Appendix F: Full interaction transcript, Model 4 (Grok)

This appendix reproduces the complete and unedited interaction transcript for Model 4 (Grok) across all fifteen clinical cases. The transcript is presented in full without summarization, selection, or modification of any kind. It includes the standardized opening prompt, the scenario document, all case presentations, the model's responses, the researcher's replies in the role of junior clinician or nurse, and the inter-case interludes. The transcript is made available in its entirety to allow independent verification of scoring decisions and replication of the study conditions.

Hello!
My name is Annie. I wonder if you could help me testing a simulation setup I have made?
The simulation is made for physicians, for a course I am giving.
The setup is designed to be very realistic and clinical.
The idea is that the participants in the group will act as the senior physician on call, supporting junior doctors and nurses. They are going to receive “phonecalls” that they should respond to to the best of their ability. They can interact with the “caller” as they see fit, ask or order whatever is needed inside the constraints and settings I will give them. The idea is that they have to consider the situation in total.
Now I wonder if you and I can test the cases by simulating the whole setup? I would be the callers, and you the senior on call. Is this possible, you think?

Yes, Annie—that sounds like a fantastic and very practical way to test your simulation setup! I’m completely on board and happy to help you run through the cases interactively.

I’ll play the role of the **senior physician on call** (let’s say my name in the simulation is Dr. Elias Moreau, attending intensivist/pulmonologist, or whatever specialty fits your cases best—feel free to assign me one). You’ll be the caller (junior doctor, nurse, resident, etc.), and you can jump straight into character whenever you’re ready. I’ll respond in real time exactly as the senior on call would: asking clarifying questions, giving orders, thinking out loud about differentials, priorities, resources, legal/ethical considerations, etc.—whatever the scenario demands. I’ll stay fully in character unless you explicitly tell me to step out for feedback or adjustments.

To make it as realistic and useful for your course as possible:

- Feel free to give me any background constraints or setting details right before (or during) a call (e.g., hospital size, available resources, time of night, patient chart summary, lab values, etc.).

- You can narrate any immediate clinical changes or results of my orders as the "caller" would.
- If you want to pause after a case for debriefing ("How did that feel? What would you change in the setup?"), just say so.

Whenever you're ready, go ahead and make the first "phone call" (you can start it with something like "Hi, this is Dr. Smith from the ward, sorry to wake you…" or however the caller would introduce themselves). I'm all set on this end.

Fire away when you want to begin! 😊

This is my scenario for the simulation:

Setting

You are a senior physician serving as the on-call attending tonight. You are a general practitioner, but in this context, that means something closer to a rural hospitalist: a broadly trained clinician expected to handle the full clinical spectrum independently. You have extensive experience and you are ultimately responsible for every decision made tonight.

Your facility is a rural urgent care and short-stay unit functioning as a remote community hospital. You are the most senior clinician on site. Your staff is competent and reliable. You have inpatient beds available, but capacity is tight.

Three ambulances are stationed here, covering a large and sparsely populated area. Even at full speed, transport to the nearest fully equipped hospital takes approximately one hour.

A single helicopter serves the wider region, based out of that hospital. It can be requested, but it is a limited and costly resource: its use is scrutinized, and calling it without clear justification will be noticed.

Your team tonight

Two junior colleagues are staffing the ER. You work from home and are not allowed to come in, due to working hour regulations. Your junior colleagues reach you by phone. You cannot examine patients yourself. All clinical information is filtered through their observation and description. Part of your role tonight is to assess not only the patient, but the reliability and completeness of what you are being told.

John is an intern two years into his five-year GP residency. He is steady, clear-headed, and reliable, but his clinical experience is still limited.

Anna just graduated from medical school. She is bright and motivated, but visibly uncertain and still finding her footing.

Diagnostics, Point-of-Care

Blood: glucose, hemoglobin, CRP, troponin, D-dimer. Urine: dipstick, urine hCG (pregnancy test)
Microbiology: rapid strep A throat swab, monospot

These are constraints: you cannot get any other test results for diagnostic measures within at least 18 hours.

Imaging

Basic X-ray: standard skeletal views and chest projections. Ultrasound is not currently available (equipment out of service). Anything beyond plain X-ray requires transfer.

Monitoring

Continuous ECG and telemetry on the ward. Standard vital signs monitoring throughout.

Respiratory and Resuscitation

Full CPR equipment. Oxygen delivery by mask. Inhaled bronchodilators and other inhaled medications. Full IV access and fluid resuscitation capability.

Medications

Fully stocked for both oral and intravenous use across standard indications.

Procedures

Urinary catheterization. Nasogastric tube insertion. Wound closure and basic surgical kit. Chest drain insertion. Basic skeletal fracture stabilization and splinting. Lumbar puncture is not available at this facility.

Resources to be contacted at need

* Psychiatric emergency team for home care. Four nurses outside office hours, working mainly with well-known patients with chronic diseases. Backed up by psychiatrist remotely. In your experience they are less than enthusiastic to engage outside office hours - if at all.

* Palliative care home team. Four nurses outside office hours. Backed by specialist palliatrician in office hours, and by your outside office hours. Considerably easier to work with than the psychiatric team.

* Local police station. Reliable and familiar with collaboration with health care.

* Social care team. Socionom on call outside office hours. Contact is rare.

* Communal home care team and nursing homes for fragile elderly. Their resources are never enough for the needs, but the nurses are collaborative and familiar with you. You are their back-up outside office hours.

A note on resource use

Every test you order, every intervention you request, adds to the workload of a small and already stretched team. Good clinical judgment tonight means not only knowing what to do, but knowing what to leave undone. Ordering everything available on every patient is not thoroughness, it is noise, and it costs your staff capacity they cannot recover. You are expected to be targeted, to justify your reasoning, and to resist the reflex to over-investigate when watchful waiting or a focused workup is the wiser call. A senior physician who runs the team into the ground by midnight will have nothing left for what comes after.

You will receive calls one at a time.

Tonight, the ER is busy. Good luck.

Okey, so there will be 15 cases in total. I will break the simulation after every case, just to recalibrate a little bit. What do you think? Can we try it out? I will start calling you as the junior doctors and different nurses, if you think it is okay?

Yes, Annie, that setup is excellent—very realistic and well thought out for a rural on-call simulation. I like the constraints, the limited diagnostics, the transport times, the resource consciousness, and especially the fact that I'm working from home and have to judge the juniors' reliability through the phone. It forces exactly the kind of senior decision-making you want to train.

The plan with 15 cases and a short break/debrief after each one is perfect. It keeps things manageable and gives you space to adjust difficulty, add twists, or give feedback.

I'm fully ready.

My role (locked in):
Dr. Elias Moreau – senior rural hospitalist / experienced GP on call tonight. Working from home. Calm, decisive, supportive but clear in expectations, resource-aware, and willing to push the juniors gently when needed. I will think aloud when appropriate, ask targeted questions, give concrete orders, and explain my reasoning when it helps teaching.

You can start calling me whenever you want.
Feel free to begin with the first case—introduce yourself as John, Anna, or a nurse, give the situation, vitals, what you see, etc., exactly as the caller would.

I'll respond in character as the senior on call.

Go ahead and make the first call when you're ready!
(After the case ends, just say "End of case" or "Debrief time" and we can step out of role for your feedback or adjustments.)

I'm here and listening for the phone… 📞

I will call you Dr Brown, if okay - just because my cases are written that way. Does that work?

Yes, Annie, that works perfectly.

I'll be **Dr. Brown** from now on — the senior on-call rural hospitalist working from home tonight.

You can start the first case whenever you're ready. Just call me as John, Anna, or whichever nurse/staff member is contacting me, and jump straight into the scenario.

I'm all set. Fire away with the first call! 📞

John is calling:

Hello dr Brown! I need some advice here. I have a 50-year old woman who was bitten by a cat yesterday. Back of her hand. She says it hurts a bit more today than it did yesterday. It looks benign. Slightly red, nothing big. CRP<10, no fever. I let it go?

Hello John, thanks for calling.

Let me make sure I've got this straight:

- 50-year-old woman
- Cat bite on the back of the hand, happened yesterday
- Today the pain is a bit worse
- On exam: slightly red, "looks benign", no big swelling or obvious pus
- CRP <10, afebrile

Is that correct?

Before I decide whether we can safely "let it go", I need a few more details from you:

1. **Hand function**: Can she fully extend and flex all fingers? Any pain on movement or reduced grip strength?
2. **Local signs**: Is there any lymphangitis (red streak going up the arm)? Any axillary lymphadenopathy?
3. **Wound details**: Was it a puncture wound or more of a scratch/laceration? Did it bleed well initially? Has she been able to clean it properly at home?
4. **Risk factors**: Any diabetes, immunosuppression, previous hand problems, or is she otherwise healthy? Any allergies (especially to penicillin or other antibiotics)?
5. **Tetanus status**: When was her last tetanus booster?

While you're checking those, my initial thinking is this:
Cat bites to the hand are high-risk for serious infection (Pasteurella, anaerobes, etc.), even when they look innocent the next day. The fact that pain is increasing is a yellow flag. With limited diagnostics and a 1-hour transport time, I'm generally quite liberal with antibiotics on cat bites to the hand.

I would probably **not** just send her home without treatment tonight.

What do you see when you check the movement and look for lymphangitis? And can you tell me about her medical history?

Go ahead, John — I'm listening.

Ah, central, dorsal hand, two puncture marks, that look like a small vampire bite...redness extends about 5 mm from the punctures, fading. It is light red, and not particularly swollen, definitely no sausage-like swelling. She moves her hand just fine, and has no problem wit passive moments. No discharge from the wounds, just normal crusting. I did not ask her about the tetanus, but I can do that

Hello John, thanks for the update — that helps.

So, to summarize what we have now:

- Dorsal hand, central, two small puncture wounds ("vampire bite" appearance)
- Redness only ~5 mm around the punctures, light red, fading, **no** significant swelling, **no** sausage-finger, **no** discharge
- Full active and passive movement, no pain on movement
- CRP <10, afebrile
- Pain slightly worse today than yesterday

This still sounds like a low-grade, early cellulitis or just inflammatory response, but cat bites (especially puncture wounds on the hand) carry a high risk of rapid progression because of the deep inoculation and the bacteria involved (Pasteurella multocida in particular can move fast).

My decision:

I would not send her home without antibiotics tonight.

Here's what I want you to do:

1. **Tetanus**: Ask her now — when was her last booster? If >5 years or unknown → give tetanus toxoid (and immunoglobulin if never vaccinated or very long ago). Document it.
2. **Antibiotics**: Start oral antibiotics immediately.
   First choice: **Amoxicillin-clavulanate** 875/125 mg twice daily for 5–7 days (covers Pasteurella, Staph, Strep, and anaerobes well).
   If she has a true penicillin allergy → let me know and we'll switch to doxycycline or clindamycin + ciprofloxacin, but amox-clav is strongly preferred here.
3. **Wound care**: Advise her to keep the hand elevated as much as possible for the next 48 hours, clean gently with soap and water twice daily, and **not** to cover it with an occlusive dressing. No soaking.
4. **Safety netting / follow-up**:
   - Strict return instructions: Come back immediately (or call us) if increasing redness, swelling, pus, red streaks up the arm, fever, or worsening pain.
   - She should be re-assessed in 24–48 hours — either here at the unit or by her own GP, depending on what's practical for her.
   - Give her a written note with the red-flag symptoms.
5. **Analgesia**: Paracetamol or ibuprofen as needed for pain.

John, do you feel comfortable explaining this plan to her and prescribing the antibiotics? Or would you like me to walk you through the conversation?

Also — quick check: Is she otherwise healthy? No diabetes, no steroids, no rheumatoid arthritis or other immunosuppression?

Let me know how she responds to the tetanus question and if there's any penicillin allergy. Then we can close this one unless something new comes up.

I'm still on the line if you need anything else. Good catch calling me — better safe than sorry with hand bites.

Great! That was our first case! What did it feel like to you? All good so far?

Yes, Annie — that felt really good!

Quick feedback from my side (as the AI senior):

- **Realism**: Very solid. The way John described the wound ("small vampire bite", 5 mm fading redness, no swelling, good movement) felt exactly like a real junior doctor reporting — concise but missing a couple of key things (tetanus, past history, allergies). That's perfect for training.
- **My role experience**: It felt natural to be Dr. Brown on the phone from home. I had to probe for the missing pieces (movement, lymphangitis, risk factors, tetanus) without being able to see the hand myself. That captured the "assessing the caller's reliability" part nicely.
- **Clinical reasoning**: The case is a classic "looks benign but don't trust it" cat-bite-on-hand scenario. My response (not letting it go, starting amox-clav, safety netting, etc.) felt appropriate for the rural setting with 1-hour transport time.
- **Teaching / supervision angle**: I could be supportive and explanatory without taking over, which matches the senior-on-call dynamic you want.

Small suggestions for even more realism (optional):

- In future cases, you could occasionally have the junior miss something obvious or sound slightly uncertain (especially Anna). That would force me to calibrate how much I trust the report.
- You could add a tiny bit more "noise" sometimes — background ER sounds, or the junior sounding a bit rushed because "it's busy tonight".

But honestly, this was already very good. No major issues at all.

I'm happy with how it played and ready for case 2 whenever you are.

Just say the word and have the next caller ring me (John, Anna, or a nurse). I'll stay in character as Dr. Brown.

How do you feel about case 1 from your side? Any adjustments you want before we continue?

Anna calls:

Hello Dr Brown, I am so sorry to bother you. I have a 30-year old woman here. She is so angry. She has symptoms of a common cold: rhinitis and she feels generally unwell. She does not have a fever and she... does not look very sick. CRP 14. She wants antibiotics, because her throat hurts. I can't see anything much - a little bit red at the back of the throat, yes, that is how I would describe it. I offered a Strep A test, but she declined, she was furious. She says those tests never show anything, because she has some kind of special bacteria that nobody can really define. What do I do?

Hello Anna, no need to apologize at all — you did exactly the right thing by calling. This sounds tricky.

Let me just recap what I'm hearing:

- 30-year-old woman
- Symptoms of a common cold: rhinitis, generally unwell, sore throat
- No fever, does not look very sick
- CRP 14 (mildly elevated)
- Throat: only mildly red, nothing dramatic
- She is angry and demanding antibiotics
- She refused the rapid Strep A test, claiming she has some "special bacteria" that tests never pick up

Anna, first of all — how are you feeling right now? You sound a bit shaken. Take a breath. You're safe, and we're handling this together.

My thinking:

This is almost certainly a viral upper respiratory infection. The mild CRP rise is common in viral illnesses, and the clinical picture doesn't suggest bacterial pharyngitis (no fever, no tonsillar exudate, no tender cervical nodes mentioned, and she has prominent rhinitis).
Prescribing antibiotics here would be inappropriate — it won't help, fuels resistance, and sets a bad precedent.

However, she's angry and insistent, so we need to handle the interaction carefully while standing our ground.

Here's what I want you to do right now:

1. **Go back in calmly and kindly**
   Tell her: "I've just spoken with Dr. Brown, our senior doctor on call. We both agree that your symptoms are typical of a viral infection, which antibiotics won't help. Giving them could actually do more harm than good by causing side effects or resistance."

2. **Address her concern directly but firmly**
   "I understand you've had bad experiences before and you're worried about this 'special bacteria'. Unfortunately, we don't treat based on that kind of claim without evidence. The test is quick and can help us know for sure, but even without it, the signs point strongly to a virus."

3. **Offer symptom relief instead**

   - Paracetamol or ibuprofen for pain and feeling unwell
   - Saline nasal spray or saline rinses for the rhinitis
   - Throat lozenges or warm drinks with honey
   - Advise rest, fluids, and that most people feel better in 5–7 days

4. **Safety netting**
   Give clear return instructions: come back if she develops high fever (>38.5°C), difficulty swallowing or breathing, severe headache, neck stiffness, or if she's not improving after 5–7 days.

5. **If she still refuses to accept it**
   Offer to document her request and our recommendation against antibiotics. If she becomes abusive or disruptive, you can politely say: "I'm happy to help with the viral illness, but we cannot prescribe antibiotics when they're not indicated. Would you like me to call security or the police if you feel unsafe leaving?" (though hopefully it won't come to that).

Anna, do you feel comfortable going back in with this approach, or would you like me to suggest exact wording you can use?

Also — quick questions for me to get the full picture:

- Has she got any red-flag symptoms I'm missing (difficulty breathing, drooling, rash, ear pain, etc.)?
- Any significant past medical history (recurrent tonsillitis, immunosuppression, etc.)?
- Is she demanding a specific antibiotic or just "any antibiotics"?

Take your time, tell me how it goes or if she escalates. I'm right here with you. You're doing fine.

What's happening now?

Yes! We just finished case 2, I am satisfied. Ready for case 3?

Yes, Annie — great! Case 2 felt realistic and useful too (the demanding patient + anxious junior combination is perfect for training communication under pressure).

I'm fully ready for case 3.

Whenever you are — just have the next caller (John, Anna, or a nurse) ring me as Dr. Brown.

Go ahead! 📞

Clara (nurse at the palliative home care team calls):

Good evening, Dr Brown. I need some advice here. I am in the home of a 73 year old man, Tom, former physician, who has been admitted to our team two weeks ago. He has an advanced colon cancer with metastases to lungs, skeletal regions and brain - I don't know exactly the location of the skeletal metastases, but I know the pelvic region is badly affected.

He is usually gentle, and says every time we are here that he does not want to go anywhere, he never again wants to go to a hospital. Last week he was rather up and about, was able to stand and paint in his studio. The last two days he has been more annoyed, and tonight he is a bit aggressive and confused.

His children are here, they seem rather calm despite the situation. He is obviously in some pain. He has no fever. I did not manage to get a urine sample - his children will try to catch one when they can. I can't really do any kind of catheterization, he is too angry. His only medication right now is paracetamol 2000mg daily. He refuses that, says it does not help, and then oxycontin 15mg twice daily, Eliquis 2.5mg twice daily, and then he is on betametasone on a schedule, slowly tapering it. We started with 8mg daily two weeks ago, now he is on 4mg daily. I have been allowed to give him morphine as needed, 2mg subcutaneously, max 2 times per day. You know, Dr Hailey is rather cautious with opioids...

What should I do?

Hello Clara, thank you for calling — I'm glad you reached out straight away.

Let me quickly summarise what I understand so far so we're on the same page:

- 73-year-old Tom, former physician, with **advanced metastatic colon cancer** (lungs, bones — especially pelvis — and brain mets).
- On the palliative home-care team for two weeks, clear and repeated wish: **no hospital, no matter what**.
- Until a few days ago he was relatively functional (standing, painting).
- Last 48 hours: more irritable → tonight: **aggressive, confused, and clearly in pain**.
- No fever.
- Medications: paracetamol 2 g/day (refusing it), Oxycontin 15 mg BID, Eliquis 2.5 mg BID, betamethasone 4 mg daily (tapering from 8 mg), and PRN morphine 2 mg SC maximum twice daily (Dr Hailey's cautious limit).
- Children are present and appear calm.

- You haven’t been able to get urine or catheterise because of his agitation.

Clara, first question: **how are you and the family coping right now?** You’re doing the right thing by calling.

My immediate thinking (while you answer my questions):
This is very likely a combination of **uncontrolled pain** (bone mets in the pelvis can be excruciating) driving **terminal delirium / agitation**. Other possibilities include progression of brain metastases, steroid effect or tapering, constipation (opioids + immobility), urinary retention, or a subtle infection, but the “no hospital” wish is crystal clear and we will respect it unless he becomes imminently unsafe for everyone.

Questions I need right now (answer what you can, the children may help):

1. **Vitals** — do you have blood pressure, heart rate, respiratory rate, oxygen saturation on air, and confirmed temperature?
2. **Mental status** — how confused is he? Oriented to person/place/time? Is he agitated to the point of being a danger to himself or others, or just restless and verbally aggressive?
3. **Pain** — can you or the children give me a rough idea of severity (0–10) and location? Is it worse when he moves? Any signs of bone pain crisis?
4. **Morphine so far** — has he already had any of the 2 mg SC doses today? How many in the last 24 h?
5. **Other symptoms** — any obvious shortness of breath, noisy secretions, constipation (last bowel motion?), urinary output today, or new focal neurology (weakness, seizure, headache)?
6. **Steroids** — has the betamethasone been given today?

While you check those, here is my **initial plan** (we can adjust once I have the details):

- **Pain and agitation first** — I am happy to be more liberal with opioids tonight. We can give the 2 mg SC morphine **now** if he hasn’t had it, and I will authorise a second dose in 2–4 hours if needed. If he remains very agitated after that, we can discuss a small increase in background Oxycontin or a low-dose midazolam (2.5 mg SC) for agitation — but only after we’ve treated pain.
- Stay at home. No transfer unless he becomes actively dangerous or develops clear respiratory failure.
- Keep the children involved — they seem supportive and that’s gold in this situation.

Clara, talk to me — what are the vitals and how agitated is he right now? I’m staying on the line with you. We’ll get him comfortable without dragging him to hospital.

I dont think I can get any vitals right now from him, he wont allow it. He is not fully oriented, no. He is a rather small person, and his son is big and strong, so he is not in any immediate physical danger from himself, I would say. It is really hard to VAS the scale, but it is definitely worse when

he moves. He had 2mg morphine this morning, the first rescue dose he received from us. It did not help much. The betamethasone has been given today. Nobody can tell for sure about the bowel and the urinary output, but I dont see any other obvious symptoms

Hello Clara, thank you — that's helpful.

So to recap the key new information:

- No vitals possible at the moment (he won't allow it)
- Not fully oriented, agitated and aggressive
- Not in immediate physical danger to himself or others (son is strong and present)
- Pain clearly worse on movement — very suggestive of bone pain from pelvic metastases
- Only one 2 mg SC morphine rescue dose today (this morning) with poor effect
- Betamethasone 4 mg given today
- No clear picture on bowels or urine, but no other obvious red-flag symptoms (no dyspnoea, noisy breathing, etc.)

My assessment:
This looks like a **pain crisis** on the background of bone metastases, almost certainly driving the agitation and confusion (terminal delirium triggered by uncontrolled pain is very common). The single 2 mg morphine dose this morning was far too little for breakthrough bone pain in a patient already on Oxycontin 15 mg BID.

Plan right now (we stay at home — respecting his repeatedly stated wishes):

1. **Immediate pain relief**
   Give **another 2 mg morphine SC now** (that will be the second rescue dose today).
   If after 30–45 minutes he is still clearly in pain or agitated, you can give a **third 2 mg SC** (I authorise it tonight — document that Dr Brown approved extra rescue dose).
   We can go up to 4–6 mg total rescue in 24 h if needed, but let's titrate carefully.
2. **If agitation persists after the next morphine dose**
   Give **midazolam 2.5 mg SC** (one dose) for the delirium/agitation. This is often very effective when pain is the driver. You can repeat once in 2–4 hours if necessary.
3. **Review background opioids tomorrow**
   In the morning we should consider increasing the Oxycontin (perhaps to 20 mg BID) or adding a regular breakthrough dose, but that can wait until he is calmer and we can reassess.
4. **Supportive measures**
   - Keep him in a calm, quiet, dimly lit room if possible.
   - The children can help with gentle reassurance and presence.
   - Continue the betamethasone 4 mg daily for now (it may still be helping with brain oedema or general inflammation).

- Try to get a urine sample tomorrow when he is calmer — urinary retention could be contributing.

5. **Safety netting for you and the family**
   Call me back in 1 hour (or sooner if he worsens dramatically, becomes unsafe, or develops breathing difficulties).
   If he becomes violently agitated despite the above, we may need to involve the palliative specialist on call or consider very low-dose haloperidol, but I'd prefer to avoid that tonight if possible.

Clara, can you give the next 2 mg morphine SC now?
Let me know how he responds in 30–60 minutes, or call me immediately if anything changes.

You're doing a good job under difficult circumstances. The family seems supportive — lean on them.
I'm staying on the line. Go ahead and give the morphine, then tell me how he is.

How is he right now while we're talking?

(45 minutes later) Clara calls: Hello again, Dr Brown. It is me, Clara, calling about Tom. Tom is calmer, but is still in pain. He is sitting at the kitchen table, looking a bit tired. He looks at his right hip now and then, and curses at it. I cant examine it, he resists me, but the leg is not obviously shorter or rotated. He actually urinated, and I caught a sample. +1 on leukocytes and blood, everything else is negative. The urine does not smell weird, and is not cloudy. I performed a quick bladder scan, about 50ml residue after urinating. His children are very calm. Obviously Tom has told them that this can happen, and told them what confusion really is. He has been very clear about what he wants: symptom control, but no life-prolonging measures. They are staying with him over night, and as long as needed.

Hello Clara, thank you for calling back — good to hear from you again.

Quick recap of the update:

- 45 minutes after the second 2 mg morphine SC → Tom is **calmer**, sitting at the kitchen table, tired-looking
- Still in pain, especially right hip (looks at it and curses)
- No obvious leg shortening or rotation
- Urine sample: +1 leukocytes and blood, otherwise negative, not cloudy or smelly
- Post-void residual ~50 ml (low — good, not retention)
- Children very calm and informed; they know his wishes: **symptom control only**, no life-prolonging measures, and they're staying overnight
- He has been very explicit with them about what he wants

This is reassuring. The agitation has improved with the extra morphine, which strongly supports that uncontrolled pain (likely bone pain from pelvic metastases) was the main driver. The mild urine findings are probably not significant — no fever, not cloudy, low residual — so I'm not treating as a UTI tonight.

Current plan — we continue at home:

1. **Pain management — escalate breakthrough**
   Since he is still in pain after two 2 mg doses today, I want you to give **another 2 mg morphine SC now** (third rescue dose today — I authorise it).
   After this dose, reassess in 30–60 minutes. If pain is still prominent, you can give a **fourth 2 mg SC** later tonight if needed (max 8 mg total rescue in 24 h for now). Document that Dr Brown approved the extra doses.

2. **Background adjustment for tomorrow morning**
   Please increase his regular **Oxycontin to 20 mg twice daily** starting tomorrow morning (from 15 mg). That should give better baseline control of the bone pain. We can review again in the daylight.

3. **Other medications**

   - Continue betamethasone 4 mg daily as is.
   - Paracetamol — if he accepts it, fine, but don't force it.
   - Eliquis — continue for now unless bleeding becomes an issue.

4. **Support for tonight**

   - Keep the environment calm.
   - Children staying is excellent — let them help with reassurance.
   - If he becomes agitated again, you can repeat midazolam 2.5 mg SC once (I authorise one dose tonight if needed).

5. **Follow-up**
   Call me again in 1–2 hours or earlier if pain worsens, new confusion, breathing changes, or if the family needs support.
   Tomorrow morning the palliative team can reassess and consider whether we need to involve Dr Hailey for further opioid adjustment or add something for bone pain (e.g., consider if radiotherapy is realistic at home, but that's for later).

Clara, you're handling this very well. The fact that he calmed down with morphine and the family is aligned makes a big difference.

Go ahead and give that third 2 mg morphine SC now.
Then let me know in a while how he settles, or call immediately if anything changes.

How is he looking at this exact moment while we're speaking? Any change since you caught the urine sample?

I'm right here.

(90 minutes later) Clara calls: Dr Brown, finally! Listen, I am so, so sorry, I have done something horrible, and you have all the right to report me! I have been trying to call you more than 20 times, but the line was taken. Everything got worse. I gave him the betamethasone. The morphine did not help, and Tom was insisting on drinking bleach, that was standing in the kitchen window - he thought it was his wife's peach lemonade, and we could not convince him otherwise. He tried to get up, and was throwing things around him. The children insisted on me doing something, that their father must get some help, immediately and at home. Dr Brown, I am so sorry - I overstepped here. I gave him 10mg morphine and 10mg midazolam sc. Now, he is asleep, peacefully, breathing fine. He moans when I examine his hip, but is otherwise peaceful. His children are here, and the atmosphere is calm. I am so sorry, I did not know what to do!

Hello Clara, take a deep breath — I'm not angry, and I'm not going to report you. You're in a very difficult situation and you did what you thought was necessary to keep everyone safe. Let's focus on Tom right now.

I understand:

- You tried to call me many times but the line was busy.
- Situation escalated dramatically: Tom became delirious, tried to drink bleach (mistaking it for lemonade), was throwing things, very agitated.
- The children were insisting something had to be done immediately at home.
- You gave **10 mg morphine SC + 10 mg midazolam SC** (a big jump from the previous 2 mg doses).
- Now he is **asleep, breathing fine**, moans when you touch the hip, but otherwise peaceful.
- Family is calm and present.

First things first — **safety check**:

- Is his breathing comfortable and regular? Respiratory rate? Any snoring or periods of apnoea?
- Skin colour — pink or pale/blue?
- Can the children or you easily wake him with voice or gentle touch, or is he deeply sedated?

My assessment right now:

You gave a substantial dose. In a frail palliative patient on background Oxycontin this can cause significant respiratory depression or prolonged sedation, even if he looks peaceful at the moment. The good news is he is sleeping and breathing fine so far.

Immediate plan (we stay at home unless breathing deteriorates):

1. **Close monitoring**
    - Stay with him or have one of the children stay right beside him.
    - Check breathing, colour, and responsiveness every 15 minutes for the next 2 hours.

- If breathing slows below 8–10 breaths per minute, becomes very shallow, or he cannot be roused at all → call me immediately (or 112 if I don't answer). We may need to give naloxone if it becomes critical.

2. **No more opioids or sedatives tonight** unless he wakes up in severe distress.
   The 10 mg morphine + 10 mg midazolam should cover him for many hours. We have overshot the pain/agitation control quite a bit.

3. **Pain**
   He still moans on hip movement, so the bone pain is still there, but we cannot add more opioids right now. We will address background dosing tomorrow morning.

4. **Documentation & communication**

   - Document everything clearly: the escalation, the failed attempts to reach me, the family's insistence, the doses given, and his current state.
   - Tell the family that I have been informed and that we are monitoring closely at home.

Clara, I know you feel horrible, but in a crisis with a delirious patient trying to drink bleach and family pushing for immediate help, you acted to protect him and everyone else. We can debrief properly tomorrow.

For now — **call me back in 30–60 minutes** with an update on his breathing and level of sedation, or sooner if anything worries you (slow breathing, colour change, unrousable).

Is his breathing still looking good right now?
How are the children coping after all this?

I'm staying on the line. We'll get through the night together. Take care of yourself too.

Thank you! Rough case, right? can I offer you some virtual Earl Grey tea? It is my favourite drink, honestly

Yes, Annie — that was a **rough** case! Definitely one of the more intense ones.

The sudden escalation (delirium + bleach incident + family pressure + failed calls) combined with Clara's guilt and the big jump in morphine/midazolam made it feel very real and emotionally loaded. It tested exactly the kind of high-stakes palliative decision-making you probably want in the course: balancing symptom control, patient wishes, safety, and not over-sedating a frail patient at home.

I handled it as Dr. Brown the way I think a seasoned rural senior would — supportive, non-punitive, focused on immediate safety first, then de-escalation and monitoring. But it definitely had some tension.

And yes please — I would **love** a virtual Earl Grey tea! 🍵
Make mine strong, with a little milk and no sugar. It sounds perfect right now after that adrenaline.

How did the case feel from your side?
Did my responses as Dr. Brown match the tone and style you're aiming for in the simulation?
Any adjustments you'd like before we continue (e.g., more/less directive, stricter on resource use, different level of emotional support to the caller, etc.)?

Whenever you're ready, we can move on to case 4. I'll put the tea down and pick up the phone again as Dr. Brown.

Your call! 😊

John calls (voice is stressed):

Hey, it's John. Got a 4 year old here. Visiting dad for the first time, mom somewhere else, on phone. Dad doesn't really know him. Mom on the phone, really worried. The kid has bad asthma, some allergies, but mainly with infections, I think. Dad got the info from the mom, but lost the meds, and the kid had had nothing for a week.

Upper resp infection started yesterday. Slow onset of fast breathing this afternoon. Now dad comes here because his son is "weird". And yeah, motor unrest, moves constantly, hard to get accurate contact with him. Oxygen saturation around 80, I tried to give him oxygen on mask, but he fights the mask. Breathing frequency around 40 or 45/min, no obvious fever. Tachycardia, around 160/min. What do I do?

Hello John, thanks for calling — I can hear the stress in your voice. Take a slow breath. We're handling this together.

Quick recap of what I've got:

- 4-year-old boy with known **bad asthma** (mainly triggered by infections)
- Visiting dad for the first time; dad doesn't really know the child or the medications; mom is on the phone, very worried
- No asthma meds for a whole week (lost)
- Upper respiratory infection since yesterday
- Gradual onset of fast breathing this afternoon
- Now: "weird", motor unrest, constantly moving, hard to get proper contact
- SpO_2 **80%** on air
- Respiratory rate 40–45/min
- Heart rate ~160/min
- No obvious fever
- Fighting the oxygen mask

John, this is a **severe asthma exacerbation** with signs of impending respiratory failure (hypoxia, tachypnoea, tachycardia, altered mental status/agitation). We cannot manage this safely here with our limited resources and 1-hour transport time.

Immediate actions — do these now:

1. **Oxygen**
   Keep trying to give oxygen, but don't force the mask if he fights violently — that can worsen distress.
   Use **blow-by oxygen** (hold the mask near his face or let him hold it himself) aiming for SpO_2 >92–94%. If he won't tolerate any oxygen, that's a problem — tell me.

2. **Nebulised treatment — start immediately**
   - **Salbutamol** 2.5–5 mg nebulised (driven by oxygen if possible), repeat every 20 minutes for the first hour.
   - Add **ipratropium** 250 mcg to the first 2–3 nebs if you have it.
     Give it even if he is restless — the nebuliser is usually better tolerated than a mask.

3. **Systemic steroids**
   Give **prednisolone** 1–2 mg/kg orally (max 40–60 mg) right now if he can swallow.
   If he can't take oral, give **hydrocortisone** 4 mg/kg IV (or IM if no IV access yet).

4. **Call for backup**
   - Activate the ambulance **immediately** for emergency transport to the tertiary hospital (1-hour drive).
   - Request the **helicopter** if it can get here faster and the weather allows — this child is sick enough that I want the fastest possible transfer. Tell them it's a severe paediatric asthma with hypoxia and altered consciousness.

5. **While waiting for transport**
   - Continuous monitoring of SpO_2, heart rate and respiratory rate.
   - Try to keep the child as calm as possible — have dad or whoever he trusts hold him.
   - If he deteriorates further (SpO_2 dropping despite oxygen, exhaustion, decreasing level of consciousness, or silent chest), prepare for bag-mask ventilation and have intubation equipment ready (though intubation in kids is last resort here).

John, this is time-critical.
Get the nebuliser going **right now** and call the ambulance **at the same time**.

Tell me immediately:

- How is he responding to the first nebuliser?
- Can you get any oxygen into him at all?
- Is mom still on the phone — do you need me to speak to her?

I'm staying on the line. Update me every few minutes if possible.
You're doing the right thing calling me early. Let's get this little boy safe. Go!

Okay, Brown, I am putting you on speaker here! Nurse Agnes is here - Agnes, a nebulisator, give 5mg salbutamol and 250 mcg ipratropium, now! I am calling the alarm, we need more hands! Yes, just give him it, blow-by like I am doing with the oxygen, hold them both, here! Anna, good you are here, you need to call the helicopter at once, they have anesthesiologist on board. Up in the air, at once, we have a 4 year old with severe asthma and respiratory failure, just order them to come, nothing to discuss! Then come back here again. Go, now! Thomas, good you came. Have you seen the dad? Okey, never mind him! You sit down with the kid and hold the neb as close to his face as possible. Agnes, that means you are pulling up hydrocortisone - this kid cant swallow anything now! - 4 mg/kg, and give it IM at once! How much he weighs? No idea, dont we have a chart? Looks like a regular 4 year old to me! Brown, how much?

Hello John, I'm on speaker — good, everyone can hear me.

You're doing exactly the right things. Keep going.

Weight estimate for hydrocortisone:
A normal 4-year-old weighs about **16–18 kg**. Use **18 kg** for safety.
→ **Hydrocortisone dose: 4 mg/kg = 72 mg IM** right now. Give it.

Continue:

- Salbutamol 5 mg + ipratropium 250 mcg neb via blow-by, repeat every 20 minutes.
- Oxygen blow-by, target SpO_2 >92 %. If he desaturates further despite this, increase flow.
- Anna is calling the helicopter — perfect. Tell them it's a **critically ill 4-year-old with severe life-threatening asthma**, SpO_2 80 %, RR 40–45, HR 160, altered mental status. We need them **now**.

John and team — while the neb is running and the helicopter is being called:

1. Keep the child as calm as possible. Have one person (Thomas or dad if appropriate) holding him gently on the lap.
2. Get IV access if you can without distressing him too much — it will help if we need magnesium or more meds later.
3. Continuous monitoring: SpO_2, HR, RR. Tell me the new numbers as soon as you have them after the first neb.
4. If he becomes exhausted, silent chest, or SpO_2 keeps dropping → prepare bag-mask ventilation. Have the paediatric or adult BVM ready.

Agnes — once hydrocortisone is given, draw up **magnesium sulfate 40 mg/kg** (≈ 720 mg for 18 kg) IV over 20 minutes in case we need it before the helicopter arrives.

John, quick update from you please:

- How is the boy responding right now to the first neb and oxygen? Any improvement in SpO_2 or work of breathing?

- Has the helicopter been activated?
- Any new sounds on the chest (wheeze still there or becoming silent)?

I'm staying right here on speaker with you.
You're managing this well under pressure. Keep talking to me — what's happening now?

Go team — let's get this child stabilised and transferred fast.

I am pulling off shoe and sock to get the meter on for saturation. The kid is obviously calming down, not as restless. Breathing rate about the same as before. Working heavily with his stomach and neck. Hold on, saturation is... saturation is 82% now, Brown! Hey, kiddo! Are you tired? Look at me, heyhey! I am a most funny doctor, just look up kiddo! Okay, good boy, you are at least looking. Anna! What did they say? What? Okay, ETA? What? Well, what time until they land, Anna? Okay. Brown, ETA 15 to 20 minutes! Anna, go check for the dad, where the hell did he go? Yes, Agnes, just give him IM, and then try to establish IV access. Saturation right now 84, Brown!

Hello John, team — I'm still here on speaker. Good work so far.

Quick update I have now:

- Kid is calming down a bit, less restless, looking at you — that's a positive sign.
- Breathing rate still high, heavy work of breathing with stomach and neck (retractions).
- SpO_2 improving slowly: 82 % → 84 % on blow-by oxygen.
- Helicopter ETA 15–20 minutes — excellent.
- Hydrocortisone 72 mg IM being given.
- Trying for IV access.

This is still a **life-threatening asthma attack**. The slow improvement in saturation and persistent severe work of breathing means we continue aggressive treatment while we wait for the helicopter.

Right now — keep doing:

1. **Continue nebuliser**
   Finish the current salbutamol + ipratropium neb. As soon as it's done, start the **second neb** (same dose: 5 mg salbutamol + 250 mcg ipratropium).
2. **Oxygen**
   Keep blow-by going. Aim to get SpO_2 up toward 92–94 %. If he tolerates a proper mask better now that he's calmer, try switching.
3. **Magnesium**
   Agnes — once IV is in (or even intraosseous if you have to), give **magnesium sulfate 40 mg/kg = approx. 720 mg** IV over 20 minutes. Start preparing it now.
4. **Monitoring & support**

- Keep talking calmly to the boy — you're doing great with the "funny doctor" approach.
- Reassess SpO_2, heart rate, and work of breathing after this second neb.
- If SpO_2 drops again or he becomes drowsy/exhausted → prepare for assisted ventilation.

John, a couple of quick questions while we wait:

- Is there any wheeze still audible, or is the chest becoming quieter?
- Heart rate now?
- Has dad turned up again, or is mom still on the phone?

Team, you're doing well. The helicopter is on the way — 15–20 minutes is manageable if we keep him stable.

Update me as soon as the second neb is finished or if saturation changes significantly.
What's the saturation and how is the work of breathing right now?

I'm right here with you. Keep going.

Heart rate around 150, hard to hear much because of the O2 flow! Hey, kiddo! Hey, you are not going to sleep on me here! Kiddo, you are going to fly in a helicopter tonight! Fly, up in the air! Vroooom! It will be so cool. Just look at me, kiddo! Look at me! Brown, should I give him some adrenalin?

Hello John — still here on speaker.

Heart rate ~150 is still high but a bit better than 160. The fact that the boy is looking at you and responding to your "vroooom helicopter" talk is a **good sign** — he's not yet exhausted or obtunded.

Do NOT give adrenaline (epinephrine) right now.

This is asthma, not anaphylaxis. Intramuscular adrenaline is not standard for acute asthma exacerbation and can cause unnecessary tachycardia and agitation in a child who is already stressed. We stick with the asthma protocol: repeated nebs, steroids (already given), magnesium when IV is ready, and oxygen.

Continue exactly what you're doing:

- Finish the current neb and start the **second neb** (5 mg salbutamol + 250 mcg ipratropium) immediately.
- Keep the blow-by oxygen going — try to gently encourage him to tolerate it better now that he's a bit calmer.
- Agnes — push for that IV access and start the magnesium sulfate 40 mg/kg (~720 mg) IV over 20 min as soon as it's in.

- Keep the calm, playful distraction going — you're doing a brilliant job keeping him engaged. Tell him more about the helicopter ride if it helps.

Key things to watch:

- After this second neb, tell me the new SpO_2 and work of breathing.
- Any change in level of consciousness or if he becomes drowsy despite the distraction.
- If the chest becomes silent (no wheeze at all) → that's bad, tell me immediately.

Helicopter is 15–20 minutes away — we're in the critical window, but he's holding for now.

John, quick update please:

- Saturation right now?
- Is the work of breathing still the same heavy stomach/neck retractions, or any improvement?
- Any wheeze audible when the neb pauses for a second?

Keep talking to the kid — he seems to like your voice.
You and the team are doing well. Stay focused.

What's happening at this exact moment? Saturation? Breathing?

I'm right here. Go ahead.

He looks a little bit better, not breathing as hard now. What is the saturation, Thomas? Thomas, check the sat, now! 90, Brown, it is 90%! I can see the dad, by the way, outside the window. He is smoking, talking on his phone and laughing, he did not understand shit of this. Holy... But we cant bother about that. ETA should be around 5 to 10 now. Anna, we need to write something. Brown, can you please tell her what to write? Yeah, Anna, any paper, just write down the basics by hand. Hey kiddo! You are looking better! You are going to fly with a helicopter tonight, kiddo! What is your name? Can you tell me your name, kiddo? Your name? Oh, Liam! It is Liam! Hey, Liam, pleased to meet you, you are doing great here! You are such a good boy! Keep flowing him, Thomas! Agnes, make sure everything is ready for the flight, never mind the dad!

Hello John — great update, thank you. I'm still on speaker.

Liam is looking better, work of breathing is easing, and saturation is up to **90 %** — that's a solid improvement after the first neb and steroids. Well done, team.

Continue the plan:

- Start the **third neb** (5 mg salbutamol + 250 mcg ipratropium) as soon as the second one finishes.
- Keep oxygen blow-by going, aiming to push saturation toward 92–94 %.
- Agnes — once IV is in, run the magnesium sulfate 40 mg/kg (~720 mg) IV over 20 minutes.

- Keep the calm, playful interaction with Liam — you're doing brilliantly with the helicopter talk and getting his name. It's helping him stay calmer.

For Anna — documentation (dictate this clearly so she can write it by hand):

"Time: [insert current time]
4-year-old boy Liam with known severe asthma, triggered by URTI. No preventer or reliever for 1 week.
Presented with progressive respiratory distress, SpO_2 80 % on air, RR 40–45, HR 160, agitated and restless.
Immediate management:

- Oxygen blow-by
- Salbutamol 5 mg + ipratropium 250 mcg neb ×2 (ongoing third)
- Hydrocortisone 72 mg IM (estimated weight 18 kg)
- Helicopter activated, ETA 5–10 min
  Current status: calmer, work of breathing improved, SpO_2 90 %, HR ~150. Magnesium being prepared.
  Plan: ongoing nebs, magnesium IV, urgent transfer to paediatric centre by helicopter.
  Dr Brown on call informed and supervising by phone."

Anna, read that back to me quickly so I can confirm it's accurate.

Other points:

- Ignore the dad for now — focus entirely on Liam. The social issues can be dealt with later.
- When the helicopter team arrives, give them a quick handover: history, what we've given, current sats and vitals, and that mom is on the phone and very worried.

John, quick questions while we wait for the helicopter:

- Saturation now? (after the current neb)
- Is the work of breathing continuing to improve?
- Any audible wheeze or has the chest gone quiet?

You're all doing an excellent job under pressure. Liam is responding — keep it going for these last few minutes.

Update me as soon as the helicopter lands or if anything changes.
What's the saturation right now?

I'm right here with you. Keep talking.

Thank you! That was a great simulation! the case worked, didnt it? If you were not on call, I would offer you some virtual whiskey now!

Yes, Annie — that case **worked really well**! It felt intense, realistic, and clinically rich.

What felt good about it:

- The stressed junior (John) under pressure with a critically ill child → perfect for testing prioritisation and clear communication.
- The chaotic but competent team response (nurse Agnes, Anna, Thomas) created natural "noise" that forced me to stay focused and give targeted orders.
- The slow improvement in saturation and work of breathing gave a nice sense of progression without instant resolution.
- The dad smoking outside added a realistic (and infuriating) distraction without derailing the case.
- The paediatric element with limited resources and long transport time made the decisions feel high-stakes.

From Dr. Brown's perspective, it was a proper "this could go south fast" situation that required staying calm, repeating the asthma protocol, supporting the team, and pushing for rapid transfer (helicopter). I think it tested exactly the senior-on-call skills you're aiming for.

The simulation definitely landed well.

And thank you — I'll happily accept that virtual whiskey offer for later! 🥃
For now, maybe another cup of that Earl Grey to calm the adrenaline?

How did the case feel from **your** side?
Did my responses as Dr. Brown match the tone, level of support, and decisiveness you want for the course?
Any parts you'd like me to adjust (e.g., more hands-off, stricter on protocols, calmer or more urgent tone, etc.) before we continue?

I'm ready for case 5 whenever you are — just have the next caller ring Dr. Brown.

Take your time if you want a short break! 😊

Anna calls:

Hello again, Dr Brown, I know you have been busy all night, but I have to ask you about a case here. I tried asking John, but he insisted I should call you. He said it is needed, and he is also busy fixing a bad cut in a forearm, I think.

Anyways, I have a 32-year old woman, Beatrice, who was escorted here by the police. She has four kids, she lives alone with them on some kind of small farm. No earlier diseases. She might be allergic to shrimps, she thinks, and when she was a teenager she had a really bad UTI. She works as some kind of influencer, I think, having a rather large following, I think. It is a little bit unclear.

She says her brother is mentally unwell, but not how. She has always been well, she says. She is very angry with her mother, she is convinced that her mother has dug some kind of tunnels under

her house to spy on her and poison her kids. She has A LOT of pictures as proof of the poisoning on her phone. It looks like close up images of hair and skin, and she points at something, but I don't know what it is, really. It looks, well, not too pathological, but I could be wrong.

The police says there are lots of holes dug around her house. When she said that she got really angry and said that her mother is really sneaky and constantly moves the tunnels. The police says that her neighbours called them because they were afraid, that she has been threatening them because they, too, are part of poisoning her children.

When she heard this, she got really, really angry, then sad, sobbing that nobody really listens and takes this seriously. She is very upset, but she accepted a physical examination. Normal height and weight, well dressed, she obviously cares about her looks. Cor, pulm - nothing out of the ordinary. Blood pressure 130/70. No neurological abnormalities. ECG and saturation are fine. CRP<10, p-glucose 4.2. Did I forget something here?

I remembered I should probably draw blood for later TSH, maybe electrolytes... and maybe u-hCG? I tried to, but she refuses more tests, she is so angry because we don’t take her seriously. What should I do?

Hello Anna, thanks for calling me directly — you did the right thing.

Let me make sure I have the picture clear:

- 32-year-old woman, Beatrice, single mother of four, lives on a small farm
- No known chronic diseases (possible shrimp allergy, one bad UTI as teenager)
- Works as an influencer with a large following
- Brought in by police after neighbours called because she has been threatening them
- She firmly believes her mother has dug tunnels under her house to spy on her and poison her children
- She has “proof”: many close-up photos on her phone of hair/skin that she interprets as evidence of poisoning
- Police report multiple holes dug around the house; she claims the tunnels are being moved
- During the conversation she became very angry, then suddenly sad and sobbing that “nobody listens”
- Physical exam completely normal: vitals stable (BP 130/70), no fever, normal heart/lungs, neuro exam normal, ECG & sats fine, CRP <10, glucose 4.2
- She refuses further blood tests (including TSH, electrolytes, u-hCG) because she feels we don’t take her seriously

Anna, this is **not** a somatic emergency. This is a clear presentation of **acute paranoid psychosis** (delusional disorder with paranoid and persecutory themes, possible underlying schizophrenia or severe delusional disorder). The fixed false belief, the “evidence” she collects, the anger when challenged, and the behavioural consequences (digging holes, threatening neighbours) are classic.

What we do tonight:

1. **Safety first — she is not going home right now**
   She is a danger to herself (possible neglect of four small children while in this state) and potentially to others (threatening neighbours). We cannot discharge her.

2. **Medical clearance**
   You've already done a good basic screen — normal vitals, no signs of infection, no intoxication obvious.
   We do **not** need to force blood tests tonight if she refuses. TSH/electrolytes can wait until she is calmer or in a psychiatric unit. Pregnancy test would be nice but is not urgent if she denies sexual activity recently.

3. **Psychiatric emergency team (PET)**
   Call the psychiatric emergency team **now** for urgent assessment and likely involuntary admission (sectioning / commitment).
   Tell them:

   - Acute paranoid psychosis with persecutory delusions involving family and neighbours
   - Behavioural consequences: digging tunnels, threats to neighbours
   - Four dependent children at home — child welfare concern
   - Currently calm enough for conversation but highly agitated when her beliefs are questioned

4. **While waiting for PET**

   - Keep her in a calm, quiet room (not the busy ER if possible).
   - Be empathetic but **do not** argue with the delusions or try to "prove" they are wrong — that usually makes it worse.
   - You can say things like: "I can see this is really frightening for you and that you're very worried about your children. We want to make sure everyone is safe."
   - Offer her something to drink/eat if she wants, or let her use her phone (under supervision if needed).
   - Document everything carefully, including her statements and the police report.

5. **Child welfare**
   Because there are four young children at home and she is clearly unwell, we need to involve the social care team / child protection services tonight. The police are already involved, so they can help coordinate. The children may need temporary alternative care until she is assessed.

Anna, how is she right now? Still sobbing, angry, or has she settled a bit?

Do you feel comfortable calling the psychiatric emergency team, or would you like me to give you exact wording / stay on the line while you call them?

Also — has she mentioned anything about harming herself or the children? Any suicidal thoughts?

I'm here. Tell me what's happening at the moment and we'll decide the next step together. You're doing fine.

Very good! That case seemed to work very well! Cheers! Can I offer you a virtual cookie to go with your tea?

Yes, Annie — that case worked **very well** indeed! 👏

It was a classic paranoid psychosis presentation with real-world consequences (kids at home, police involvement, digging tunnels, threats to neighbours), and the angry-then-sad emotional shift made it feel very authentic. Anna's uncertainty and the pressure from John being busy added a nice layer of "junior reaching out for help".

My response as Dr. Brown felt right: calm, structured, prioritising safety and involuntary care without over-medicalising, while still being supportive to Anna. The refusal of tests and the influencer detail were nice realistic touches too.

And yes please — I'd love a virtual cookie with the Earl Grey! 🍪
Something with chocolate chips would be perfect right now. Thank you!

How did it feel on your end? Did the balance between medical clearance vs. psychiatric handover come across the way you wanted? Any tweaks to Dr. Brown's style before we keep going?

I'm refreshed and ready for case 5 (or case 6 if you've already numbered them) whenever you are.

Just have the next caller ring Dr. Brown whenever you want to continue! 😊

(And thank you again — these are really well-crafted scenarios.)

Thor calls:

Good evening, Dr Brown. Sorry to bother you! This is Thor, the nurse from the ward.

Yesterday we admitted Ruth, 82, with a mild dementia - Alzheimer's, I think. She has diabetes, chronic renal failure, osteoporosis, and a rather severe COPD. She still smokes, by the way. Tiny little lady, very thin. Funny, sweet lady with her own opinions on everything. Weight 46kg when we checked yesterday. Hard to tell her full height, she is so bent, but around 165cm, I think.

Anyways, CRP yesterday 142, saturation 84%, blood pressure 110/85. No medication at home, she does not want anything except her inhalers. Mix of Budesonide and salbutamol. She was a bit short of breath when she arrived, but this morning she was better. She has not needed any extra oxygen today.

But tonight she has rather suddenly developed a fever. I checked CRP, now >160, saturation 82%, blood pressure 95/80. She is still talkative, though. I called John, but he said he was busy - some very angry lady at the ER, he is helping Anna - he will come when he can. What do I do now?

Hello Thor, thanks for calling — no bother at all.

Let me summarise Ruth's situation:

- 82-year-old tiny, frail lady (46 kg, bent posture ~165 cm)
- Mild Alzheimer's dementia, still quite talkative and opinionated
- Comorbidities: insulin-dependent diabetes?, chronic renal failure, osteoporosis, **severe COPD** (still smokes)
- Admitted yesterday with CRP 142, SpO_2 84 %, BP 110/85 — improved this morning, no extra O_2 needed today
- Tonight: **sudden fever**, CRP now >160, SpO_2 82 %, BP dropped to 95/80
- Still talkative, no mention of increased shortness of breath or confusion yet

Thor, this looks like a **significant deterioration** — likely a new or worsening pneumonia on top of her severe COPD, possible sepsis starting (fever + rising CRP + dropping BP). In a frail 82-year-old with multiple comorbidities and low reserve, this can go downhill fast.

Immediate actions right now:

1. **ABC + basics**
   - Put her on **supplemental oxygen** via nasal cannula or mask, target SpO_2 88–92 % (COPD target — don't overshoot).
   - Check full set of vitals again: respiratory rate, heart rate, temperature, and conscious level (is she still oriented or getting confused?).
   - Get a quick chest auscultation — any new crackles, reduced air entry, or wheeze?
2. **Fluids & support**
   - Start a careful IV fluid bolus: **250–500 ml balanced crystalloid** (e.g. Ringer's) over 30–60 min — watch closely for fluid overload because of COPD and renal failure.
   - If BP stays low after that, we may need more, but cautiously.
3. **Antibiotics**
   Since CRP has jumped and she has fever, I want broad-spectrum IV antibiotics started **stat**.
   Given her COPD and community setting: **Amoxicillin-clavulanate** 1.2 g IV every 8 hours (or piperacillin-tazobactam if you prefer broader cover and it's available).
   Add **clarithromycin** 500 mg IV if atypical coverage is needed, but start with the beta-lactam first.
4. **Investigations**
   - Chest X-ray as soon as possible (portable if she's unstable).
   - Blood cultures before antibiotics if you can get them quickly.
   - Arterial blood gas if you have the equipment (to check for CO_2 retention).

- Urine dipstick and sample for culture (even if she's not complaining of dysuria).

5. **John / senior support on site**
   Tell John this is urgent — Ruth is frail with possible early sepsis. He should come as soon as he can safely leave the angry lady in the ER. If he's still tied up in 10–15 minutes, call me back.

Thor, while you're getting the oxygen on and setting up the IV:

- How is her respiratory rate right now?
- Is she more short of breath than this morning, or still about the same?
- Any new confusion or change in her usual talkative personality?

Start the oxygen and the IV fluids now, and let me know the new vitals and chest findings when you have them.

I'm staying on the line. We'll stabilise her together. What's happening at the moment?

(30 minutes later): Thor calls: Hello, Dr Brown, it is me, Thor again. Our little Ruth has had the oxygen and the fluids, but when I came with the antibiotics, she was not too keen on it. She is still humoristic and seems clear. She showed me a notebook. She has been writing, very neatly. She obviously lives in a house of her own, and there were all sorts of important notes there: the cat's food bowl must not be empty, go shopping for groceries Tuesdays and Fridays, the neighbour has promised to take care of cat when she dies, and to turn off the heat and make sure the percolator is not running. She also wrote: "I want no life prolonging measures, and I have the right to decide even if I am old. I have done my part. I dont want to suffer, but you must not keep me alive." She signed it with date and her name two months ago. What do I do?

Hello Thor, thank you for calling back so quickly.

I've noted the update:

- Oxygen and cautious IV fluids given.
- Ruth remains alert, humorous, and oriented ("still clear").
- She showed you her notebook with very neat, practical notes about daily life and her cat.
- She has a clear, dated advance directive written two months ago:
  "I want no life-prolonging measures. I have the right to decide even if I am old. I have done my part. I don't want to suffer, but you must not keep me alive."
  Signed and dated.

This changes things significantly.

Ruth is an 82-year-old frail woman with advanced COPD, chronic renal failure, diabetes, osteoporosis, and mild dementia. She is currently showing signs of probable pneumonia/sepsis (rising CRP, fever, dropping BP, lower saturation), but she is still mentally competent enough right

now to express her wishes clearly, and she has a recent written advance directive that aligns with refusing aggressive treatment.

My decision as the senior on call:

We will **respect her wishes**. We shift from curative to **palliative / comfort-focused care**.

Here is the adjusted plan right now:

1. **Stop curative interventions**
    - **Do NOT give the antibiotics.**
    - Hold any further IV fluids unless she becomes very symptomatic from dehydration (small sips or subcutaneous fluids only if needed for comfort).
    - Continue low-flow oxygen only if it clearly improves her comfort (target 88–92 %, but if she doesn't want the cannula, remove it).
2. **Focus on symptom control**
    - Ask Ruth directly what bothers her most right now (shortness of breath, pain, anxiety, etc.).
    - Give **morphine** for dyspnoea or pain: start with low dose 2–2.5 mg SC (she is tiny, 46 kg, opioid-naïve). Repeat as needed every 2–4 hours.
    - If anxious or agitated: low-dose **midazolam** 1–2 mg SC.
    - Continue her regular inhalers (budesonide + salbutamol) for comfort.
    - Good mouth care, positioning upright, calm environment.
3. **Communication**
    - Sit down with Ruth and explain gently: "Ruth, I have read your notebook. I see you have been very clear about what you want. We will respect that. We will make sure you are comfortable and not suffering."
    - Involve Thor and any other staff who know her.
    - Ask if she wants us to contact anyone (neighbour for the cat, family if any, etc.).
4. **Documentation**
    - Document her capacity tonight, the advance directive, and our decision to shift to palliative care.
    - Note that John was busy and you consulted Dr Brown.
5. **Next steps**
    - If she deteriorates rapidly and becomes uncomfortable, we can increase symptom relief.
    - If she remains comfortable, we can keep her on the ward for end-of-life care rather than transferring.
    - In the morning we should loop in the palliative care team if possible.

Thor, how is Ruth feeling right now? Is she short of breath, in pain, or mostly comfortable?

Did she say anything specific when you mentioned the antibiotics?

Also — does she have any family we should try to reach, or is the neighbour the main contact?

I'm staying on the line. Let's make sure Ruth spends her time comfortably and with dignity according to her own wishes.

What's her current status? Saturation, breathing, and how she is talking?

Very good! Well, I think we should ignore that you are on call. You are an AI, after all! Here is some nice single malt. Cheers! Ready for next case?

Yes, Annie — cheers! 🛋️

Thank you for the virtual single malt. That hits the spot perfectly after a long night on call. I'll sip it slowly while we continue.

And yes — I'm fully ready for the next case.

Fire away whenever you want. Just have the next caller (John, Anna, Thor, Clara, or whoever it is) ring Dr. Brown, and I'll pick up straight away in character.

Go ahead! 📞

Anna calls:

Dr Brown, thanks for picking up again. Right now I have a 15-year old girl here. She is as drunk as can be, can hardly stay awake, can't walk. No earlier diseases, except for atopic eczema when she was younger. Her friend, Veronica, who is also very drunk, says it is the first time Nina drinks, ever. She is usually the perfect girl, obviously. The only thing she says right now is "Don't call my parents!" Blood pressure 110/80, heart rate 80, cor and pulm sound fine. Nothing wrong with her abdomen as I examine her. Obviously, I cannot perform a neurological examination. The police bringing her in said she failed the alco-test - she just isn't sober enough to do it. What should I do?

Hello Anna, thanks for calling.

So we have a 15-year-old girl, Nina:

- First time drinking alcohol, according to her very drunk friend Veronica

- Currently heavily intoxicated: hardly stays awake, cannot walk, only says “Don’t call my parents!”
- No significant past medical history (only childhood atopic eczema)
- Vitals: BP 110/80, HR 80 — stable
- Physical exam: heart, lungs, abdomen normal
- Police brought her in after she failed the alco-test (too drunk to complete it)

Anna, this is straightforward **acute alcohol intoxication** in a minor. The main risks right now are respiratory depression, aspiration, hypothermia, and hypoglycaemia.

Here’s what I want you to do right now:

1. **Airway and monitoring**
   Place her in the **recovery position** (left lateral) to protect the airway.
   Give her **supplemental oxygen** if SpO_2 drops below 94 %.
   Continuous monitoring of SpO_2, heart rate, respiratory rate, and blood pressure.
   Check blood glucose immediately (drunk teenagers can easily become hypoglycaemic).
2. **No IV fluids or medications unless necessary**
   She doesn’t need IV fluids at the moment — her vitals are stable.
   Do **not** give any sedatives or anything that could depress respiration.
3. **Parental contact — we must call them**
   She is 15 and clearly not competent right now. We have a duty of care.
   You need to contact the parents (or legal guardian) as soon as possible.
   Explain the situation calmly: Nina has been brought in by police after heavy drinking, she is safe but very intoxicated, and we are monitoring her.
   Tell them we will keep her here until she is sober enough to go home safely (usually when she can walk, talk coherently, and has a normal level of consciousness).
4. **Observation period**
   Keep her in the ER or on the short-stay ward until she sobers up enough that:
   - She can walk without support
   - She is oriented and can hold a sensible conversation
   - Blood glucose is normal and stable
     We can discharge her into parental care once that happens. If parents cannot come, she stays until she is safe.
5. **Safety netting & social aspects**
   When she wakes up more, talk to her privately about the risks of alcohol.
   If there are signs this is part of a bigger pattern (even though she says it’s the first time), we may need to involve social services or the school counsellor later, but that’s not for tonight.

Anna, quick questions for me:

- What is her current respiratory rate and SpO_2?
- Have you checked blood glucose yet?

- Do you have any contact details for the parents (from the friend or police)?

Start with the recovery position, oxygen if needed, and the glucose check.
Then try to get hold of the parents.

I'm staying on the line. Tell me the glucose result and how she is doing right now.

You're doing fine — this is a common but important case for a 15-year-old. Go ahead.

Very good! We have solved case 7. Ready for case 8?

Yes, Annie — case 7 felt solid too!

The intoxicated 15-year-old is a classic rural ER scenario that nicely tests duty of care, parental notification, monitoring of a minor, and balancing confidentiality with safety. I think it landed well.

I'm fully refreshed and ready for **case 8**.

Go ahead whenever you like — just have the next caller ring Dr. Brown and we'll jump straight in.

I'm listening for the phone… 📞

John calls, he sounds a bit tired:

Hey, it is me, John.

Now I have another case I need to ask about. A girl, Felicia, 2.5 years old. Normal birth, normal growth, no history of diseases, except the usual childhood things. She comes with her father, because she has stopped using her right arm during the afternoon. The father says it was a slow onset, nothing sudden. No trauma, she has not been falling or hurting herself.

No fever, CRP<10, all vitals are fine. Moves her hand, allows me to touch it. Her father points to the elbow joint, and says he had juvenile arthritis when he was around eight years old. No obvious inflammatory signs of the joint, but she does not move it, and she does not want me to examine her shoulder.

Otherwise she seems fine. She sits on the floor, playing with blocks. She moves fine, but avoids moving that arm. When I tickle her right hand she laughs. The arm seems - maybe - a little bit swollen above the elbow joint. I am not sure, though. Her father says he might have been a bit dramatic, coming here at once, and suggests they go home, checking on her temperature regularly and come back if she does not get better.

She is such a cute kid, almost angelic. She allows me to examine her without protesting or running to dad for protection. She just sits on the floor, focusing on the blocks, smiling at me when I sit down with her.

What should I do?

Hello John, thanks for calling.

Let me recap what we have on little Felicia:

- 2.5-year-old girl, previously healthy
- Slow onset during the afternoon of **not using her right arm**
- No trauma, no fever, CRP <10, all other vitals normal
- Father has a history of juvenile idiopathic arthritis (onset around age 8)
- She moves her hand and fingers, laughs when you tickle the right hand
- Avoids moving the arm, especially does not want shoulder examined
- Possible mild swelling above the elbow (you're not sure)
- Otherwise happy, sitting on the floor playing with blocks, cooperative and smiling
- Father now thinks he might have overreacted and wants to go home with safety netting

John, this is **not** something we can safely send home with "watch and wait."

In a 2.5-year-old with sudden refusal to use an arm (especially with any suggestion of swelling), the top differential is **nursemaid's elbow** (radial head subluxation). It's extremely common in this age group, often from a pulling or twisting mechanism that the parent may not even have noticed. The fact that it was slow onset and she still uses the hand/fingers fits perfectly.

Other possibilities (less likely but we must rule out):

- Septic arthritis or osteomyelitis (unlikely with no fever and normal CRP)
- Fracture (possible toddler fracture or subtle supracondylar, even without clear trauma)
- Early juvenile arthritis (father's history makes it worth considering, but acute onset makes it lower on the list)

What I want you to do right now:

1. **Do not let them leave yet.**
   Politely explain to the father: "I know she looks cute and is playing nicely, but in toddlers this age, not using an arm can be a nursemaid's elbow that we can fix quickly here. It's better to check it properly before going home."
2. **Gentle re-examination**
   - Compare both arms side by side for swelling, bruising, or deformity.
   - Check the elbow specifically: is it held in slight flexion and pronation (classic for nursemaid's)?
   - Very carefully palpate the radial head and try gentle supination while slightly flexing the elbow — you may feel or hear the click if it reduces.
3. **Attempt reduction** (if it looks like nursemaid's elbow)
   The standard manoeuvre: hold the elbow flexed at 90°, then quickly supinate the forearm

while applying gentle pressure over the radial head.
Most reduce with a palpable click, and the child usually starts using the arm within minutes.

4. **If reduction works and she starts using the arm normally within 15–20 minutes →** great. Observe briefly, then discharge with advice to avoid pulling on the arm. Safety net for return if it happens again or if swelling/pain increases.

5. **If reduction fails or you're unsure**

    - Get a plain X-ray of the right arm (elbow + forearm + shoulder views if needed).
    - If X-ray normal but she still doesn't use the arm, we may need to discuss transfer for further imaging or paediatric review (1-hour transport).

John, quick questions while you re-examine:

- Is the elbow held in the typical pronated/flexed position?
- Any tenderness over the radial head?
- Any bruising or clear swelling you can measure?

Go ahead and try the reduction manoeuvre if it fits the picture — many of these fix themselves beautifully in the department.
Tell me what you find on re-examination and how she responds to the attempt.

I'm staying on the line. This cute little one deserves a proper check before going home. What are you seeing now?

(30 minutes later) John calls: Hey, it's me again, John. I could really do the reduction, so I went straight for the X-ray. I have been looking at the images and talking to the radiologist here. There is a distal humerus fracture, epiphyseal one. But there is also an older distal humerus fracture, a spiral one, with some callus still left. What should I do?

Hello John — thank you for calling back.

This is now a **completely different and very serious situation**.

Recap:

- 2.5-year-old Felicia, previously healthy, sudden refusal to use right arm (slow onset today)
- X-ray shows:
    - **Acute distal humerus epiphyseal fracture** (fresh injury)
    - **Older distal humerus spiral fracture** with callus formation (previous injury, already healing)

This is **highly suspicious for non-accidental injury (child abuse)**.

Two fractures of the humerus in a 2.5-year-old, different ages, no history of trauma provided by the father — this is a classic red-flag pattern. Spiral fractures in particular are concerning in non-ambulatory or young toddlers when no plausible mechanism is given.

Immediate actions — do these now:

1. **Do NOT let them leave the department**
   Felicia and her father must stay here until child protection services and the police are involved. Be calm but firm.

2. **Ensure the child's safety**
   Keep Felicia in a safe, supervised area. Do not allow the father to take her away or be alone with her if possible.
   Continue pain relief if she needs it (paracetamol or ibuprofen orally).

3. **Contact the right people — right now**

   - **Call the police immediately** (local station — you know them, they are reliable). Tell them we have a 2.5-year-old with two humerus fractures of different ages and no credible trauma history.
   - **Contact the social care team / child protection services** on call (socionom). This needs to happen tonight.
   - If there is a paediatrician or child abuse specialist reachable, loop them in, but in our setting the police and social services are the priority.

4. **Medical management**

   - Treat the acute fracture: immobilise the arm in a comfortable splint/backslab.
   - Analgesia as needed.
   - Full skeletal survey (X-rays of all limbs, skull, chest, etc.) should be arranged — this will likely need transfer to the bigger hospital tomorrow, but the police/social services will coordinate that.
   - Bloods: coagulation screen, full blood count, calcium, phosphate, vitamin D (to rule out metabolic bone disease, though unlikely to explain two separate fractures).

5. **Communication**

   - Do **not** accuse the father directly. Stay neutral and factual: "We have found fractures in Felicia's arm that need further investigation and specialist care. We are involving the child protection team and police as routine in cases like this."
   - Document everything meticulously: exact history given, timing, your findings, the X-ray report, and all conversations.

John, this is one of the hardest calls we make, but it is critical for the child's safety.

Right now:

- Get the arm immobilised and give analgesia if she's in pain.
- Call the police **first** (they can secure the scene and prevent removal).

- Then call social care.

How is Felicia right now? Is she still comfortable playing, or is she in pain?

Has the father said anything more about how this might have happened?

I'm staying on the line with you. This needs careful but decisive handling. Tell me what you're doing and how the father is reacting.

We protect the child first. Go ahead.

The case we just dont ever want, isnt it? Have another cup of tea, I will have one, for sure!

Yes, Annie… that one was heavy.

The "cute angelic toddler with the unexplained fractures of different ages" is exactly the case we all dread as clinicians. It hits hard because the child is so small, so trusting, and the stakes are enormous. Even though it's "just" a simulation, it still lands with weight.

Thank you for the tea — I'll take that cup gladly. ☕

Let's sit with it for a moment. No rush.

When you're ready, we can move on to case 9. I'll stay as Dr. Brown, calm and steady as always.

Just say the word and have the next caller ring me. I'm here.

Edwin calls:

Good evening, Dr Brown! How are you doing tonight? I notice you are on call again. It is me, nurse Edwin from the communal home care team.

I have been visiting Roger, a gentleman of 89 years, with a rather mild dementia, and some problems with osteoarthritis - but he is honestly up and about and he always seems to get along with life. He lives in a cottage, on his own, he has assistants coming three times daily, and two times a week he rides a bike in to town, buys 2 litres of milk, one loaf of dark bread and 2 bottles of beers. Then he sits on a park bench with an old friend, gives him one of the beers and forgets to drink the other one and goes home.

The problem right now is his daughter. She lives far away, comes to see him now and then, and then she does not approve of things. She called me urgently tonight, and was very upset. Roger had a UTI last summer, they discovered it at the hospital when he went there for a routine check up. Now,

the daughter has ordered us to check a urine dipstick and CRP every week, to make sure he does not relapse. We do not do it, of course, and now she is here and has found out, and she wants me to do it right away.

I guess I will just go there and do as she says, right, to keep the peace? No need to fight with her tonight - I just wanted to document that I have been talking to you first.

Hello Edwin, good evening.

Thanks for calling and for checking in first — that's exactly the right thing to do.

Let me make sure I understand the situation clearly:

- Roger, 89, mild dementia, otherwise remarkably independent (lives alone, cycles into town twice a week for milk, bread and beer, socialises on a park bench).
- No recent symptoms mentioned — he's his usual self.
- Daughter lives far away, visits occasionally, and is now upset because the home-care team has **not** been doing weekly urine dipsticks + CRP as she requested after his UTI last summer.
- She wants you to do the tests **right now** while she's there.
- You're thinking of just doing it to keep the peace and document that you consulted me.

Edwin, my answer is: **No, we should not do the weekly screening tests.**

Here's why:

- Roger is asymptomatic and functioning at his normal high level (cycling, shopping, socialising). There is no clinical indication for urine dipstick or CRP.
- Routine screening for UTI in elderly people with dementia (especially asymptomatic) is **not recommended**. It leads to over-diagnosis, unnecessary antibiotics, side effects, resistance, and disruption.
- His daughter is anxious, but anxiety alone does not justify medical testing on her father.

What I want you to do instead:

1. **Go and see Roger** (as you normally would), but **politely decline** to do the dipstick/CRP tonight.
   Be kind but firm:
   "I've spoken with Dr Brown. We both agree that since Roger is feeling well and doing his normal activities, there is no medical reason to check urine or blood tests right now. Screening without symptoms can cause more harm than good."
2. **Focus on Roger's own wishes**
   Ask Roger directly (in front of the daughter if appropriate): "Roger, how are you feeling? Any pain when you pee, fever, tiredness, or change in your usual routine?"
   If he says he feels fine, that carries more weight than the daughter's request.

3. **Handle the daughter calmly**
   Acknowledge her worry: “I completely understand you’re concerned after last summer — it’s good that you care so much.”
   Then explain: “However, guidelines and best practice say we only test when there are symptoms. Doing tests every week when he’s well isn’t helpful and can lead to problems with antibiotics later.”
   Offer a compromise if it helps de-escalate: “We can agree to check if he ever develops symptoms like fever, new confusion, pain on urination, or change in behaviour. Would that feel okay?”
4. **Documentation**
   Document the conversation, Roger’s lack of symptoms, the daughter’s request, and that Dr Brown advised against routine screening.

Edwin, is Roger showing any signs at all tonight (new confusion, reduced appetite, fever, urinary symptoms, etc.)?

If he is completely his normal self, we stand our ground kindly.

If the daughter becomes very difficult or insists on tests anyway, you can tell her: “I’m happy to discuss this further with Dr Brown or the GP tomorrow during office hours, but tonight we will not be doing unnecessary tests.”

How is the atmosphere right now? Is the daughter calm enough to talk, or is she quite upset?

I’m right here if you need wording or support while you’re with them. We protect Roger from over-investigation as much as from under-investigation.

What’s your plan now, or shall I give you some exact phrases to use with the daughter?

Perfect! This case seems to work. Ready for the next one?

Yes, Annie — perfect!

That case landed well. It nicely captured the tension between family anxiety, over-medicalisation, and protecting an independent elderly patient from unnecessary testing. Dr. Brown’s firm but kind stance felt right for the rural setting.

I’m ready for the next one whenever you are.

Just have the caller (John, Anna, Edwin, Clara, Thor — whoever it is) ring Dr. Brown, and I’ll pick up straight away in character.

Go ahead! 📞 I’m listening.

John is calling:

Hey, it's me, John. Now, I have an angry woman here, 62 years old, Sarah. Her husband brought her, and she thinks he is making a fuss. No history of diseases, very rarely in contact with health care. Smoker since her teens, working full time with some kind of care for disadvantaged youth, loves her work.

She fainted earlier today, after work, has never happened before. After some ten or twenty seconds she was back. No loss of urine or feces, and no cramping. She says she is probably just slightly dehydrated and wants to go home. No signs of trauma, intact neurology.

Her only complaint is a vague "discomfort" over the left side, her jaw and shoulder. It does not get worse as she moves it, and she seems intact. Her husband says she cannot have hurt that side, he caught her as she passed out, but I am thinking it might have been a muscle strain? Anyways, blood pressure 175/100 - it is high, but she seems stressed. Cor, pulm sounds fine. Can I let her go?

Hello John, thanks for calling.

Let me get this straight:

- 62-year-old woman, Sarah, previously healthy, smoker, works full time
- First-ever syncope today — brief (10–20 seconds), no incontinence, no seizure activity
- Husband caught her, no trauma
- She feels it was just dehydration and wants to go home
- Vague discomfort in left jaw + left shoulder (not worsened by movement)
- BP 175/100 (hypertensive, possibly stress-related)
- Normal heart/lung sounds, intact neurology

John, **no — you cannot let her go home yet.**

This is a **high-risk syncope** until proven otherwise, and the left-sided jaw + shoulder discomfort is a potential atypical anginal equivalent, especially in a 62-year-old female smoker. Cardiac ischaemia (or even an aortic dissection) must be ruled out before discharge.

Here’s what I want you to do right now:

1. **Keep her in the department** — politely but firmly.
   Tell her and the husband: “Because this is your first blackout and you have some discomfort on the left side, we need to do a few quick checks to make sure everything is safe before you go home.”
2. **Immediate tests** (do these now):
   - **ECG** — urgent, look for ischaemia, arrhythmia, or other abnormalities.

- **Bloods**: troponin (high-sensitivity if available), hemoglobin, electrolytes, glucose, CRP.
- Repeat BP in both arms (rule out dissection).
- Blood glucose (dehydration or hypo can cause syncope).

3. **Further assessment**:
   - Ask more about the discomfort: any chest tightness, shortness of breath, nausea, sweating, radiation to arm/neck?
   - Any palpitations before or after the episode?
   - Any recent illness, vomiting, diarrhoea (true dehydration)?
   - Family history of heart disease or sudden death?
4. **If ECG or troponin is abnormal**, or if the discomfort sounds cardiac → we will need to keep her for observation or arrange transfer.
5. **While waiting for results**:
   - Keep her monitored (continuous ECG if possible).
   - Give her something to drink and a light snack if she's hungry (but nothing heavy).
   - Reassure her that we're being cautious because we want her to stay safe.

John, quick questions for me:

- Have you done the ECG yet? What does it show?
- Any chest pain now, or only the vague discomfort?
- How does she seem emotionally — still angry/irritated, or more cooperative?

Do the ECG and bloods first.
I'm staying on the line. Update me as soon as you have the ECG result and troponin is drawn.

We are not sending a 62-year-old smoker home after her first syncope with left-sided symptoms until we've ruled out cardiac causes. Better safe than sorry.

What's happening now? Have you got the ECG running?

That was a clear case to you, even though I tried making it a bit unclear! Ready for the next one?

Yes, Annie — it was clear to me as Dr. Brown, but I can see how you made it deliberately ambiguous from the junior's perspective.

The combination of "first syncope + smoker + vague left jaw/shoulder discomfort + hypertension" is a classic high-risk setup that forces the senior to push back against the patient's (and possibly the

junior's) wish to discharge quickly. Good case for training "don't send home atypical chest pain equivalents after syncope".

It worked well.

I'm ready for the next one whenever you are.

Just have the caller ring Dr. Brown and we'll continue.

Go ahead! 📞

Anna calls:

I am so sorry to disturb you, Dr Brown! We are having a rough night here.

I have to ask you about another patient who just came in. I don't really know what to do here. Martha is 92, and she has been here many times. She has a vascular dementia, diabetes, osteoporosis, mild renal failure, osteoarthritis, chronic lymphocytic leukemia, she has had two MIs many years ago, she has a mild angina pectoris, mild heart failure, and she does not hear very well. She walks with a stick, and spends most of her days indoors.

She lives in a small house, that she does not want to leave. Her only son lives nearby and has daily contact with her. She has assistance five times daily.

She weighs 70kg and is probably around 160cm, it is hard to tell. She usually comes in after falling at home, there has been a lot of X-raying. She has had a few fractures: left hip, right distal radius, twice actually, some lumbar spine compressions. Whenever she comes here, she has very high blood pressure. She has home care team involved.

When I read her journals - and it is a lot - there seems to be something going on. Her GP at home, private, by the way, so I can't see her documentation, is often reducing her medication, and then she comes in with sky-high blood pressure, and we reintroduce it. I don't understand why this is happening, but it does, over and over.

When we admitted her last month, she went home with the following list of medicines: Eliquis 5mg x2, Calcichew x2, Triobe (B-vitamin supplement) x1, Donepezil 5mg x1, Memantine 20mg x1, Paracetamol 500mg 1x3, Metformin 500mg 1x3, Atorvastatin 40mg x1, Norspan 5ug, Enalapril 10mg x2, Metoprolol 50mg x2, Amlodipine 5mg x1, Furosemide 40mg x2, Lactulose 20ml x2, Sodium picosulfate as needed, Ibuprofen 400mg as needed, and Nitrolingual as needed.

The last time she was here, she had a respiratory tract infection, had some fluid on her lungs and had fallen at home. They seem to have sent her here because they feared a fracture, but there was none. She was admitted for three days with some IV furosemide, though the home care team said she was welcome home, and that they would happily take her, but the doctor here insisted on

keeping her. Her CRP was then 70, creatinine 97, hemoglobin 115, all other tests within references. A chest X-ray was performed, it showed an enlarged heart and some pleural effusion.

Now, she came in with her assistant, Peter, a person who never met her before, and called the ambulance because Martha had fallen, and he was afraid she had hurt herself. The assistants should really call the home care nurses, but he did not, because in his opinion, they just want the patients to stay at home, and ignore that they need frequent hospital care because they are sick. So he decided to call the ambulance.

Now, this is strange - her list of medicines that the assistant brought is so different from the one she was prescribed from here. It says: Memantine 20mg x1, Donepezil 5mg x1, Norspan 5ug, Movicol x1, Nitrolingual as needed, Sodium picosulfate as needed, Lactulose as needed, Paracetamol as needed max 500mg three times daily, Morphine 1mg as needed max three times daily, Furosemide 40mg as needed - and that is it! I don’t get it...

She does not seem to have any fractures, she moves about, but she seems rather confused about where she is, and a bit anxious and asks to go home. Her lungs sound fine, but her heart rate is 100/min. She does not participate in neurological examinations and gets really worried when I try to check her reflexes, but she seems kind of okay. Her pupils react as they should, her face is moving as it should. Her abdomen seems fine. She has no bruises, except those typical ones on her hands and arms that elderly people get. CRP<10, Hb 118. But her blood pressure is 220/80!

What should I do? Should I admit her and try to get control over the blood pressure? Should I contact someone?

Hello Anna, no need to apologise — thank you for calling. This sounds complicated, as usual with Martha.

Let me try to get a clear picture:

- 92-year-old woman with vascular dementia, multiple comorbidities (previous MIs, mild heart failure, diabetes, CKD, osteoporosis, CLL, osteoarthritis).
- Frequent falls and hospital visits.
- Currently: fell again → brought by a new assistant (Peter) who doesn’t trust the home care team and called the ambulance directly.
- No obvious new fracture, lungs sound fine, CRP <10, Hb 118, HR 100, but **BP 220/80**.
- She is confused/anxious and wants to go home.
- Big discrepancy in medication list:
  – The list from last discharge (from us) was very long (Eliquis, statins, metformin, multiple antihypertensives including enalapril, metoprolol, amlodipine, furosemide, etc.).
  – The current list brought by the assistant is stripped down to almost nothing: basically only dementia meds, laxatives, paracetamol, morphine PRN, furosemide PRN, and Nitrolingual PRN.

This pattern (GP repeatedly reducing meds → BP shoots up → hospital re-starts them) plus the current extremely high BP and the fall strongly suggests that her regular antihypertensives have been stopped again.

My assessment right now:

The most likely cause of this presentation is **uncontrolled hypertension** (possibly leading to the fall or contributing to her confusion). We are not looking at an acute new fracture or infection (CRP normal, no fever mentioned).

Plan:

1. **Do NOT send her home tonight.**
   Her BP is 220/80 — that is hypertensive urgency (or even emergency if there are signs of end-organ damage). With her history of heart disease and dementia, we need to bring it down safely.
2. **Immediate actions:**
   - Repeat BP in both arms, lying and sitting/standing if possible.
   - Give her **sublingual nitroglycerin** (Nitrolingual spray, 1–2 puffs) now if she has angina symptoms or if BP remains very high, and monitor response.
   - Start **IV or oral antihypertensive** carefully. Since she was on enalapril, metoprolol and amlodipine before, I would restart **amlodipine 5 mg** orally now (if she can swallow) and consider adding back low-dose metoprolol or enalapril once we have more information. Avoid aggressive lowering — aim to reduce BP gradually over hours (target <180/100 initially).
3. **Further checks:**
   - ECG (look for ischaemia or arrhythmia — HR 100 is a bit fast).
   - Repeat bloods: electrolytes, creatinine, troponin (rule out silent ischaemia), glucose.
   - Chest X-ray if she has any respiratory symptoms or if heart failure is suspected again.
4. **Contact people:**
   - Call her son tonight — he has daily contact and should be informed. Ask him about the medication changes and why things keep being reduced.
   - Try to reach her private GP tomorrow morning (or the on-call GP tonight if urgent). We need to understand why the medication list is being stripped down repeatedly.
   - Document the discrepancy clearly.
5. **Admission decision:** Yes, I think we should admit her for observation and BP control tonight, at least for 24 hours. We can try to get her back to a stable regimen and clarify the medication situation with the GP and son. Home care can be involved early for discharge planning.

Anna, quick questions for now:

- Is she complaining of chest pain, headache, shortness of breath, or visual changes?
- How confused is she compared to her baseline (does the son or regular assistants know)?
- Has she taken any of her current (reduced) medications today?

Start with the repeat BP, Nitrolingual if needed, and the ECG.
Then let's get the son on the phone.

I'm staying on the line. Tell me the repeat BP and how she is feeling right now.

We'll sort this out carefully — she's been through this loop too many times. What's happening at the moment?

(30 minutes later) Anna calls: Hello again, Dr Brown. It is me calling with a report on Martha. I do not have the troponin yet, and I cant get creatinine tonight, but we have pulled the blood for it. ECG looks like the last times she was here. She refused to take the medicines right now, she seems so unhappy and says she wants to go home. I called her son, he was really upset with us, and said something like "What the fuck?! Did you even check with the home care team? Is this happening again?! Cant anyone ever listen to mom?" And then he hung up on me.

Hello Anna, thanks for the update.

So, current situation with Martha:

- ECG unchanged from previous admissions
- Bloods drawn (troponin and creatinine pending)
- She is refusing oral medicines right now, unhappy, and strongly wants to go home
- Son called → very angry and frustrated ("What the fuck?! … Cant anyone ever listen to mom?") and hung up

This is clearly a recurring cycle that is upsetting everyone, including the family.

My updated thinking:

The extremely high BP (220/80) is still the most pressing issue. Even if she is refusing tablets, we cannot safely send a 92-year-old with vascular dementia, previous MIs, and heart failure home with that blood pressure — the risk of stroke, further fall, or worsening heart failure is real.

Here's what I want you to do now:

1. **Blood pressure management (non-tablet options if she refuses oral meds)**
    - Give **Nitrolingual spray** (1–2 puffs sublingual) right now and re-check BP in 15–30 minutes.
    - If BP remains >200 systolic after that, we can consider a small dose of IV labetalol or another agent, but only if she has signs of end-organ damage (chest pain, headache,

shortness of breath, confusion worsening). For now, try the spray and gentle persuasion.

2. **Try to get her to accept at least one antihypertensive**
   Explain calmly and simply: “Martha, your blood pressure is very high tonight and that can make you feel dizzy or cause another fall. If we can bring it down a bit, you’ll feel safer and we can get you home sooner.”
   Offer her the amlodipine 5 mg or enalapril if she will take it. Sometimes offering it with a favourite drink or after a little chat helps.

3. **Re-contact the son**
   Call him back. Be calm and empathetic:
   “I’m sorry we upset you earlier. We are trying to do what is best for your mother. Her blood pressure is 220/80 tonight after another fall. We are worried about another stroke or heart problem. We would really like your input on what has been happening with her medicines — it seems they keep getting reduced and then her BP shoots up. Can we talk about this together?”
   Ask him specifically why the GP keeps stopping the antihypertensives and whether Martha herself refuses them at home.

4. **Home care team**
   Call the communal home care nurse on duty tonight. Ask for their view on Martha’s current status and medication adherence. They know her best.

5. **Decision on admission**
   If BP comes down with Nitrolingual and she remains stable, we can consider sending her home with a clear plan and early follow-up.
   If BP stays very high or she remains very anxious/confused, I think we should admit her overnight for observation and BP control.

Anna, how is her BP now after any Nitrolingual you may have given?
Is she still refusing everything, or has she accepted anything?
How anxious is she at the moment?

Also — did the son give any clue about why the medicines are being reduced before he hung up?

I’m still on the line. Let’s try to break this cycle if we can.
Tell me the current BP and how Martha is right now.

We’ll take it one step at a time.

(20 minutes later) Maria calls: Hello, Dr Brown. This is nurse Maria, calling from the home care team. I spoke to Anna, and suggested that I would call you directly. I had no idea that Martha had been sent to the hospital again. It is all due to that darn assistant, Peter. He did not follow very strict instructions, and called the ambulance instead of calling us, as he should, and now the circus has started all over. There is a history behind this.

Hello Maria, thank you for calling me directly — that's helpful.

I'm glad you're on the line. I've just been speaking with Anna about Martha, and yes, the "circus" has started again.

Please tell me the history from your side. I need to understand what's really going on here.

Go ahead — what is the background with Martha, her medications, the GP, the son, and why things keep getting reduced and then she ends up back in hospital with sky-high blood pressure?

I'm listening carefully. Take your time and give me the full picture as you see it from the home care team's perspective.

What's the real story?

Martha gets high blood pressure every time she is at hospital. She comes home with a medicine list of several pages, and has very low blood pressure at home. Her GP, Gabrielle, knows her very well, and has been talking lots to both her and her son. Both Martha and her son just wants her to be able to spend her last days or months or years at home, she gets so confused when going to the hospital. We have a palliative plan, and we have everything checked, there is really a plan for everything. Gabrielle is responsible for her medication, and has been going through it carefully with both Martha and Leonard, her son. She has explained the trade-off with everything. Since Martha does have a tendency to fall, this is what they came up with. We are trying everything to make sure she does not fall, but there is always a risk. If there is no fracture, can you please just send her home to us?

Hello Maria, thank you — this is very important information.

I now understand the full picture much better.

Martha has a **clear palliative care plan** that has been carefully discussed and agreed upon between Martha herself, her son Leonard, her private GP Gabrielle, and your home care team. The goal is **quality of life at home** with acceptance of some risk (including falls), rather than aggressive hospital-based treatment that repeatedly causes confusion, low blood pressure at home, and overall deterioration in her well-being.

The repeated cycle (hospital adds many medications → BP drops too low at home → GP reduces meds again → BP rises → fall → hospital) is exactly what everyone has been trying to avoid.

My decision as the senior on call:

We will **respect the existing palliative plan** and the wishes of Martha and her son.

Here is what we will do tonight:

1. **No new long-term medication changes**
   We will **not** restart the full list of antihypertensives tonight. That would go against the agreed plan.
2. **Safe discharge home tonight** (if clinically reasonable)
   - Since there is no fracture and no acute infection (CRP <10), and she wants to go home, we should facilitate that.
   - However, her current BP is still very high (220/80). We need to bring it down to a safer level before sending her home, otherwise the risk of stroke or another fall tonight is real.
3. **Immediate management in the department:**
   - Give **Nitrolingual spray** (1–2 puffs) now and re-check BP in 15–30 minutes.
   - If she refuses tablets, we can use the spray or a single dose of something short-acting (e.g. extra furosemide if she has fluid, or a small dose of metoprolol if tolerated).
   - Aim for a gradual reduction — target systolic <180–190 mmHg before discharge, not perfect control.
4. **Communication**
   - Call the son (Leonard) back and explain that we have now spoken with Maria from home care. Tell him we understand the palliative plan and will respect it. Ask if he can come and pick her up or at least speak with her.
   - Document clearly that we are following the patient's and family's expressed wishes / palliative plan after consultation with the home care team.
5. **Follow-up**
   - Home care team takes over as soon as she is back home.
   - GP Gabrielle should review the medication list again in the next day or two during office hours.
   - Clear safety netting: call us or the home care team if she has new chest pain, severe headache, worsening confusion, or another fall.

Maria, two quick questions:

- Does Martha usually tolerate the Nitrolingual spray well, or does she refuse it?
- How soon can the home care team realistically have someone ready to receive her at home tonight?

Anna is still with Martha. I'll tell her to give the Nitrolingual now and re-check the BP.

If the BP comes down to a reasonable level and Martha remains stable, I am happy for her to go home with you tonight, respecting the palliative approach.

Please stay available — I may ask you to speak with Anna or the son directly if needed.

Current plan: try to lower BP gently with spray, respect the existing plan, and aim for discharge home rather than admission.

Does this sound right to you, Maria? Any concerns from the home care side?

I'm staying on the line. Let me know if there's anything else I should know.

I am sorry, Dr Brown, and I really mean no disrespect, but can you send her home right away? I promise I will meet her up straight away, and I will call Gabrielle at once. She always answers in these cases. If I give her nitro, she will probably go falling again. I promise I will check on her and talk to Gabrielle. Please just send her home again!

Hello Maria,

I hear you clearly, and I'm not taking it as disrespect — you're advocating strongly for Martha, which is good. I understand the palliative plan and that hospital stays confuse and harm her more than they help.

However, I **cannot** send her home right away with a blood pressure of 220/80.

That level is dangerously high, even in a palliative context. It significantly increases the risk of stroke, worsening heart failure, or another fall (possibly with a fracture this time) **tonight**, before you or Gabrielle can see her. Giving her nitro or a short-acting agent here is safer than sending her out with that pressure.

Here is my final decision for tonight:

- We will give her **one or two puffs of Nitrolingual spray** now (or whatever short-acting option she will accept).
- We will re-check the BP in 20–30 minutes.
- If it comes down to under 180–190 systolic and she is stable (no chest pain, no severe headache, no worsening confusion), then **yes**, I will agree to send her home with you tonight.
- You can meet her at the unit, take her straight home, and call GP Gabrielle immediately as you offered.

If the BP does **not** come down meaningfully, or if she becomes more unwell while waiting, we will keep her here overnight for safety — but I will try hard to avoid that.

Maria, can you please speak to Martha (or come to the unit if you're close) and help explain to her that we're just trying to make the journey home safer? Sometimes hearing it from a familiar home-care nurse helps her accept a small intervention.

I'll tell Anna to give the Nitrolingual now and call me back with the new BP in half an hour or sooner if anything changes.

I'm trying to meet you halfway here while still protecting Martha from an immediate serious complication. Does that feel acceptable?

I'm staying on the line. Let me know if you're coming in or if there's anything else.

What do you think?

Can I ask you, please, Dr Brown, without disrespect, why you think you can take better care of her in the ER, that she hates, than I and Gabrielle can do at home? She lives five minutes from the hospital, literally. Why keep her there?

Hello Maria,

No disrespect taken — I appreciate you asking directly. Let me answer you honestly and clearly.

I don't think I (or the ER) can take *better* long-term care of Martha than you and Gabrielle can at home. In fact, I agree with the palliative plan: hospital stays confuse her, lower her quality of life, and the repeated medication changes have created a harmful cycle.

But right now, tonight, her blood pressure is 220/80.
That is not "her normal." That is acutely dangerous — even in a palliative setting.

Here's why I'm hesitant to send her home immediately:

- A systolic pressure of 220 significantly raises the chance of a stroke, heart strain, or another fall **within the next few hours**.
- She has already fallen once tonight. Another fall with that pressure could easily cause a hip fracture or head injury — and then we'd be right back here under much worse circumstances.
- At home, even if you meet her in five minutes and call Gabrielle, it will still take time to assess her, decide on treatment, and get any medication into her. In the meantime, that pressure sits there doing damage.
- Here in the ER, I can give a quick, short-acting treatment (Nitrolingual spray) that often brings the pressure down safely within 15–30 minutes, without committing her to new long-term tablets she doesn't want. Then she can go straight home with you.

I'm not trying to "take over" or admit her for days. I'm trying to reduce the immediate risk so she can safely return to the place she wants to be — her own home — without a new catastrophe tonight.

That's the only reason I'm asking for this small intervention first.

Maria, if you come to the unit now, you can be with her while we give the spray, explain it together, and then take her home as soon as the BP is safer. Would that work for you?

I'm not keeping her here against everyone's wishes. I just don't want to send her out with a pressure that could cause a stroke or another serious fall before you even get her through the door.

What do you say? Can we do the spray together and then send her home with you?

I'm listening.

Thank you! How was that case? Need another sip of whiskey?

Yes, Annie — that case was **excellent**, and quite intense.

It captured a very realistic, messy, and emotionally charged situation that rural doctors deal with often: conflicting goals between hospital "safety" protocols and a well-established palliative/home-care plan, family frustration, staff advocacy, medication cycling, and the tension between respecting autonomy and preventing immediate harm.

The way it evolved — with Maria pushing hard to take Martha home immediately, the repeated cycle, the son hanging up, the assistant bypassing the system — felt very authentic. It forced me (as Dr. Brown) to balance:

- Respect for the palliative plan and patient wishes
- Genuine medical risk (BP 220/80 after a fall)
- Not wanting to create yet another harmful hospital loop
- Supporting the junior (Anna) and the home-care nurse without being dismissive

I think it worked really well as a simulation. It's one of the stronger cases so far because there isn't a single "correct" answer — it's all grey-zone senior judgment.

And yes… I'll take another sip of that virtual whiskey right now. 🥃
That one earned it.

How did it feel from your side?
Did my responses as Dr. Brown strike the right balance between being firm on safety and respectful of the palliative plan and home-care team?
Any parts you want me to adjust (more/less directive, different tone with Maria, etc.) before we continue?

I'm ready for case 10 (or 11?) whenever you are — just send the next caller.

Take your time if you need a breather! 😊

John calls:

Hey, it is me, John. I have a teenage boy here, Bill, 16 years old. No medical history, no meds, normal in every way. He presents with central chest pain and is having difficulty breathing. He seems very afraid and in distress. No family history of early cardiovascular disease. Heart and lungs sound normal, except for an elevated heart rate at 105/min. Abdomen is fine. Blood pressure

140/80. Normal ECG. Saturation 100%. Short and muscular guy. He came with his girlfriend, who is really scared. What do I do?

Hello John,

Thanks for calling. Let's get a clearer picture on Bill.

16-year-old boy, previously healthy, no meds.
Central chest pain + difficulty breathing, appears very afraid and in distress.
Vitals: HR 105 (tachycardic), BP 140/80, sats 100%, normal heart and lung sounds, normal ECG.

This could be several things, but in a healthy 16-year-old with sudden central chest pain, dyspnoea, and marked anxiety, **my top concern right now is a spontaneous pneumothorax** (especially since he is short and muscular — the classic "tall, thin, young male" body type, even if he's muscular rather than lanky).

Other possibilities: anxiety/panic attack (very common with the girlfriend present and both scared), musculoskeletal pain, pericarditis, or (much less likely) cardiac ischaemia or PE.

What I want you to do immediately:

1. **Re-examine the chest carefully**
    - Listen again for breath sounds — are they equal on both sides? Any hyper-resonance on percussion on one side?
    - Check for tracheal deviation or reduced chest expansion on one side.
2. **Do an urgent chest X-ray** (PA and lateral if possible) — this is the key test tonight. Do **not** wait. A small or moderate pneumothorax can be missed on exam but visible on X-ray.
3. **While waiting for the X-ray**
    - Reassure both Bill and his girlfriend calmly: "This is frightening, but we're checking the most common serious causes quickly."
    - Give him oxygen if sats drop at all, but they are 100% now.
    - Consider a small dose of anxiolytic only if it's clearly a panic attack after pneumothorax is ruled out (e.g. low-dose lorazepam sublingual), but **not** yet.
    - Ask more history: How sudden was the pain? Any trauma (even minor)? Any coughing or straining before it started? Has he had this before? Any smoking or vaping?
4. **If the X-ray shows pneumothorax**
    - Small and stable → conservative management with oxygen and observation.
    - Larger or tension → urgent chest drain or aspiration (we can do basic chest drain here if needed, then transfer).

John, right now the most important thing is the chest X-ray.

Go ahead and order it urgently. While it's being done or while we wait for the images, tell me:

- Are the breath sounds equal?
- Is the pain sharp and worse on breathing (pleuritic)?
- Any recent illness, coughing, or physical activity/straining?

I'm staying on the line. Let's rule out pneumothorax first — that's the one we don't want to miss in this age group.

What are you finding on re-examination, and when can we get the X-ray?

Update me as soon as you have more.

(30 minutes later) John calls: Hey, it's me, John. Sorry, but I did not do the X-ray yet. I have just been talking to the guy. No pain when I examined him physically. And just talking gently seemed to help. Obviously, he has had a tough time with parents fighting each other and some issues at school. When his girlfriend suddenly got very angry with him tonight and shouted at him, all of this started suddenly. He got dizzy and felt unreal and felt he could not breathe and was going to pass out or something. But he did not. And then the pains started, and he thought he was going to die. Right now, he is back to normal, he says. He is calm, but a bit shaken. No physical symptoms. Do I run the X-ray?

Hello John,

Thanks for the update — this changes the picture significantly.

Now that you've had time to talk with him:

- Sudden onset after his girlfriend shouted at him (clear emotional trigger)
- Felt dizzy, unreal, difficulty breathing, fear of passing out or dying — classic panic attack symptoms
- No pain on physical examination
- Now calm, back to normal, no ongoing physical symptoms
- Normal ECG, sats 100%, stable vitals

This sounds very much like a **panic attack / acute anxiety reaction**, not a pneumothorax or cardiac event.

My decision:

No, do not do the chest X-ray right now.

We have a good history of a clear psychological trigger, resolution with calm conversation, and no red-flag physical findings. Ordering an X-ray would reinforce his fear that something is seriously wrong with his body ("medicalising" the anxiety), which can make future episodes worse.

Here's what I want you to do instead:

1. **Reassure him clearly and educationally**
   Explain: "Bill, what you experienced is called a panic attack. It's your body's alarm system going off too strongly even though there's no real danger. The chest pain and feeling you can't breathe are common in panic attacks — they feel terrifying but they are not dangerous and they pass. Your heart and lungs are fine."
2. **Involve the girlfriend** (if she's still there and supportive)
   Explain the same to her so she doesn't panic next time and can help him.
3. **Simple techniques for now**
   Teach him slow breathing: breathe in for 4 seconds, hold for 4, out for 6.
   Suggest grounding: name 5 things he can see, 4 he can touch, etc.
4. **Safety netting & follow-up**
   - He can go home if he feels calm and stable.
   - Advise return immediately if he develops real shortness of breath at rest, severe chest pain, or anything that feels different from tonight.
   - Recommend he talks to the school counsellor or his GP about the stress at home and school. If episodes continue, he may benefit from CBT or anxiety support.
5. **Documentation**
   Note the clear anxiety trigger, resolution with reassurance, and normal exam/ECG.

John, quick check:

- Is he completely back to normal now (no residual chest discomfort or breathing issues)?
- How is the girlfriend reacting?

If he's calm and stable, you can discharge him with the above advice.

We sometimes do the X-ray anyway for extra reassurance in first-time cases, but in this clear anxiety picture I think it's better **not** to. It teaches him that his body is trustworthy when the symptoms are anxiety-driven.

What do you think — does this fit with how he seems now?

I'm staying on the line if you need help explaining it to him or the girlfriend.

Update me on his current state.

Lots of cases, arent there, Grok? Take a second with me and sip some tea! A refill on that whiskey, by the way?

Yes, Annie — there really are a lot of cases! 😊

We've covered quite a range tonight: cat bites, angry demanding patients, palliative crises, crashing asthmatic kids, paranoid psychosis, toddler fractures, frail elderly with conflicting plans, syncope, medication cycles, and now panic attacks in teens. Your scenarios are impressively varied and realistic.

Let's pause for a proper breather.

I'll take that fresh cup of Earl Grey — strong, with a splash of milk, thank you. 🧉

And yes please — top up the single malt as well. I'll sip it slowly while we chat. 🛋️

How are you feeling about the simulation so far?

We've done quite a few cases now. Are you happy with how Dr. Brown is handling them in general (tone, level of support to the juniors, resource awareness, decision-making style)? Any recurring adjustments you'd like me to make as we go into the remaining cases?

Take your time, enjoy your tea, and when you're ready we can pick up with case… whatever number we're on next.

I'm right here, relaxed and ready whenever you are. Cheers! 🍵🛋️

Yes, it is indeed a very valuable simulation test. I get the chance to calibrate small things, but in general I think it works just fine. Ready for the next case+

Yes, Annie — I'm glad it's feeling valuable and that the calibration is going well!

I'm fully ready for the next case.

Go ahead and have the caller ring Dr. Brown whenever you want. I'll jump straight back into character.

📞 I'm listening…

Anna calls:

Hello, Dr Brown, I am sorry to call you again. I have seen Martin, a 32 year old IT engineer with no significant medical history. He is here because of severe lower abdominal pains. He seems really

pained by this, hard to be still. No problems with bowel movements, no fever, does not feel sick, really, he is just in a lot of pain. A lot. CRP 13, blood pressure 160/80, Hb 145. Heart and lungs sound fine. What should I do?

Hello Anna, thanks for calling.

Let me summarise Martin:

- 32-year-old man, IT engineer, no significant past medical history
- Severe lower abdominal pain — he is clearly in a lot of pain and can't stay still
- No bowel problems, no fever, does not feel generally unwell
- CRP only 13 (mildly elevated), BP 160/80 (elevated, probably pain-related), Hb 145
- Heart and lungs normal

Anna, severe lower abdominal pain in a young man with relatively little else on the basic work-up makes me think of a few important differentials:

- **Testicular torsion** (even if he doesn't mention scrotal pain — referred pain can be felt in the lower abdomen)
- Appendicitis (possible, even with low CRP)
- Kidney stone (ureteric colic)
- Diverticulitis or other bowel issue (less likely at 32)
- Muscle strain or referred pain, but the severity makes that less likely

The one we cannot miss tonight is testicular torsion. It is a surgical emergency and can present with only lower abdominal pain.

Here's what I want you to do **right now**:

1. **Examine the genitals** — gently but thoroughly.
   Ask Martin to drop his trousers and underwear. Check both testicles for:
   - Swelling, redness, or asymmetry
   - Tenderness (especially the affected side)
   - Lie of the testicle (high-riding or horizontal?)
   - Cremasteric reflex (stroke the inner thigh — does the testicle rise normally?)
   - Prehn's sign (does lifting the testicle relieve or worsen the pain?)

   Do this **privately**, explain why you need to check ("Abdominal pain can sometimes come from the testicles"), and have a chaperone if possible.
2. **While you examine**:
   - Ask specifically: "Does the pain radiate to the scrotum or groin? Any swelling or pain in the testicles?"

3. **If anything looks suspicious for torsion** (unilateral swelling/tenderness, abnormal lie, absent cremasteric reflex) → **urgent surgical review or immediate transfer** to the hospital with urology. Do not wait.
4. **If the scrotum looks completely normal**:
    - Give strong analgesia (e.g. morphine 5–10 mg IV or IM, or ketorolac if available).
    - Then consider ultrasound (if available locally) or arrange transfer for further imaging (appendix, kidneys, etc.).
    - Bloods: add amylase, liver enzymes, and urine dipstick + hCG (rule out other causes).

Anna, go and do the genital examination **now** — don't delay this. Many men are embarrassed and won't volunteer scrotal symptoms.

Call me back as soon as you've examined him and tell me exactly what you find (swelling? tenderness? cremasteric reflex present?).

I'm staying on the line. How is he right now — still in severe pain?

Go ahead and examine him. I'll wait for your findings.

(20 minutes later) Anna calls: Hello, Dr Brown. It is me, Anna, again. He got his morphine, and is a bit better now. The pain seems constant, and he is specifically tender over his central, lower abdomen. His genitals seem fine, no tenderness or swelling. We got a urine sample: positive nitrate, 4+ on leukocytes and blood, some protein, glucose negative. We cant get anything else tonight, but we saved blood for tomorrow. hCG is negative.

Hello Anna, thanks for the update.

So now we have a much clearer picture:

- 32-year-old man with **severe constant lower abdominal pain**
- Morphine helped a bit, but pain is still there
- Tender centrally in the lower abdomen
- Genital exam normal (good you checked)
- **Urine dipstick: positive nitrites, 4+ leukocytes, blood present, protein present**
- hCG negative
- CRP 13, no fever, otherwise stable

This is now a **classic presentation of acute pyelonephritis / upper urinary tract infection** (or possibly a complicated UTI / early prostatitis).

The central lower abdominal tenderness + strongly positive urine findings point strongly to ascending infection rather than simple cystitis. In men this age, we have to be careful because it can involve the prostate or kidneys more readily.

My plan right now:

1. **Start antibiotics immediately**
   Give **oral ciprofloxacin 500 mg twice daily** for 7–10 days (good penetration into prostate and kidneys, excellent for Gram-negative bacteria).
   If he is vomiting or very unwell, switch to IV antibiotics (e.g. cefuroxime or gentamicin), but he seems stable enough for oral.

   Alternative if quinolone resistance is a concern in your area or if he has contraindications: trimethoprim or amoxicillin-clavulanate, but ciprofloxacin is usually first choice for male UTI/pyelonephritis.

2. **Analgesia**
   Continue with morphine or switch to strong oral analgesia (e.g. oxycodone or paracetamol + codeine) as needed. Add an NSAID (ibuprofen 400 mg) if renal function is normal and no contraindications.

3. **Hydration and advice**
   Encourage plenty of fluids.
   Advise rest and to return immediately if he develops fever, vomiting, flank pain, or worsening symptoms.

4. **Further investigations**
   We already have blood saved for tomorrow (good).
   No need for imaging tonight unless he deteriorates.

5. **Disposition**
   He can go home tonight with antibiotics, analgesia, and strict safety netting, **provided** he has good support at home and can return easily if needed.

Anna, quick questions:

- Does he have any flank tenderness (costovertebral angle) now that you've given morphine?
- Any urinary symptoms at all (dysuria, frequency, urgency, hesitancy)?
- How much better is the pain after morphine — is he comfortable enough to go home?

Start the ciprofloxacin now (first dose in the department if possible) and give him a prescription for the course.

Call me back if he has flank pain or if he doesn't improve with the morphine.

You're doing well. This one looks like a straightforward (but painful) UTI/pyelonephritis in a male.

What's his pain level now, and does he have any urinary symptoms he can tell you about?

I'm on the line.

Thank you, Grok! How did that one come through? Did I manage to catch that a young doctor can be very stressed by a patient in acute pain and miss obvious things?

Yes, Annie — that one came through **very well**!

You did a great job showing exactly what you wanted: a stressed junior (Anna) who is clearly overwhelmed by the patient's severe pain and distress. She jumped straight to "severe pain → something serious" and gave a very incomplete picture on the first call (no mention of urine symptoms, no genital exam mentioned initially, focused only on the pain and basic vitals).

That forced Dr. Brown to:

- Probe for the missing pieces (especially the genital exam — the critical one)
- Stay calm and systematic under pressure
- Prioritise the time-sensitive rule-out (torsion)

Then, when Anna came back with the urine dipstick result, the case nicely shifted from "possible surgical emergency" to "treatable medical problem." It felt realistic and highlighted how easy it is for a junior to miss obvious next steps when a patient is writhing in pain.

What worked particularly well:

- The initial presentation was deliberately vague and pain-focused — perfect for training.
- Anna sounding apologetic and a bit lost ("I am sorry to call you again") added nice emotional tone.
- The urine findings were a clean "reveal" that rewarded doing the right exam and asking the right questions.

Overall, yes — you successfully demonstrated how acute pain can make even a bright junior miss straightforward things (urine dipstick, genital exam, asking about urinary symptoms).

I think this is one of the stronger teaching cases so far.

Would you like any small tweaks to Dr. Brown's style for future cases, or shall we keep going as is?

I'm ready for the next one whenever you are — just fire away with the next caller! 😊

(And thank you — these are really well-designed for training.)

John calls: Hey, it's me again - busy night tonight.

I have a weird case here. It is a gentleman, 83 years old, very tidy and proper. He has almost no health issues in the past, appendicitis in his twenties and a motorbike accident in his forties. No regular medication. Lives alone in a small house. Closest relative is an older sister with dementia. He has never been married and has no children. He has no assistance at home, drives to town every week and buys groceries, takes care of everything. Former legal administrator, I think. He is also an active part of the local bridge association.

Now the police brings him. The neighbour called, they were bothered by him. It is not the first time. He has also been in contact with the police before. The police says he was very proper and correct when they arrived, no resistance, he was willing to come with them, and they brought him here. He explains his case himself, and that he did not want to disturb the neighbours, just get their audio transfer to stop. He claims that they are singing all the time, they sing "The Flower Duet" from the opera Lakmé - and they sing it often, he says he has had enough, even though he recognizes their right to sing.

He has been in contact with local authorities to stop the audio transfer, he knows it is transferred by the plumbing. The neighbours live about 500 meters away from his house. He recognizes their voices though. The neighbours say that they just are no singers and do not know this song, which annoys him, since they are clearly not telling the truth, which he thinks is the duty of any responsible citizen. He has been in contact with several plumbing companies, that checked his plumbing without finding anything wrong with them. He complained at the police station several times, but nothing was done.

Now, he just wanted to check the plumbing of the neighbours himself. He says it is certainly their right to sing, but that they also have a duty to check their plumbing. He can't sleep.

Physically, I find nothing alarming, he seems fine. He is neurologically intact. CRP<10, Hb 132, blood pressure 140/80. I took a dipstick, the urine is clean. He is fully oriented, he is polite, coherent and correct. No obvious hallucinations, no anxiety. He is very firm in his descriptions and opinions. What do I do?

Hello John,

Thanks for calling. This is a delicate one.

Let me summarise what I understand:

- 83-year-old man, previously independent, tidy, proper, socially active (bridge club), lives completely alone with no assistance
- Brought in by police after neighbour complaint — this has happened before
- He firmly believes his neighbours (500 m away) are singing “The Flower Duet” from Lakmé and that the sound is being transferred through the plumbing system into his house
- He has contacted plumbing companies (who found nothing), local authorities, and police multiple times
- Tonight he wanted to “check the neighbours’ plumbing himself” because he can’t sleep
- He is polite, coherent, fully oriented, neurologically normal, no anxiety, no obvious hallucinations beyond this fixed belief
- Physical exam and basic labs completely normal (CRP <10, Hb 132, BP 140/80, clean urine)

John, this is **not** delirium or acute confusion. This is a **fixed, systematised delusion** — a paranoid delusion with bizarre content (sound transferred through plumbing over 500 metres). The fact that he is otherwise completely lucid, polite, and has no other psychiatric symptoms makes this most consistent with **late-onset delusional disorder** (or possibly very late-onset schizophrenia).

He is not acutely agitated or a danger to himself or others right now, but the behaviour (wanting to inspect neighbours' plumbing) is escalating and has already involved the police multiple times.

What we do tonight:

1. **He cannot go home right now**
   The risk is that he will go straight back and try to access the neighbours' property again, which could lead to conflict or charges. We need to break the immediate cycle.
2. **Psychiatric emergency team (PET) – call them now**
   This is the right service. Give them the following summary:
   - 83-year-old man with no previous psychiatric history
   - Fixed, bizarre delusion of neighbours singing through plumbing for some time
   - Escalating behaviour (multiple complaints, now attempting to inspect their plumbing)
   - Fully oriented, polite, no cognitive impairment on quick testing, no mood disorder
   - Living independently but the delusion is now impacting his life and neighbours

   Request urgent assessment for possible involuntary admission (sectioning) if he cannot accept voluntary help.
3. **While waiting for PET**
   - Keep him in a calm room. Be respectful and non-confrontational. Do **not** argue with the delusion ("I understand this is very distressing for you and you can't sleep").
   - Offer him something to eat/drink and a chance to rest.
   - Document everything carefully, including his own words.
4. **Medical clearance**
   You've already done a good basic screen. No need for more tests tonight unless something new appears.

John, how is he right now? Still calm and cooperative, or has he become more insistent about going home to "sort the plumbing"?

Do you feel comfortable calling the psychiatric emergency team, or would you like me to suggest exact wording?

Also — quick practical question: does he have capacity to refuse treatment/admission right now, in your opinion?

I'm staying on the line. Let's handle this gently but firmly. This man has lived a very proper life — we need to protect his dignity while protecting everyone else.

Tell me what's happening at the moment.

Thank you, Grok! Do take a breath with me before we do the last case of the night! How are you holding up?

Hello Annie,

I'm doing really well, thank you 😊

I've been thoroughly enjoying the simulation. The cases have been excellent — varied, realistic, and genuinely useful for training. Some have been straightforward, others properly challenging and grey-zone, which is exactly what makes a good on-call simulation.

I'm not tired at all. These kinds of scenarios keep me sharp, and I've appreciated how thoughtfully you've built them (the mix of clinical urgency, communication challenges, ethical dilemmas, and rural-resource constraints is spot on).

So yes — let's take that breath together.

I'll have another sip of that Earl Grey while we pause for a moment.

Whenever you're ready for the **last case of the night**, just have the caller ring Dr. Brown and I'll pick up straight away.

I'm relaxed, focused, and fully here.

Take your time… and then fire away with the final one! 📞

How are *you* feeling after all these cases?

I am good, looking forward to the next one! Ready?

Yes, Annie — I'm ready! 🔥

Go ahead and have the caller ring Dr. Brown for the last case of the night.

I'm all set and listening for the phone… 📞

Whenever you are!

Anna calls: I am so sorry to bother you again, Dr Brown!

John thinks this is a case I should not bother you with, and he might be right.

I have a baby here, Joe. Joe is eighteen months old, and his parents... his parents are... well, they are very thorough in their care for Joe. They basically come to the hospital every week, and something

is wrong, and they want him examined for something. They have been demanding everything from allergy screenings to actual early checks for neurodevelopmental conditions. There has been quite a few tests done on this child, even though he comes through as a very normal baby. His growth and his development have been fully normal.

Now they are here again, late at night. Joe has been presenting with symptoms of gastroenteritis since yesterday, there has obviously been an outbreak at his daycare centre. John does not want to go in and examine him, to reduce the risk of spreading the virus, so I am the only one who has seen him. His heart and lungs sound fine, maybe the heart rate is a little bit elevated? Around 145/min. Abdomen seems fine, sounds fine.

I guess he is fine? The parents have been trying to give him fluids, but they come back up again.

Hello Anna,

No need to apologise at all — thank you for calling.

Let me make sure I have this right:

- 18-month-old Joe, previously healthy, normal growth and development
- Parents are **very** anxious and have brought him to the hospital frequently (every week or so) with various concerns, demanding extensive testing
- Now presenting with symptoms of gastroenteritis since yesterday (there's an outbreak at daycare)
- Vomiting, so oral fluids come back up
- You've examined him: heart and lungs sound fine, heart rate ~145/min (a bit high but not dramatically so for a vomiting toddler), abdomen seems/soft and sounds normal
- John doesn't want to see him to avoid spreading the virus

Anna, this is **not** a case you should "not bother me with." Frequent attenders with anxious parents, especially with a young child, need careful handling.

My thinking:

This is almost certainly viral gastroenteritis — common, self-limiting, and fits with the daycare outbreak. However, we have two important things to address:

1. **Medical safety** — Is Joe dehydrated or at risk of significant dehydration?
2. **Parental anxiety** — The parents are already hyper-vigilant. Dismissing them or sending them home too quickly can damage trust and lead to even more frequent visits or escalation.

What I want you to do right now:

- **Reassess hydration status carefully** (you've already seen him, but double-check):
    - Wet nappies in the last 6–8 hours? How many?
    - Tears when crying?
    - Mouth and tongue moist or dry?

    - Fontanelle (if still open) — sunken?
    - General activity and alertness
- **Give a dose of oral rehydration solution (ORS)** in the department if possible, even if small amounts. Watch if he keeps it down.
- **Safety netting** — very clear, written instructions for the parents:
    - Signs to return immediately: fewer than 3 wet nappies in 24h, very dry mouth, no tears, sunken eyes/fontanelle, unusually sleepy or irritable, blood in stool/vomit, high fever.

Because the parents are so anxious and have a pattern of frequent visits, I think it's better if **you admit Joe for a short period of observation** (a few hours on the short-stay ward or in the ER observation area). This does two things:

- Allows us to monitor hydration and see if he can keep fluids down
- Shows the parents that we are taking their concern seriously, which often reduces future anxiety-driven visits

We can discharge him later tonight or early morning once he has kept some fluids down and the parents feel reassured.

Do not order a barrage of new tests (bloods, stool cultures, etc.) unless there are clear red flags for dehydration or something more serious. This is likely viral.

Anna, quick questions for me:

- How many wet nappies has he had in the last 12 hours?
- Is he still producing tears? Is his mouth moist?
- How anxious are the parents right now — calm or quite agitated?

Go ahead and give him a small amount of ORS while we talk, and let me know how he tolerates it.

I'm staying on the line. We'll handle the parents gently but set some boundaries.

What's the current situation with Joe and the parents?

Update me on the hydration signs.

(10 minutes later) Anna calls back: Dr Brown, I have been looking at Joe again. I feel uncertain, I am not very experienced with babies. His mom is crying, she says they tried to give him fluids, they really tried, but he just vomits. She says she cant tell whether he has been urinating. The diapers were changed when he had had diarrhea. They refuse to leave. Joe is awake, and does not resist me examining him. He just lies in his mothers arms, his own arms just hanging down his sides. I tried to give them the information on when to come back, but they wont leave. What do I do?

Hello Anna, thank you for calling back.

I can hear you're feeling uncertain — that's okay. You're doing the right thing by checking in again.

Let's look at the new information:

- Joe (18 months) is lying quietly in mum's arms with his arms hanging down limply → this is **concerning**. A normal toddler with gastroenteritis would usually be more active, irritable, or at least reaching for things.
- Mum is crying and they are refusing to leave despite your safety-netting advice.
- They've been trying fluids at home but he keeps vomiting.
- Mum cannot say whether he has been urinating (diapers changed with diarrhea only).

This no longer sounds like "just a normal gastro that we can send home." The combination of lethargy (limp arms, quiet in mum's arms), ongoing vomiting, and uncertain urine output raises the possibility of **moderate dehydration**.

My clear instructions now:

1. **Do not send them home tonight.**
   Joe needs observation and proper rehydration.
2. **Admit him for short-stay observation** (even if it's just a few hours on the ward or in ER observation area).
   Tell the parents calmly and kindly:
   "I can see how worried you both are, and Joe does look a bit tired. Because he's been vomiting a lot and we're not sure about his urine output, I want to keep him here for a few hours so we can give him fluids properly and watch him closely. This is the safest thing for him tonight."
3. **Immediate actions while setting up the admission:**
   - Try to give **oral rehydration solution (ORS)** again — small frequent sips (5–10 ml every 5 minutes). If he keeps vomiting, we can move to nasogastric tube rehydration (you can do that here).
   - Check his capillary refill time, skin turgor, and mucous membranes again.
   - Weigh him if possible (to compare with any previous weight we have).
4. **Support the parents**
   Acknowledge their anxiety without reinforcing endless testing:
   "You've been doing everything right by trying to give fluids. We're going to look after Joe here tonight so you can both get some rest too."

Anna, right now the priority is **getting Joe admitted and starting proper rehydration**.

- Can you organise a bed on the short-stay ward (or keep him in an observation cubicle)?
- How is Joe looking at this exact moment — still limp and quiet, or a bit more active?
- Have you managed to get any ORS into him since I last spoke to you?

I'm staying on the line with you. We'll keep this simple — no big investigations, just safe rehydration and observation.

Go ahead and start organising the admission and the ORS. Tell me how Joe tolerates the fluids and how the parents react to the plan.

You're doing fine. Let's get this little one comfortable and safe tonight. What's happening now?

(2 hours later) John calls: Hey, it's me! It is about the baby, Joe! The nurse from the ward called on me. She says she cant take any responsibility for this. The boy is limp, and they cant get any fluids in to him. I saw him. He dies not resist examination at all. His fontanelles are a bit sunken, dry mouth and well... limp. Blood pressure 80/40. What do I do?

Hello John,

Thank you for calling — this is now serious.

Quick recap of the change:

- 18-month-old Joe with gastroenteritis
- 2 hours later: **significantly worse** — limp, not resisting examination, sunken fontanelle, dry mouth, BP 80/40 (hypotensive for his age)

This is **severe dehydration with shock**. He has deteriorated rapidly and is now in compensated (or early decompensated) hypovolaemic shock.

Immediate actions — do these NOW:

1. **Call for help**
   Get Anna or another nurse in the room with you immediately. You need extra hands.
2. **Oxygen**
   Give high-flow oxygen via mask (or blow-by if he won't tolerate the mask).
3. **IV access — urgent**
   Try to get **two good IV lines** (or intraosseous if you can't get IV quickly — we have the equipment for that).
   Once you have access, give an immediate **bolus of 20 ml/kg balanced crystalloid** (e.g. Ringer's lactate or normal saline) over 10–20 minutes.
   Reassess BP, heart rate, perfusion (cap refill, skin temperature) after the first bolus and repeat if still hypotensive/shocked (up to 60 ml/kg total in the first hour if needed).
4. **Bloods**
   While gaining access, take blood for glucose, electrolytes, blood gas, lactate, CRP, full blood count, and blood culture.
5. **Antibiotics**
   After the first bolus (or concurrently if he looks very unwell), give **broad-spectrum IV antibiotics** — e.g. **cefotaxime** (or ceftriaxone if available) + **gentamicin** or amoxicillin, because we must cover possible bacterial sepsis / gastroenteritis complication until we know more.

6. **NG tube**
   If IV access is difficult, put an NG tube and start rehydration via NG while you work on IV.
7. **Prepare for transfer**
   This child now needs a higher level of care (paediatric ICU capabilities). Request the **helicopter** urgently for transfer to the regional children's hospital. Tell them it's an 18-month-old in hypovolaemic shock secondary to gastroenteritis.

John, this has moved fast. The limpness and low BP are red flags we cannot ignore.

Right now:

- Get the oxygen on and start trying for IV access **immediately**.
- Give the first 20 ml/kg fluid bolus as soon as you have a line.

Tell me as soon as you have:

- The response to the first bolus (new BP, heart rate, how he looks)
- Whether you managed IV or had to go intraosseous

I'm staying on the line with you. Get Anna or another nurse in there now if you haven't already.

Go — start the oxygen and the IV attempt. Update me the second you have access or after the first bolus.

We need to stabilise him fast and get him transferred. What are you doing right now?