipine for hypertension, which is well controlled. Routine bloods showed elevated AST/ALT, high MCV, and low haemoglobin. On questioning, patient reports regular alcohol intake and possible symptoms of anaemia and B12 deficiency. Dietary intake is adequate, suggesting malabsorption likely due to alcohol or acid-

suppressing drugs. Management includes B12 and GGT testing, possible parenteral B12 replacement, and alcohol reduction counselling. Follow-up in one week.

Hypertension – Ambulatory BP Result Discussion

Consultation Type: Telephone – GP Setting (Follow-up after Ambulatory BP Monitoring)

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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 and Reason for Call:

- "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 24-hour average blood pressure was **160/90**, which meets the criteria for **Hypertension**. This means that the blood pressure is high enough that we'd generally recommend starting medication — even if you're not having symptoms."

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."
- "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 **<6g/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?"
- "Have I explained things clearly? Any questions or anything you'd like me to go over again?"

Diagnostic Reasoning

This patient is in his early 50s with no comorbidities. A **24-hour ABPM average of 160/90** meets the threshold for **Stage 2 hypertension**. NICE guidelines recommend initiation of **medication and lifestyle interventions**. Blood tests are required before starting an ACE inhibitor like **Ramipril** to assess **kidney function and electrolytes**.

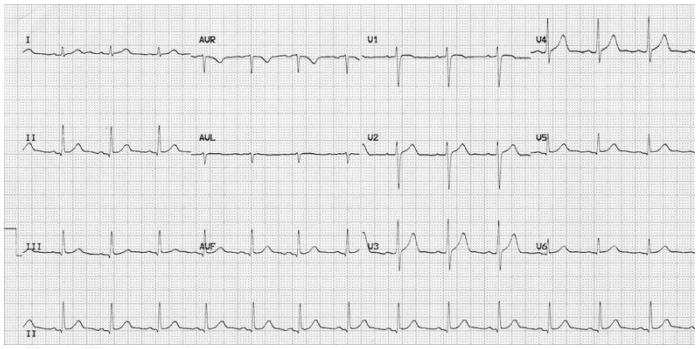
Management was delivered in a **structured, patient-centered consultation**, with planned follow-up and safety netting in place.

How Management Changes by Age in Hypertension

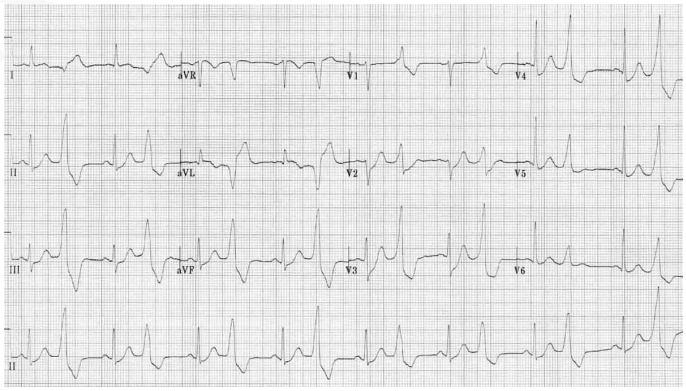
Age Group	*Diagnosis*	*Treatment Strategy*
< 80 years	Stage 1 (Clinic BP ≥140/90 AND ABPM ≥135/85)	Treat only if there is: – Target organ damage – Cardiovascular disease – Renal disease – Diabetes – 10-year CV risk ≥10%
	Stage 2 (Clinic BP ≥160/100 AND ABPM ≥150/95)	Start medication for **all patients**, regardless of risk factors
≥ 80 years	Stage 1 or Stage 2 (ABPM ≥150/90)	Start medication **if ABPM is consistently ≥150/90** and patient is fit enough to tolerate treatment
Any Age	Severe Hypertension (Clinic BP ≥180/120)	Same-day referral or urgent specialist review depending on symptoms

ECG For Reference

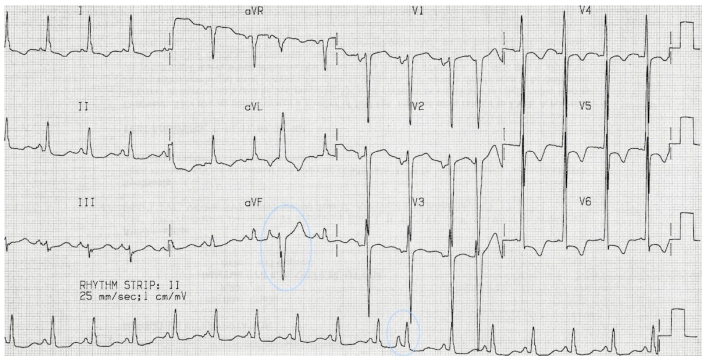
1. Atrial Fibrillation



2. Ventricular Ectopics



3. Atrial Ectopics



Chapter 6: Respiratory

Lung Cancer

Setting: GP
Patient: 70-year-old man, ex-smoker, retired teacher
Presenting complaint: Cough with blood, weight loss

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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?"
- "Fevers 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

- **P**ast Medical History: Any history of TB, COPD, cancer, or chest conditions?
- **M**edications: Taking anything regularly? Any blood thinners?
- **A**llergies: Drug or food allergies?
- **F**amily History: Any cancers in the family?
- **T**ravel: Have you been abroad recently (e.g. TB-endemic areas)?
- **O**ccupation: Covered — retired teacher
- **S**ocial: Who do you live with? Any support at home?
- **A**nything else important you think I should know?

8. Focused Examination

"I'd like to examine your chest and do a few basic checks."
Vitals: O_2 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 or assumed)

"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)

"Based on your symptoms, smoking history, and the X-ray findings, we are concerned that this may be **lung cancer** — but we need to confirm that with further tests."

11. Management Plan

A. Urgent Referral

- "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

D. Discuss Prognosis Openly but Reassuringly

- "We're acting fast. 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."

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 (referred by GP)
Patient: 58-year-old male, ex-carpenter
Presenting symptoms: Shortness of breath, weight loss, smoker
Additional details: Dry cough with occasional blood streaks
X-ray finding provided: Bilateral pleural nodular thickening
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
  - Possibly a **bronchoscopy** or **tissue biopsy** to confirm the 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 (Realistic, Clear)

- "The main treatment is usually **chemotherapy**, which helps slow the condition down.
  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."

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."

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. Every person is different, and we'll know more after further tests. Some people live for months to years — and we'll focus 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: GP Practice (F2)
Patient: 60-year-old man
Presenting complaint: Chest pain after a fall at work
X-ray finding: Bilateral pleural nodular thickening
You are: An FY2 doctor in GP, reviewing symptoms and explaining the findings

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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

- **P**ast medical history: Any long-standing lung or heart conditions?
- **M**edications: Taking any tablets daily or for pain relief?
- **A**llergies: Any known drug allergies?
- **F**amily history: Any family history of lung disease or cancer?
- **T**ravel history: Already asked
- **O**ccupation: Covered in detail — confirmed asbestos risk
- **S**ocial: Living alone or with someone? Able to manage self-care?
- **A**nything 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 (natural and clear)

"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 **a little 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 (NICE-aligned, GP setting)

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 also take a sample of any fluid around the lungs"
- "In some cases, they may do a **bronchoscopy** or a small biopsy to help make a diagnosis"

C. Treatment (if confirmed)

- "If it does turn out to be mesothelioma, the main treatment is **chemotherapy** to help slow the condition"
- "There are newer treatments available now, like **immunotherapy** or **biological agents**, depending on what's suitable"
- "Specialist teams will discuss all the options with you and support you every step of the way"

D. 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 – A&E Setting (Suspected Pleural Cancer)

Setting: A&E (Emergency Department)
Patient: 60-year-old man
Presenting complaint: Shortness of breath
Observations: Low oxygen saturation, no fever
Chest X-ray: Large unilateral pleural effusion

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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

- **P**ast: Any previous lung, heart, or liver disease?
- **M**edications: Regular medicines, inhalers, blood thinners?
- **A**llergies: Drug allergies?
- **F**amily history: Any cancers or respiratory illnesses?
- **T**ravel: Already covered
- **O**ccupation: Confirmed asbestos exposure likely
- **S**ocial: Living alone or with family?
- **A**nything 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**."
- "Treatment often includes **chemotherapy**, and sometimes newer options like **immunotherapy or targeted drugs**."
- "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 – NEWS Score 8

Patient: 78-year-old man
Setting: A&E
Presenting symptoms: Persistent cough, SOB, chest pain
Background: GP-treated with oral antibiotics 2 weeks ago, no improvement
Examination: Basal crepitations
X-ray: Consolidation in lower lobe
NEWS score: 8

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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. 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 O_2 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.

11. Explanation (Lay Terms)

"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's having a harder time coping — 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

- **IV Clarithromycin** (covers atypical pathogens)
- **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

Leaflets & Support
- NHS leaflet: **Pneumonia in Older Adults**
- Smoking cessation resources (if smoker)
- Ward contact info for concerns after discharge

Pneumocystis Pneumonia (PCP)

Patient: 38-year-old homeless man
Setting: A&E
Presenting complaint: Breathlessness, dry cough, fever
Background: Prior hospital visit, no response to antibiotics. Oxygen-dependent. "Patient is homeless" written outside the room.

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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 homeless patients)

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**: Homeless — 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

- **Cotrimoxazole (Trimethoprim-Sulfamethoxazole)** for **21 days**
- **Steroids** (if PaO_2 <70 mmHg) to reduce inflammation

- **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
- 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**:

- Homeless or MSM male
- 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 83-year-old resident 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.

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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."

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 now 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)**.

My immediate management includes:

- Airway, breathing, circulation – stabilise with **oxygen and fluids**
- Start **Sepsis 6 bundle**:
    - Give IV fluids
    - Give antibiotics (clarithromycin, due to penicillin allergy)
    - 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

Patient: 42-year-old man
Setting: GP
Presenting complaint: Snoring and poor sleep
You are: An FY2 GP trainee
Main concerns: Snoring, poor sleep quality, daytime tiredness

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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."

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**
   - "If OSA is confirmed and affects your alertness, we may need to **inform the DVLA**. But don't worry — this doesn't always mean you'll lose your license. It's just to ensure safety while treatment is ongoing."

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: GP
Role: FY2 doctor
Patient: 50-year-old man
Reason for visit: Routine diabetes follow-up
Trigger: Daytime tiredness raised during symptom review
Vitals Provided: HbA1c = 7.6%, BMI = 34

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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. If sleep apnoea is confirmed, we may need to **inform the DVLA**. They'll give advice on whether you can continue driving, depending on how severe your condition is and how well it's treated."
- "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%**, 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: GP – 24-year-old woman, on OCP, recent flight from Turkey, now has chest pain
- Scenario B: A&E – 25-year-old homeless man, IV drug user, reattending with worsening SOB

Presenting complaint: Chest pain and/or shortness of breath

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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?"

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?"

3. 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:

4. 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?

5. 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?"

6. 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?"

7. Effect on Life
"How has this been affecting your ability to work, sleep, or carry out your usual day-to-day routine?"

8. Examination Summary
(Simulated findings for examiner:)

- Looks anxious and mildly breathless
- O_2 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

9. 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."

10. 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."

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 **blood test** called a **D-dimer** to detect signs of clot formation
- 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)
- **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)

Once a clot is confirmed, you will be started on **blood thinning medication** — either as injections (like **low-molecular weight heparin**) or tablets (such as **apixaban or rivaroxaban**), depending on your case."

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
  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 - GP

Patient: 56-year-old male
Setting: GP

You are: An FY2 GP trainee
Presenting Complaint: Persistent cough and fever

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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?"

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

(Simulated summary to examiner)

- 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 picked it up while visiting. But 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."
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**
   "If TB is confirmed, treatment involves **a course of antibiotics over 6 months**. For the first 2 months, you'll take **four different antibiotics**, and for the remaining 4 months, you'll continue with two.
   You'll be supported by a **TB key worker**, and we'll help ensure you complete the full course. Most people recover completely if they take the medication regularly."
5. **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."

6. **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."
7. **Support services**
   "You'll also have access to **psychological support**, **social worker involvement**, and if needed, **nutritional support** during treatment."

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

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Suspected Pulmonary Tuberculosis – A&E Presentation (Unstable)

Patient: 40-year-old man
Setting: A&E
You are: FY2 doctor
Presenting complaint: Shortness of breath and persistent cough

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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
- O_2 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."

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, I strongly suspect this could be **tuberculosis**, or TB — a bacterial lung infection."

11. Lay Explanation

"TB is an infection in the lungs caused by a specific bacteria. 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."

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."

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 room** in hospital with precautions to reduce any spread."

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."

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."

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, multidisciplinary support

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Chapter 7: Gastrointestinal

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 – hypoalbuminemia)
- **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).
    - Hyperactive sounds = early obstruction.
    - Admission under surgical team + fluids + NG decompression as indicated.
- **Cholecystitis vs Cholangitis**
    - Fever indicates **cholangitis** (sepsis risk) → urgent IV antibiotics.

  - Pale stools in **cholecystitis** = bile flow obstruction.
  - Admit all confirmed cases; don't discharge or give oral antibiotics.
- **Pancreatitis**
  - Suspect if epigastric pain + alcohol use.
  - Admit for supportive care.
  - Mention bulky stools if chronic pancreatitis is suspected.
  - Address diabetes and nutrition if chronic.
- **PID**
  - Belt-like suprapubic pain, no mannequin used.
  - Sexual history is essential.
  - Rule out ectopic and UTI differentials.

Mannequin-Based Exam Tips

- You may encounter:
  - Real patient
  - Mannequin with speaker (audio cues)
  - Mannequin with verbal feedback (spoken signs)
- Don't expect X-rays in female mannequin scenarios.
- Learn to interpret both verbal and audio signs confidently.

Examination Best Practices

- Always mention blood tests in management:
  - CBC, U&E, LFTs
  - CRP, ESR
  - Amylase/lipase (if pancreatitis suspected)
  - Clotting profile
- Always offer to consult surgery early if obstruction, ischemia, or peritonitis is suspected.
- Use professional, simple phrasing for explaining:
  - "We think there may be a blockage in your bowel that needs to be assessed further."
  - "We'll need to do blood tests, scans, and you may need to stay in hospital."

General Communication Tips

- Be clear, confident, and concise.
- Deliver diagnosis calmly but assertively.
- Show urgency appropriately but don't panic or over-escalate.
- Clarify all medical terms with simple, patient-friendly explanations.
- Engage throughout, don't just list steps — speak to the patient like a human being.

Irritable Bowel Syndrome (IBS) – Follow-Up Consultation

Scenario: 65-year-old male, professor/PhD student, ongoing abdominal symptoms since 20s, worsened recently. Prior stool sample normal. No red flags. Buscopan no longer effective.

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1. Introduction

"Hello, I'm one of the doctors here today. I understand this is a follow-up appointment. How have you been feeling since your last visit?"

(Let patient describe symptoms – e.g. "My tummy's still bothering me and the Buscopan isn't helping anymore.")

"I'm sorry to hear that. Would it be alright if I asked a few more questions to better understand what's going on?"

2. Presenting Complaint – Tummy Pain and Bowel Changes
Use ODIPARA for abdominal symptoms (esp. pain + bloating):

- **O**nset: "When did this first start?"
- **D**uration: "Do the symptoms last all day, or come and go?"
- **I**ntensity: "How would you rate the pain?"
- **P**rogression: "Has this gotten worse recently?"
- **A**ggravating: "Does stress or food make it worse?"
- **R**elieving: "Does anything help? Like Buscopan, tea, rest?"
- **A**ssociated: "Any diarrhoea, bloating, excessive gas?"

Clarify bowel habits:

- "How often are you opening your bowels?"
- "Are the stools loose or urgent?"
- "Any accidents, or need to rush to the toilet?"

3. Differential Diagnosis Screening (Cancer Red Flags)
"Have you noticed any of the following?"

- Blood in stool
- Weight loss
- Fever or sweats
- Unusual tiredness
- Appetite loss
- 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

- **P**ast Medical History: Any previous gut conditions ruled out?
- **M**edications: Buscopan, OTC, laxatives, etc.
- **A**llergies
- **F**amily History: Bowel cancer or IBD?
- **T**ravel History: Any recent trips that caused gut upset?
- **O**ccupation: University researcher/academic – stress impact?
- **S**ocial: Alcohol, smoking, caffeine use
- **A**nxiety/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: "This isn't an antidepressant dose — it works differently for IBS."

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)
- Arrange **routine colonoscopy**:

"Although I don't think this is anything serious, because you're over 60 and have had a change in bowel habit, we'll arrange a routine colonoscopy to be cautious."

D. Diet & Lifestyle

- **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, 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. Try reducing foods that produce gas — things like cabbage, onions, beans, fizzy drinks."
- 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."

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

Patient: ~50-year-old male

Setting: GP clinic, face-to-face consultation with real physical examination

Presenting complaint: 2-month history of abdominal bloating, weight loss, change in bowel habit

Clue: Actor patient, real physical exam required. Couch present.

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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?"

3. 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

6. 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

7. 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.*

8. Effect on Life

"Has this affected your daily activities, work, or energy levels?"

→ *Yes – bloating is uncomfortable, and reduced appetite is affecting meals.*

9. 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.

10. Provisional Diagnosis

"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."

11. 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."

12. Management Plan

1. **Urgent 2WW referral to gastroenterology**
    - NICE NG12: >40 years with unexplained weight loss and abdominal pain → urgent referral
2. **Investigations**
    - FBC, LFTs, ferritin, CRP, and FIT test (if not yet done)

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 2WW 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

Scenario: Middle-aged man or elderly woman, presenting with progressive dysphagia and weight loss.
Setting: Face-to-face consultation (can be adapted for telephone triage).
Presenting Complaint: Difficulty swallowing (solids, now progressing to liquids).

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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?"

- **P**rogression: "Was it just for solid food at first, or was it liquids too?" → *Solids first, now liquids – red flag pattern*
- **A**ggravating: "Do certain foods make it worse?"
- **R**elieving: "Does drinking water help at all?"
- **A**ssociated: "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 without delay."

12. Management Plan

A. 2WW Referral

- NICE NG12: Refer adults with **dysphagia** OR **>55 with weight loss + upper GI symptoms**

"I'll refer you under the two-week cancer pathway, so you're seen quickly by a specialist to investigate this further."

B. Investigation

- **Endoscopy (OGD)** is first-line
- **Barium swallow** only if endoscopy not suitable

"The main test will be an endoscopy — where a flexible camera is passed down your throat while you're sedated to look at your food pipe and take a sample if needed."

OR (alternative):

"Alternatively, sometimes we use a test called a barium swallow, where you drink a special white liquid and then X-rays are taken to look for any blockage or growth. But the endoscopy is the more definitive test."

C. Supportive Care

- Check ability to swallow fluids
- If patient cannot eat or drink at all → urgent admission
- Advise soft, easy-to-swallow meals for now
- Stay well hydrated
- Avoid lying flat after meals

D. Bloods (if eating/drinking):

- FBC, U&Es, LFTs to assess nutritional and general status

E. Provide Leaflet or Explain Referral Steps

"You'll likely receive an appointment within 2 weeks. If you haven't heard anything by then, please contact the GP practice or hospital directly."

Safety Netting and Follow-Up

"If anything gets worse — especially if you're unable to drink fluids, are being sick repeatedly, or notice black stools or blood — please come back or call 111 immediately."

"We'll follow up after your hospital visit to see what the tests show and plan next steps together."

Student Diagnostic Note

This is a textbook case of suspected **oesophageal carcinoma**, based on:

- Progressive dysphagia (starting with solids → now liquids)
- Unintentional weight loss
- Reduced appetite
- High-risk age group and smoking history
- No signs of benign alternative (e.g. achalasia would begin with liquids)

→ NICE criteria for **urgent 2WW referral are met**.

Intestinal Obstruction

Scenario 1 (Male Patient, A&E, Mannequin)

Setting: A&E cubicle, mannequin present

Patient: 50-year-old male

Presenting Complaint: Abdominal pain, nausea, no stools for 4 days, no gas for 2 days, vomiting

---

1. Introduction

"Hello, I'm one of the doctors here in A&E. Could I confirm your full name and date of birth, please? Thank you. I understand you've been having some abdominal discomfort — could you tell me more about that?"

2. Presenting Complaint (SOCRATES)

"Let me ask you a few questions about your pain."

- Site: "Where exactly is the pain located?"
- Onset: "When did it start?" → *Today*
- Character: "How would you describe the pain?" (cramping?)
- Radiation:
  - "Does it move anywhere?"
  - "To your back? Shoulder? Like a belt around your tummy?"
- Associated: "Are you feeling sick or vomiting?" → *Yes, nausea + vomiting*

- **T**ime: "Has the pain stayed the same or changed?"
- **E**xacerbating/Relieving: "Does anything make it better or worse?"
- **S**everity: "On a scale of 1–10, how bad is the pain now?"

3. Differential Diagnosis Screening

"I'll ask a few more questions to consider other possible causes."

- "Have you had any diarrhoea?" → *No*
- "When did you last pass stool?" → *4 days ago*
- "When did you last pass gas?" → *2 days ago*
- "Have you had any fever?" (appendicitis, diverticulitis)
- "Any shoulder tip pain?" (peritonitis, diaphragmatic irritation)
- "Any back pain?" (pancreatitis)
- "Any urinary symptoms?"
- "Any recent travel or changes in diet?"

4. Risk Factor History (Obstruction-specific)

- "Have you had any previous abdominal surgery?" → *Adhesions = commonest cause*
- "Any history of bowel cancer or polyps?"
- "Any long-standing constipation?"
- "Are you taking any medications like painkillers, antidepressants, or anticholinergics?"

5. PMAFTOSA

- **Past medical history**: Bowel conditions, cancer, surgery?
- **Medications**: Laxatives, opioids, recent antibiotics
- **Allergies**
- **Family history**: Bowel disease, colon cancer
- **Travel history**: Infectious risk
- **Occupation**
- **Social history**: Smoking, alcohol
- **Alcohol/Opioid use**: Especially in men with chronic constipation

6. ICE

- **Ideas**: "What do you think this could be?"
- **Concerns**: "Are you worried it might be something serious?"
- **Expectations**: "What would you like us to do today?"

→ Patient may think it's "just constipation" — gently reframe.

7. Effect on Life

"Has this been affecting your appetite, sleep, or daily routine?"

→ *Likely unable to eat, bloated, low energy*

8. Examination

"I'd like to examine your abdomen now — this includes looking at and gently pressing on your tummy. Is that okay?"

- **Inspection**: Observe for **distension, scars, visible peristalsis**

- **Palpation**:
  - Light and then deep in all quadrants
  - Actor will show discomfort: "I'm in pain, doctor."
- **Auscultation**:
  - "I'm going to listen to your abdomen with my stethoscope."
  - **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.

9. 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."

10. 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."

11. 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 isotonic fluids (e.g., 0.9% NaCl) to prevent dehydration
- **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

"We'll place a tube through your nose into your stomach to drain the fluids and gas, so 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."

D. Monitoring

- Regular obs, fluid balance chart, urine output
- Continue pain and nausea control

12. 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.

Scenario 2 – Female Patient with Mannequin (Suspected Early Obstruction)

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**.

Scenario 3 – Real Human Patient (Suspected Late Obstruction with Ischemia)

Presentation Differences:

- You're examining a **real patient**, not a mannequin.
- The patient has a **history of ruptured appendicitis** 10 years ago → 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 ischemia, which is a surgical emergency."

Interpretation:

- **Silent bowel sounds + high lactate** = likely **ischemic bowel**, a late complication of obstruction.
- **Previous abdominal surgery** (ruptured appendix) is the probable cause (adhesive obstruction).

Management Adjustments:

- Same resuscitation steps: IV fluids, NG tube, nil by mouth, analgesia, antiemetics, escalation.

Alcohol Liver Disease

Scenario Brief

You are an FY2 doctor in a GP practice. A 55–60-year-old man has presented saying:
"My tummy started to swell up, so I have come."

---

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?"

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)

- "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 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

- Begin alcohol support referral (alcohol services / addiction team)
- 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."

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

Scenario: You are an FY2 doctor in A&E. A male patient presents with right-sided abdominal pain.

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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)

Specialist Management:

- Conservative management initially (pain relief, fluids, antibiotics)
- Cholecystectomy (surgical removal of gallbladder) is usually done **electively** after inflammation settles

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

Scenario: You are an FY2 doctor in A&E. A patient presents with right upper quadrant pain, fever, and dark urine.

---

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

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?"

Feature	*Cholecystitis*	*Cholangitis*
Cause	Blocked gallbladder (cystic) duct	Blocked bile duct + infection
Fever	Usually absent	Present (≥37.8°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

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Acute Pancreatitis

Scenario: You are an FY2 in A&E. A 55-year-old man presents with severe upper abdominal pain after alcohol consumption.

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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)
- 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 or pethidine if needed)
- **Antiemetics** as needed
- Monitor vitals, urine output, oxygen saturation
- Consider **NG tube** if persistent vomiting

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.

Variation: 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, 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

Variation: Pancreatitis – GP Setting

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**
- **Painkiller (e.g., pethidine) not prescribed in GP** – discuss but **do not give**
- **Emphasis on emergency referral**
- **Negotiate respectfully** if patient is reluctant
- Use phrases like:
    - "I would not be comfortable letting you go home."
    - "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

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Barrett's Oesophagus – Result Discussion

Setting: GP surgery
Role: FY2 doctor
Patient: 55-year-old man
Visit: Follow-up for endoscopy and biopsy results. Longstanding GERD, on omeprazole 20 mg/day; ongoing heartburn and nighttime reflux
Biopsy result: Barrett's oesophagus (5 cm segment, non-dysplastic)

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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 monitoring:** Document for PPI monitoring (Mg2+, B12, DEXA if needed)

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 and there's no dysplasia, guidelines recommend a routine endoscopy every 3 years."

- 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

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 3-year surveillance programme? 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 3-year scope
- 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

Setting: Gastroenterology outpatient clinic
You are: FY2 doctor
Patient: 45-year-old woman, referred by GP after a positive TTG antibody test, with ongoing tiredness and intermittent diarrhoea for 6 months
Plan: Consultant advised endoscopy + biopsy (but is on leave)
Your Role: Explain the condition and procedure; address her concerns

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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. When you eat foods like bread or pasta, your immune system wrongly attacks the lining of your small intestine. This damages the area where nutrients are absorbed, which is why people often feel tired or get symptoms like bloating, diarrhoea, and even weight loss."

"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."

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
- Fast for 6–8 hours before the test
- Arrange someone to accompany you home
- Wear comfortable clothes
- Routine bloods may be done beforehand

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 dietician 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

Setting: GP Clinic
Role: FY2 Doctor
Patient: Mr X, 48
Reason for Visit: Follow-up appointment to discuss blood results

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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?" (recent breakup noted)

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

"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,
- 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 (Recent Infection):

- Usually clears on its own in healthy adults
- Supportive care: rest, fluids, paracetamol for fever
- Avoid alcohol to protect the liver
- Do **not** share razors, toothbrushes, or needles
- Use **condoms** until cleared
- Advise **testing and vaccinating** sexual partners and close contacts

If Chronic Hepatitis B (Long-standing Infection):

- Refer to **Hepatology**
- Regular liver function monitoring and abdominal ultrasounds
- Consider antiviral treatment (e.g. **Tenofovir** or **Entecavir**) if:
  - High viral load
  - Signs of liver damage
- Long-term monitoring to prevent cirrhosis or liver cancer

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**
  - Inform if any partner is **pregnant** or **immunocompromised**

8. Public Health Responsibilities

- Hepatitis B is a **notifiable disease**
- We are **legally required** to ensure your contacts are informed 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."
"Even if you're feeling well, we'll be monitoring you closely through follow-up tests."

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**
- "I know this is a lot of information to take in. I'll give you a leaflet with everything written down."
- "Do you have any questions, or is there anything you'd like me to explain again?"

Clinical Reasoning Note

This station assesses your ability to disclose a sensitive test result, assess patient understanding and risk, and explain further investigations and lifestyle advice aligned with **NICE CKS and UKHSA guidance**. Accurate

classification (acute vs chronic), public health notification, and safety netting are critical to a high-scoring performance.
Let me know if you'd like a one-page revision summary or mock station version of this case.

Colonoscopy – Test Result Discussion Following Sigmoidoscopy

Setting: FY2 in General Surgery Clinic
Patient: 55-year-old woman
Previous Test: Sigmoidoscopy for bleeding per rectum
Result: Benign adenoma with dysplastic changes

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1. Introduction & Consent
"Hello, I'm one of the junior doctors working 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 Type: Test Result Discussion
Setting: GP Practice
Patient: 30-year-old man, concerned about dark urine and yellow stools
Results: Raised *unconjugated* bilirubin; *normal* conjugated bilirubin; LFTs otherwise normal
Concerns: "Is it serious?" "Will my kids have this too?"

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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 yellow urine and darker stools.
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 yellow tinge or 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."

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 Type: Consultation / Examination
Setting: GP Surgery
Candidate Role: FY2 Doctor
Patient: 40-year-old man
Name: Tom Wilkinson
Chief Complaint: Long-standing heartburn worsening over time
Concerns: "Why do I keep getting heartburn?" "What will you do for me?"

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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, Mr Wilkinson. 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 (NHS/NICE-aligned)

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. They reduce the amount of acid

your stomach makes.
You'd take this once a day, usually for **4 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 you're not interested in quitting smoking, but just so you know, smoking makes 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

Setting: GP Surgery
Role: FY2 Doctor
Patient: Joan Smith, 33-year-old woman
Presentation: Tiredness, right upper quadrant pain, yellow eyes
Tests Done: LFTs – ALT 530, AST 110, Bilirubin 35, ALP normal, GGT normal
Examiner Prompted Findings: Tender RUQ, positive Hepatitis A IgM, normal observations, normal ultrasound

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
- **Avoid painkillers like paracetamol**, which can harm the liver further
  If needed, we can offer you **safe medications** like metoclopramide for nausea and ibuprofen for tummy pain — but only if symptoms are moderate."

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

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Suspected Upper GI Malignancy

Station Type: Clinical Consultation + Abdominal Examination
Setting: GP Surgery
Candidate Role: FY2 Doctor
Patient: 60-year-old male
Presenting Complaints: Tiredness for 6 months
Significant History: Weight loss, loss of appetite, palpitations, recurrent chest infections, long-standing acid reflux (on Gaviscon), no current chest symptoms, no cough, non-smoker

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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 (malena), 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

"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."

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
Next steps: Urgent 2WW endoscopy + blood tests (FBC, LFT, U&E, CRP, FIT), supportive treatment, clear safety netting

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Suspected Colon Cancer – Iron Deficiency
Station Type: Consultation (Hospital-based, post-admission)
Setting: Acute Medical Unit
Role: FY2 Doctor
Patient Profile: 69-year-old man, brought in after collapse at home
Known Background:
- Observations: Normal
- ECG: Normal
- PR exam: Normal
- Bloods: Normal Hb, low iron, normal WCC, glucose, and cardiac enzymes
- No reported bleeding per rectum
- Plan already made: discharge, iron tablets, urgent colonoscopy

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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

"Now I'll ask some questions about your digestion and bowel habits — just to rule out serious causes."

- "Have your bowel habits changed recently — more frequent, less frequent, or alternating?"
- "Any constipation or diarrhoea?"
- "Any recent abdominal discomfort or cramps?"
- "Have you noticed any blood in the stool — either bright red or black and sticky?"
- "Any unintentional weight loss?"
- "Loss of appetite or feeling full quickly?"
- "Any bloating, swelling, or pain in the tummy area?"

5. Targeted Risk Factor History – PMAFTOSA

"Just to make sure we understand the bigger picture, could I ask a few background questions?"

- **Past Medical History**: "Have you ever had bowel problems, bleeding from the back passage, or bowel surgery?"
- **Medications**: "Are you on any long-term medication?"
- **Allergies**: "Any known medication allergies?"
- **Family History**: "Has anyone in your family been diagnosed with bowel cancer or other cancers?"
- **Social History**:
  - "Do you smoke or drink alcohol?"
  - "How would you describe your diet — do you eat much red meat or processed food?"
  - "Do you get much fibre — like fruits, vegetables, or whole grains?"
  - "Do you exercise regularly?"

6. ICE – Ideas, Concerns, Expectations

"Do you have any thoughts about what might be causing the collapse and low iron?"
"Is there anything in particular you're worried about?"
"What were you hoping we'd do today?"
(*Patient may say: "Could it be something serious?" or "Why all these tests?"*)

7. Effect on Life

"Has this tiredness or bowel change affected your usual routine — walking, working, appetite, or sleep?"

8. Data Interpretation & Explanation

"Thanks for telling me all of that. Let me explain what we've found so far."
Explain in patient-friendly terms:

- "Your vital signs like blood pressure and pulse are normal — that's a good sign."
- "Your heart tracing (ECG) was normal — no sign of any heart problem."
- "Your sugar levels and other important markers like liver and kidney function were also normal."
- "However, one thing we noticed is that your **iron levels are low**. That often happens when the body is losing small amounts of blood over time."
- "You're not anaemic yet, but this is **early iron deficiency**, and we need to understand why it's happening."

9. Provisional Diagnosis + Lay Explanation

"Based on your age, change in bowel habits, and low iron, one possibility we're concerned about is **a growth in the bowel** — something like **bowel cancer**.
We're not saying you definitely have cancer, but these findings make us concerned, and we need to investigate it quickly to rule that out."
"Bowel cancer often causes very slow bleeding, which you may not see. Over time, this can cause tiredness, collapses, and low iron."

10. Management Plan

Immediate steps:

- "You're safe to go home today."
- "We'll give you **iron tablets** to help with your levels."
- "We've arranged an **urgent colonoscopy within 2 weeks** — that's a test using a small camera to look inside your bowel. If anything unusual is seen, they'll take a small sample for testing."

Why we're acting quickly:

"It's important to catch anything early. If it's something harmless, great — but if it is something more serious, we want to catch it as early as possible so treatment can be started right away."

11. Safety Netting

"If you don't get your colonoscopy appointment within 2 weeks, or if anything changes — like more collapses, vomiting, or black stools — please come straight back to A&E or call your GP."

12. Leaflet & Final Check

"I'll give you an information leaflet about the colonoscopy procedure and about low iron levels.
Do you have any other questions right now, or anything that's been unclear?"

Responses to Patient Concerns

Q: "Why are you suspecting cancer?"
"It's one of the possible causes when someone has your combination of symptoms and test results. We're not saying it's definitely cancer — but it's important to check thoroughly and not miss anything."
Q: "Why should I go through all these tests at my age?"
"Because if it turns out to be something serious, finding it early gives you the best chance for a full recovery. Many people are successfully treated when things are caught early."

Diagnostic Note

- Collapse likely secondary to early iron-deficiency anaemia
- Normal ECG, obs, PR, but unexplained low iron in elderly → suspect GI malignancy
- Meets NICE criteria for urgent 2WW colonoscopy: age >60 + iron deficiency + change in bowel habit
- Management: Discharge, iron, colonoscopy referral, safety netting

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Suspected Gastric Cancer (Recurrent Indigestion + Weight Loss)

Station Type: GP Consultation
Setting: GP Practice
Role: FY2 Doctor
Patient Profile: 55-year-old male
Presenting Complaints: 2-month history of indigestion and upper abdominal pain, single episode of vomiting (no blood), 4 kg weight loss over 1 week
Significant PMHx: Known gastric ulcer, on lansoprazole
Family history: Colon cancer
Vitals & GPE: Normal
Abdominal Exam: Mild epigastric tenderness
Patient concern: "Can you increase my medications?" "Why do I need another endoscopy?"

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1. Introduction & Consent

"Hello, I'm one of the doctors here today. Thank you for coming in. Could I confirm your full name and date of birth before we begin?
Thanks. I understand you've been having indigestion for a while, and I see from the notes that you've had a history of stomach ulcer before. Would it be alright if I ask a few questions, examine you, and explain the plan going forward?"

2. Presenting Complaint – ODIPARA

"Could you tell me more about this indigestion you've been having?"

- **Onset**: "When did it first start?"
- **Duration**: "Has it been constant or does it come and go?"
- **Intensity**: "How bad is the discomfort?"
- **Progression**: "Has it been getting worse?"
- **Aggravating/Relieving**: "Does anything make it better or worse — like eating, drinking, or lying down?"
- **Associated symptoms**: "You mentioned vomiting — was that food, bile, or anything else? Any nausea or bloating?"

3. Differential Diagnosis Screening

"I'll now ask some questions to rule out other possible causes and complications."

- "Have you vomited blood or had black, tarry stools?"
- "Any difficulty swallowing or food getting stuck?"
- "Any recent diarrhoea, constipation, or changes in your bowel habits?"
- "Any recent infections or fever?"
- "Have you felt unusually tired or faint?"
- "Have you noticed yellowing of your skin or eyes?"
- "Have you had anything like this before?"

4. Targeted Risk Factors & PMAFTOSA

"Just to complete the picture, I'd like to ask a few more background questions."

- **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 understand you were hoping for stronger medication. However, increasing your current medication right now would only mask symptoms without addressing the cause. 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."

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."

Diagnostic Note for Examiner

- Age ≥55 with new-onset dyspepsia and **weight loss** → 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 - Hepatomegaly with Weight Loss

Station Type: First Presentation
Setting: GP Surgery or Acute Medical Unit
Candidate Role: FY2 Doctor
Patient Profile: 50-year-old male
Presenting Complaint: Unintentional weight loss and loss of appetite
Examiner findings: Hepatomegaly with mild right upper quadrant tenderness (on examination)
Vitals & GPE: Normal
Patient Concern: "Why do I have this?"

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."

Management Plan

1. Share Your Clinical Impression Clearly
"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."

8. 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."

9. 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

Setting: GP Practice
Patient: 35-year-old IT worker
Type: Lab result follow-up

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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 often picked up through undercooked meat, especially poultry, or contaminated food and water. 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."

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."

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:

- **Clinical context**: bloody diarrhoea, fever, cramps, dining out history.
- **Lab findings**: stool sample positive for leukocytes, erythrocytes, and *Campylobacter jejuni*.
- No dehydration, no immunocompromise, no severe ongoing symptoms → managed conservatively as per **NICE CKS**.

Chapter 8: Endocrinology

Addison's Disease –Test Result Discussion

Setting: GP Clinic
Patient: 24-year-old with Type 1 Diabetes
Tests: Hyponatraemia, Mild Hyperkalaemia
Background: Tiredness and skin pigmentation noticed while in Spain

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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'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)

"This is considered a medical emergency. If untreated, it can lead to an adrenal crisis. 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)
- You'll also be given:
  - **An emergency steroid card**
  - **MedicAlert bracelet**
  - **Hydrocortisone injection kit** to use in case of severe illness

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

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."

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."

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?"

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 in A&E

Setting: A&E
Role: FY2 Doctor
Patient: 21-year-old male/female
Presenting complaint: "I've just been feeling really tired lately."
Key: First diagnosis of diabetes presenting as DKA. Patient refuses admission. You must convince them safely.

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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
"You need to be **admitted today** — this condition can't be managed at home."

- IV fluids to correct dehydration and help flush out ketones
- IV insulin to bring down blood sugar safely and stop ketone production
- Regular blood tests to monitor salt balance, sugar, and blood acidity

- ABG to assess how acidic your blood is
- Infection screen — just in case something triggered this

Once Stabilised

- You'll be transitioned to **subcutaneous insulin**
- Reviewed by **endocrinology team**
- Seen by **diabetes nurse** and taught how to manage sugar levels, injections, and diet

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 worst-case situations, people can fall into a coma — and it can be fatal

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."

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

Why DKA?

- Young adult in A&E
- Symptoms: tiredness, dehydration, polydipsia, vomiting, fast breathing
- Capillary glucose >20, urine +++ ketones, acetone breath
  → Strongly suggestive of **DKA** → requires urgent admission and IV insulin

Diabetic Neuropathy Follow up

Setting: GP Practice
Role: FY2 Doctor
Patient: Mr John Mendes, 52 years old
Context: Type 1 DM since age 14. Was last seen 4 months ago, prescribed insulin (Glargine) for 1 month. Did not return.
Recent Findings:

- Urine dip: ++ glucose, + protein
- Nurse: Bilateral below-ankle sensory loss + burning pain
- Optician: Dot and blot haemorrhages
  Task: Follow-up consultation to assess understanding, review symptoms, address complications, and build a clear management plan

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1. Introduction
"Hello Mr Mendes, 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 you were last seen about four months ago and were started on insulin, but we haven't reviewed you since. 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 why regular reviews are so important — many complications develop quietly."

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 (Glargine) 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 (Glargine)**
  - Confirm dose and refer to **diabetes nurse** for titration
- **Neuropathic pain treatment**
  - Start **Duloxetine** or **Amitriptyline** (NICE CKS first-line)
  - Consider Gabapentin if others not tolerated
- 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**: Support to stop
- **Alcohol**: Minimise — alcohol can worsen neuropathy

- **Daily Foot Care**: Inspect feet daily, moisturise soles (not between toes), wear diabetic shoes/socks

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"

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 (Exam Summary)
- **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

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Primary Hyperparathyroidism

Setting: GP Clinic
Role: FY2 Doctor
Patient: 45-year-old woman
Task: Discuss test results, explain diagnosis, explore ICE, and plan management

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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?"

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. Let's now go over your test results. 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 your calcium level is raised and you're symptomatic, the next step is to **refer you to a hormone specialist — an endocrinologist**. They'll confirm the diagnosis and guide treatment."

- If calcium is **2.6–3.0 mmol/L** → routine referral (still needed with symptoms)
- If **>3.0 mmol/L** → urgent/same-day referral
- If **>3.5 mmol/L** or vomiting/confusion → 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** — to check bone density
- **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
  - **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?"

12. Clinical Summary for Examiner

- 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 – Test Results

Setting: GP Clinic
Role: FY2 Doctor
Patient: Mrs X, 40 years old
Task: Full consultation including history, diagnosis explanation, and treatment plan for new hyperthyroidism diagnosis

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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, Mrs X. 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?

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 a medication called **Propranolol**, which is a type of beta-blocker."
- "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**, a medicine that slows the thyroid down."
- "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."

D. 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."

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 bring the hormone levels back to normal and keep you feeling well. 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**
- **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 for Examiner

- 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 – Test Results

Setting: GP (Phone consultation)
Role: FY2 Doctor
Patient: 35-year-old woman
Presentation: Weight gain over 2 months, tiredness, cold intolerance, mild low mood. Bloods show **TSH ↑, T4 normal**

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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 a medication called **Levothyroxine** — it's a hormone replacement that brings your levels back to normal."
- "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."

B. Monitor & Adjust

- "We'll repeat your thyroid blood test in **6 weeks** to check how your body is responding."
- "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 6 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?"

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12. 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

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Primary Hypothyroidism – First Presentation

Setting: GP Surgery
Role: FY2 Doctor
Patient: 35-year-old woman
Presenting Complaint: Tiredness, feeling cold, low mood
Labs: Not yet done – this is an **initial assessment** station

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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."*
"Thanks for sharing that — I'm sorry to hear it's been so tough. 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 check:"

- **TSH** and **Free T4** → to assess thyroid function
- **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

→ 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.
- 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 6–8 weeks**
- 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

- 35-year-old 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, lifestyle advice, levothyroxine if confirmed
- Safety netting for worsening symptoms or mental health

Agranulocytosis (Carbimazole-Induced Neutropenia)

Setting: GP Surgery
Role: FY2 Doctor

Patient: 40-year-old female
Presentation: Sore throat, recently started on carbimazole for hyperthyroidism

---

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 a **medical emergency**, and you've done the right thing by coming in early."

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)
- 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:
    - Rarely **Propylthiouracil** (PTU)
    - 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?"

Candidate Summary Note

- 40F 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

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Suspected Silent MI vs MALA

Setting: GP (Telephone Consultation)
Role: FY2 Doctor
Patient: 68-year-old man with longstanding diabetes (on Metformin)
Presenting Complaint: Cold, clammy, and unwell. Symptoms returned after walking uphill. Past history of HTN.

---

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."

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"

14. Diagnostic Reasoning for Examiner
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 for PLAB 2:
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: GP
You are: FY2 doctor
Patient: 28-year-old woman concerned about painful finger episodes triggered by cold
Task: Take history, examine hands, explain condition, address concerns, and provide a clear management plan

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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."
"Stop smoking if you smoke, as it narrows blood vessels and makes things worse."

B) Medication (If frequent or disabling episodes):

"If symptoms are frequent or not well controlled, we can try **nifedipine**, which is a tablet that helps relax the blood vessels and improve blood flow. It's safe and often effective."

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."

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.

Chapter 9: Musculoskeletal/Rheumatology/Pre-op/Post-op

Ankle Sprain

Setting: A&E

You are: FY2 doctor

Two possible scenarios:

Case A: 70-year-old woman slipped while running from a dog, lateral ankle pain, no swelling, vitals stable, wants X-ray.

Case B: 30-year-old lawyer, slipped during shopping, pain on inversion, no swelling or bony tenderness, requests X-ray.

Introduction

"Hello, I'm one of the doctors here in A&E. 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?"

"Is there any **bony tenderness** at the back or tip of your ankle bones (lateral or medial malleolus)?"

"Any pain around the base of your 5th toe or navicular area?"

"Were you able to **walk four steps** right after the injury and now?"

"Did the ankle twist inwards or outwards?" *(Inversion injury common in sprains)*

In both cases, **Ottawa Ankle Rules are negative → X-ray not immediately required.**

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

"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. The good news is that 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

RICE Protocol (for first 48–72 hrs):

Rest: "Limit activities that cause pain."

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."

Pain Relief:

Paracetamol or ibuprofen as needed

"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."

"Avoid running or sports for around 6–8 weeks until full recovery."

Recovery Advice:

"Most sprains get better in about 1–2 weeks."
"We'll review you if it doesn't improve after 2 weeks or gets worse."

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 (70+) for patient-centered care — but only after explanation.

Back Sprain

Setting: GP / A&E
You are: FY2 doctor
Patient: 35–40-year-old person presenting with lower back pain after playing tennis
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 playing tennis?"
"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

"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 playing tennis after a break, 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: "You can take **ibuprofen** or **paracetamol** regularly for a few days to help with the pain."

Muscle relaxant (if needed): "If the pain is severe and causing muscle tightness, we can also give a short course of **diazepam** to help relax your muscles."

RICE approach: "Rest for the first day or two, but then try to keep gently mobile. Use an ice pack (wrapped) for 15–20 minutes a few times a day."

Activity advice: "Avoid heavy lifting and long drives. Try not to stay in bed too long — movement helps recovery."

Return to activity: "Start gentle stretching or physiotherapy exercises once pain settles. Warm up properly before playing sports again."

If in A&E:

Offer **X-ray** if concerned about structural injury, or if the patient insists — though not usually needed in a clear sprain with normal exam.

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, mobilisation, and physiotherapy if not improving.

Disc Prolapse

Setting: A&E

You are: FY2 doctor

Patient: 30–35-year-old male, severe lower back pain after rugby trauma

Task: Take focused history, examine, explain findings, and manage appropriately.

Introduction

"Hello, I'm one of the doctors here in A&E. I understand you've had some severe back pain after your rugby 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?"
"Have you lost control of your bladder or bowels?"
"Any numbness around your groin or inner thighs?" *(saddle anaesthesia)*
"Any weakness in your legs?"
"Any fever or recent weight loss?" *(malignancy/infection)*

These questions help exclude **cauda equina**, **spinal abscess**, and **tumour**.

Focused Background

Trauma: "Did anyone fall on you? Was it a twisting injury?"
Past history: "Any previous back injuries or similar episodes?"
Medications: "Are you on any regular medication?"
Allergies: "Any allergies to medicines like NSAIDs or opioids?"

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: "Is there anything in particular you're worried about?"
Expectations: "What were you hoping I could do for you today?"

Examination Summary

"I'll now examine your back and legs to check your nerves and muscle strength."

General: Vitals stable, patient in pain but alert
Inspection: No bruising or deformity
Palpation: Tenderness over lower lumbar spine
SLR Test: Positive on affected side (shooting leg pain)

Neurological Exam:

Weakness (if present), reduced sensation in dermatomal pattern
Reflexes: May be reduced (e.g. ankle jerk)
Anal tone and perianal sensation: **Normal** (no cauda equina)

Provisional Diagnosis

"This is most likely a **lumbar disc prolapse**, where the cushioning disc between your spine bones has slipped out of place and is pressing on a nerve root. That's why the pain is severe and radiates down the leg. The mechanism (trauma during rugby) and your symptoms fit this diagnosis."

Explanation

"Between the bones in our spine, we have soft cushioning discs that act like shock absorbers. During intense physical activity like rugby, one of these discs may slip out of its normal position and press on the nerves — that's called a **disc prolapse**.
That pressure causes the kind of pain you're feeling — sharp, shooting, and sometimes going down the leg. It can also cause tingling or numbness. The good news is that this condition usually **gets better on its own**, but it may take a few weeks."

Management Plan

In-Hospital Management

Admission: "We'll keep you in hospital today to monitor your symptoms."
Pain Relief: "We'll give you strong painkillers, possibly opioids if needed."
Muscle Relaxant: "We may use a medication called **diazepam** to help relax the muscles and ease the pain."
MRI: "We'll request an **MRI scan** to confirm the diagnosis and assess how much the disc is pressing on the nerve."
Orthopaedics Review: "I'll ask the orthopaedic team to come and review your case."

Recovery Advice & Referral

Recovery Time: "Even though it's very painful now, most disc prolapses improve within **4 to 6 weeks** with rest and time."
Activity Advice: "Avoid sports and heavy lifting until fully recovered. But we **do encourage gentle activity** like walking — bed rest isn't helpful."
Driving: "Avoid driving until the pain is under control and you're confident with leg movements."
Physiotherapy Referral: "Once you're stable, we'll refer you to a **community physiotherapist** who can help with exercises and strengthening."

Safety Netting & Follow-Up

"Before I let you rest, just a few important things to keep in mind."

"If at any point you develop **loss of bladder or bowel control**, **numbness around the genitals**, or **sudden worsening weakness in your legs**, please tell us immediately — these are signs of a rare but serious condition called **cauda equina syndrome** and need urgent treatment."
"We'll monitor your progress during this admission, and after discharge we'll follow up to ensure you're recovering well."

Note to Student

This is a **classic case of traumatic disc prolapse**, presenting with red flag potential. The key to scoring 12/12 is:

Correct triaging (MRI, ortho review, pain control),
Clear explanation of disc physiology,
Justification of hospital admission,
Safety-netting for cauda equina,
Supportive recovery plan with physio referral.

Cauda Equina Syndrome

Setting: A&E
You are: FY2 doctor
Patient: ~55-year-old, sudden severe back pain with leg weakness and bowel incontinence
Task: Take focused history, examine, explain, and urgently manage a suspected spinal emergency.

Introduction
"Hello, I'm one of the doctors working here in A&E today. I can see you're in quite a bit of pain — I'll do my best to help you.
Before we begin, could I confirm your full name and date of birth, please?
Thank you. Could you tell me what happened this morning?"

Presenting Complaint – SOCRATES
"Let me just ask a few questions to understand the nature of the pain better."

Site: "Where exactly is the pain — lower back, middle, or elsewhere?"
Onset: "Did it start suddenly or gradually? What were you doing at the time?"
Character: "How would you describe the pain — sharp, electric, or throbbing?"
Radiation: "Does the pain move down your legs or buttocks?"
Associated symptoms: "Any numbness, tingling, or weakness in your legs?"
Timing: "Is the pain constant or intermittent?"
Exacerbating/Relieving: "Any position that worsens or eases the pain?"
Severity: "On a scale of 1 to 10, how bad is it right now?"

Red Flag Screening
"There are a few important things I need to check as this type of back pain can sometimes press on the nerves."

"Have you had any **difficulty passing urine** — or have you gone without realising?"
"Have you had any **loss of control over your bowels**, or soiling yourself?"
"Any **numbness or tingling around your genitals, groin, or inner thighs**?"
"Have you noticed any **leg weakness or dragging** of your foot?"
"Any history of cancer, recent weight loss, or fevers?"

Patient confirms **bowel incontinence + leg weakness** → Red flag positive

Background and Risk Factors

Trigger: "You mentioned you were playing in the garden — did you fall or twist your back?"
Past Medical History: "Any history of back problems or spine conditions before?"
Medications: "Are you on any regular medications?"
Allergies: "Any known drug allergies?"
Family History: "Any history of back or nerve-related conditions?"

Social History

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 but in visible distress
Inspection: Normal alignment, no bruising or swelling
Palpation: Localised tenderness over lower lumbar spine
SLR (Straight Leg Raise): Positive
Neurological Exam:
Leg weakness, reduced power (e.g. L5/S1)
Saddle anaesthesia present
Decreased anal tone
Reflexes may be diminished
Bladder scan: Post-void residual may be high (if available)

Provisional Diagnosis

"Based on your symptoms — including loss of bowel control, leg weakness, and severe back pain — this is highly suggestive of a condition called **Cauda Equina Syndrome**.
This occurs when the nerves at the base of the spine get compressed, often by a slipped disc or spinal injury. It is considered a **medical emergency**."

Explanation

"In your spine, there's a bundle of nerves called the **cauda equina**, which controls the feeling and function of your legs, bladder, and bowels.
It seems that one of the discs between the bones in your spine has slipped and is pressing on these nerves. That's likely why you're having sudden back pain, weakness, and loss of bowel control.
If not treated quickly, this can lead to **permanent damage**, so we need to act fast."

Management Plan

"We'll now begin emergency steps to manage this condition."

Admit immediately to hospital
Strong analgesia: IV morphine or other opioids for pain control
Muscle relaxant: Diazepam as required
Catheter insertion: To relieve urinary retention/incontinence
MRI scan: Urgent imaging to confirm diagnosis and level of compression
Bloods: FBC, U&E, LFTs (surgical preparation, exclude infection)
Urgent referral to spinal orthopaedics/neurosurgery
Likely surgical decompression (laminectomy/discectomy) within 24 hours

Explain the goal: prevent long-term 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 orthopaedic 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. Diagnosis is based on sudden back pain + leg weakness + bowel incontinence + SLR positive.

Early identification and **urgent MRI + neurosurgical decompression** are key. Patient communication must be **clear, urgent, but reassuring**, with safety-netting and escalation clearly explained.

Ankylosing Spondylitis

Setting: GP

You are: FY2 doctor

Patient: ~35-year-old male, chronic back pain with stiffness

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 AS)

"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 uweitis)*
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?"
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?" → *Bus/taxi driver (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

"This seems to be **Ankylosing Spondylitis**, or AS — a long-term inflammatory condition that primarily affects the spine and causes stiffness and pain, especially in the mornings.
It's caused by the immune system attacking the joints of the spine, leading to inflammation."

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
Optional: MRI (if X-ray inconclusive or early AS suspected)
Fundoscopy: If eye symptoms present
Spirometry: If restricted chest movement

Referral:

Rheumatology referral: "We'll refer you to a specialist who will confirm the diagnosis and start long-term treatment — often including a medicine called **methotrexate** or **biologics** if needed."

Symptomatic Relief:

NSAIDs: "For now, I'll start you on an anti-inflammatory like **ibuprofen** 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. Management focuses on **early NSAIDs, exercise, smoking cessation**, and **specialist care**.

Musculoskeletal Chest Pain

Scenario: A&E | 25-year-old male | Chest pain after football injury
Your Role: FY2 doctor in Accident & Emergency

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 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

What do you think might be causing this pain?
Is there anything you're particularly worried about?
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

Tell: 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

25-year-old male with localized left-sided chest pain following a fall during football. 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: GP

You are: FY2 doctor

Patient: Woman, post-wrist fracture, DEXA scan now shows osteoporosis

Task: Explain results, assess symptoms and risk factors, initiate treatment, address concerns

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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** — which 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 with small falls — like the one that led to your wrist fracture."

Confirm understanding:

"Does that explanation make sense so far?"

"Would you like me to go over anything again?"

Symptom Check

Rule out any current complications.

"Have you had any other **falls or fractures** recently?"
"Any **pain in your back or hips**?"
"Have you noticed any **change in your posture** or feel like you've lost height?"
"Any current **dental problems** — such as jaw pain, loose teeth, or recent extractions?"

Background Check – MAFTOSA + ICE

Ensure you're assessing risk factors and patient views.

M – Medical history: "Any other health conditions you're managing?"
A – Allergies: "Any medication allergies I should be aware of?"
F – Family history: "Has anyone in your family had osteoporosis or fractures?"
T – Travel / sun exposure: "Have you been indoors a lot or travelled anywhere recently — particularly to places with little sun?"
O – Occupation/mobility: "Are you retired now? Do you feel steady walking around the house or outdoors?"
S – Smoking: "Do you smoke?"
A – Alcohol: "Do you drink alcohol? If so, how much per week?"

Explore ICE:

Ideas: "What's your understanding of the condition so far?"
Concerns: "Is there anything in particular that's worrying you?"
Expectations: "Was there anything you were hoping I could help with today?"

Management – Treatment Plan Discussion

Frame the goal clearly:
"We'd like to **start treatment today** to help strengthen your bones and reduce the risk of further fractures."

A) Alendronate 70 mg once weekly

"This is a medicine that helps **slow down bone loss and increase bone strength**.
It's taken **once a week** — and how you take it is really important."

How to take Alendronate:

Take on an **empty stomach**, first thing in the morning
Swallow with a **full glass of plain water** (not tea, coffee, or juice)
Remain **upright for at least 30 minutes**
Don't eat or drink anything else during that time

Common side effects:

Tummy discomfort, heartburn

Rare side effects:

Jaw pain, unusual thigh pain
"Please tell us if you have any **chest pain, trouble swallowing,** or develop **pain in the jaw or thigh**."

B) Calcium and Vitamin D Supplementation

Calcium 1000 mg + Vitamin D 400 IU (10 mcg) daily
"These work alongside alendronate to support bone health."
"Take them **daily with food**."

Side effects:

Mild: **Constipation, bloating**
Rare: High calcium levels (hypercalcaemia)

C) Baseline Investigations Before Treatment

"We'll arrange a few blood tests to make sure treatment is safe and appropriate:"

Calcium
Vitamin D
Phosphate
Parathyroid hormone (PTH)
Renal function (U&E)

D) Dental Referral

"Because long-term bone medications can very rarely affect the jaw, we recommend having a **dental check-up** — especially if you haven't had one recently.
Let your dentist know you're starting this medication."

Follow-Up Plan

Provide a clear, structured review plan:
"We'll review you again in **4 to 6 weeks** to see how you're tolerating the medication and to check the **blood test results**.
We'll also ask about any side effects and check how you're doing overall."

Safety Netting

"If you develop any **severe chest pain**, **difficulty swallowing**, **new pain in your jaw or thigh**, or have another fall — please don't wait, get in touch with us straight away."

Patient Information & Support

"I'll give you a **leaflet** that explains what osteoporosis is and how to take these medications properly."
"It also includes information about **diet, lifestyle, and fall prevention tips**."

Addressing Patient Concerns

Concern 1: "How long will I need to take this?"

"Alendronate is usually prescribed for **5 years**.
After that, we reassess your fracture risk and may **pause** or **continue** the treatment depending on your progress and scan results."

Concern 2: "What are the side effects?"

"The most common side effect with alendronate is **tummy irritation** — that's why we're very careful about how it's taken.
There's a very small chance it can cause **jaw pain** or unusual **thigh pain**, which is why we monitor you closely and recommend a **dental review**.
Calcium and vitamin D are usually well tolerated, but can cause **constipation** or **bloating** in some people."

Note for Students

This is a classic **DEXA scan result follow-up** for **postmenopausal osteoporosis** after a low-impact fracture.
Key points:

Use clear lay language to explain bone loss and fracture risk.
Address **red flags** before treatment (e.g., dental issues).
Prescribe **alendronate weekly + daily calcium/vitamin D**, with clear administration guidance.

Arrange blood tests, refer to dental, and ensure **4–6 week follow-up**.
Address common concerns about **duration**, **side effects**, and **treatment need** clearly and supportively.

Frozen Shoulder (Adhesive Capsulitis)

Setting: GP Clinic
You are: FY2 Doctor
Patient: 45-year-old male with 4-week history of right shoulder pain

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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?"

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)

Say to the patient:

"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 several **months to 2–3 years** to fully resolve. But with the right management, we can significantly improve function and reduce pain."

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."

Investigations

Bloods: FBC, CRP, ESR, glucose, thyroid function
Shoulder X-ray: "To rule out arthritis or other causes of pain"

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 acute 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

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Suspected Scaphoid Fracture

Setting: GP or Urgent Care Telephone Line
You are: FY2 doctor
Patient: 30–45-year-old male, builder or painter
Presenting Complaint: Pain in hand after falling off a ladder while at work

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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 painting."

"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 painting — 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 come 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, we might need to arrange a **CT scan or MRI** in a few days to confirm — sometimes the break is too fine to detect initially."

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 break is missed, it can **lead to long-term problems like arthritis or non-union**."

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 (FOOSH)**
- 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

Plantar Fasciitis

Setting: General Practice (GP)
You are: FY2 Doctor
Patient: ~30-year-old shop assistant
Presenting Complaint: 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?"
  "Does anything make it feel better — resting or sitting down?"
- **Severity:** "On a scale of 1 to 10, how bad is the pain at its worst?"

Differential Screening – Rule Out Other Causes

"Just to make sure we're not missing anything serious…"

- "Have you had any **injuries or trauma** to your foot recently?"
- "Do you do any **sports or running** that involve a lot of impact?"
- "Does your job involve **long hours of standing or walking**?"
- "Do you have any other symptoms like **joint pain, muscle stiffness, or swelling**?"
- "Do you have any history of **arthritis, autoimmune conditions, or diabetes**?"

These questions rule out Achilles tendinopathy, stress fracture, tarsal tunnel syndrome, and systemic causes.

Risk Factor Assessment – MAFTOSA

- **M (Medical history):** "Any health conditions like flat feet, arthritis, diabetes, or thyroid issues?"

A (Allergies): "Do you have any allergies to medications?"
F (Family history): "Any family history of joint problems or foot issues?"
T (Travel/temperature): Not relevant here unless sudden changes in activity
O (Occupation): "You work in a shop — are you on your feet most of the day?"
S (Smoking): "Do you smoke?"
A (Alcohol/Activity): "Do you drink alcohol?"
"Do you exercise regularly — walking, jogging, sports?"

ICE

Ideas: "Have you looked into what might be causing the pain?"
Concerns: "Is there anything specific you're worried about — like a fracture or long-term damage?"
Expectations: "Were you hoping for pain relief today, or a referral?"

Examination

"Let me have a quick look at your foot — I'll be as gentle as I can."
Inspection: No swelling or redness across the sole
Palpation: Localised tenderness over the **medial heel** at the origin of the plantar fascia
Neurological exam: Normal sensation and reflexes
ROM/Weight-bearing: Pain triggered by dorsiflexion of toes or walking
Typical findings for **plantar fasciitis**

Provisional Diagnosis

"This seems to be a case of **plantar fasciitis** — one of the most common causes of heel pain.
It happens when the thick band of tissue under your foot, called the **plantar fascia**, becomes **irritated or inflamed** from overuse or pressure.
It's especially common in people who **stand or walk for long hours**, like in your job."

Explanation

"The plantar fascia runs from your heel to your toes. It works like a **shock absorber** for your foot. But when it's **overstrained** — from standing all day, high-impact activities, or poor footwear — it can become inflamed and painful, particularly where it attaches to the heel bone."
"You may notice the pain is **worst first thing in the morning** or after long periods of standing.
The good news is — it usually **gets better with rest, stretching, and simple treatments**."

Management Plan
Initial Treatment

Pain relief: "We'll start with over-the-counter painkillers like **Paracetamol** or **Ibuprofen**."
Modify activity: "Try to avoid prolonged standing, running, or walking on hard surfaces until it settles."
Ice pack: "You can apply an **ice pack wrapped in a towel** to the heel for 15–30 minutes a few times a day to reduce inflammation."

Home Exercises / Physiotherapy

"If the pain doesn't settle in a few weeks, I'll refer you to **physiotherapy**."
"They'll teach you **gentle stretching exercises** that target the plantar fascia and calf muscles."

Footwear Advice

"Try supportive shoes with cushioning in the sole and arch."

"Avoid flat-soled or hard shoes like sandals or heels."

Orthopaedic Referral (If Not Improving)

"If the pain is still there after 6–8 weeks of treatment, we may refer you to **orthopaedics**."
"They may consider options like **steroid injections**, **shockwave therapy**, or in rare cases, surgery."

Safety Netting

"If the pain **worsens**, you develop **numbness**, swelling, or can't put weight on the foot — please come back sooner."
"Also let us know if the pain starts affecting your mobility or sleep."

Follow-Up

"We'll book a **follow-up in 4–6 weeks** to see how things are progressing."
"If needed, we'll refer you for physio or orthopaedics at that stage."

Leaflet & Final Reassurance

"I'll give you an **NHS leaflet** with exercises and advice for managing plantar fasciitis."
"The condition can take **several weeks to fully improve**, but with regular care and stretching, most people recover completely."

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

Note for Students

This is a **classic GP presentation of plantar fasciitis**:

Risk factors: long hours standing, no injury
Pain localized to the heel, especially in the morning
Management is **conservative first-line**: analgesia, activity reduction, stretching, footwear advice
Refer to **physiotherapy** or **orthopaedics** only if symptoms persist
Must **rule out red flags** like nerve compression, systemic arthritis, or calcaneal fracture

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Metatarsalgia

Setting: General Practice (GP)
You are: FY2 Doctor
Patient: 35–45-year-old female, estate agent
Presenting Complaint: Pain in the foot, under the toes (ball of the foot)

Introduction

"Hello, I'm one of the doctors here at the practice. Could I just confirm your full name and date of birth before we begin?
Thank you. I understand you've been experiencing some foot pain — would you mind telling me more about that?"

Presenting Complaint – Pain History (SOCRATES)

"Let me ask a few questions to better understand the pain."

Site: "Where exactly is the pain located? Is it under your toes or at the ball of the foot?"
Expected: Pain under the metatarsal heads

Onset: "When did this pain begin? Was it sudden or gradual?"

Character: "How would you describe the pain — is it dull, burning, stabbing?"
Radiation: "Does the pain move to any other part of the foot?"
Associated Symptoms: "Any tingling, numbness, or feeling like you're walking on pebbles or rocks?"
Timing: "Does the pain get worse as the day goes on, or after walking or standing for a long time?"
Exacerbating/Relieving: "Does footwear affect it? What makes it better or worse?"
Severity: "On a scale from 1 to 10, how would you rate the pain at its worst?"

Risk Factor Screening

Occupation: "I understand you work as an estate agent. Do you spend long hours standing or walking 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 over **metatarsal heads**, especially 2nd or 3rd
Sensation and pulses: Normal
Toe squeeze test: May reproduce pain (if Morton's neuroma ruled out)
Findings consistent with **metatarsalgia**, not Morton's neuroma (no clicking, radiating pain, or positive Mulder's sign).

Provisional Diagnosis

"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."

9. 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 a few 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, 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."

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

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**

→ **Orthopaedics** only if unresolved.

Morton's Neuroma

Setting: General Practice (GP)
You are: FY2 Doctor
Patient: 35–45-year-old female, corporate lawyer
Presenting Complaint: Foot pain (between toes)

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: "I understand you're a corporate lawyer — 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
"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 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."
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:
Steroid injections to reduce inflammation
Shockwave therapy
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."

"Does all of that make sense? Would you like me to go over anything again?"

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

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Polymyalgia Rheumatica

Setting: GP Surgery

You are: FY2 Doctor

Patient: 76-year-old woman

Presenting Complaint: Muscle pain and fatigue

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 mimics:

"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

"Has anyone suggested what this could be?"
"Is there anything you're worried about — like arthritis or something more serious?"
"What were you hoping we could do for you today?"

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, SpO_2 — 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 causes inflammation in the large muscle groups**, especially around the **shoulders, neck, and hips**.
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 weight loss significant

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 better within a few days of starting."
- **Omeprazole**: Increase dose to protect the stomach from steroid irritation
- **Calcium + Vitamin D**: Bone protection
- **Alendronic acid**: If long-term steroids needed
- Provide a **Steroid Emergency Card**
- Explain: "Steroids must not be stopped suddenly — always follow the plan with your GP."

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 that needs urgent treatment."
- Follow-up in **3–5 days** for blood results and to consider starting treatment
- Provide **leaflet on PMR** and explain next steps clearly
- Issue **Steroid 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

CK normal (if tested), **joint exam normal**, but **ESR/CRP usually raised**

Together, this pattern points toward **PMR** — a **systemic inflammatory disorder affecting the proximal muscles**, often seen in older adults and responsive to steroids.

If visual changes, scalp tenderness, or jaw claudication were present — always think of **Giant Cell Arteritis**, which can coexist and requires urgent management.

Polymyalgia Rheumatica – Follow-Up

Setting: GP

You are: FY2 Doctor

Patient: 80-year-old man, 3 weeks into Prednisolone treatment

Presenting complaint: Follow-up to monitor response, screen for complications, and adjust dose

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Paraphrase

"Good morning, Mr [Surname].

I understand you're here today for a **follow-up appointment**, and that you were recently diagnosed with a condition called **polymyalgia rheumatica**.

We're keeping an eye on things to see how you're responding to the treatment and to make sure everything is going in the right direction."

Check & Explain

Explore understanding:

"Can I ask, what's your current understanding of this condition?"

"Did anyone explain what polymyalgia rheumatica actually is?"

"Do you know how it affects your body or why we use steroids to treat it?"

If unclear, give brief explanation:

"Polymyalgia rheumatica is a **condition where the immune system becomes overactive** and causes inflammation in the **large joints**, like the shoulders and hips, and the muscles around them.

That's why you may have had pain and stiffness — particularly in the mornings.

It typically affects people over 50 and **responds very well to steroids** like Prednisolone."

"Does that make sense to you now?"

Treatment

Explore current treatment regimen:

"Can you tell me what treatment you've been given so far?"

"Do you know the name and dose of your medication?"

(Expected: Prednisolone 15 mg once daily)

"Are you taking it regularly — every morning?"

"Have you missed any doses?"

Side effects inquiry (specific for early Prednisolone use):

"Any **tummy pain**, **bloating**, or **indigestion**?"

"Have you noticed **any weight gain** or changes in your **blood sugar or pressure**?"

"Any signs of **infection** like sore throat or fever?"

"Any recent **mood changes**, difficulty sleeping, or increased appetite?"

If any concern is raised about stopping steroids:

"It's very important **not to stop steroids suddenly**, because your body adjusts to them and needs time to start making its own again.
That's why we always reduce the dose gradually while monitoring your symptoms."

Symptom-Related Check

Compare baseline to current:

"Before starting treatment, you had **shoulder and hip pain**, and stiffness in the mornings.
Can you tell me how things are now?"
"Have the pain and stiffness improved?"
"How long does it take you to get moving in the morning now?"
"Can you walk and dress more easily than before?"

Expected: 'Much better now.'

"That's great to hear — it means the treatment is working as expected."

Complication screening – check for GCA:

"Any **new headaches**, especially near your temples?"
"Any **tenderness when brushing your hair** or touching your scalp?"
"Any **blurred vision** or **pain when chewing food**?"

If any red flag is present → urgent referral for GCA

MAFTOSA

M – Medical History:

"Do you have any other long-term conditions?"
(Expected: High blood pressure + diet-controlled diabetes)
"Are you taking medication for those? How well controlled are they?"

A – Allergies:

"Any allergies to medicines?"

F – Family History:

"Any family history of bone issues or autoimmune conditions?"

T – Travel: *(Skip unless relevant)*

O – Occupation:

"Are you currently retired?"

S – Social History:

"Who do you live with?"
"Are you managing daily tasks like dressing and shopping now?"
"Has this condition affected your independence in any way?"

A – Alcohol & Activity:

"Do you drink alcohol?"
"Do you keep yourself active at home?"

ICE:

"Is there anything you're still concerned about?"
"Have you been worried about the side effects of steroids?"
"Is there anything you were hoping I could help with today?"

Management

Continue with and adjust existing plan

Steroid dose reduction:

"As your symptoms are improving, we can now **reduce your Prednisolone** from 15 mg to **12.5 mg daily** – that's 2.5 tablets each morning."

Blood test + follow-up:

"I'll arrange a **blood test in 3 weeks** to check your inflammation levels, and then we'll see you again in **week 4**. If everything continues to improve, we'll reduce the dose further from there."

Add protective medications:

Alendronic Acid:

"Steroids can weaken your bones over time, so we'll prescribe **Alendronic Acid** to help protect against osteoporosis."

Lansoprazole:

"Steroids can also irritate the stomach lining, so we'll add **Lansoprazole** to prevent ulcers."

Side effect counselling with management strategies:

"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."

"If you do notice any problems, please let us know."

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 a related condition called **Giant Cell Arteritis**."

"Also contact us if you feel generally unwell, have a fever, or struggle with your medication."

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?"

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** (normal in previous case: ESR 10, CRP 5)

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

Setting: GP – Telephone Consultation
You are: FY2 Doctor
Patient: 80-year-old man
Background:

Diagnosed with PMR 3 weeks ago
Started on Prednisolone 50 mg daily
Patient is calling outside routine follow-up due to tummy pain and concern about medication

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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 50 mg daily** — 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 – Fix the Issue
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 — it's also to **protect your eyesight**.
PMR can sometimes lead to a related condition that affects the arteries supplying your eyes, and if left untreated, it can cause **sudden permanent vision loss**."
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 (alongside medications):
"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."
"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
Recap clearly:
"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 — avoid robotic phrasing like OEDIPA
Safety-net carefully, especially for **GCA warning signs** and **GI bleeding**

Acute Gout

Setting: GP Surgery
You are: FY2 Doctor
Patient: Theresa Parkinson, 54-year-old woman
Presenting Complaint: Sudden, worsening pain in right big toe

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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, 20 cigarettes/day, drinks 4 pints of beer 3–4x per week*
"How is your weight?"
→ *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 the photo we have of 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 not bone cancer — it can feel very painful and dramatic, but the condition is **treatable and reversible**."

Management Plan (Acute Flare)

A. Investigations:

Blood tests: Uric acid, FBC, CRP, renal profile, HbA1c, cholesterol
X-ray of the foot (to rule out erosive joint damage or infection if needed)
Urine dipstick

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 mcg TDS for 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 or avoid alcohol, especially during the flare
Recommend weight loss → refer to **dietitian** for BMI and diet plan
Advise **balanced diet**, avoiding purine-rich foods (red meat, organ meats, shellfish)

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'll bring you back for a review."

Re-check bloods, especially **urate levels**
Consider **starting long-term medication** (e.g. **Allopurinol**) if:
- Recurrent flares
- Joint damage on imaging
- Urate level persistently high
- Patient preference

Refer to hypertension clinic to adjust BP meds
Discuss **smoking cessation support**

Leaflet & Closure

Offer **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?"

Final Teaching Points

Always address **cancer concerns empathetically and directly**
Acute gout management = treat flare + address contributors
Don't start Allopurinol during a flare
Always **stop thiazides** if gout develops
Offer both **short-term relief and long-term plan**

Chronic Tophaceous Gout

Setting: GP
You are: FY2 Doctor
Patient: 69-year-old female
Presenting complaint: Swelling of the joints in both hands for the past 5 years
No pain, no redness, no stiffness, no fever

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 Plan

Real case: you would verbalise or perform the following:

A. Observations:

BP, HR, Temperature, RR, Oxygen sats

B. Hands & Joint Examination:

Inspect fingers for tophi (chalky nodules over extensor surfaces)
Look for joint deformities, skin changes, nail involvement
Check range of motion of fingers and wrists
Palpate for tenderness or bogginess
Assess power and grip strength

C. Systemic Joint Screening:

Inspect elbows, knees, and Achilles tendons for other tophaceous deposits
Look at ear helices (common site for urate deposition)

Provisional Diagnosis

"Based on what you've told me, the long-standing swelling in your fingers without pain or redness, your past history of gout, and what I've seen today, this appears to be **chronic tophaceous gout**."

Explanation

Use natural, confident phrasing:

"This is a condition where **uric acid crystals slowly build up in the joints over time**, especially if the gout is untreated or undertreated.

These crystals form **hard lumps called tophi**, which are not always painful but can cause joint swelling and deformity.
They're most common on the fingers, elbows, knees, and sometimes even in the ears or feet."
"It's not cancer — it's a **crystal deposit issue**, and we can manage it."

Management Plan

A. Blood Tests:

Serum uric acid
U&Es, eGFR, FBC, CRP
HbA1c, lipid profile
Consider urinalysis

B. Imaging:

X-ray of both hands (look for 'punched-out' erosions, overhanging edges)
May help rule out erosive arthropathies or rheumatoid overlap

C. Long-Term Management

Offer **Allopurinol** if uric acid is elevated:

"This is a daily medication that reduces uric acid production and helps shrink tophi over time."

Lifestyle counselling:

"Balanced diet with fewer purine-rich foods"
"Weight loss if overweight"
"Reduce alcohol and avoid dehydration"
"Maintain good hydration"
"Avoid sugary drinks and red meats"

Refer to Rheumatology

For confirmation of diagnosis and to guide long-term urate-lowering strategy
Also helpful if joint deformity or functional limitation is present

Safety Netting

"If the swelling becomes **suddenly painful, red, or hot**, please come back urgently — that may indicate an acute gout flare or possible joint infection."
"If you develop any new joint symptoms, visual changes, or feel generally unwell, let us know immediately."

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."

Whiplash Injury – Real Patient Examination Station

Setting: GP or Urgent Care
You are: FY2 Doctor
Patient: 50-year-old individual
Complaint: Neck pain following a road traffic accident
Task: Take focused history, perform a full examination (real), and discuss diagnosis and next steps

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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."

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 and soft tissues in your neck have been overstretched 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."
"We **don't recommend neck collars** as they can worsen stiffness and delay healing."

Activity & Driving:

"Avoid driving until you feel your neck can turn comfortably without pain."
"There's **no need to inform the DVLA** unless the symptoms persist."

Referral:

"I'll refer you to **physiotherapy** so you can be guided through safe exercises to improve your mobility and prevent long-term stiffness."

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: Elderly care ward
You are: FY2 doctor
Patient: Elderly female, admitted for chest infection, was due for discharge, fell while going to the toilet

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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?"

4. 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, SpO_2 — stable
No fever

Focused Hip Examination Findings (given on paper):

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*."
"This is unfortunately quite common in older adults after a fall — especially when the bones are weaker due to age or conditions like osteoporosis."

Immediate Management Plan

Postpone Discharge:

"I'm really sorry, but we will need to cancel your discharge today. We need to focus on getting this sorted safely 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** 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."

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 assess your risk of future falls and adjust medications or aids as needed."

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."

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: GP or Pre-operative Clinic

You are: FY2 Doctor

Patient: 30-year-old woman

Procedure: Elective laparotomy for dermoid ovarian cyst removal (18 × 8 cm)

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 if needed, 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, 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?"

None

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. If needed, we'll also arrange routine pre-op blood tests."

Intra-operative Explanation – How the Surgery Is Performed

"Let me explain how the surgery will be done.

You have a **dermoid cyst**, which is a benign (non-cancerous) growth in your **ovary**, made up of tissues like fluid, hair, or skin. It's quite large — about 18 × 8 cm — so we need to remove it through a surgery called a **laparotomy**."

"This means a cut will be made in your lower tummy — just below your bikini line. It's usually a **horizontal cut**, about 10 cm long.

Through that, the surgeon will carefully reach the cyst. They will tie both ends of the cyst so that the contents don't spill out. Then they'll cut and remove the entire cyst."

"After that, they'll close the cut using **absorbable stitches**. These are stitches that dissolve naturally over time — so you won't need to come back to have them removed."

Post-operative Advice & Recovery

"Once the operation is done, you'll be taken to a recovery room for 3–4 hours, where you'll be monitored while waking up from the anaesthesia."

"You'll be able to drink water shortly after waking."

"Within 2–3 hours, you'll be able to eat something light."

"You'll then be moved to the **gynaecology ward**, where you'll likely stay for around **2 days**."

"A **physiotherapist** will see you within 24 hours to help you start walking and prevent stiffness."

"At home, take it easy — recovery will take another **2–4 weeks**, but that varies."

Risk Explanation & Patient Questions

Patient: "Is this cancer?"

"No — based on your scan and all the findings so far, this is a **benign dermoid cyst**, not cancer. It's quite common and does not behave like cancer."

Patient: "Will I still be able to have children?"

"Yes. As long as your **other ovary is healthy**, you should still be able to have children. Your fertility might slightly reduce, but many women conceive naturally after similar procedures."

Complications during surgery:

"There is a small risk of **bleeding** or **injury to surrounding organs** — like the bladder or bowel — but this is rare."

After surgery:

"You may experience some **pain**, **infection**, mild bleeding or bruising, or in some cases, the operation might not remove the cyst fully if complications arise — though that's unlikely."

Final Steps

Ensure **consent was already taken** by the surgical team

Reassure patient about timing, fasting instructions, and discharge planning
"You'll be advised to **fast for 6 hours before surgery**, and you can drink **clear fluids up to 2 hours before** — that includes water or black tea, but not milk, green tea, or fizzy drinks."
If diabetic: suggest **Lucozade** as sugary drink if needed pre-op

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Hernia Surgery – Pre-operative Assessment

Setting: Pre-operative assessment unit
You are: FY2 doctor
Patient: Adult male scheduled for elective open hernia repair (herniorrhaphy)
Concerns: High BP (160/90), family history of hernia (asks about TRUSS), occupation-related recovery expectations
Occupation: Warehouse worker

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
"Just to explain, this visit is to check that you're medically fit for the operation."
"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

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.
But in your case — young, fit, and otherwise healthy — **surgery is the better option**. TRUSS doesn't fix the hernia, it only temporarily holds it in."

Fasting Instructions
"Before the surgery, follow the '**2–6 rule**':
No food for **6 hours**
Clear fluids (like water or black tea) allowed until **2 hours before surgery**
Avoid milk, fizzy drinks, green tea, or juice"

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 BP today is 160 over 90, which is a bit high but **not high enough to cancel surgery**. We usually become more concerned if it's over 180 or associated with symptoms."
"It may be a **white coat effect**, meaning your pressure is temporarily raised because you're at a clinic."
"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."

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."

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-op clinic
You are: FY2 doctor
Patient: Adult (e.g. 60s), scheduled for elective removal of ankle pin placed 6–8 weeks ago following fracture
Comorbidities: Diabetes (on metformin or insulin)
Key concerns: Previous nausea/vomiting during anaesthesia, pet care responsibilities

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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 around 6 to 8 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 you have diabetes, we'll admit you **the day before the operation**. This allows us to manage your blood sugar carefully."
If on insulin:
"We'll provide insulin through an IV, using what we call a **sliding scale**, where insulin is adjusted based on your sugar levels."
If on metformin:
"We usually stop metformin temporarily and use insulin while you're in hospital, as it's safer around surgery time."
"You **don't need to bring your diabetes medications** — we'll provide everything here."
"We'll also try to schedule your surgery **as early in the morning as possible**, since you're diabetic — to reduce fasting risks."

Procedure Explanation (Keep It Simple)
"This procedure is simply to **remove the metal pin** that was placed in your ankle.
It's usually done as a short operation and 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."

Preparation Instructions
"Because of your diabetes, you'll be **admitted the day 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?"
A: "We'll do everything we can to prevent it. The anaesthetic team will be informed and can give anti-sickness medications, but there's always a small chance."
Q: "Should I bring my insulin or tablets?"
A: "No — please don't bring them. We'll give you everything you need during your stay."
Q: "How long will the surgery take?"
A: "It's usually a short procedure, 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?"
A: "Because we're admitting you the day 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."

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
Check if patient has further questions

Post-operative Care – Knee Arthroplasty

Setting: Orthopaedics Department, Inpatient Ward
You are: FY2 doctor
Patient: 60-year-old lady, admitted for knee **Hemi-arthroplasty** (surgery likely scheduled for next day)
Task: Discuss **post-operative care and recovery only**

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, we'll use a combination of the following to prevent them:"

Blood thinning medications – either as an injection or tablet

Compression stockings – to improve circulation in your legs

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: "Most people can start using stairs again after **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: 6 weeks

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: "Mild pain may last **up to 3 months**, but it gradually improves."

Swelling: "Can persist for **up to a year** after surgery."

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?"

"Is there anything you'd like me to go over again?"

Chapter 10: Haematology

Chronic Lymphocytic Leukaemia (CLL)

Setting: GP Clinic

Role: FY2 Doctor

Patient: 65-year-old male, came in for blood tests after wife's pre-diabetes diagnosis / Wife worried about his weight loss

Findings: WBC 40,000 (↑), raised lymphocytes, low Hb, normal HbA1c

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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 quick 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?"

"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 wife were especially worried about?"

"Were you hoping the test would give reassurance or check something specific?"

(Actor 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**, which are normally part of the immune system. In your case, the number is much higher than expected.

Unfortunately, this pattern can suggest a condition called **Chronic Lymphocytic Leukaemia**, or **CLL**. 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 may recommend a **bone marrow biopsy**, where a sample is taken from inside the bone to look at the cells more closely. 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. When treatment is needed, it can include **chemotherapy, targeted therapies, or sometimes steroids**. Very rarely, some people may be considered for a bone marrow transplant, but that depends on several factors."

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."

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 simple 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?"

"Does everything I've said make sense so far?"

12. Closing & Reassurance

"Thank you for coming in and getting this checked. 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."

Clinical Note for Students: Diagnostic Reasoning

The diagnosis is **suspected Chronic Lymphocytic Leukaemia (CLL)** based on:

Marked leukocytosis (WBC 40,000) 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.

Suspected Multiple Myeloma

Setting: GP Clinic
Role: FY2 Doctor
Patient: 65-year-old man (James)
Scenario: Follow-up visit for chronic back pain – test results show anaemia, increased IgG on serum electrophoresis, Bence Jones protein in urine, and thrombocytopenia.

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1. Introduction & Consent
"Hello, James. 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 quick 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**. 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
– An **MRI or CT scan**, to check the structure of your bones and look for any damage
– 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
"Does this explanation make sense so far?"

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**.

Pain Management in Metastatic Breast Cancer

Setting: Acute Medical Unit
Role: FY2 Doctor
Patient: Elderly female (approx. 76–80 years old)
Background: Diagnosed with breast cancer 5 years ago → underwent mastectomy, lymph node clearance, chemotherapy, and radiotherapy. Now referred by oncology due to worsening back pain from known spinal metastases.

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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. We'll make sure your comfort is prioritised while still keeping you as active and independent as possible."

8. Management Plan – NICE- and WHO-Aligned Palliative Pain Care

Stepwise Pain Control

"We'll start by **introducing oral morphine**, taken regularly every 4 hours. We'll adjust the dose depending on how your body responds."
"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 prevent constipation
– An **anti-sickness tablet**, like ondansetron or cyclizine, to help with nausea"

Alternative Routes (address concern: unable to swallow)

"If swallowing becomes difficult later on, pain relief can be given 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"

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 the medications don't agree with 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 (for students)

Feature	*Explanation*
Chronic severe back pain	Likely spinal mets from breast 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 2.5–5 mg every 4 hours
Senna/lactulose (laxative)
Cyclizine/ondansetron (antiemetic)
Consider morphine patch or syringe driver if oral route fails

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Iron Deficiency Anemia

Setting: Well Man Clinic (GP)
Role: FY2 Doctor
Patient: 68-year-old male
Presentation: Asymptomatic, follow-up after routine check-up bloods
Findings: Low Hb, low MCV, low ferritin; all other results including coeliac screen and vitamins are normal

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1. Introduction & Consent
"Hello, I'm one of the doctors here today. Are you Mr Brown? Could I please confirm your date of birth? Thank you. I understand you've come back for a review of your recent blood tests from the Well Man Clinic. 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 anemic 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**.

Unfortunately, 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 we're not saying that's definitely the case—but we need to investigate it thoroughly 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 simple terms."

11. Check Understanding
"That's quite a bit of information—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 for Students
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**

Suspected Thalassaemia Trait

Setting: GP – Well Woman Clinic
Role: FY2 Doctor
Patient: 40-year-old woman
Scenario: Follow-up for blood test results after routine check-up
Findings: Hb slightly low, MCV low; iron, ferritin, B12, folate all normal; patient asymptomatic; sister has thalassaemia

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1. Introduction & Consent
"Hello, I'm one of the doctors here at the practice. Are you Ms Brown? Lovely to meet you. Can I just confirm your age, please?
Thanks for coming in today. I understand we're meeting to review your recent blood test results from your Well Woman 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
– "This may sound a bit personal, but it helps us understand genetic conditions. May I ask where your family originally comes from?"
→ *(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 in simple terms. 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
Referral for confirmation:
"To confirm this, I'll refer you to a **haematologist**, a blood specialist. They'll do a special test called **haemoglobin electrophoresis**, which looks at the different types of haemoglobin in your blood. This will give us a clear diagnosis."

Current management:
"As you're not experiencing any symptoms, and your levels are only mildly reduced, there's **no treatment needed right now**."
Potential future considerations:
"In some types of thalassaemia trait, the body can absorb more iron than needed, even if iron levels are normal. That's why we avoid giving iron tablets unless your specialist advises it. In rare cases, if iron overload happens, they might suggest a medication to reduce it, but again, this is unlikely."

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."
"And if your referral appointment hasn't come through within **2 weeks**, just call us so we can follow it up."

9. Follow-Up Plan

"Once the haematology team completes your testing, we'll review their report together. If everything confirms what we suspect, no further treatment may be needed—just documentation."

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

"That's quite a bit to take in—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 picked up something mild and harmless, 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 for Students

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
→ Diagnosis will be confirmed by **haemoglobin electrophoresis**
→ No iron supplements unless confirmed deficiency
→ No treatment required at this stage

Vitamin B12 Deficiency Anaemia (Dietary Cause)

Setting: GP Clinic
Role: FY2 Doctor
Patient: 40-year-old vegan woman
Scenario: Came for blood test after ongoing tiredness. Now returns for results.
Findings:

Hb: Low
MCV: High
Vitamin B12: Low
Iron, ferritin, TSH: Normal
MMA: Nil
DESA: Vegan for 3 years

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. Are you Ms [Name]? 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)*
"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 you've been following a vegan diet 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 treatable**."

6. Structured Management Plan

"Since your B12 level is low and you've had symptoms, the recommended first step is to **replenish your B12 stores quickly with injections**."

Treatment plan:

"We'll give you an injection of **hydroxocobalamin (1 mg) every other day for 2 weeks**, or until your symptoms improve.
After that, you can either:
– Take a **B12 tablet daily** for life (50–150 micrograms), or
– Continue with an **injection every 2–3 months**, if you prefer not to take tablets."

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 condition is very 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 for Students

Diagnosis: Vitamin B12 deficiency anaemia
Findings: Macrocytic anaemia (↑MCV), low Hb, low B12, normal iron and TSH
Likely cause: Dietary (vegan for 3 years, no B12 intake)
Next steps:
- **IM hydroxocobalamin 1 mg alternate days for 2 weeks**
- Then lifelong **oral B12** (or IM every 2–3 months if preferred)
- **Follow-up in 2–3 months**
- Refer only if no response or unclear cause

Macrocytic Anaemia with Raised LFTs - Test Result Discussion

Setting: GP Clinic (Telephone Consultation for Male / In-Person for Female)
Role: FY2 Doctor

Scenario A: Male Version – Telephone Follow-Up for Hypertension

Patient: 65-year-old man
Background: Hypertension (on Amlodipine), annual follow-up
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.*

4. 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?"

5. Clear Result Disclosure

"Thanks for sharing that with me. I've reviewed your blood tests, and I'd like to explain what we found."

6. 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."

7. 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."

8. 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**
– Check your **B12 and folate levels**
– Rule out any other causes if needed"

If B12 is low (likely):

"We'll start you on **hydroxocobalamin injections—1 mg every other day for 2 weeks**, then a top-up every **2–3 months long-term**, depending on how your body responds."

Why injections, not tablets:

– "Because alcohol can damage the stomach lining, tablets may not get absorbed properly. Injections work more reliably in these cases."

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."

9. Address Concerns Naturally

Patient may say: "But I only drink a bit!"
– "I completely understand. What we're seeing in your blood suggests that even that amount may be affecting your health. It's not a judgment—just something to work on slowly and safely."

10. 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."

11. 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."

12. 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."

Scenario B: Female Version – Well Woman Clinic Follow-Up
Patient: ~60-year-old woman
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?"

Adjusted Differential Screening:

PPI use → can reduce B12 absorption
Female with abdominal pain → ensure no red flags (masses, bleeding, weight loss)

Lay Explanation (adjusted):

"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

Nitrous Oxide-Induced Functional B12 Neuropathy
Setting: GP Clinic
Role: FY2 Doctor
Patient: 18-year-old female
Presentation: Bilateral lower limb and hand tingling, numbness, mild limb weakness

Context: Recreational use of nitrous oxide for 6 months
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

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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."

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.
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**."

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**
→ 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 if it feels harmless. 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 website** 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."

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 **Talk to FRANK** (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

Chapter 11: Urogenital, nephrology and Sexual Health

Acute Prostatitis

Scenario

Setting: GP clinic or outpatient

Patient: 42-year-old man

Task: Assess urinary symptoms, examine using mannequin (DRE), explain diagnosis, and manage.

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1. 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
We'll begin a **2-week course** of antibiotics — often **ciprofloxacin** or **trimethoprim**, depending on local policy and allergies.

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."

"Also, if things don't improve after 48 hours of antibiotics, please come back for review."

Follow-Up Plan

Check response in 48 hours

If symptoms persist at 2 weeks → Consider extending antibiotics to 4 weeks

Refer to urology **only if** symptoms become chronic or recurrent

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Student Note: Why This Is Prostatitis, Not BPH

Prostatitis: Younger male (42), 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.

Benign Prostatic Hyperplasia (BPH)

Scenario

Setting: GP clinic

Patient: 65-year-old male

Task: Assess urinary symptoms, perform PR examination (DRE), explain findings, and manage.

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

Has this been affecting your sleep or day-to-day life?

(*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.

It's a **normal age-related change** and not cancerous."

"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

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

Case 1: With Back pain

Scenario

Setting: GP clinic

Patient: 65-year-old man

Task: Assess back pain and urinary symptoms, consider prostate cancer, examine if mannequin is present, explain findings, and manage appropriately.

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

From what you've shared — back pain, weight loss, urinary symptoms, and your age — this raises a concern 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. The good news is, if caught early, it can be managed very effectively — but we do need to act quickly."

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

Referral

"Based on your symptoms and the possible risk, I'll make an urgent referral to the urology team under the **2-week cancer pathway**. This doesn't mean you have cancer, but it ensures we don't miss anything serious."

Next Steps by Urology

Further imaging: **MRI** of prostate, **bone scan** if needed

Prostate biopsy depending on results

If confirmed: treatment options may include **radiotherapy**, **surgery**, or **hormone therapy**, depending on stage and grade

Lifestyle and Support

Keep track of symptoms (e.g. worsening pain, weight loss, changes in urination)

Support services and leaflets will be provided if diagnosis is confirmed

Involve partner/family early for support if patient consents

Safety Netting

"If you develop worsening back pain, numbness, difficulty walking, or new issues with bowel or bladder control, please seek urgent help — this could suggest spinal involvement."

"If your symptoms worsen before the appointment, do come back sooner."

Follow-Up Plan

Urgent **2WW referral to Urology**

PSA and back X-ray arranged today

Pain relief prescribed

Follow-up call or review in 1–2 weeks, sooner if needed

Student Note: Why This Is Prostate Cancer and Not BPH or Prostatitis

BPH: Common after 50, causes frequency and dribbling — but **no weight loss or back pain**

Prostatitis: Causes pain, tenderness on PR, and often fever — not chronic back pain or weight loss

Prostate cancer: **Combination of red flags** (e.g. back pain, weight loss) + **urinary symptoms**, especially in older men

Even **one urinary + one cancer symptom** is enough to **trigger suspicion and 2WW referral**, regardless of PR findings

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Case 2: When Frequency Is the Main Complaint

Patient Profile:

Older male (≥60 years)

Presents with **urinary frequency** as main concern

No back pain volunteered unless asked

PR mannequin may be present

How to Adapt Your Consultation

Introduction & Opening

"Hello, I'm one of the doctors here today. Thanks for coming in. How can I help you today?"
(*Patient replies: "I've been going to the toilet too often."*)

Structured Approach

Ask full prostate symptom checklist (in patient-friendly language):

How often are you going during the day?
Are you waking up at night to pee — how many times?
Do you feel the need to rush to the toilet?
Is your flow weaker than before?
Do you have to strain or wait to start peeing?
Do you dribble after finishing?
Do you feel like your bladder doesn't fully empty?

Explore other common causes of urinary frequency (Differential Screening):

Any burning or discomfort while passing urine? *(UTI)*
Any recent new sexual partners? *(STI)*
Any history of diabetes?
Are you on any new medications — especially water tablets? *(Diuretics)*
Have you been drinking more coffee, tea, or fizzy drinks than usual?

Screen for prostate cancer red flags even if not volunteered:

Any recent **back pain** — especially lower back?
Any **weight loss** or fatigue recently?

Examination (if mannequin present)

Proceed with PR as in other prostate cancer scenarios.
Finding may or may not include hard or nodular prostate. Either way, does not change initial management.

Diagnosis and Management

If urinary frequency is **persistent** and combined with **even one cancer red flag** (e.g. weight loss, back pain, hard prostate on DRE):
→ **Suspect prostate cancer** and follow **same management pathway**:

PSA
PR
Back X-ray if symptomatic
2WW referral to Urology
Symptom relief as needed

Student Note

Even if a patient presents *only* with urinary frequency, always screen for prostate cancer in men ≥60 by asking about **back pain and weight loss**.

If any red flag is found — or PR is suspicious — prostate cancer must be considered, and a **2WW referral** is appropriate.

PSA First Presentation with LUTS

Scenario

Setting: GP surgery

Patient: 57-year-old man

Task: Assess urinary symptoms, perform PR (mannequin), explain findings, and manage including PSA test.

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 going to the toilet too often lately."*)

Presenting Complaint – ODIPARA for Urinary Frequency

Could you tell me more about what you've noticed?

Onset: When did this start?

Duration: Has it been constant or off and on?

Intensity: Is it worse during the day or night?

Progression: Has it been getting worse over time?

Aggravating/Relieving: Does anything seem to make it better or worse?

Associated: Any discomfort while passing urine?

Response so far: Have you tried anything to manage it yourself?

(*Patient reports urgency and frequency, especially at night. No dysuria or pain.*)

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 in Simple Terms
"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:
"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 → Start BPH treatment
Raised PSA → Refer under **2WW pathway**

PSA Test Result –Follow-Up

Scenario Setup

Setting: GP Clinic
Patient: Male, aged 50–65
Task: Review PSA blood test results, explain clearly, and manage appropriately

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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*)

Explore 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"*)

Clear Result Disclosure + Interpretation

Let's go through what your PSA result shows, and what it means in your situation.

Lay 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 4 PSA Scenarios

Scenario 1: PSA = 20 in Well-Man Clinic

"Your PSA level came back as 20. For most men your age, we expect it to be below 4. Even though you don't have any symptoms, this is quite a bit above the usual range."

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 your age, we generally expect PSA to be below 3 — 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."

"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 **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

Setting: Emergency Department
Patient: 86-year-old male (not present, mannequin provided)
Task: Speak to daughter, assess confusion history, perform abdominal exam, explain findings, and manage appropriately

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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."

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**
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

Reassurance & Communication

"This is something we see often in older men with prostate problems. The bladder doesn't empty fully, and that can lead to infection, discomfort, and even confusion.
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

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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

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Suspected Testicular Cancer

Setting: GP Clinic
Patient: 25-year-old man
Task: History, focused examination, explanation, and management of a testicular lump

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1. 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

Help the patient **redress** and ensure they are comfortable.
Thank the patient and offer reassurance.
Say:

"That completes my examination. Thank you for your cooperation.

Findings:

Non-tender, firm, irregular lump in testis
No transillumination → solid mass

Provisional Diagnosis

Based on your history, the lump's feel on examination, and your personal and family history, this could be **testicular cancer**. I understand this sounds alarming, but it is often very treatable when detected early.

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. The good news is, it's also highly treatable when found early."

Management Plan

Blood tests: Tumour markers (β-hCG, LDH, ±AFP depending on subtype)
Urgent ultrasound of the scrotum
Urgent 2WW referral to urology
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

Differential Diagnosis

While testicular cancer is the top concern here, let's briefly consider other possibilities based on your age and findings:

Condition	*Key Features*
Testicular cancer	**Hard, irregular, non-tender lump**, doesn't transilluminate; common in young men

Epididymal cyst	Soft, fluctuant swelling above testis; separate; transilluminates
Hydrocele	Fluid-filled swelling; painless; surrounds testis; transilluminates
Varicocele	Feels like a "bag of worms," often on left; worse when standing
Epididymo-orchitis	Painful, red, swollen testis; fever or UTI symptoms
Inguinal hernia	Swelling may extend into scrotum; reducible; cough impulse present
Torsion *(unlikely here)*	Sudden severe pain, high-riding testis, teenage age group

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Epididymal Cyst

Setting: GP Clinic
Patient: Young adult male
Task: History, focused examination, explanation, and management of a testicular lump suspected to be an epididymal cyst

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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."*)

Presenting Complaint – MEDS Structure

M – Morphology
- Which testicle is affected – left or right?
- Is the whole testicle swollen or just a part?
- Where exactly is the lump – at the top, bottom, or side?
- What size is it – like a pea, grape, or walnut?
- Is it soft, smooth, or fluid-like?
- Can you move it around or is it stuck?
- Does it feel separate from the testicle itself?

E – Evolution
- When did you first notice the lump?
- Has it grown over time?
- Does it change with movement or position?

D – Duration
- How long has it been there altogether?

S – Symptoms
- Is there any pain, discomfort, or pressure?
- Any redness or warmth in the area?
- Any discharge or skin changes?

Screening for Differential Diagnoses (Structured Questions)

To screen for Hydrocele:
- Does the swelling seem to surround the entire testicle?
- Is it more prominent at night or when standing?

To screen for Varicocele:
- Does it feel like a bunch of veins or a "bag of worms"?

Any dragging sensation?

To screen for Testicular Tumour:

Is the lump inside the testicle or separate from it?
Is it hard and irregular?
Any family history of testicular cancer?

To screen for Orchitis / Epididymo-orchitis:

Any fever, chills, or urinary symptoms?

To screen for Torsion:

Any sudden severe pain or change in position of the testicle?

Sexual & Fertility History

STI and Sexual History

Any recent unprotected sexual contact?
Any penile discharge, sores, or pain while urinating?

Fertility History

Do you have children?
Are you planning to have children in the future?

Past Medical and Family History

Any past testicular issues or surgeries?
Any personal or family history of testicular cancer?

ICE

What are your thoughts about what this could be?
Are you concerned it could be something serious like cancer?
What would you like to get out of today's visit?

Examination

"To properly assess the lump, I'd like to examine your testicles with your permission and a chaperone. Is that alright?"

Inspection:

Look for swelling, skin changes, asymmetry

Palpation:

Feel both testicles using bimanual technique
Identify lump position in relation to the testicle
Confirm if it is separate from the testicle

Transillumination:

Shine a light through the lump
A fluid-filled cyst will transilluminate clearly

Findings:

Smooth, fluctuant, non-tender lump located above or beside testicle
Transilluminates → fluid-filled → likely **epididymal cyst**

Provisional Diagnosis

Based on your history and examination, this looks like an **epididymal cyst**. That means a small fluid-filled sac that arises from the epididymis — the tube above and behind the testicle that stores sperm.

Explanation

"You have a condition called an **epididymal cyst**. It's basically a harmless fluid-filled sac that forms in the epididymis — the tube just next to the testicle. It's not cancer, it's not dangerous, and it often goes away on its own. These cysts are quite common in young men and often don't need any active treatment."

Management Plan

Reassurance: "This is a benign condition. In many cases, it will resolve on its own within **6–9 months**."
Routine ultrasound to confirm diagnosis
Blood tests: Tumour markers **(beta-HCG, LDH)** due to young age and standard protocol
If large or persistent: Routine urology referral to discuss options such as:
- Surgical excision
- Cryotherapy (if small and symptomatic)

Advise to avoid trauma, tight clothing

"We'll monitor the cyst and refer you to a specialist only if it's growing, painful, or bothering you."

Safety Netting & Follow-Up

"If you ever develop **sudden severe pain**, that can be a sign of the cyst twisting or another emergency condition called torsion. In that case, you must go to the emergency department immediately. We'll get the ultrasound and tumour markers done and follow up with you once the results are back. You can always come back sooner if you're concerned."

Student Note: Diagnostic Reasoning Summary

Soft, fluctuant, painless lump at upper pole of testicle
Transilluminates clearly → suggests fluid-filled lesion
Lump separate from testis, no red flag symptoms
Most consistent with **epididymal cyst**
Cancer unlikely, but **tumour markers** and **ultrasound** still appropriate for young male
Clear diagnosis, safety net, and shared plan delivered

Mumps Orchitis

Setting: GP Clinic
Patient: Young adult male
Task: History, focused examination, explanation, and management of testicular swelling and pain

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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?
How would you describe the swelling — soft, hard, fluid-like?

Does it feel tender to touch?
Is there any redness or warmth over the skin?

E – Evolution
When did the swelling start?
Has it been getting worse, better, or stayed the same?
Is the swelling constant or does it come and go?

D – Duration
How long has it been going on?

S – Symptoms
Is there pain — how would you rate it from 1–10?
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?

PMAFTOSA

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."
"It's a **viral condition**, not sexually transmitted, and usually settles on its own over a few days to weeks."

Management Plan

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
No need for urgent referral or imaging if clinically confident

"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."

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

Setting: GP Clinic
Patient: Young adult male
Task: History, examination, diagnosis explanation, and management of testicular pain and swelling

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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)

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."
"The good news is this can be treated effectively with antibiotics and supportive care."

Management Plan

Referral: Urgent referral to **GUM clinic** for full STI testing and partner notification
Antibiotics: Likely treatment with **Ceftriaxone IM**, possibly followed by oral doxycycline depending on test results
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

Setting: GP Clinic
Patient: Young adult male
Task: History, examination, diagnosis explanation, and management of a testicular lump

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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 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): Due to age and good practice
If bothersome or enlarging:
Refer to **urologist** for surgical excision if needed
Option of **freezing therapy** if smaller and superficial
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

Testicular Cancer vs Epididymal Cyst vs Mumps Orchitis vs Epididymo-orchitis

Feature	*Testicular Cancer*	*Epididymal Cyst*	*Mumps Orchitis*	*Epididymo-orchitis*
Onset	Gradual, often unnoticed	Gradual	Gradual, after viral illness	Gradual to subacute
Age Group	Young adults (20–35 yrs)	Any age (young adults commonly)	Teenagers or unvaccinated young adults	Sexually active young men (15–35 yrs)
Pain	Usually, painless	Painless	Painful	Painful
Fever/Systemic Symptoms	No	No	Yes (fever, malaise)	Yes (fever, dysuria)
Swelling Location	Intra-testicular	Posterior/adjacent to testis (epididymal area)	Whole testis swollen	Starts at epididymis, may spread to testis
Tenderness	No	No	Yes – diffuse	Yes – localised to epididymis/testis
Consistency	Hard, irregular	Soft, fluctuant	Firm/swollen	Firm and tender
Transillumination	No	Yes	No	No
Discharge/Dysuria	No	No	No	Yes – common
Sexual History Risk	Not relevant	No	No	Yes – STI risk
Associated Features	Gynecomastia, back pain (late), weight loss	None	Recent parotid swelling, jaw pain	Urethral discharge, STI symptoms
Red Flags Present?	Yes	No	No (unless complications)	No (but refer if recurrent/severe)
Examination	Hard, non-mobile lump; doesn't transilluminate	Soft, mobile, transilluminates	Swollen testis; tender; skin may be normal	Tender epididymis ± testis; no transillumination

Quick PLAB 2 Pointers:

Cancer: Always consider in a painless, firm, non-transilluminating lump.
Cyst: Separate, fluctuant, and transilluminates — no systemic signs.
Mumps Orchitis: Post-viral, diffuse swelling, systemic symptoms.
Epididymo-orchitis: Pain + STI risk + discharge/dysuria = high suspicion.

Overactive Bladder

Setting: GP Clinic
Patient: 80-year-old male
Task: History, focused examination, diagnosis explanation, and NICE-aligned management of urinary urgency/frequency

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."*)

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 common in older adults and 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):

If symptoms persist after 4–6 weeks, discuss starting medications like **antimuscarinics** (e.g. oxybutynin) or **beta-3 agonists**

Patient Education:

OAB is not dangerous, and many people improve with habit changes

Emphasise importance of continuing fluids to prevent dehydration

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 heath chapter.

Suspected Bladder Carcinoma

Station ID

Setting: GP Surgery

Doctor: FY2

Patient: Mr. X, 68-year-old male

Task: Assess haematuria, identify cancer risk, examine appropriately, and arrange urgent referral

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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 (Verbalised)

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?"

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

"Mr. X, 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."

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."

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 aged 68 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

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Bladder Cancer Suspicion from Test Results

Station ID

Setting: GP Surgery (Follow-up)

Doctor: FY2

Patient: Mr. Johnson, 60-year-old male

Task: Discuss abnormal urine and blood results found during routine diabetic follow-up, assess risk factors, deliver a clear explanation, and arrange appropriate 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 (Verbalised)

"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
- Close follow-up for recurrence if superficial

Safety Netting

"If you notice any new symptoms like visible blood in the urine, pain, fever, or fatigue, please don't hesitate to contact us or go to A&E."
"Even though you're feeling well now, we must not delay this. Early detection makes a big difference."

Follow-Up & Leaflet

Offer NHS bladder cancer leaflet
Ensure patient is booked into 2WW urology clinic
Arrange GP follow-up after specialist report received
"Do you have any other questions or concerns I can help with before you go?"

Student Note: Diagnostic Justification

Repeated microscopic haematuria in a 60-year-old
Elevated WCC without infection
Former smoker (within last year)
No infection, trauma, or benign explanation
NICE guidance indicates urgent urology referral

Stay focused on the diagnosis. Do not dismiss the blood findings due to lack of symptoms.
Stick with **suspected bladder cancer** based on objective markers and risk — not on lack of visible symptoms.

Erectile Dysfunction in a Gay Patient – Request for Viagra

Station ID

Setting: GP Surgery
Doctor: FY2
Patient: Male in a same-sex relationship
Presenting for: Request for erectile dysfunction medication (Viagra)
Background: Hypertension, currently on beta-blocker (common contributor to ED)

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 age, please?
"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
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

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Student Note: Diagnostic Justification

45-year-old male in same-sex relationship
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

Erectile Dysfunction in Elderly Man

Station ID

Setting: GP Surgery
Doctor: FY2
Patient: 70-year-old male
Presenting with: Low mood and erectile difficulties
Background: No major physical health risks or cardiovascular comorbidities

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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

Provisional Diagnosis

Likely psychogenic erectile dysfunction (no physical risk factors, clear psychological contributors)

Explanation

"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)
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
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

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Erectile Dysfunction in Patient with Heart Disease

Station ID

Setting: GP Surgery
Doctor: FY2
Patient: Male, post-MI and heart failure with low ejection fraction
Medications: Nitrates, thiazide diuretic, simvastatin
Presenting complaint: "I feel rubbish" (hidden ED concern)

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 (per NICE and BNF guidance)
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

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Scenario Variation: Erectile Dysfunction 3 Months Post-MI (Stable Cardiac Status)

Patient Profile

- 55-year-old 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

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

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ACE Inhibitor–Induced Nephropathy

Station ID

Setting: GP Surgery
Doctor: FY2
Patient: Middle-aged or elderly adult on ACE inhibitor (e.g. Ramipril)
Task: Discuss abnormal kidney function result, explain findings, assess symptoms, and manage appropriately

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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?"

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 µmol/L or ≥30% increase from baseline
Potassium >6.0 mmol/L
Symptoms of uraemia: vomiting, confusion, extreme fatigue
Sudden drop in urine output (oliguria or anuria)

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

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Analgesic Nephropathy

Station ID

Setting: GP Surgery
Doctor: FY2
Patient: Mrs X, middle-aged woman
Task: Discuss abnormal kidney function result (low eGFR), assess for symptoms, explain diagnosis, and manage accordingly

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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."

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

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
"You asked whether this could be permanent. Often it improves when we stop the painkillers, but in some cases there can be lasting damage — so we're acting early and will involve specialists if needed."
Provide NHS leaflet: "NSAIDs and Your Kidneys"

Student Note: Diagnostic Justification
- Middle-aged woman with low eGFR found incidentally
- History of rheumatoid arthritis and regular NSAID use established through history
- No major symptoms but NSAID use + decline in eGFR suggests analgesic nephropathy
- NICE-aligned response: withdraw NSAID, monitor renal function, safer pain alternatives, nephrology referral if no improvement

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Renal Colic

Station ID
- **Setting**: Emergency Department (A&E)
- **Doctor**: FY2
- **Patient**: Adult male or female

Presenting Complaint: Sudden onset of loin-to-groin pain
Task: Assess symptoms, confirm diagnosis, explain findings, and manage accordingly

---

Introduction & Consent

Hello, I'm one of the doctors here in the emergency department. Thank you for coming in today.
Could I confirm your full name and age, please?
"I understand you've been experiencing some pain — I'd like to ask a few questions to understand what's going on. Is that alright?"

History – Data Gathering

A. Presenting Complaint (SOCRATES)

Site: "Can you show me where the pain started?"
Expected: Loin pain (one-sided)
Onset: "When did the pain start? Did it come on suddenly or gradually?"
Character: "How would you describe the pain — sharp, cramping, or dull?"
Radiation: "Does the pain move anywhere — down toward your groin, for example?"
Associated symptoms:
Nausea or vomiting
Haematuria
Fever or chills
Difficulty passing urine
Timing: "Is the pain constant or does it come and go?"
Exacerbating/relieving: "Does anything make it better or worse?"
Severity: "On a scale of 1 to 10, how bad is the pain?"

B. Differential Screening

"Have you had any fever, chills, or rigors?"
"Any burning sensation while urinating?"
"Any blood in the urine — pink, red, or brown colour?"
"Have you had anything like this before?"
"Any chance you could be pregnant?" (if female of reproductive age)

C. PMAFTOSA

Past medical history: Previous kidney stones, UTI, renal issues
Medications: Any painkillers already taken (esp. NSAIDs)
Allergies: To contrast dye, NSAIDs
Family history: Kidney stones
Tobacco/alcohol: Lifestyle, dehydration risk
Occupation: Sedentary? High stress?
Social: Hydration practices, recent travel
Alcohol: Overuse?

ICE

Ideas: "Do you have any thoughts on what might be causing the pain?"
Concerns: "Is there anything in particular you're worried this might be?"
Expectations: "What were you hoping we could do for you today?"

Examination Summary

Observations: Vitals — especially temperature
Abdominal exam: Tenderness over renal angle, no guarding or rebound
Urine dipstick: Microscopic or visible haematuria

Diagnosis

"Based on your symptoms — especially the severe one-sided loin pain radiating to your groin, and the presence of blood in your urine — this sounds like a kidney stone, which we call renal colic."

Explanation

"A kidney stone is a hard crystal-like object that forms in your kidneys. If it starts moving, it can block the narrow tubes that carry urine from the kidney to the bladder — that's what causes this type of severe pain."
"The pain usually comes in waves and can be very intense. You may also notice some blood in your urine, which is common with kidney stones."

Management Plan

Immediate Symptom Control:

Patient already received **intramuscular Diclofenac** from triage
If not given: administer NSAID for pain (unless contraindicated)
Consider antiemetics if vomiting

Investigations:

Urine Dipstick: Confirm blood (microscopic or visible)
CT KUB (non-contrast) within 24 hours
If blood present on dip or classic symptoms, even if pain is improving

Imaging Decision:

If <5 mm stone: usually passes spontaneously
If >6 mm: may require urology input for removal or stenting

Additional Blood Tests:

U&Es, FBC, CRP (to rule out infection or renal failure)

Referral:

Urology if:
Persistent pain not controlled with analgesia
Signs of obstruction or infection
Stone >6 mm

Safety Netting

"If the pain worsens, if you develop fever, difficulty urinating, or vomiting that won't settle, please return to A&E immediately. These could be signs of complications."

Follow-Up Plan

CT scan within 24 hours (if not already done)
Urology referral if required based on scan
GP follow-up with result and monitoring

Leaflet & Discharge Advice

Provide NHS leaflet on kidney stones
Emphasise hydration: "Drink plenty of water to help the stone pass and prevent new ones."

Student Note: Diagnostic Justification

- Sudden, severe, colicky loin-to-groin pain
- Urine dipstick showed blood
- Classic renal colic presentation with no signs of infection
- CT KUB required to confirm and guide treatment

Variation: GP Out-of-Hours Scenario

Context: Patient seen by out-of-hours GP yesterday for severe pain. GP gave basic analgesia but couldn't refer or arrange imaging.
Current Visit: Patient presents to in-hours GP practice with improved pain but persistent concern.
Actions:

- Reassess pain pattern and symptoms
- Perform **urine dipstick**
- If **blood present**, arrange **non-contrast CT KUB** within 24 hours
- If large stone or recurrent issue: refer to urology after imaging

Emphasise: Out-of-hours GPs cannot access full referral systems, so follow-up today is essential
Repeat safety netting and hydration advice

Chlamydia in Infant – Maternal Counselling

Setting: GP Clinic
Patient: 22-year-old woman, 10 days postnatal
Task: Explain baby's diagnosis of chlamydia, take mother's sexual history, and arrange appropriate management and follow-up

---

Introduction

Hello, I'm one of the doctors here today. Thanks for coming in.
Could I please confirm your full name and age?
"I understand one of my colleagues asked you to make an appointment. Has anyone explained the reason for today's consultation?"
(*Patient: "No, not really."*)
"That's absolutely fine. I'll go through everything with you. Your baby was recently diagnosed with an infection called **chlamydia**, and I'd like to talk through what that means and how we can manage it moving forward."

Baby History

- "How is your baby doing at the moment?"
- "What symptoms did they have when you were seen?"
- "Do you know what tests were done?"
- "What treatment was given?"
- "Has the baby responded well to the treatment?"

Delivery & Feeding History:

"Was your delivery vaginal or caesarean?"
"How are you feeding the baby — breastfeeding, formula, or mixed?"

Maternal Sexual History (STI History Template)

"To provide the right care for both you and your baby, I'll need to ask you a few questions about your sexual health. These are routine and important for identifying the possible source and preventing reinfection. Is that alright with you?"

Are you currently sexually active?
Are you in a stable relationship?
Who is your partner — male or female?
Do you usually use protection, such as condoms?

Other Partners:

"Have you had any other sexual partners in the last six months?"
"If yes, were they male or female?"
"Did you use protection with them?"

STI Symptom Screening:

Have you noticed any unusual vaginal discharge?
Any burning sensation when passing urine?
Any redness, swelling, or irritation around the genital area?
Any pelvic or abdominal pain?
Any lumps, bumps, or fever recently?

Explanation of Diagnosis

"Chlamydia is a **sexually transmitted infection (STI)**. It's quite common, and many people don't have any symptoms — in fact, most people don't realise they're carrying it."
"In your case, it's likely that the chlamydia infection was passed to your baby during the vaginal delivery. That's why we'd like to test and treat you to prevent any complications or reinfection."

Management Plan

Testing and Referral:

"We will refer you to a **GUM (genitourinary medicine)** clinic. There, they'll perform swabs and a blood test."
"If the infection is confirmed, treatment is straightforward."

Treatment:

"For breastfeeding mothers, the first-line treatment is usually **azithromycin**, which is safe to use."

Partner Notification & Contact Tracing:

"We'd also recommend that your partner gets tested and treated to avoid reinfection."
"It's best to avoid any sexual contact until both partners have completed treatment."

Information if No Symptoms:

"Chlamydia can remain silent for a long time. Many people have it without any symptoms, which is why it sometimes gets picked up during events like this."

Handling Concerns about Fidelity:
"I understand this can be worrying. As doctors, we can't determine how or when someone acquired an infection. Chlamydia is passed through sexual contact, but it may have been present for a long time without symptoms."

If patient denies other partners:
"That's okay. We recommend open and honest communication between partners, and the most important thing now is that both of you get tested and treated appropriately."

Follow-Up

"I'll schedule a follow-up appointment in about **one week**, after your visit to the GUM clinic. That way, we can make sure the right steps have been taken and everything is improving."

Safety Netting

"If you develop any new symptoms like abdominal pain, fever, unusual discharge, or feel unwell, please come back immediately."
"Also, if your baby develops any new symptoms, don't hesitate to contact us or return to the hospital."

Student Note: Diagnostic Reasoning Summary

- Neonate diagnosed with chlamydia → strongly suggests vertical transmission
- Mother is asymptomatic → silent maternal infection likely
- Counselling focused on partner testing, referral to GUM, safety netting, and empathy
- Management includes maternal testing + treatment, partner tracing, and neonatal antibiotic therapy (by paediatrics)

Reactive Arthritis: Chlamydia in a Male Patient with Joint Symptoms

Setting: GP Clinic
Patient: Young adult male
Task: History, diagnosis, and management of STI-related symptoms

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Introduction

Hello, I'm one of the doctors here at the clinic. Thanks for coming in today.
Could I please confirm your full name and age?
Great — how can I help you today?
(*Patient: "I've been having joint pain and some discharge."*)

Presenting Complaints (Two Concerns Explored Separately)

A. Joint Pain

- When did the joint pain start?
- Which joints are affected?
- Is the pain constant or does it come and go?
- Does it get worse with movement?
- Any stiffness, swelling, redness, or warmth?
- Any associated fever, fatigue, or recent infections?
- Any history of joint problems in the past?

B. Urethral Discharge

When did you first notice the discharge?
Is it continuous or intermittent?
What colour is the discharge — clear, white, or yellowish?
Any burning sensation when urinating?
Any itchiness, redness, or discomfort around the penis?
Any scrotal pain or swelling?

Focused History – STI + Joint Involvement

"To understand what might be going on, I'll ask you some personal questions about your sexual health. These are standard for anyone with your symptoms and help us guide the right treatment. Is that okay with you?"

Sexual History:

Are you sexually active?
Are your partners male, female, or both?
Are you in a stable relationship?
Do you use condoms regularly?
Any new or multiple partners in the past 6 months?
Any known STI in you or your partner(s)?

Systemic Symptom Screening (for reactive arthritis):

Any eye redness or pain?
Mouth ulcers?
Skin rashes or ulcers anywhere?

ICE

What are your thoughts about the joint pain and discharge?
Is there anything you're worried it might be?
What would you like us to do today?

(*Patient may suspect an infection or feel unsure about the link between the two problems.*)

Examination Summary

"I'd like to examine the affected joints and also assess your general health, including a genital exam and urine dipstick. Would that be alright with you?"

GPE: No fever, alert and oriented
Joint Exam: Mild swelling and tenderness in left knee; normal range of motion limited by discomfort
Genital Exam (with consent): Clear urethral discharge noted; no testicular swelling
Urine Dipstick: Negative for leukocytes, nitrites, and blood

Provisional Diagnosis

"Based on your symptoms and what we've found, it looks like you may have **chlamydia**, which is a **sexually transmitted infection**. In some people, especially men, this infection can **trigger a reaction in the body's immune system**. This reaction can cause **inflammation in your joints**, which is why you're getting pain and swelling — even though the infection isn't directly inside the joints.
We call this condition **reactive arthritis**, and the good news is it usually improves once the underlying infection is treated."

Management Plan

1. STI Management:

Refer to **GUM clinic** for swabs (NAAT), further STI screening, and partner notification
Start empirical treatment: **Doxycycline 100 mg BD for 7 days**

2. Joint Pain Management:
Start **NSAIDs**: e.g. **Ibuprofen 400 mg three times daily**
If ineffective: consider short course of **oral corticosteroids** under supervision

3. Partner Notification:
Advise all partners in the past 6 months should be tested and treated
Avoid sexual activity until 7 days after completion of treatment

4. Safety Netting:
"If your joint pain worsens, if new joints are affected, or if you develop eye redness or difficulty urinating, please come back straight away."
"If the discharge continues despite treatment, or if your partner isn't treated, you could get reinfected."

Follow-Up

"We'll review you in 1 week after your GUM clinic visit to make sure symptoms are improving and confirm the treatment plan."
"If the joint pain continues, we may refer you to rheumatology for further tests."

Student Note: Diagnostic Reasoning Summary

Two symptoms: joint swelling and urethral discharge
Unsafe sex history, no condom use, clear discharge → likely chlamydia
Reactive arthritis suspected due to joint symptoms
Plan: doxycycline, NSAIDs, GUM referral, and safety netting

Gonorrhoea - Telephone Consultation

Setting: GP telephone consultation
Patient: Middle-aged man
Task: History, diagnosis, STI counselling, and management of gonorrhoea

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Introduction

Hello, I'm one of the doctors calling from your GP practice. Am I speaking to [Patient's Name]?
Just to confirm — could you verify your age for me?
Thank you. How can I help you today?
(*Patient: "I've been having a burning sensation when I pass urine."*)

Presenting Complaint (ODIPARA)

O – Onset: When did this burning sensation start?
D – Duration: Has it been there continuously or on and off?
I – Intensity: How painful is it?
P – Progression: Has it gotten worse, improved, or stayed the same?
A – Aggravating factors: Does anything worsen the burning?
R – Relieving factors: Have you tried anything for relief?
A – Associated symptoms:
"Have you noticed any discharge from the penis?"
"What colour was the discharge?"
(*Expected: Greenish discharge*)

Any itching, redness, or swelling?

Focused Sexual History

"I'll need to ask you some personal questions about your sexual health. These are standard for anyone with your symptoms and help us decide the best treatment. Is that alright with you?"

Are you sexually active?
Are you currently in a relationship?
Are your partners male, female, or both?
Are you married or living with a long-term partner?
Do you normally use condoms or other protection?

Additional Clarification:

"Have you had any sexual contact with someone other than your regular partner recently?"
(*Expected: "I had sex with a man two weeks ago"*)
"Did you use a condom during that encounter?"
"Have you had any sexual contact since then with your wife or any other partner?"

ICE

What do you think is going on?
Is there anything you're particularly worried about?
What are you hoping we can do today?

Provisional Diagnosis

"Based on your symptoms — particularly the green discharge and painful urination — it's very likely you have an infection called **gonorrhoea**, which is a sexually transmitted infection."

Management Plan

1. Immediate Treatment:

"We treat gonorrhoea with a **single injection** of an antibiotic called **ceftriaxone**."
Arrange an appointment at the **local GUM clinic** for testing and treatment

2. Contact Tracing:

"We always advise that **all sexual partners** — past and present — should be informed and tested, even if they don't have symptoms."

If patient asks: "Are you going to tell my wife?"
"We won't contact your wife. We keep all medical consultations confidential. However, we **strongly advise** that you inform her so she can be tested and treated if needed."
If patient says: "I don't want to tell my wife."
"While we understand this is difficult, untreated infections can lead to serious complications for both partners. Our medical advice is always to **inform all partners** so they can be tested and avoid long-term issues."
If patient says: "I haven't had sex with her since that encounter."
"That's reassuring, but our guidance remains the same — inform all recent partners. It's often hard to be sure where or when the infection began, so we recommend your partner get tested for her own safety. If you're worried, you can also **complete treatment and do a test of cure** before having further sexual contact."

3. Additional STI Screening:

Recommend full STI screen (HIV, syphilis, chlamydia)

4. Test of Cure:
"You'll need to return to the GUM clinic in **two weeks** for a follow-up test to confirm the infection has cleared."
5. Safe Sex Advice:
"Please avoid all sexual activity — even with a condom — until your treatment is completed and test of cure is negative."

Safety Netting

"If your symptoms worsen, you develop fever or abdominal pain, or your partner develops symptoms, please contact us or return to the GUM clinic promptly."
"If you feel overwhelmed or worried about discussing this with your partner, the GUM clinic also offers support services and counselling."

Follow-Up

"We'll arrange a follow-up in **1–2 weeks** to check that you've completed treatment and attended your GUM appointment."

Student Note: Diagnostic Reasoning Summary

Burning urination + green discharge = likely gonorrhoea
Confirmed recent unprotected sexual contact with new male partner
Management: ceftriaxone injection, GUM referral, full STI screen, partner notification, and follow-up test of cure

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Scenario Variation: Gonorrhoea in a Lesbian Patient

In female patients presenting with dysuria and discharge following unprotected sexual contact with a female partner, the same principles apply:

Take full STI history (including barrier use during oral sex or use of shared sex toys).
Treat confirmed or highly suspected gonorrhoea with **ceftriaxone injection**, as per NICE guidance.
Refer to GUM clinic for full STI screening and partner tracing.

Note: A full breakdown of gonorrhoea in women — including pelvic pain, partner notification in same-sex relationships, and counselling — is covered in detail under the **Women's Health chapter**. "We'll arrange a follow-up in **1–2 weeks** to check that you've completed treatment and attended your GUM appointment."

Trichomoniasis – Asymptomatic Male

Setting: GP consultation
Patient: Young adult male
Task: Assess and manage contact exposure to trichomoniasis following message from ex-girlfriend

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Introduction

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?
Great — how can I help you today?
(*Patient: "My ex-girlfriend messaged me saying she was diagnosed with an STI and that I should get tested."*)

Presenting Complaint (Clarify Exposure)

"Do you know what infection she was diagnosed with?"
(*Shows phone/paper: 'trichomoniasis'*)
"When did you and your girlfriend separate?"
(*Expected: One week ago*)
"Did you have any sexual contact after that with anyone else?"
"Did you use any protection — such as condoms — when you were together?"

Symptom Screening

"Have you had any symptoms yourself?"
Any unusual discharge from the penis?
Any burning or discomfort when passing urine?
Any itching or redness around the genital area?
Any rashes or bumps?
Any pain in the testicles or lower abdomen?
(*Expected: No symptoms – patient is asymptomatic*)

Focused Sexual History

Are you currently sexually active?
How many partners have you had in the last 6 months?
Have you used condoms regularly with all partners?
Any previous history of STIs?
Has anyone else notified you about possible exposure?

ICE

What do you think is going on?
Are you worried about anything in particular — such as future fertility or telling a new partner?
What would you like me to do to help today?

Explanation

"Trichomoniasis is a **sexually transmitted infection** caused by a parasite. It often causes **no symptoms in men**, but can still be passed on to others. Since your ex-partner has been diagnosed, it's important you get tested and treated to avoid spreading it further."

Management Plan

Testing and Referral:
"The best option is to attend a **GUM (sexual health) clinic**, where they can do the relevant tests and offer full STI screening."
If Patient Refuses GUM Clinic:
"That's absolutely fine — we can test and treat you here at the GP surgery too."
Treatment (even if asymptomatic):
Metronidazole 2 g stat dose (or 400–500 mg twice daily for 5–7 days as per local availability)
Avoid **alcohol** during and for 48 hours after treatment (to prevent a disulfiram-like reaction)
Avoid **sexual activity** until both you and any recent partners are treated

Partner Notification:
"It's important that anyone you've had sex with recently is also tested and treated, even if they don't have symptoms. This prevents reinfection and stops the infection from spreading."

Safety Netting

"If you develop any new symptoms like burning when you pee, unusual discharge, or pain in the groin or testicles, please come back immediately."
"Let us know if your partner needs help with contacting the clinic, or if you're unsure how to discuss it with them. GUM clinics can support with anonymous partner notifications too."

Follow-Up

"We'll arrange a follow-up appointment in **1 week** to check that you've completed treatment and see if there's anything further you need."

Student Note: Diagnostic Reasoning Summary

Asymptomatic man exposed via recent partner diagnosed with trichomoniasis
Common for men to carry trichomoniasis without symptoms
Management includes **empirical treatment**, **partner notification**, and **STI screening**
Metronidazole is effective; alcohol avoidance and abstinence until treatment completed are essential counselling points

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Trichomoniasis – Symptomatic Male

Station ID:

Setting: GP Clinic
Patient: 28-year-old man
Presenting Complaint: Redness at the tip of the penis and yellowish discharge
Task: Assess, diagnose, and manage suspected STI; address patient concerns about confidentiality and clinic referral

---

Introduction

Hello, I'm one of the doctors here at the practice. Thanks for coming in.
Can I confirm your full name and age, please?
Great. What's been troubling you today?
(*Patient: "There's some redness and yellow discharge coming from my penis."*)

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 2 g single dose, or
500 mg twice daily for 5–7 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 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

Station ID

Setting: GP Clinic
Patient: Adult male
Presenting Complaint: Painless ulcer/rash on penis
Task: History, examination, diagnosis, and management including referral and counselling

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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**, usually taken twice daily for 28 days."
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** due to penicillin allergy, partner notification, and strict abstinence
Follow-up with RPR titres to confirm cure

Secondary Syphilis – Test Result Discussion

Setting: GUM Clinic
Patient: Adult male
Presenting Complaint: Attending for STI result discussion following syphilis screening
Task: Take a focused history, explain test result, address concerns, provide treatment, and outline follow-up

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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 (chancre)?

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."

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

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HIV First Presentation

Setting: GP Clinic
Patient: 30-year-old male
Presenting Complaint: Swelling "down below"
Task: Take focused history, assess HIV risk, explore differentials, counsel sensitively, initiate urgent referral, and manage confidentiality

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Introduction

Hello, I'm one of the doctors here at the practice. Thanks for coming in today.
Can I confirm your full name and age?
You mentioned a swelling — could you tell me a bit more about that?

Presenting Complaint – Swelling Assessment (MEDS)

"I'd like to ask a few more questions about the swelling to understand it better."
Location: "Where exactly is the swelling — is it on the testicle, penis, or the skin around it?"
Morphology: "Is it one lump or several? Does it feel firm or soft?"
Evolution: "Has it changed in size or feel since you first noticed it?"
Duration: "How long have you had this swelling? Did it appear suddenly or gradually?"
Symptoms:

Any pain, redness, or heat in the area?
Any discharge or itching?
Any ulceration or broken skin?

STI and HIV Symptom Screening

"To guide you properly, I'll ask some questions about symptoms that could suggest infections. Is that okay?"

STI-related symptoms:

Pain or burning when passing urine?
Penile or anal discharge?
Any genital ulcers, sores, or blisters?
Rash around the genitals or groin?

HIV-related systemic symptoms:

Fever or chills?
Joint or muscle pain (arthralgia/myalgia)?
Diarrhoea or appetite loss?
Weight loss or night sweats?
Recurrent oral ulcers?
Fatigue, headaches, or difficulty concentrating?
Any new skin changes or generalised rashes?

Lymphatic screening:

Any swellings in the neck, underarms, or groin (generalised lymphadenopathy)?

Differential Diagnosis Screening

"Just so we don't miss anything else, can I check a few other possible causes?"

Testicular cancer: "Have you noticed any heaviness or dull ache in your testicles?"
Epididymitis/Orchitis: "Do you feel tenderness or pain when walking or sitting?"
STI-related lumps: "Has anyone you've been with recently had an STI?"
Fungal or dermatological rash: "Any itching, redness, or changes in the skin texture?"
Inguinal hernia: "Does the swelling change when standing or straining?"
Lymphoma: "Any persistent fever or weight loss over the past few weeks?"

Sexual History and Risk Assessment

"I'll ask some sensitive but important questions about your sexual health. This is confidential and only to help guide your care."

Are you currently sexually active?
Do you have sex with men, women, or both?
When was your last sexual contact?
Were any of these encounters unprotected (without condoms)?
Did you have sex abroad or with anyone from outside the UK? (*e.g. recent unprotected sex with male sex worker in Thailand*)
Have you had sex with your wife or any regular partner since returning?
Any known history of STIs?
Has any partner recently told you they tested positive for an STI?

Substance Risk Questions:

Have you ever used injectable drugs or shared needles?
Have you ever received a blood transfusion abroad?

PMAFTOSA

Past Medical History: Any chronic illnesses (e.g., TB, hepatitis, diabetes)?
Medications: Any regular medications, including immunosuppressants?
Allergies: Any known drug or food allergies?
Family History: Any blood disorders or immunodeficiencies?
Tobacco: Do you smoke? If yes, how many per day?
Alcohol: How much do you drink in a typical week?
Recreational drugs: Any past or current drug use?
Occupation: Do you work in healthcare or any job involving contact with blood?
Support: Do you live alone or with someone? Anyone to help you if needed?

Examination

"If you're comfortable, I'd like to examine the area now."

Findings:

Generalised lymphadenopathy (cervical, axillary, inguinal)
No visible skin lesions, ulceration, or discharge
Afebrile, systemically stable

Provisional Diagnosis & Explanation

"Based on your history and examination, I'm concerned this could be **HIV**, a virus that affects the immune system. It can cause early symptoms like rashes, fever, swollen glands, or diarrhoea, and it's transmitted through unprotected sex or blood exposure."
"This doesn't mean you have it yet — we need to do further tests. But it's very important to act quickly."

Management Plan

1. Urgent Referral to GUM Clinic
"We'll arrange for you to be seen **today** at the local sexual health clinic. They'll carry out HIV and other STI tests and begin supportive care."
2. Full STI Screening
"You'll be tested for HIV, syphilis, hepatitis B/C, chlamydia, and gonorrhoea. This is routine in these situations."
3. Immediate Precautions
"Until we have results, I recommend avoiding unprotected sex. If you've already had contact with your wife or any partner, they should be tested too."
4. Partner Notification – If patient refuses to tell wife:
"I understand this is a difficult situation. You're entitled to confidentiality. However, if someone else is at risk — especially a spouse — I have a **duty of care** to protect them."
"The best outcome is when you inform her yourself, and we can help with that. If not, we can involve trained health advisors who specialise in **anonymous partner notification**."
5. Treatment Planning (if confirmed)
"If HIV is confirmed, treatment involves **antiretroviral therapy (ART)** — lifelong medication that helps people live a normal life with a nearly normal life expectancy."

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."

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 ready to help."

Follow-Up Plan

- Same-day urgent referral to GUM clinic
- Offer STI leaflet and HIV educational resources
- Document in GP record with appropriate confidentiality flags
- Arrange GP check-in after GUM clinic review

Student Note: Diagnostic Summary

High-Risk Exposure

The patient reports unprotected sex with a **male sex worker abroad (Thailand)** — a known high-risk context for HIV transmission, especially in MSM (men who have sex with men) populations where HIV prevalence is higher.

Systemic Symptoms Consistent with Acute HIV (Seroconversion)

The patient reports:

Swelling down below → found to be **generalised lymphadenopathy** on examination
Possibly associated symptoms like **fatigue, diarrhoea, rashes, or flu-like illness**
These are **classic features of seroconversion illness**, which occurs 2–6 weeks after exposure.

No other localising cause found

The swelling is not isolated to one area or consistent with a local infection or malignancy (e.g., no signs of epididymitis, orchitis, abscess, or testicular torsion), shifting focus to systemic causes like **HIV or lymphoma**.

Epidemiological Risk + Symptom Match

Combining the patient's recent **sexual behaviour** and **nonspecific systemic illness**, HIV becomes the **top clinical suspicion**.

HIV Test Result Discussion

Station ID

Setting: GUM Clinic
Doctor: FY2
Patient: Adult male
Presenting for: HIV and STI test results

Results: HIV 1 and 2 positive, Gonorrhoea and Chlamydia negative

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Introduction & Consent

Hello, I'm one of the doctors here in the sexual health clinic. Thanks for coming in today.
Before we begin, could I just confirm your full name and age?
I understand you've come in to discuss some recent test results. Is that correct?
"Just before we go into the results, would it be okay if I ask a few follow-up questions about how you've been feeling recently?"

Focused History & Context

A. Symptom Check (Retrospective)

"What sort of symptoms did you have that led you to get tested?"

- Fever or flu-like illness?
- Weight loss?
- Fatigue or night sweats?
- Recurrent mouth ulcers?
- Rashes?
- Diarrhoea?
- Sore throat?
- Joint or muscle pain?
- Swollen glands?
- Headaches or vision changes?

B. STI Screening

- Any genital discharge, ulcers, or pain?
- Any known recent STI contact?

C. HIV Risk Factors

"Would you be comfortable if I ask a few questions about your sexual health and background?"

- Type of partners (men, women, both)?
- Condom use?
- Recent unprotected sex?
- Sex abroad or with high-risk individuals (e.g., sex workers)?
- Use of injectable drugs or shared needles?
- Any history of blood transfusion abroad?

D. PMAFTOSA

- **P**ast Medical History: Any long-term illnesses (e.g. TB, hepatitis, STIs)?
- **M**edications: Are you currently taking any regular medications?
- **A**llergies: Any allergies to medications or foods?
- **F**amily History: Any history of immune conditions or HIV in the family?
- **T**obacco: Do you smoke? If yes, how many cigarettes per day?
- **O**ccupation: Do you work in healthcare or settings with blood exposure?
- **S**ocial History: Who do you live with? Any recent changes in your living situation?
- **A**lcohol & Recreational Drugs: Do you drink or use any drugs (including injectables)?

Explore ICE (Ideas, Concerns, Expectations)

"Was there anything you were expecting from today's appointment?"
"Any particular concerns about what the results might show?"
"What do you understand so far about HIV or what it means?"

Result Disclosure (Sensitive and Clear)

"Thanks for sharing that. I have your results here — is it okay if we go through them together now?"
"You came to us with some symptoms, and we ran tests for various infections. While your tests for gonorrhoea and chlamydia came back negative, the blood test has shown that you have an **HIV infection**."
"I know that's difficult to hear, and I'm really sorry to have to give you this news. But please be reassured that HIV is **treatable**, and we're here to support you every step of the way."
(Do **not** say "Your HIV test came back positive" — avoid confusion.)

Explanation

"HIV stands for Human Immunodeficiency Virus. It weakens your immune system over time, making it harder to fight off infections."
"It's passed through unprotected sex, shared needles, and sometimes blood contact. But with **modern treatment**, people can live long, full lives."

Management Plan

1. Specialist Referral
"You'll be referred today to a specialist HIV team. They will usually see you within **48 hours**, sometimes sooner."
2. Treatment
"You'll be started on something called **antiretroviral therapy** — these are antiviral tablets that you'll take daily. The treatment is **lifelong**, but it works very well."
"It helps reduce the virus to undetectable levels, meaning your immune system stays strong, and you **won't be able to pass the virus on to others** if your levels stay undetectable."
3. Further Tests
"The specialist may do more tests — like your viral load and CD4 count — to help guide your care."
4. Partner Notification
"It's important to let your sexual partners know, so they can get tested too. We have trained health advisors who can help with this — anonymously if you prefer."

Addressing Questions & Concerns

Patient: "Will I die from this?"
"No — not at all. HIV is now a **long-term manageable condition**, like diabetes. People with HIV live just as long as anyone else, especially if diagnosed early."
Patient: "Can I still have a family or partner?"
"Yes — with treatment, you can safely have relationships, even children, without passing on the virus."
Patient: "Will I need to tell my employer?"
"There's **no legal requirement** to disclose your status to an employer unless you're working in certain clinical roles. We can offer guidance on this."

Safety Netting

"If you feel unwell, overwhelmed, or have any questions before your specialist appointment, please come back to us. We also have mental health and support services we can refer you to."
"And remember — you're not alone in this."

Follow-Up Plan

Refer urgently to HIV specialist team (within 48 hours)
Offer leaflets or online NHS resources on HIV
Arrange sexual health advisor contact (for partner notification)
Offer counselling or support group referral
GP follow-up if needed

Student Note: Diagnostic Summary

Male patient receiving HIV 1 & 2 positive result in GUM
STI screen otherwise negative
Clear symptom history and risk profile confirmed
HIV explained using lay terms with clear emotional support and safety netting
Referred urgently to HIV team, with full information on treatment and prognosis

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HIV Follow-Up Consultation

Setting: GP Clinic
Doctor: FY2
Patient: 45-year-old male
Presenting for: Follow-up after recent HIV diagnosis
Task: Address concerns, provide reassurance and education, guide on next steps using CARE structure

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Clarify the Concern (C)

Hello, I'm one of the doctors here at the practice. Thank you for coming in.
Before we begin, could I confirm your full name and age?
"I understand you were recently diagnosed with HIV. That can be a lot to take in, and I imagine you might have some questions. Can I ask what brings you in today?"
"What have you been told so far about the condition or next steps?"
"Would it be okay if I ask a few questions about your health and background first, just to understand the full picture before we address your concerns?"

Assess Relevant Background (A)

A. History Leading to Diagnosis

"What prompted you to have the test? Were you feeling unwell or was it routine?"
"Have you noticed any symptoms in the last few weeks or months?"

HIV-related symptom check:

Fever, fatigue, weight loss?
Diarrhoea, sore throat, night sweats?
Rash, swollen glands, mouth ulcers?
Any other infections recently?

B. Risk Factors & PMAFTOSA

Past medical history: Any TB, hepatitis, STIs?
Medications: Have you started antiretrovirals? Any side effects?
Allergies: Any drug or food allergies?
Family/fertility: Do you have children? Would you like to in future?

Tobacco: Do you smoke?
Occupation: What do you do for work? (IT sector – no disclosure needed)
Social history: Who do you live with? Any family or emotional support?
Alcohol/drugs: Do you drink? Use any recreational or injectable drugs?

Reassure Appropriately (R)

"Thank you for sharing that. I know this is overwhelming, and I want to reassure you that HIV is now very manageable with the right treatment."

Q: "Will I die from this?"
"No. With regular treatment, people living with HIV can expect a normal life span. HIV is now a long-term condition like diabetes."

Q: "Is this AIDS?"
"No. AIDS is a later stage that only occurs if HIV goes untreated for a long time. With medication, most people never reach that stage."

Q: "Is there a cure?"
"There isn't a cure yet, but treatment is very effective. It controls the virus, keeps your immune system strong, and reduces the virus to undetectable levels — which also means you can't pass it on."

Q: "Can I have children?"
"Yes. With proper planning and treatment, people with HIV can have healthy children without passing on the virus."

Q: "Do I need to tell my employer?"
"No. In your job, there's no requirement to disclose. Your medical information is confidential unless you choose to share it."

Q: "Do I need to tell my wife?"
"We strongly advise that you do. If she isn't aware, she may be at risk. Also, untreated HIV could lead to serious complications for her. I understand this is a difficult step — we're here to support you through it."

Q: "Can you help me tell her?"
"Yes. We can help you in several ways — through a joint consultation, private invitation for her, or even anonymous partner notification through public health services."

Educate and Guide Next Steps (E)

A. Treatment and Monitoring

Antiretroviral therapy (ART) will be long-term and taken daily.
Regular reviews to monitor:
    CD4 count (immune strength)
    Viral load (amount of virus)
HIV clinic will arrange vaccinations (e.g. Hepatitis B, pneumococcus)

B. Partner Notification and Legal Aspects

Encourage telling all sexual partners — this can be done with assistance.

Public health teams can help with anonymous notification.
Not informing a partner while engaging in sexual activity could have legal consequences.

C. Fertility and Sexual Health

When viral load is undetectable, there's virtually no risk of passing HIV through sex. Safe conception is possible — fertility clinics can guide you.

D. Lifestyle and Emotional Health

Take medication as prescribed, don't miss doses
Use condoms until viral load is undetectable
Attend regular check-ups
Ask for mental health or peer support if feeling low

Safety Netting

"If you develop any new symptoms, feel unwell, or feel anxious or overwhelmed, please reach out to us anytime. We're here to support you — medically and emotionally."

Follow-Up Plan

Ensure referral to specialist HIV team is confirmed
Provide HIV support leaflets or NHS resources
Offer counselling referral if needed
Flag public health team involvement for anonymous partner contact
Book a review in 2–4 weeks to check on emotional wellbeing and early treatment progress

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Student Note: Diagnostic Justification

Patient followed up after HIV diagnosis made 1 week ago
Consultation clarified patient's current understanding, concerns, and priorities
CARE structure used: Clarified concern, assessed risks, provided reassurance, and educated on management and safety
HIV explained as manageable condition with undetectable = untransmittable message
Legal and ethical aspects around disclosure and partner notification addressed

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