VISUAL CASE PRACTICE

Surgery Clerkship Crash Course

Original figures. Decisions to explain. Cases to revisit.

25 lessons / two practice pages per lesson

Use the first page to make a prediction and write your reasoning. Turn the page for a figure, worked explanation, and a transfer question. Return to the matching video when a relationship remains unclear.

For clerkship practice, state the immediate concern, the evidence supporting it, and the next question for your supervising team. These exercises support education and supervised reasoning. Apply current local guidance to actual care.

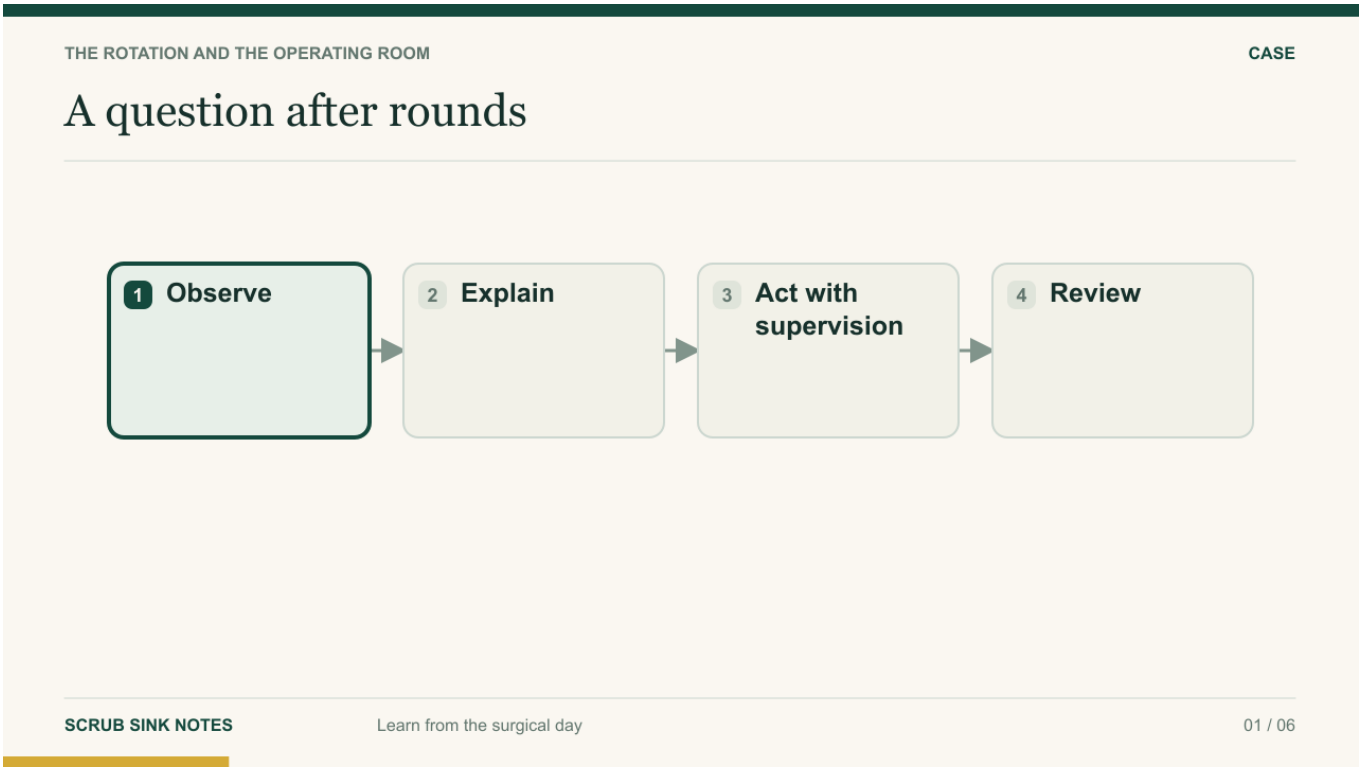
How to use these pages

1. Read the case and say your first decision.
2. Explain why the relevant findings belong together.
3. Compare your reasoning with the review page.
4. Change one important fact and reconsider.
5. Record one question to resolve with a reliable source or teacher.

LESSON 01 / TRY THE CASE

Learn from the surgical day

You have reviewed a patient, listened to rounds and copied the plan. An hour later, a nurse asks what should happen next. You can remember the diagnosis, but you cannot explain the plan. That gap gives this course its purpose. We will connect what you observe to the problem the team is trying to solve, then practice explaining the next step in language another person can use.

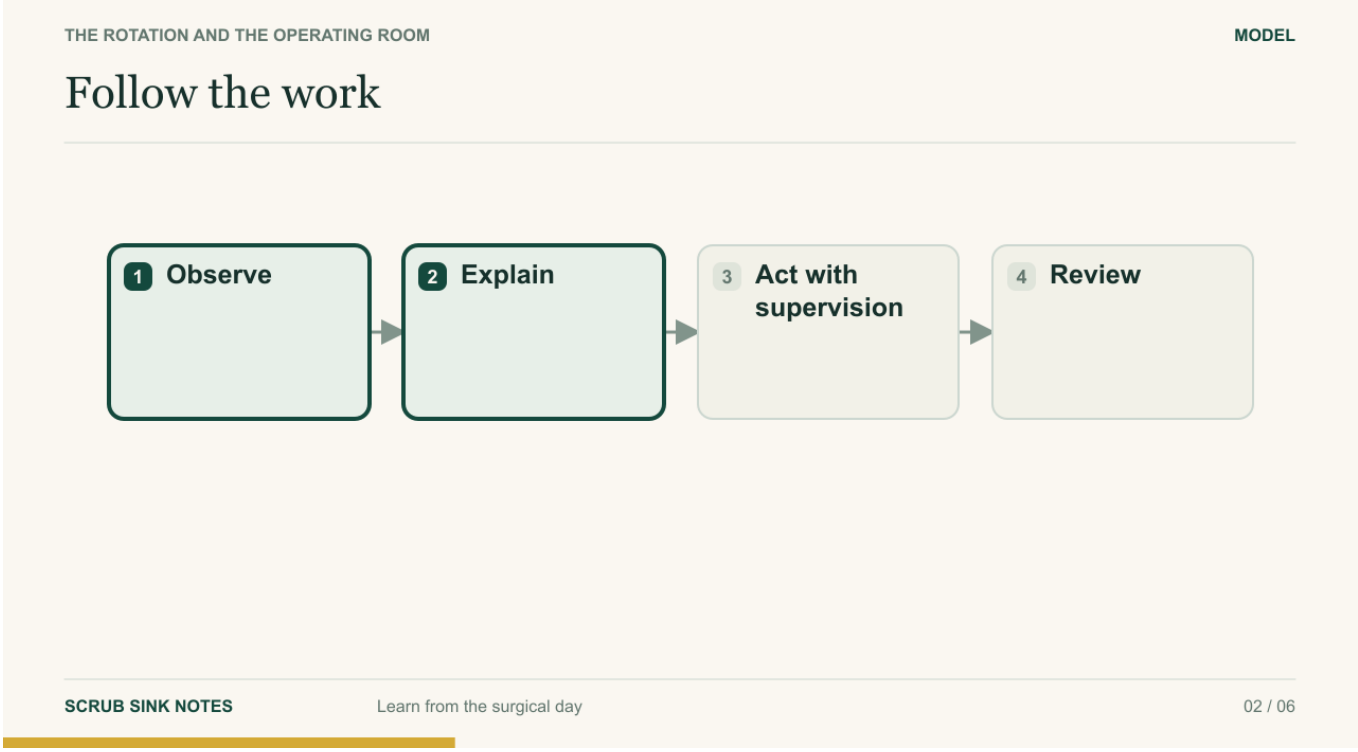


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 01 / REVIEW AND TRANSFER

Learn from the surgical day



The course follows the work of a surgery placement. First come the day, the operating room and patient presentations. Then we build a framework for assessment before an operation and review after it. Common symptoms lead into the conditions and emergencies that explain them. The final lessons help you select investigations and retrieve important ideas when someone asks you a question.

Check the reasoning

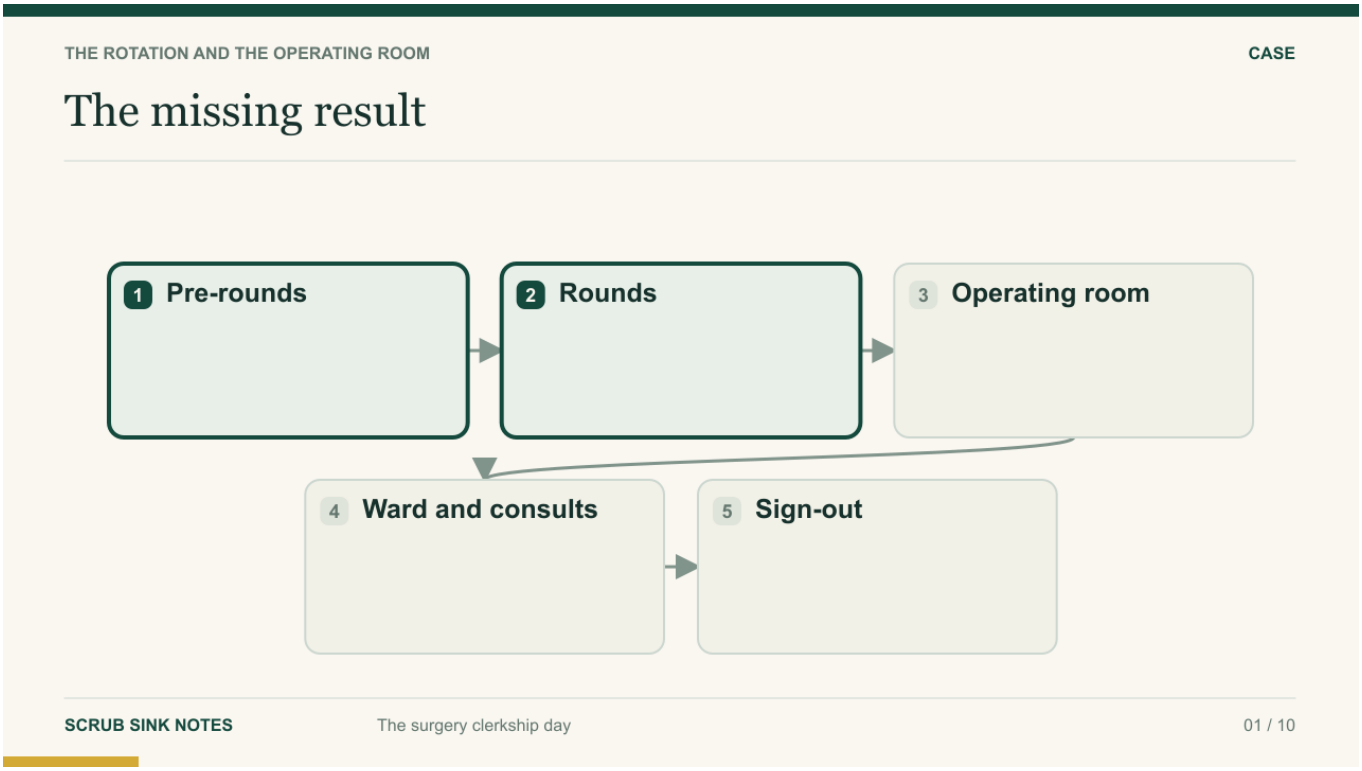
When a case appears, pause before the answer. State your working explanation and the next question you would ask. Then compare your answer with the reasoning in the lesson. If they differ, identify the missing observation or mistaken connection. The quizzes use original teaching questions, with explanations. Read why the strongest alternative is less suitable as well as why the keyed answer fits.

Change one fact. What would change your next step?

LESSON 02 / TRY THE CASE

The surgery clerkship day

The team reaches your patient on rounds. You know the operation, but the overnight urine output and a pending scan are missing from your notes. The difficulty is preparation rather than speed of speech. A surgical day has repeated handovers between observation, decisions and follow-through. When you know where each task belongs, you can prepare information before the team needs it and close the loop afterward.

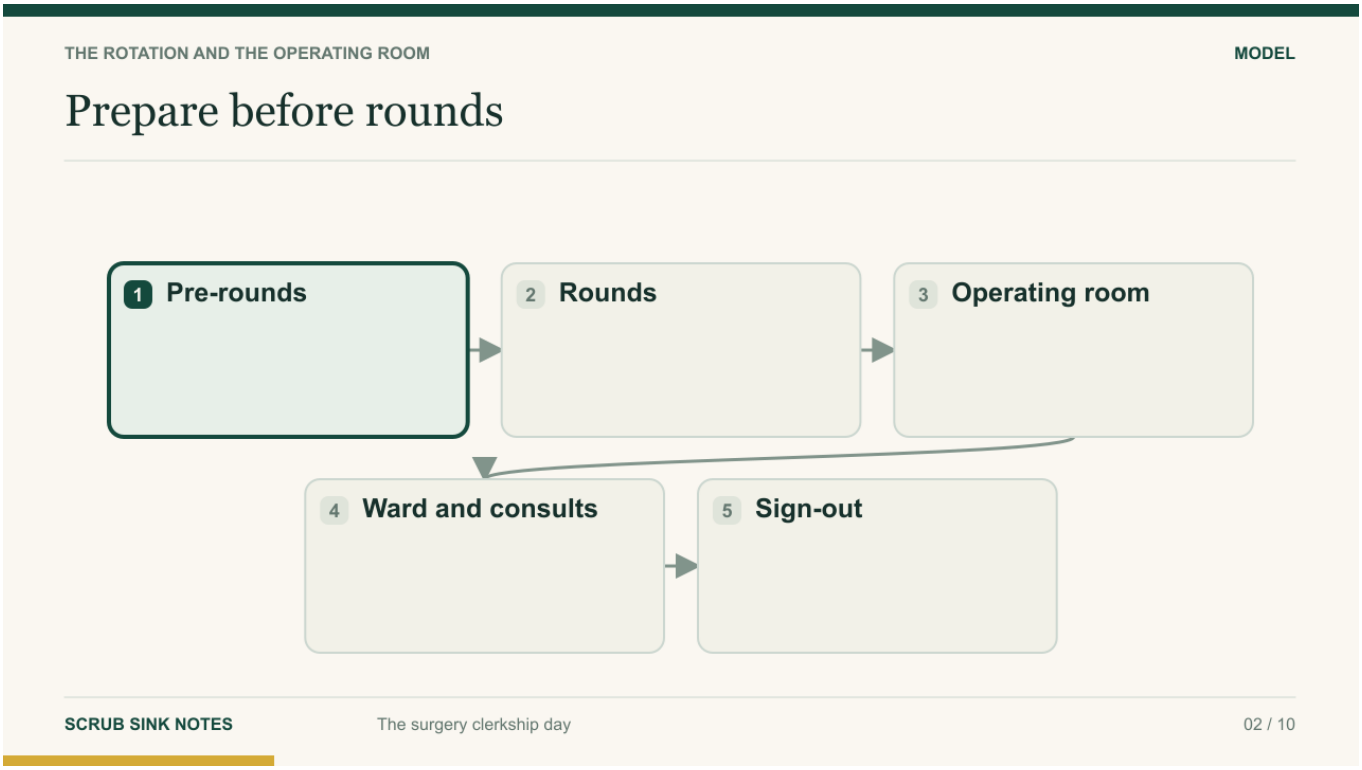


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 02 / REVIEW AND TRANSFER

The surgery clerkship day



Before rounds, review the patients assigned to you. Ask what happened overnight, check current and trending vital signs, and examine the patient with appropriate supervision. Gather intake, urine and drain output, the relevant laboratory results and the state of the wound and abdomen. Turn the findings into a short problem list. Your team's start time and expected patient load determine how you organize this work.

Check the reasoning

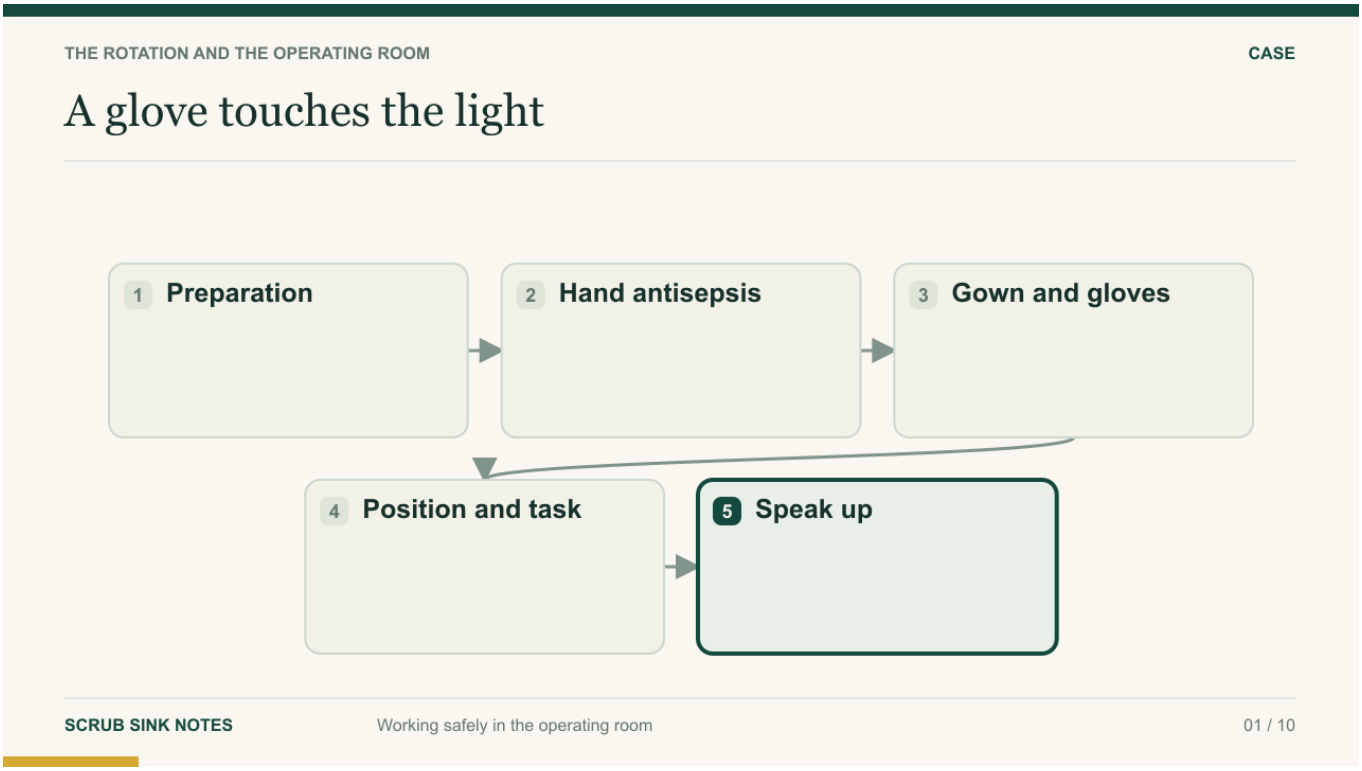
Before the next day, assemble a simple rounds template and the equipment your service expects. Carry a working pen, a secure place for permitted notes and the approved reference tools you actually use. Pause and name the information you would collect for one postoperative patient. Then choose one outstanding task and rehearse the sentence that will close it. Include what was found, who was told and what happens next.

Change one fact. What would change your next step?

LESSON 03 / TRY THE CASE

Working safely in the operating room

During a case, you think your glove touched an unsterile part of the light. Say what happened and ask for help correcting it. The team can replace a glove or check the field. Uncertainty about contamination deserves a clear statement. Identify the sterile boundaries with the team before you assist. Drape colour alone cannot establish sterility, and touching a sterile-looking surface is not permission to use it. Keep scrubbed hands in view in front of your body, away from unsterile zones.

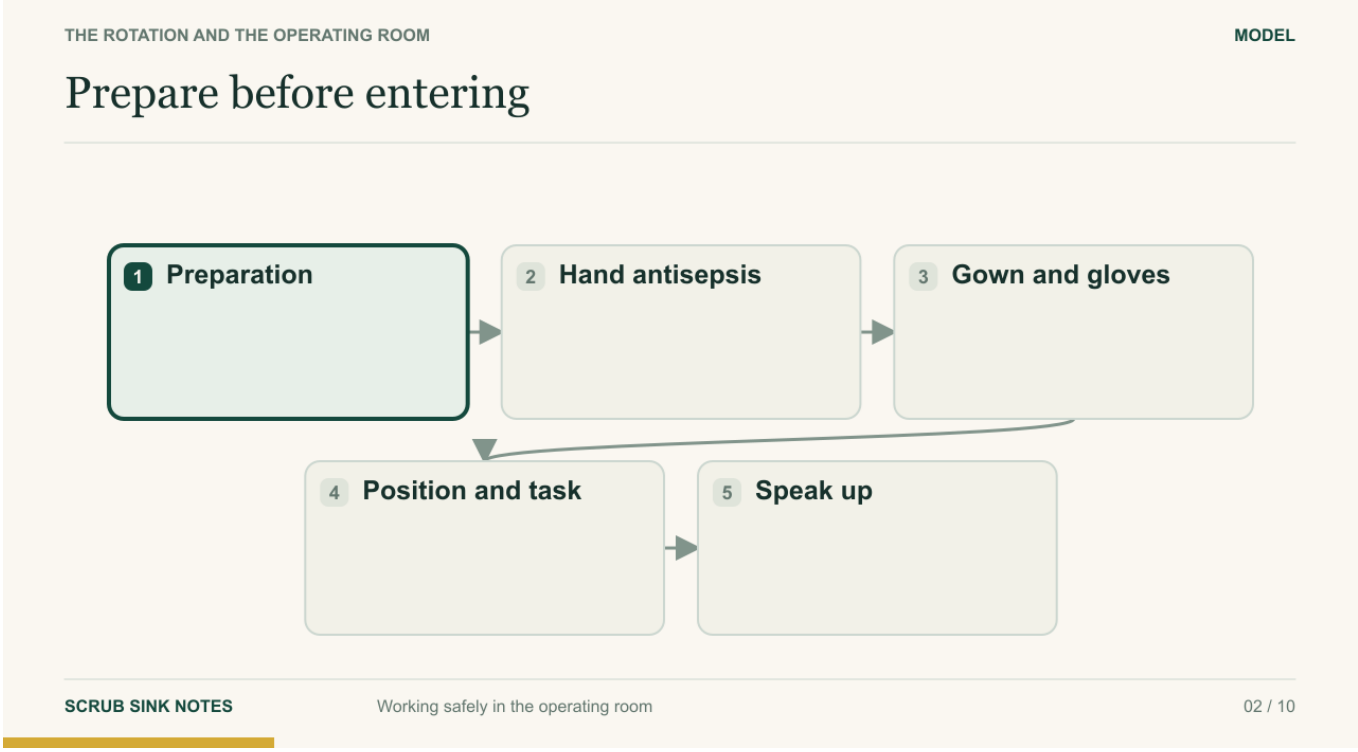


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 03 / REVIEW AND TRANSFER

Working safely in the operating room



Wear the required operating room clothing, hair covering, mask and eye protection. Remove jewellery from hands and wrists. Introduce yourself by role to the circulating nurse and anesthesia team. Learn where to stand and how to access your gown and gloves without reaching over a sterile table. These steps make you predictable in a crowded room where several people are protecting the same patient.

Check the reasoning

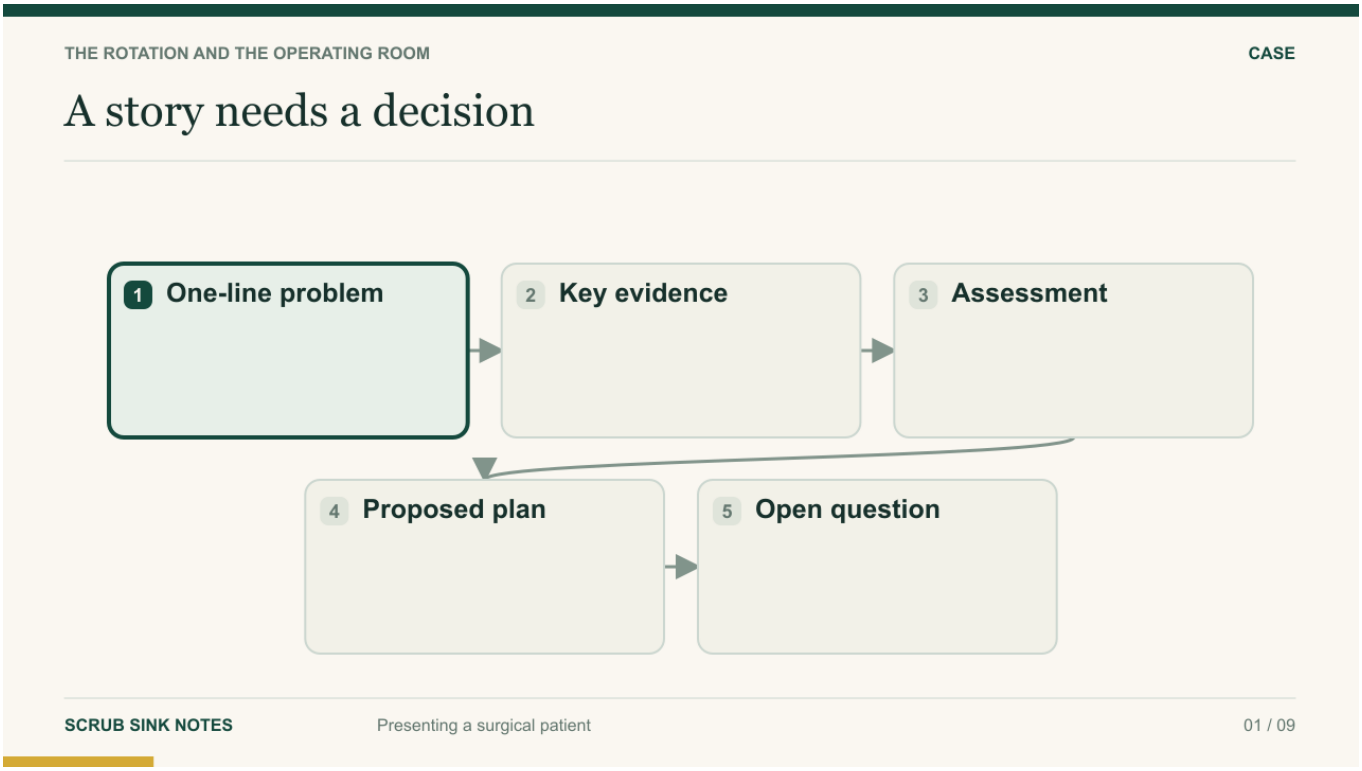
Carbon dioxide creates working space in laparoscopy. Insufflation affects pressure, ventilation and circulation, so the operative and anesthesia teams coordinate it. Entry technique and pressure are chosen for the patient and procedure. If you hold the camera, keep the horizon level and the working target visible. Pause now and describe your response to a suspected contaminated glove, an unfamiliar instrument request and a camera view that has drifted away.

Change one fact. What would change your next step?

LESSON 04 / TRY THE CASE

Presenting a surgical patient

Imagine being asked to present a patient with abdominal pain while the team is preparing for theatre. Start by identifying the problem and whether the patient appears unwell. The listener needs enough evidence to judge urgency and the next step. A concise presentation is selective because every detail must help answer a clinical question. Your full history still belongs in the assessment and record.

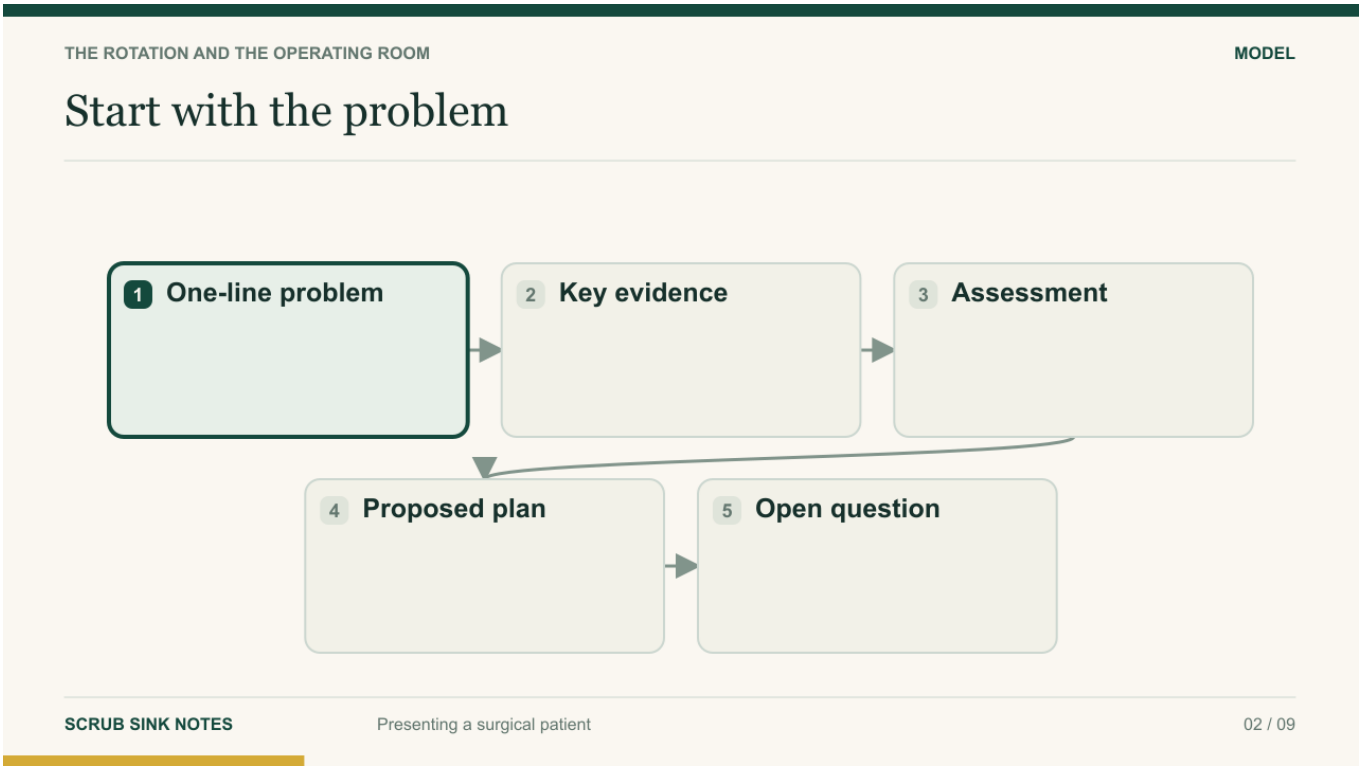


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 04 / REVIEW AND TRANSFER

Presenting a surgical patient



Use one sentence for identity, relevant background, the symptom and its duration. For example, this is an adult with previous diverticular disease and a day and a half of left lower abdominal pain and fever. Then explain onset, progression, vomiting, bowel movements and flatus. Mention previous operations, anticoagulants, allergies and last intake when relevant. These facts shape both the differential and preparation for possible treatment.

Check the reasoning

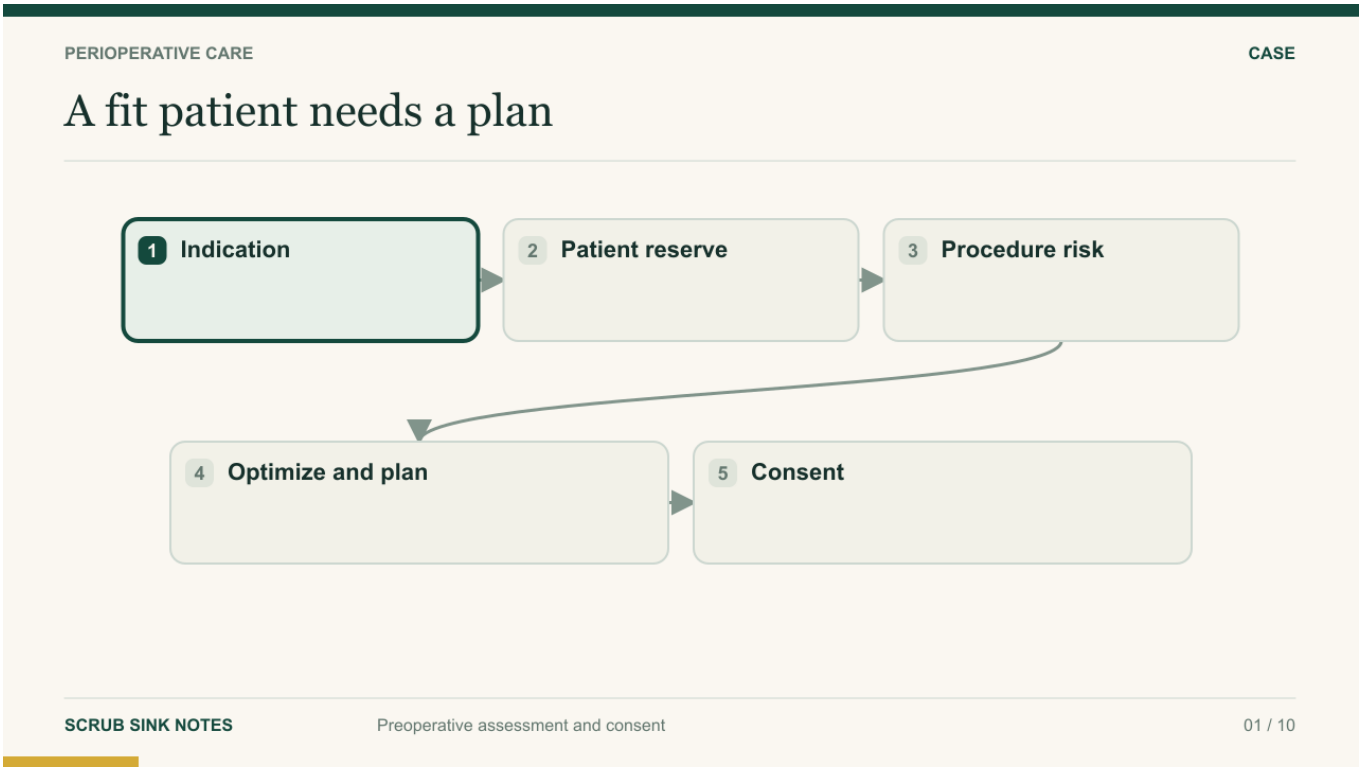
Pause and present the fictional patient aloud. Aim to give the operation and day, the new problem, the relevant evidence and your request without searching through a list. If asked a number you have not checked, say you will verify it and report back. After a supervised presentation, ask which detail could be removed and which missing finding would have helped the team make its decision.

Change one fact. What would change your next step?

LESSON 05 / TRY THE CASE

Preoperative assessment and consent

A patient is scheduled for an elective operation and feels well. Before ordering a set of tests, restate the indication. What problem is the operation intended to solve, and what alternatives were considered? Next ask what the operation will demand of this particular patient. That connects assessment to a plan for reducing risk, rather than creating a checklist of results that nobody will use.

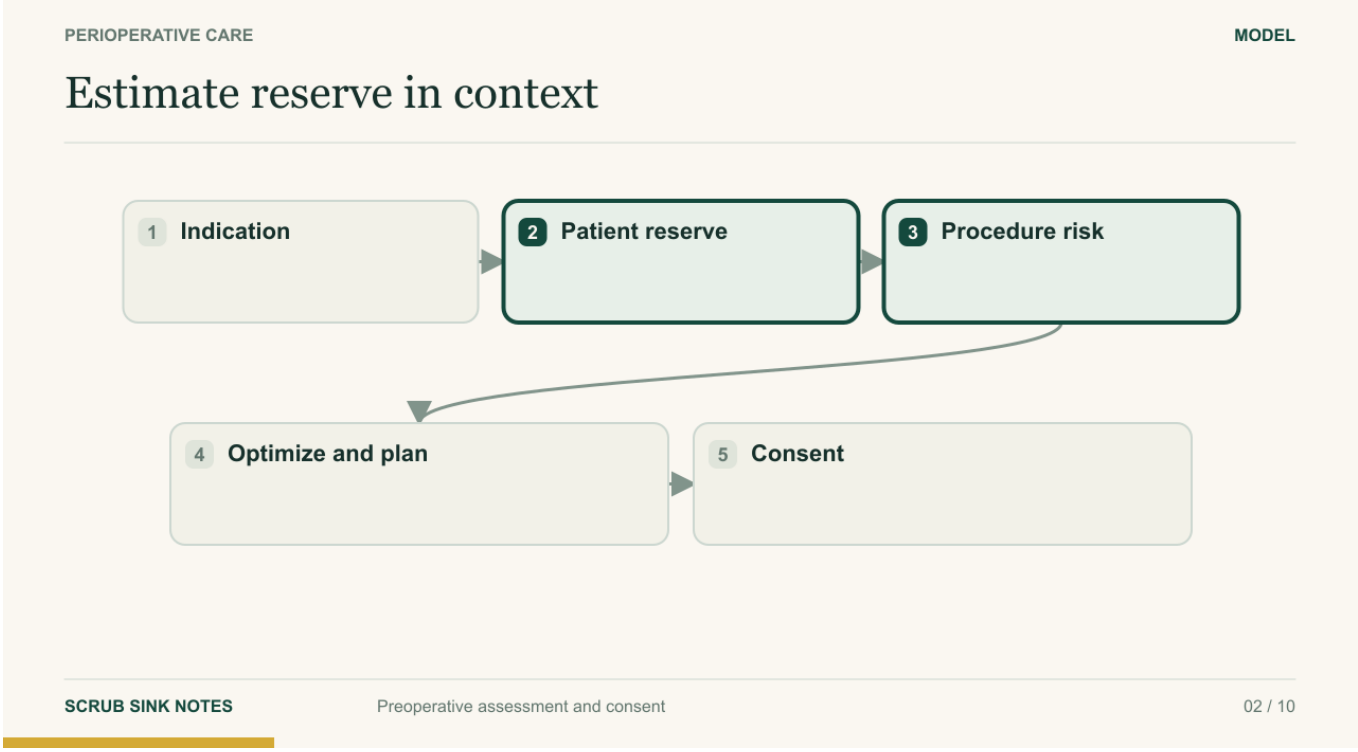


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 05 / REVIEW AND TRANSFER

Preoperative assessment and consent



Ask about ordinary activity, exercise symptoms and recent change. Functional capacity contributes to risk assessment, but one answer about stairs cannot guarantee safety. Chest discomfort, heart failure symptoms, arrhythmias and previous vascular events may change the plan. Combine the history with the procedure's stress and validated risk assessment used by the team. Emergency surgery requires rapid evaluation alongside treatment, with risks addressed as far as the situation permits.

Check the reasoning

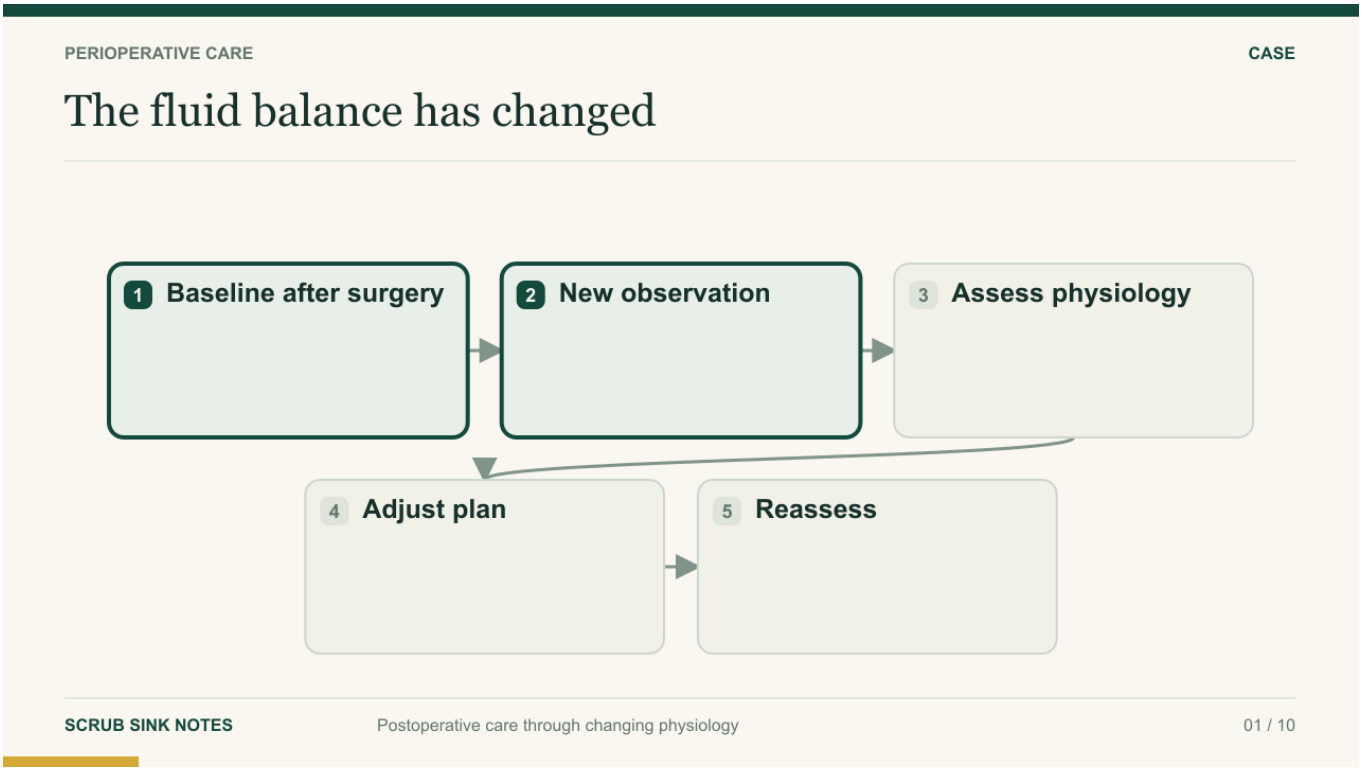
Pause and choose three preoperative findings, one symptom, one medication and one patient concern. For each, name the decision it could change and the person who should resolve it. Then explain the proposed operation in plain language with one benefit, one material risk and one alternative. If you cannot explain the purpose of a test or instruction, clarify it before passing it to the patient.

Change one fact. What would change your next step?

LESSON 06 / TRY THE CASE

Postoperative care through changing physiology

Your patient has had bowel surgery. The chart shows poor intake, a full bag of intravenous fluid and less urine than yesterday. Before increasing the rate, ask what problem the fluid is treating. Review the operation, observations, examination, losses, medications and current laboratory results. The daily order set provides a starting plan for diet, activity, monitoring, analgesia, thrombosis prevention, medications, tubes and escalation. The patient's changing physiology determines its revision.

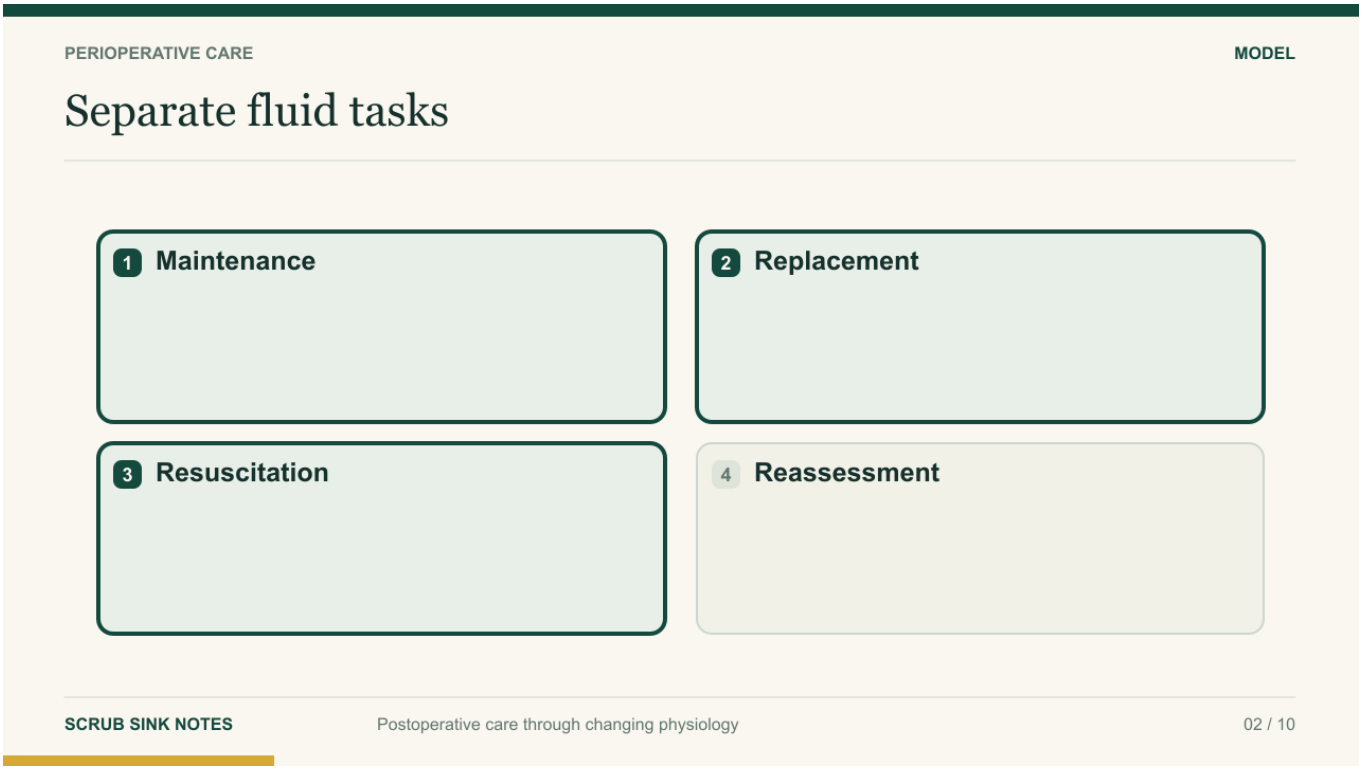


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 06 / REVIEW AND TRANSFER

Postoperative care through changing physiology



Maintenance supplies ordinary daily needs when oral or enteral intake is insufficient. Replacement addresses measured or estimated abnormal losses. Resuscitation treats impaired perfusion. These tasks need different prescriptions. In an otherwise appropriate adult, a common initial maintenance estimate is twenty-five to thirty millilitres of water per kilogram per day, then adjusted for comorbidity and monitoring. The hourly four-two-one formula is a different calculation and is not an equivalent adult target.

Check the reasoning

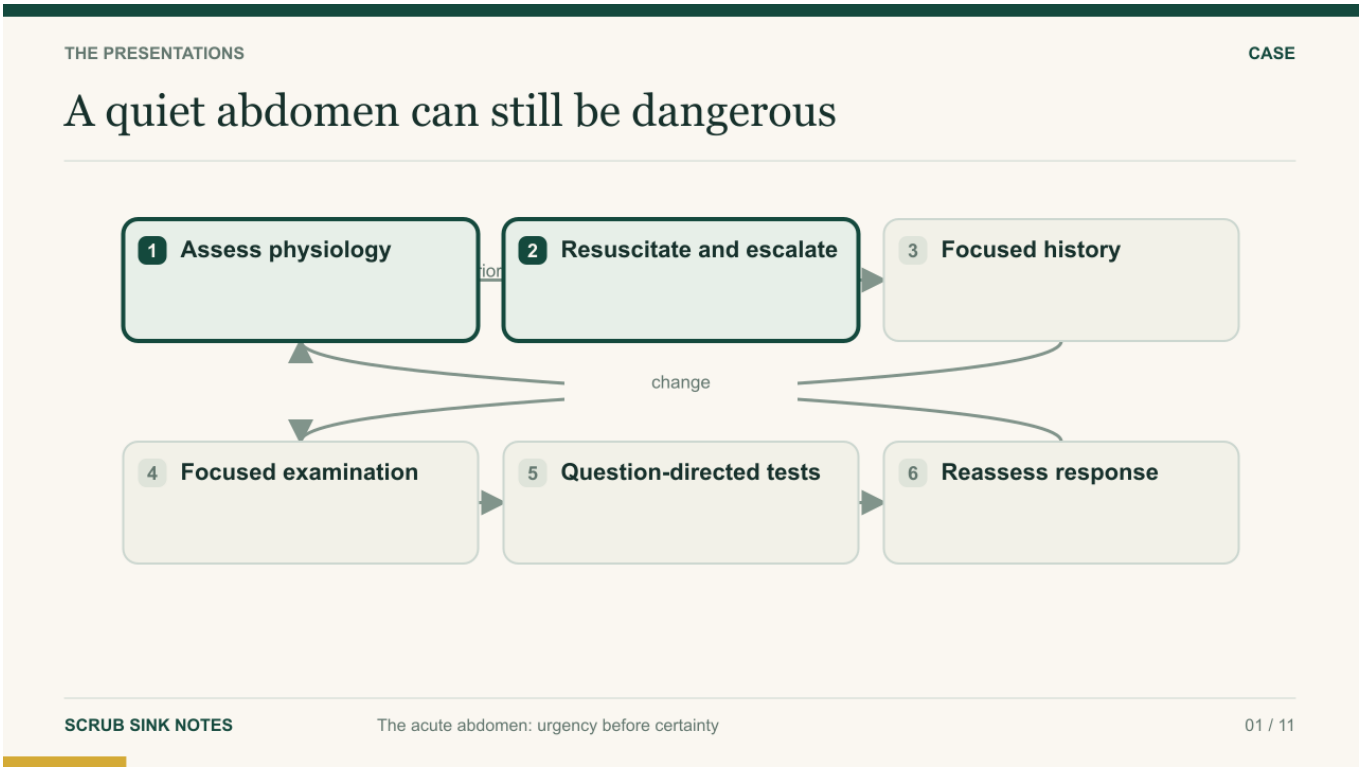
Return to the low-urine-output case. Give a structured update with the operation, postoperative day, vital-sign trend, intake, losses, examination and relevant results. Explain what you need the resident to assess. Then name one response that would support your working explanation and one that would challenge it. Preparation for rounds, safe operating room conduct, clear presentation and preoperative planning all support this same habit, connecting an observation to a decision and checking the outcome.

Change one fact. What would change your next step?

LESSON 07 / TRY THE CASE

The acute abdomen: urgency before certainty

A fictional patient arrives with severe abdominal pain and looks pale and sweaty. You can spend several minutes producing a beautiful differential, or recognize that circulation needs attention while the team investigates. Begin with physiology. Check observations, mental state, perfusion and the trajectory of the illness. A precise diagnosis is valuable, but resuscitation and a senior review should already be underway when the patient is deteriorating.

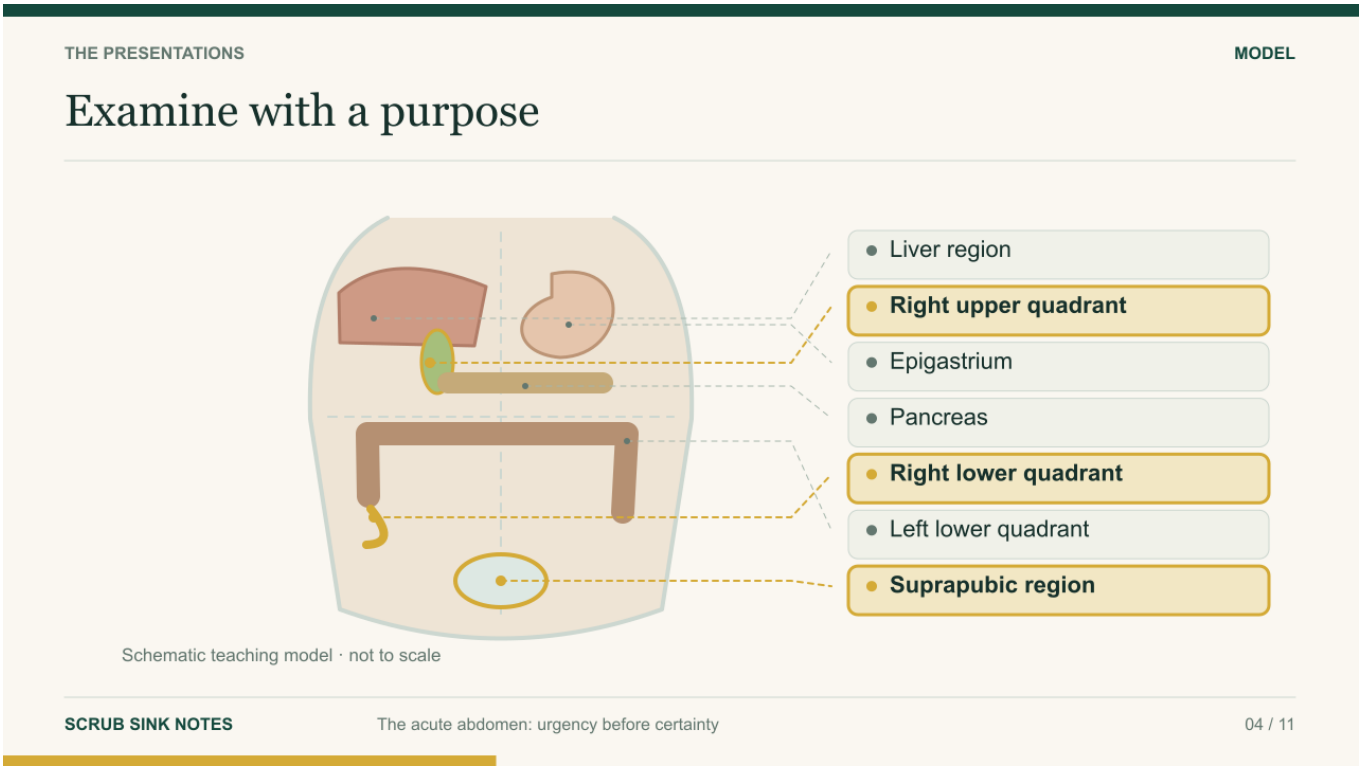


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 07 / REVIEW AND TRANSFER

The acute abdomen: urgency before certainty



Explain the examination, obtain consent and preserve dignity. Ask the patient to point to the pain before you palpate, then start away from it. Look for distension, scars and hernias. Local tenderness helps locate the process; involuntary rigidity or pain with gentle percussion supports peritoneal irritation. Repeatedly provoking rebound adds little when movement is already painful. Bowel sounds are unreliable on their own. Groin, rectal, genital or pelvic examination should answer an indicated question with appropriate supervision and consent.

Check the reasoning

Return to the fictional patient. Before finishing a handover, ask whether aneurysm rupture, mesenteric ischemia or ectopic pregnancy could explain the presentation. Say what features support concern and what is being done now. Then give the current physiology and the change since arrival. Pause and make that handover aloud. The skill is to combine a plausible explanation with a safe next step, while leaving room to revise the diagnosis as new information arrives.

Change one fact. What would change your next step?

LESSON 08 / TRY THE CASE

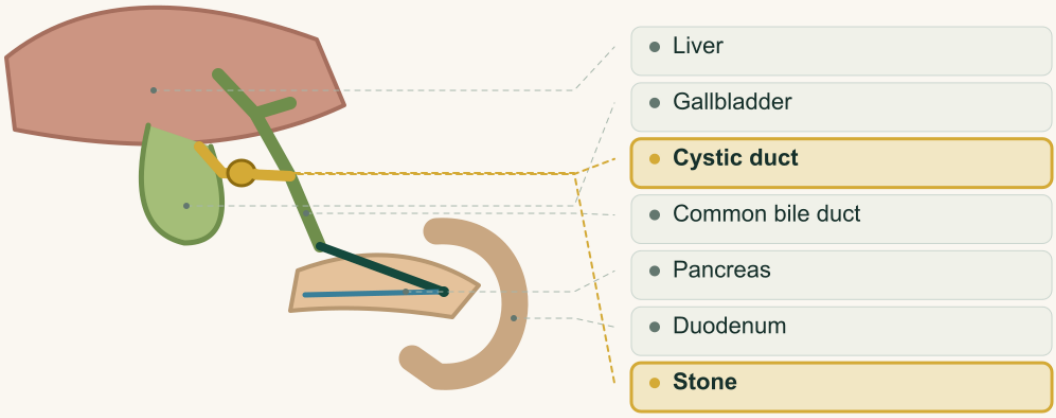
Biliary disease: locate the obstruction

Consider a fictional patient whose upper abdominal pain settles, and another whose pain persists with fever. Both may have gallstones, yet the immediate problem is different. Before memorizing disease names, put the stone on this map. Ask which passage is blocked, whether the blockage clears, and whether inflammation or infection has developed. That sequence connects anatomy to the history you hear at the bedside.

THE PRESENTATIONS

CASE

One location changes the problem



Schematic teaching model · not to scale

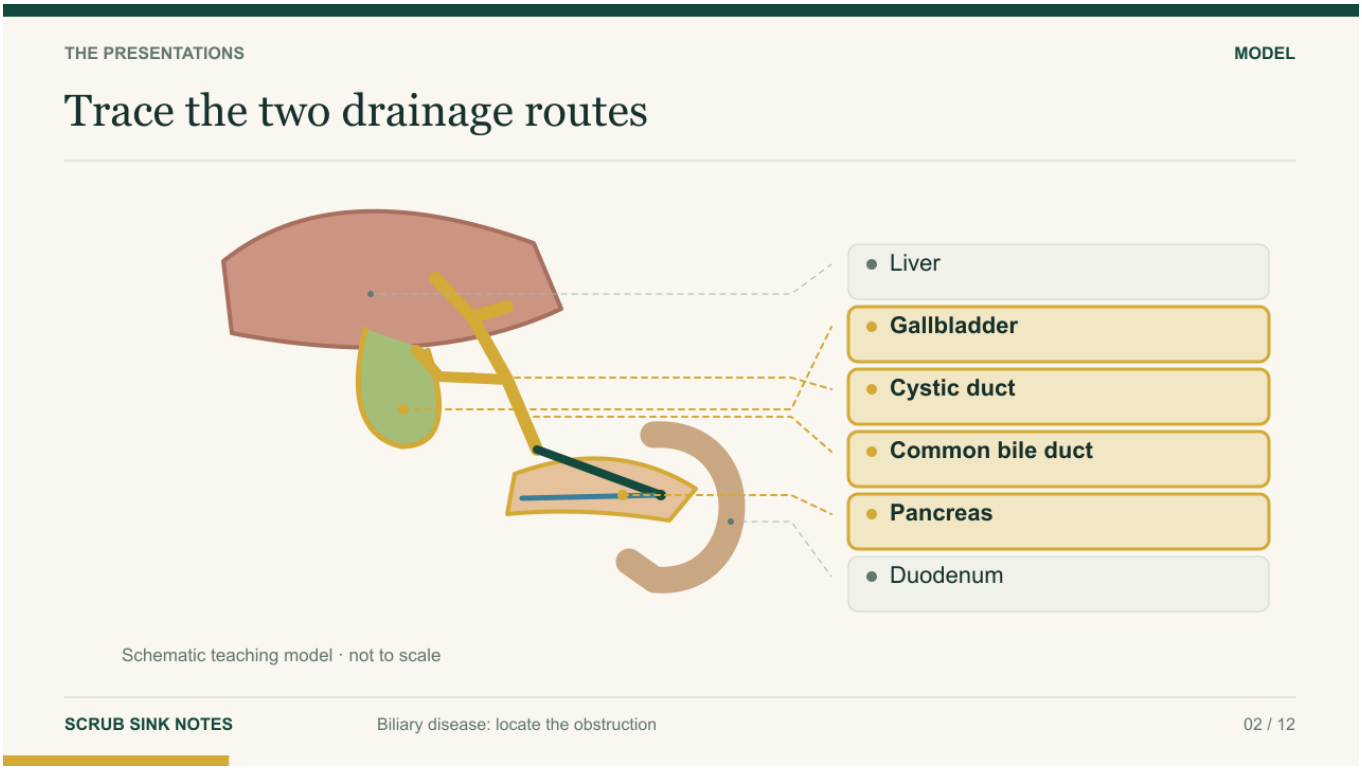
SCRUB SINK NOTES Biliary disease: locate the obstruction 01 / 12

Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 08 / REVIEW AND TRANSFER

Biliary disease: locate the obstruction



Follow bile from the liver down the main duct toward the intestine. The gallbladder connects through its cystic duct. At the lower outlet, the pancreatic duct also reaches the duodenum. A stone can therefore interrupt the gallbladder's own drainage, block the main bile pathway, or affect the shared outlet. Keep those three positions distinct. The same small object has different consequences because different structures lie upstream of it.

Check the reasoning

Pause and answer three short questions using the figure. What changes when cystic duct obstruction persists? What changes when infection accompanies main duct obstruction? Why can a stone at the lower outlet affect the pancreas? Name the structure first, then the consequence, then the feature that changes urgency. Your final handover should connect those elements to the patient's current condition. Use the mechanism to organize assessment while leaving definitive diagnosis and treatment decisions to the clinical team.

Change one fact. What would change your next step?

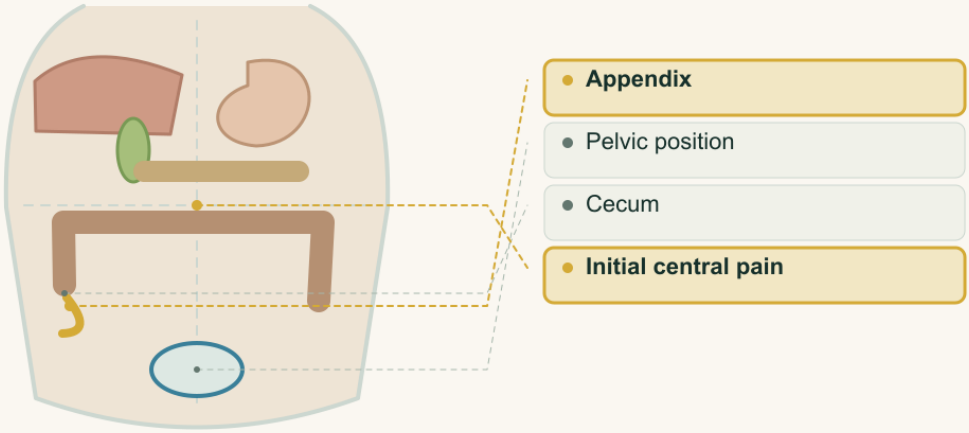
LESSON 09 / TRY THE CASE

Appendicitis: follow the changing pain

Imagine a teaching case with vague central abdominal discomfort that later becomes painful in the right lower abdomen. The story is more informative than the label of abdominal pain alone. Early visceral pain is poorly localized. As nearby parietal peritoneum becomes irritated, the patient can often point more precisely to the problem and movement hurts. That explains the classic migration associated with appendicitis, without making migration essential in every patient.

THE PRESENTATIONS CASE

From central discomfort to local pain



Schematic teaching model · not to scale

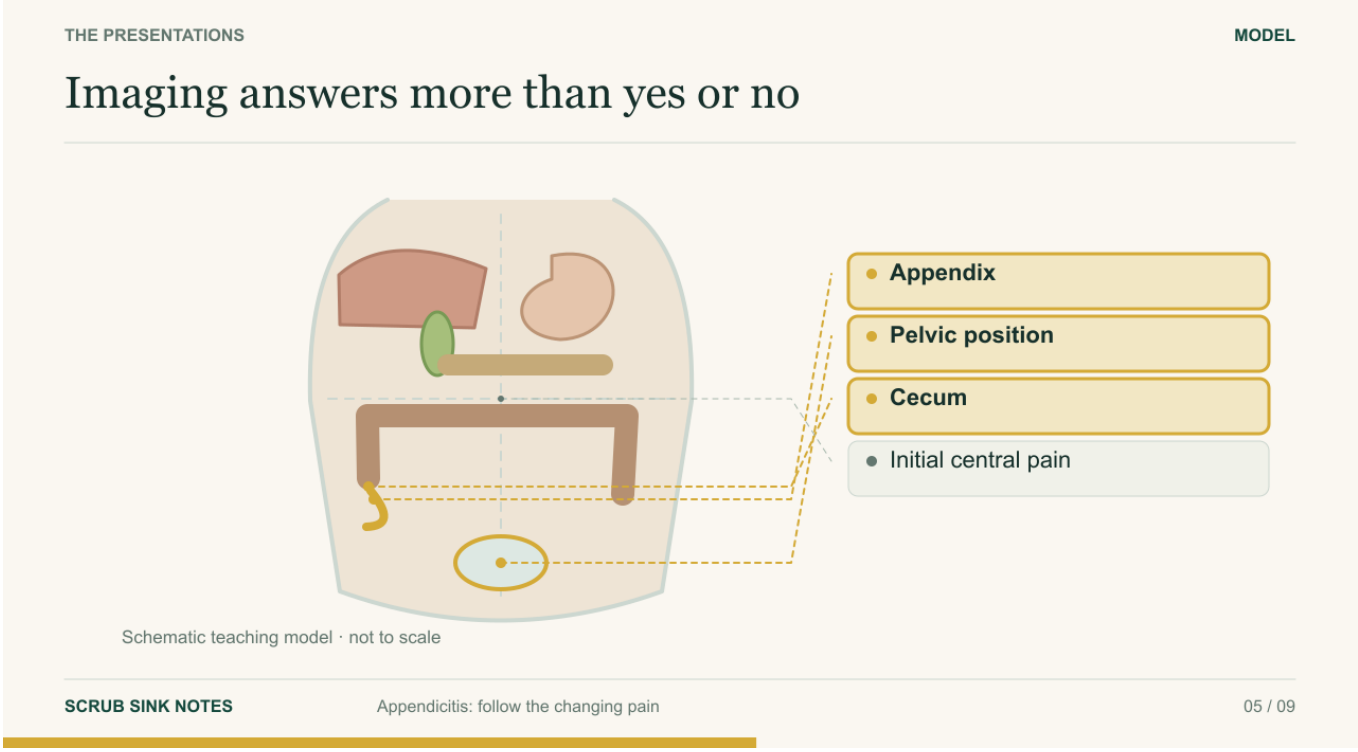
SCRUB SINK NOTES Appendicitis: follow the changing pain 01 / 09

Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 09 / REVIEW AND TRANSFER

Appendicitis: follow the changing pain



Ultrasound is useful in children and pregnancy, but an appendix that is not seen does not settle the question. Further imaging is selected according to the patient and local pathway. Computed tomography often identifies adult appendicitis and complications; magnetic resonance imaging can help in pregnancy. Look beyond a diameter measurement. Inflammation around the appendix, an appendicolith, abscess, perforation and alternative diagnoses can all influence what the surgical team recommends.

Check the reasoning

Pause and summarize the teaching case in three sentences. First, explain the pattern that makes appendicitis plausible. Second, name a competing diagnosis that would change the pathway. Third, say whether the patient appears stable with uncomplicated disease or needs urgent review for a complication. A long history or rigid abdomen increases concern, but no fixed symptom clock proves perforation. Your handover should describe the evidence and urgency without overstating certainty.

Change one fact. What would change your next step?

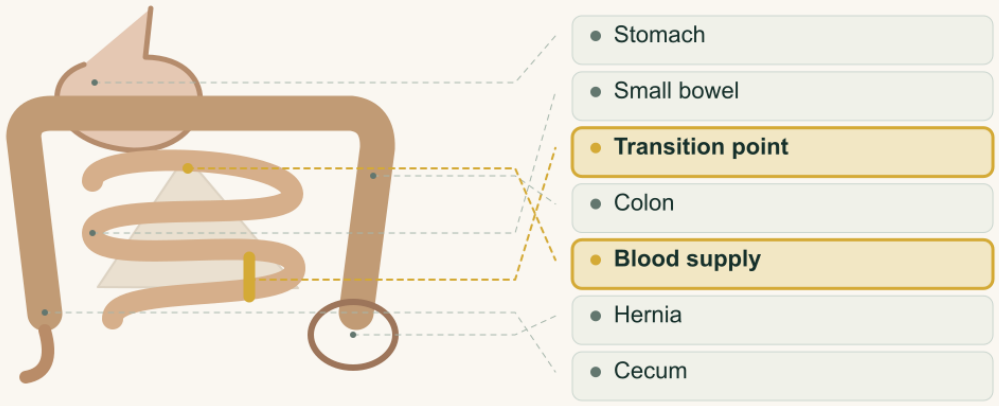
LESSON 10 / TRY THE CASE

Bowel obstruction and hernias: block versus blood supply

A fictional patient has vomiting, abdominal distension and cramping pain. There are two connected questions. Where is bowel transit blocked, and is blood supply threatened? A tube that cannot empty explains the vomiting and distension. A segment losing perfusion creates a different urgency. Keep the transition point and the mesentery separate in your thinking. Finding an obstruction on imaging starts the explanation; it does not finish the safety assessment.

THE PRESENTATIONS CASE

Two questions, two different risks



Schematic teaching model · not to scale

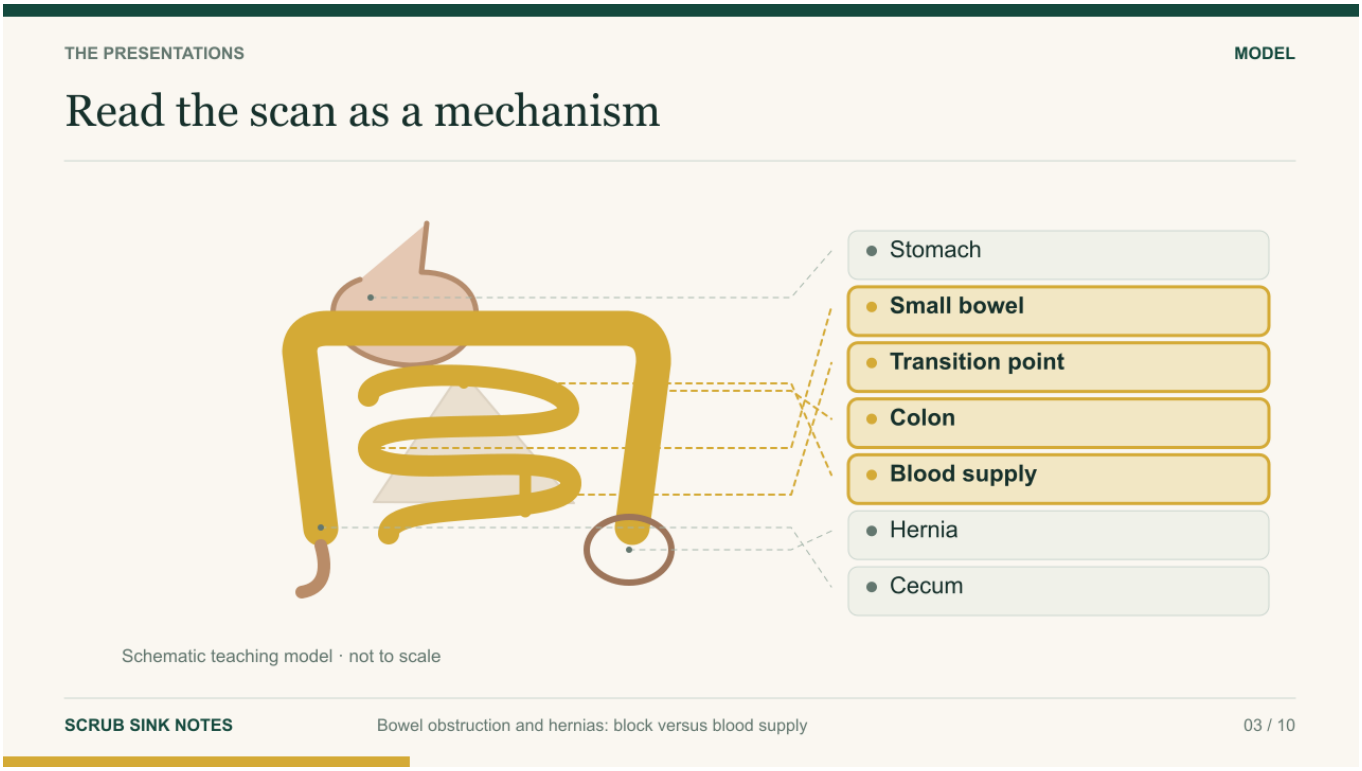
SCRUB SINK NOTES Bowel obstruction and hernias: block versus blood supply 01 / 10

Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 10 / REVIEW AND TRANSFER

Bowel obstruction and hernias: block versus blood supply



On computed tomography, locate dilated bowel upstream and follow it to a transition. Ask what is causing the narrowing and whether the bowel wall enhances normally. Free fluid, abnormal mesentery, reduced enhancement or other concerning findings alter the assessment. A closed loop is trapped at two points and can threaten perfusion quickly. The mechanism explains why increasing pain or a changing examination matters more than a comfortable-sounding label such as partial obstruction.

Check the reasoning

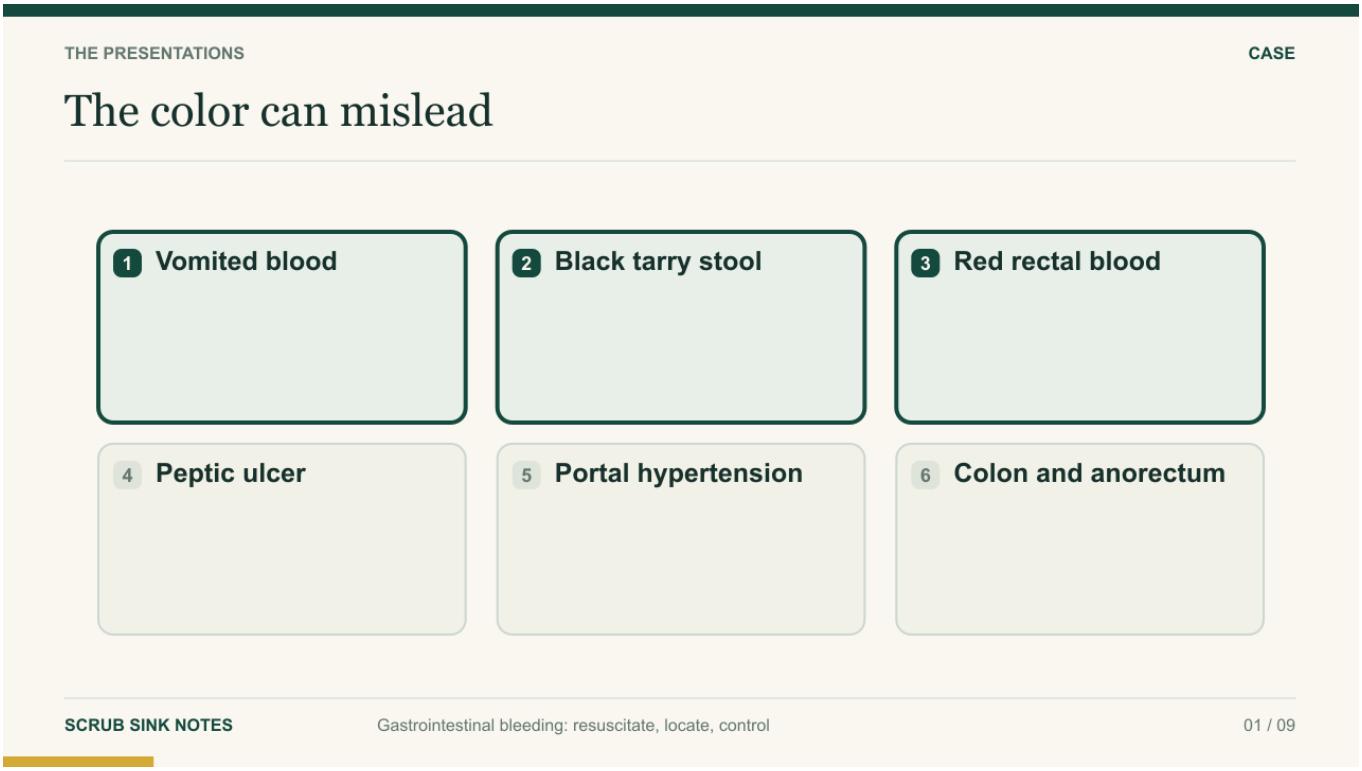
Pause and give a one-minute handover for the fictional patient. Include the likely level, the suspected cause, current circulation, the examination and any evidence of threatened bowel. State the fluid and decompression plan, who is reviewing the patient and what change will trigger immediate escalation. Finish by confirming that the groins were assessed with consent. That connects a mechanical explanation to a clinically useful next step.

Change one fact. What would change your next step?

LESSON 11 / TRY THE CASE

Gastrointestinal bleeding: resuscitate, locate, control

A fictional patient passes a large amount of red blood and becomes faint. It is tempting to call this a lower gastrointestinal bleed from the color alone. A brisk upper source can also send red blood through the bowel, especially when circulation is compromised. Begin with the patient, then locate the source. That order prevents an anatomical assumption from delaying resuscitation or directing the wrong investigation.

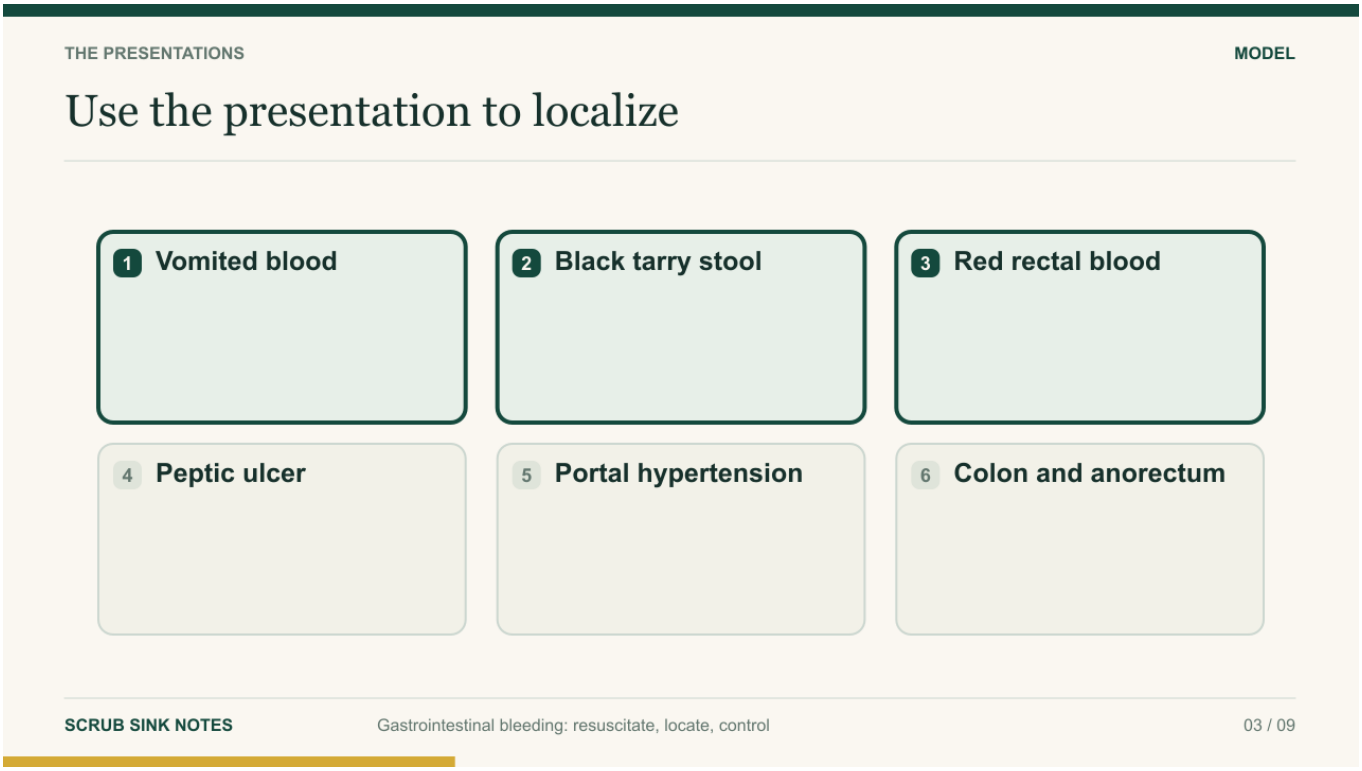


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 11 / REVIEW AND TRANSFER

Gastrointestinal bleeding: resuscitate, locate, control



Vomited fresh blood or coffee-ground material supports an upper source. Melena is black, tarry stool from altered blood, usually upper gastrointestinal but occasionally from farther down with slow transit. Red rectal blood is often lower, with the important brisk-upper exception. Disproportionately raised urea may support an upper source but is not diagnostic. Combine these clues with the history and current physiology rather than using a clear gastric aspirate or a single stool description to exclude a source.

Check the reasoning

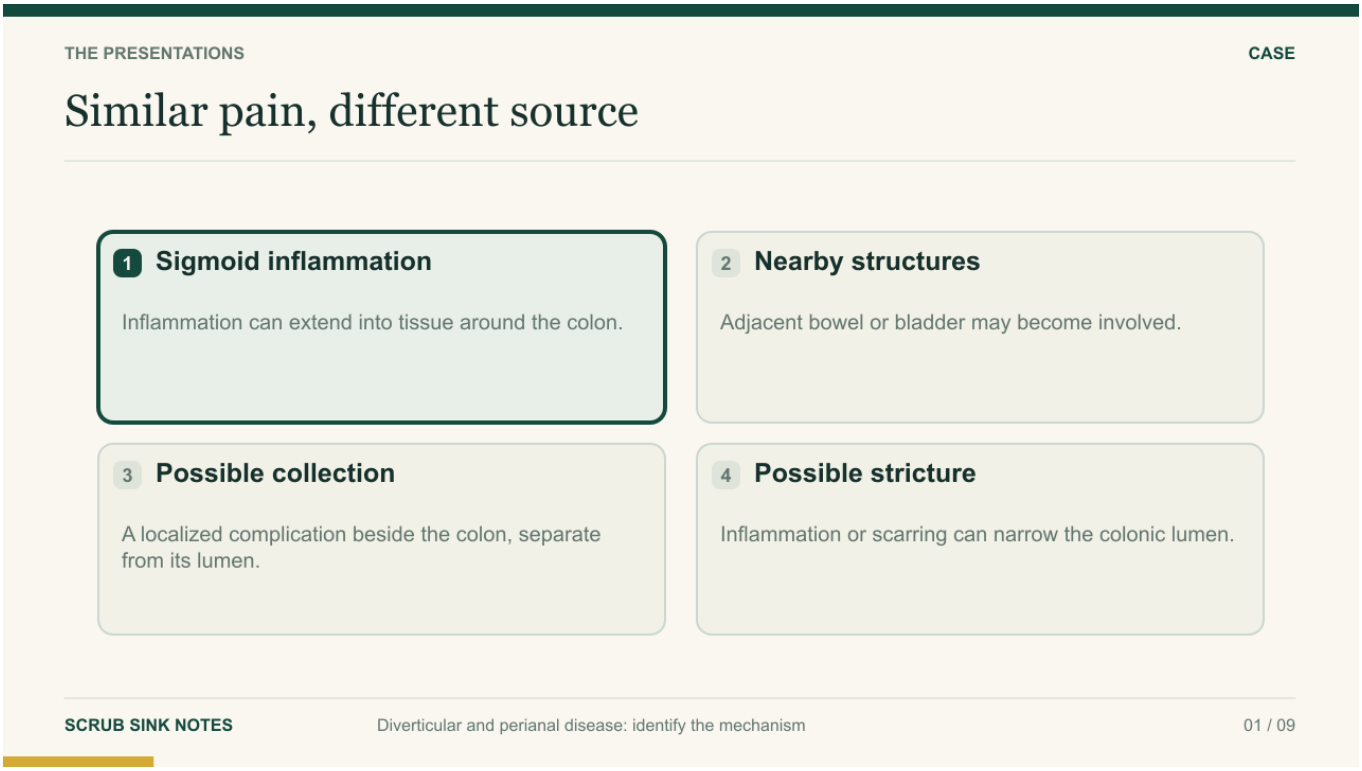
Pause and hand over the fictional patient in four parts. Describe the observed bleeding, the current circulation, the plausible source and the intervention being arranged. Add anticoagulants, prior aortic surgery or liver disease if relevant. State who will reassess and what ongoing loss would trigger a major-hemorrhage response. If bleeding stops, keep the follow-up question open: why did it happen, and what investigation or treatment prevents a missed cause or another episode?

Change one fact. What would change your next step?

LESSON 12 / TRY THE CASE

Diverticular and perianal disease: identify the mechanism

Consider two fictional consultations. One patient has left lower abdominal pain and fever. Another has painful defecation with a small streak of blood. Both may reach the colorectal service, but the mechanism and examination are different. Localize the problem before discussing treatment. We will first follow inflammation in the colon, then distinguish bleeding, a tear and an infected collection around the anus.

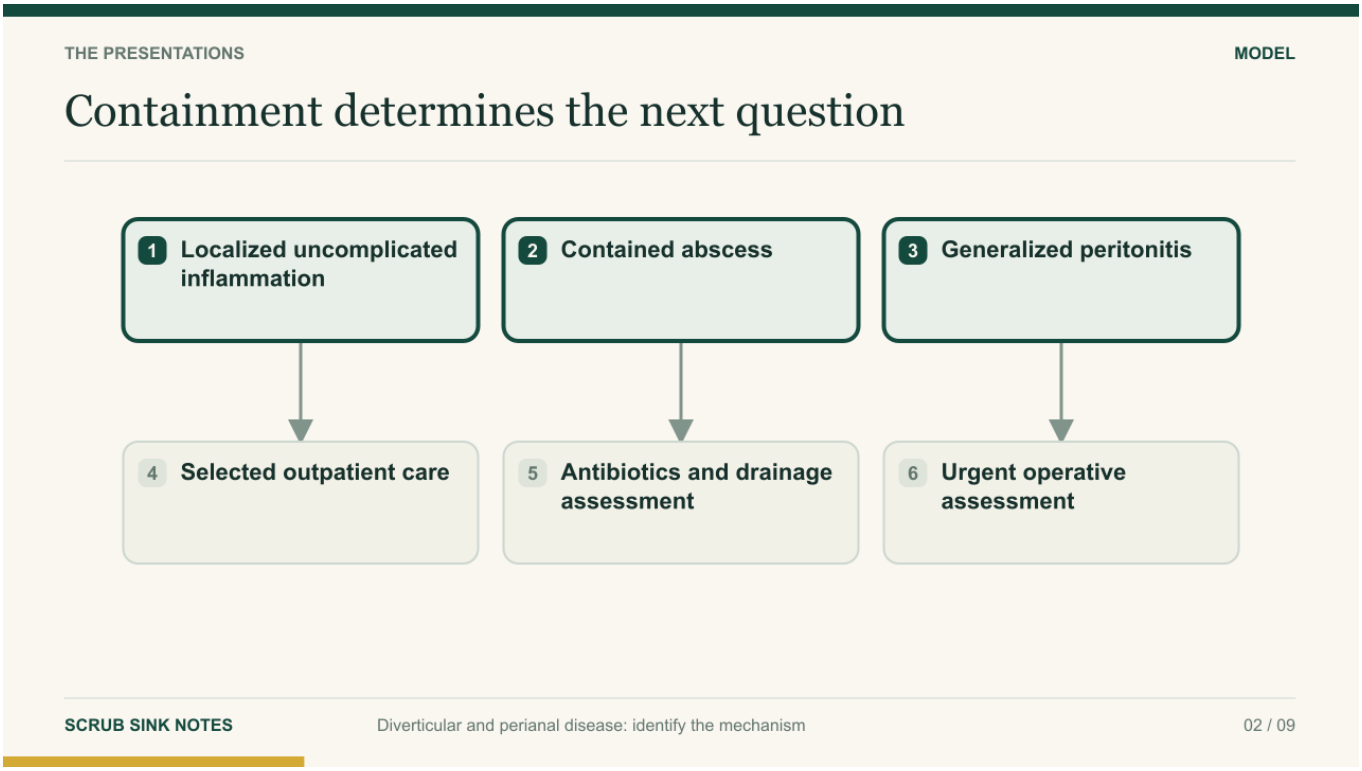


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 12 / REVIEW AND TRANSFER

Diverticular and perianal disease: identify the mechanism



Diverticula are outpouchings through weak points in the bowel wall. Diverticulitis is inflammation around a diverticulum. Ask whether that inflammation remains localized or has produced a collection, fistula, obstruction or generalized contamination. Computed tomography helps define those complications. The older Hinchey framework moves from localized collections toward purulent and then feculent peritonitis. Use the classification to communicate anatomy and contamination, not as a substitute for describing the patient's physiology.

Check the reasoning

Return to the two consultations. For abdominal pain, describe whether inflammation is localized or complicated and what evidence supports it. For perianal pain, explain whether the pattern suggests a tear, a collection or spreading tissue infection. Pause and say the next clinical step for each. Ask permission before examination and arrange appropriate support and supervision. A useful assessment names the suspected source, the patient's condition and the reason the plan can wait or must move urgently.

Change one fact. What would change your next step?

LESSON 13 / TRY THE CASE

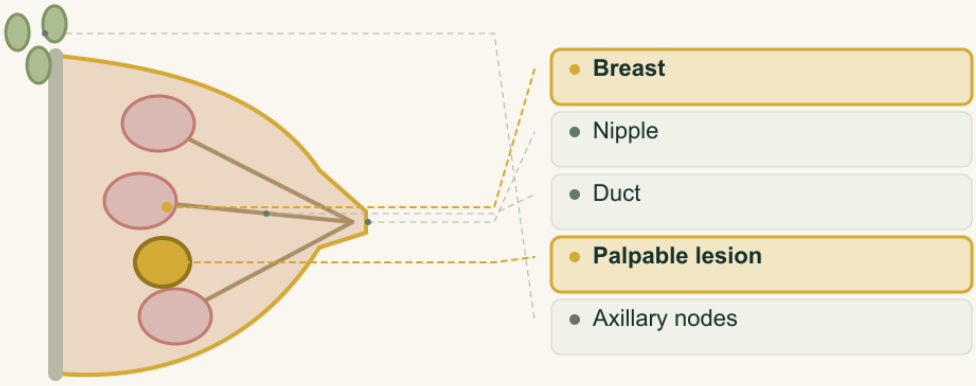
Breast symptoms: reconcile the evidence

A fictional young adult notices a mobile breast lump and asks whether mobility proves it is harmless. It does not. Mobility and age make some explanations more plausible, but the assessment must fit the whole presentation. Begin with the symptom, its duration and change, relevant risk and the patient's concern. Then connect the examination with appropriate imaging and tissue assessment when indicated. The important endpoint is agreement between the evidence, not reassurance from one adjective.

THE CONDITIONS

CASE

A reassuring feature is only one clue



Schematic teaching model · not to scale

SCRUB SINK NOTES

Breast symptoms: reconcile the evidence

01 / 09

Your first response

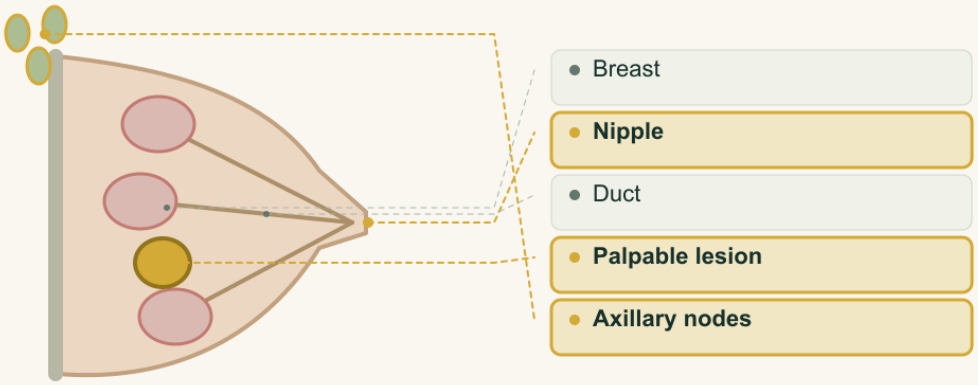
What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 13 / REVIEW AND TRANSFER

Breast symptoms: reconcile the evidence

THE CONDITIONS MODEL

Describe what another clinician can find



Schematic teaching model · not to scale

Explain the examination, obtain consent and offer the appropriate chaperone. Inspect for asymmetry, dimpling, nipple change, skin edema or ulceration. Palpate systematically and describe a lesion by its clock-face position, distance from the nipple, size, consistency and mobility. Assess relevant regional nodes. These details let another clinician identify the same target. A precise location also helps radiology correlate what was felt with what appears on the image.

Check the reasoning

Pause and explain the fictional mobile lump assessment in plain language. Say what makes a benign cause plausible, what still needs confirmation, and how the results will be brought together. Give the patient a clear follow-up route and address their main concern. Your clinical summary should include the target location, examination, imaging, any tissue result and whether they agree. That is more useful than simply reciting triple assessment or assuming young age removes the need for a plan.

Change one fact. What would change your next step?

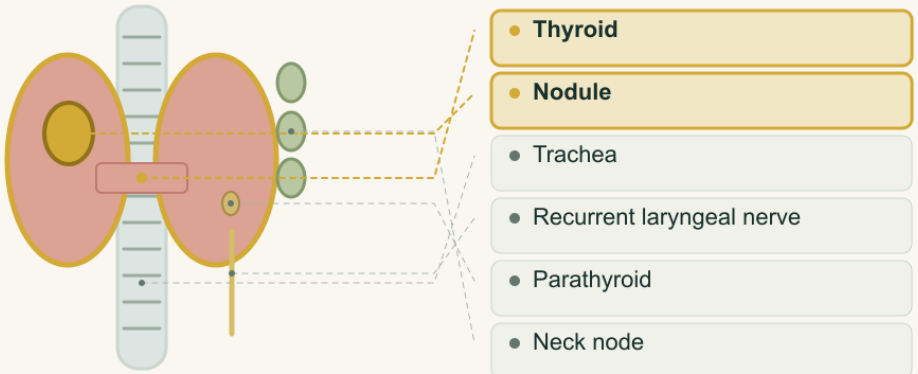
LESSON 14 / TRY THE CASE

Thyroid and neck lumps: separate function from risk

A fictional patient finds a neck lump while swallowing. The first question is where it arises. If it is thyroid, separate its function from its risk of malignancy. A person may have normal thyroid hormone function and still have a nodule requiring assessment. Ask about growth, voice change, swallowing difficulty, irradiation and relevant family history. Examine the gland and regional nodes, then use the history to frame the tests rather than ordering an undirected neck panel.

THE CONDITIONS CASE

A lump asks more than one question



Schematic teaching model · not to scale

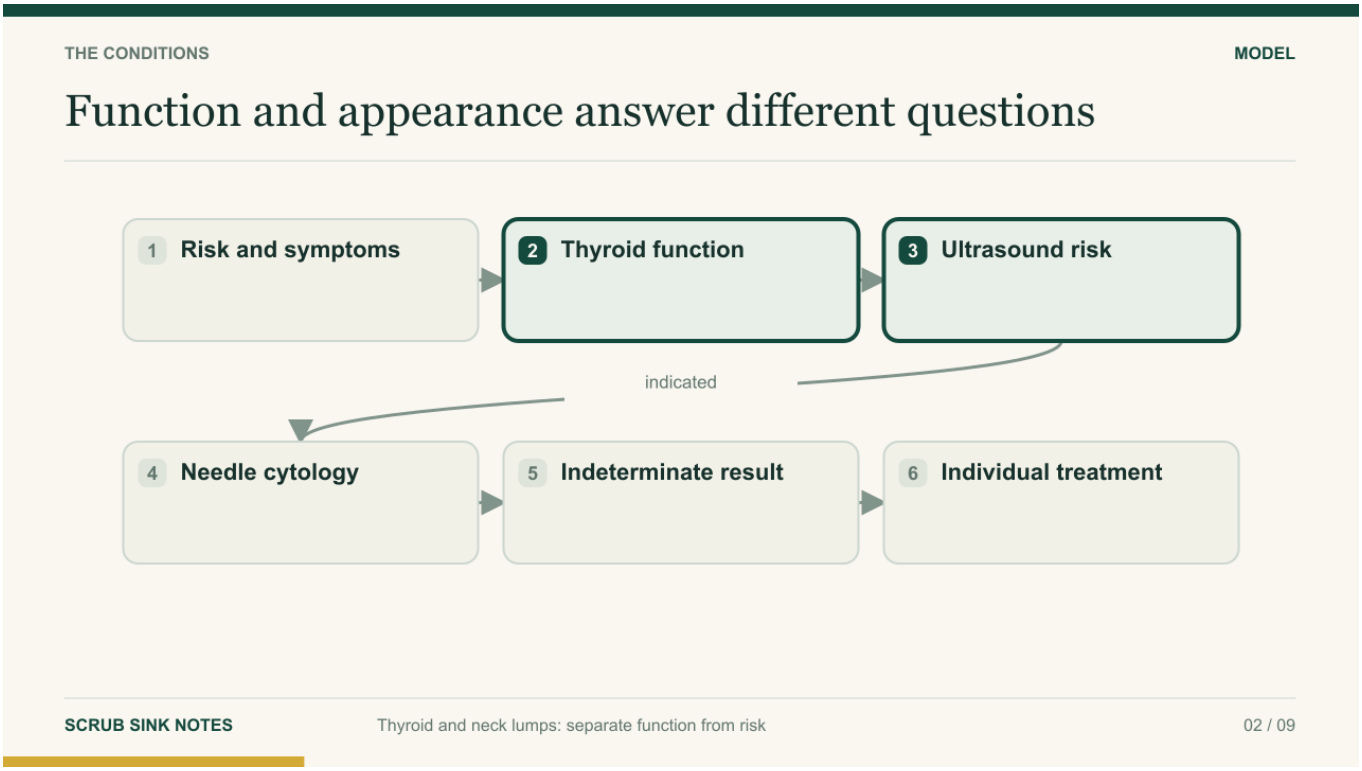
SCRUB SINK NOTES Thyroid and neck lumps: separate function from risk 01 / 09

Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 14 / REVIEW AND TRANSFER

Thyroid and neck lumps: separate function from risk



Thyroid-stimulating hormone tells you whether an autonomous nodule may be contributing to excess hormone production. A suppressed result can prompt functional imaging and an endocrine assessment. Ultrasound examines structure: composition, margins, echogenicity, shape, calcifications and suspicious nodes. A risk system combines features with size to guide whether needle sampling is appropriate. Function and appearance therefore complement each other. Neither an isolated size nor a normal hormone result determines the whole pathway.

Check the reasoning

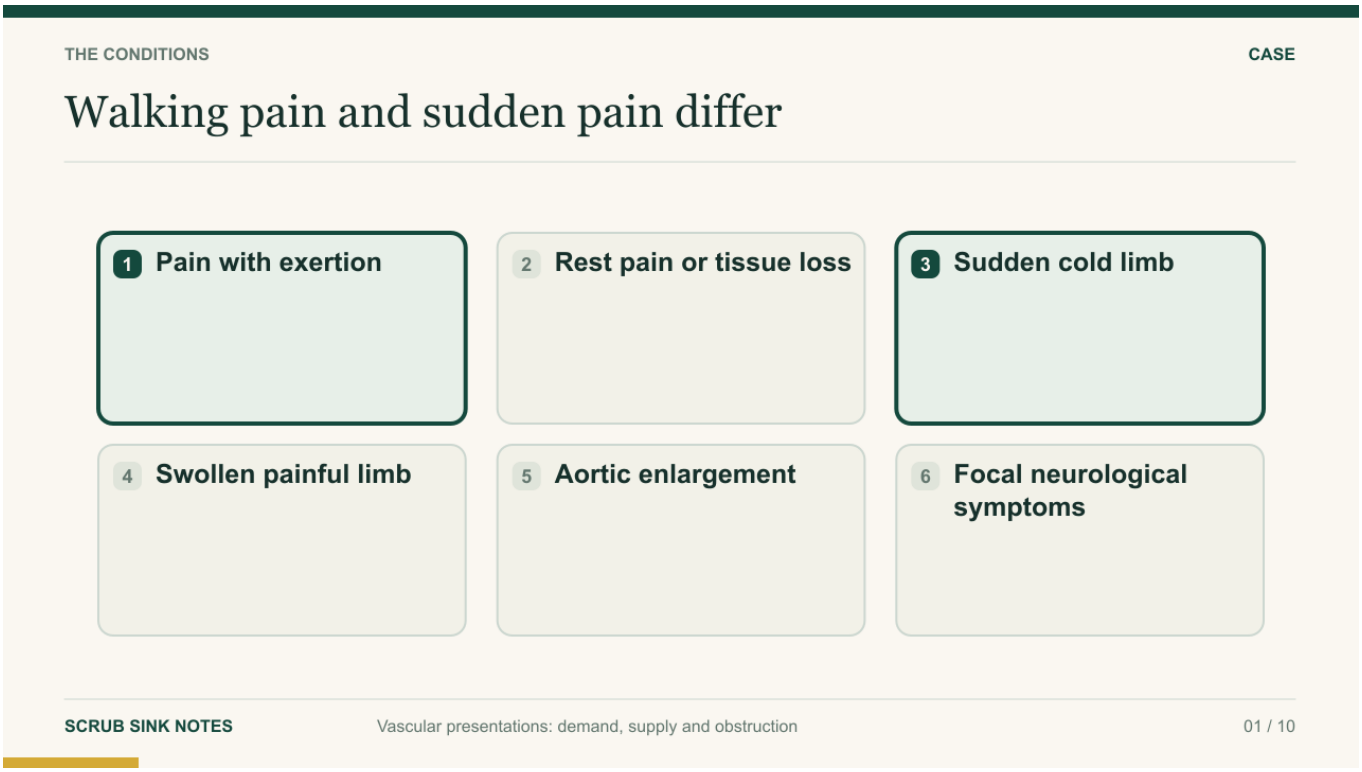
Pause and explain three results to a patient: a normal hormone level, a suspicious ultrasound pattern and an indeterminate needle sample. For each, say what the test has answered and what remains uncertain. Then describe the next decision without jumping directly from the word nodule to total thyroidectomy. A useful thyroid or neck-lump presentation connects location, function, structural risk and diagnostic limitations to an individualized specialist plan.

Change one fact. What would change your next step?

LESSON 15 / TRY THE CASE

Vascular presentations: demand, supply and obstruction

Compare two fictional patients. One develops calf pain after walking and improves with rest. Another develops sudden foot pain with coldness and altered sensation. Both may have arterial disease, but they do not share the same urgency. The first pattern suggests a mismatch between demand and blood delivery during activity. The second raises concern for an abrupt loss of supply to living tissue. Start with the time course and examine the limb now.

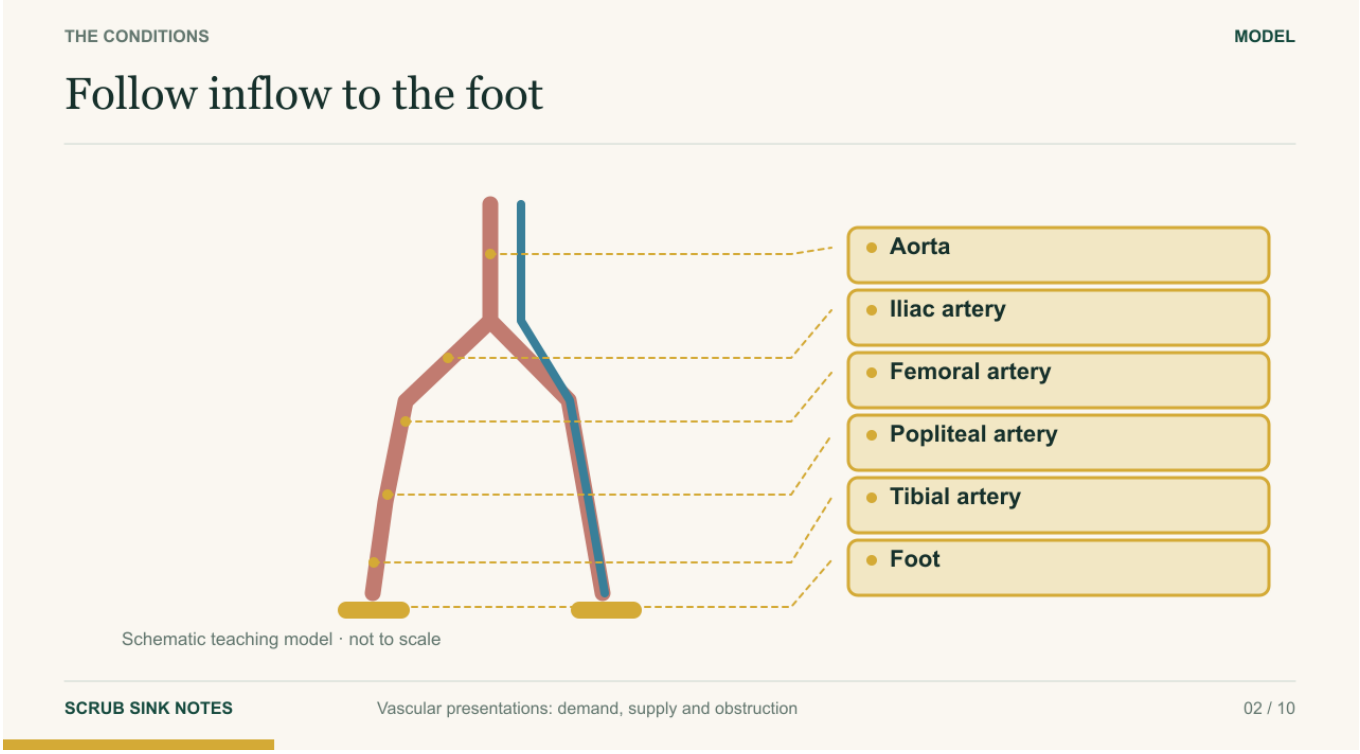


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 15 / REVIEW AND TRANSFER

Vascular presentations: demand, supply and obstruction



Trace the arterial route from aorta to iliac, femoral, popliteal and tibial vessels. Check pulses and compare the two sides, then assess skin, ulcers, sensation and movement. Calf symptoms may suggest disease lower in the arterial tree, while buttock or thigh symptoms may suggest inflow disease. An ankle-brachial index supports assessment, but calcification can make ankle pressures misleading. Toe pressures and other perfusion studies may help. A pressure ratio alone does not define the threat to the limb.

Check the reasoning

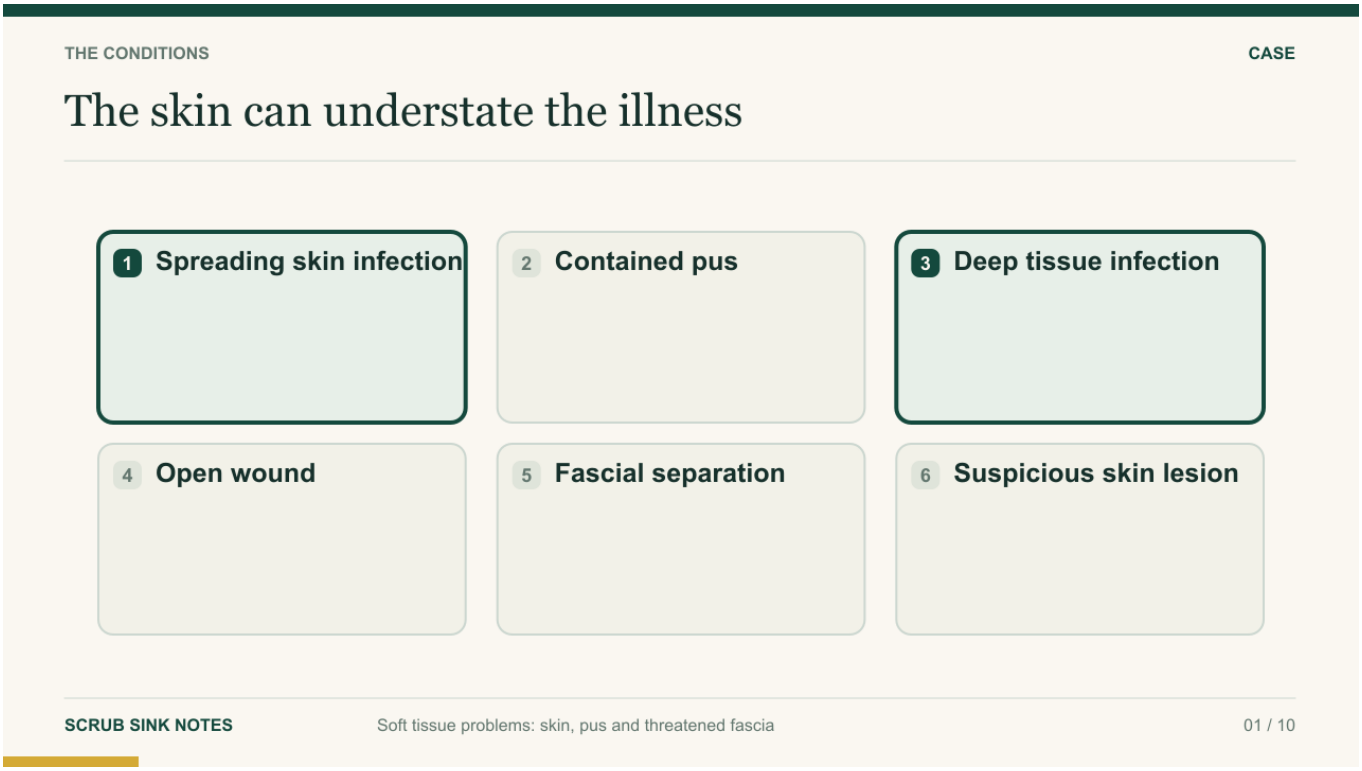
Pause and compare the walking-pain case with the cold-foot case. Explain the time course, the findings you would document and the reason the response differs. Add a patient with a swollen blue leg and say why venous disease can also become urgent. Your handover should describe perfusion, neurological function and tissue change, not simply list six words beginning with the same letter. Finish with who is reviewing the patient and what action is happening now.

Change one fact. What would change your next step?

LESSON 16 / TRY THE CASE

Soft tissue problems: skin, pus and threatened fascia

A fictional patient is referred with redness around a small wound. The skin finding is only the starting point. Ask whether infection is limited to skin, whether pus has collected, or whether a deeper tissue process could explain the pain and physiology. Rapid deterioration or severe pain out of proportion to visible change makes that distinction urgent. The assessment should connect the depth of the problem to the treatment it needs.

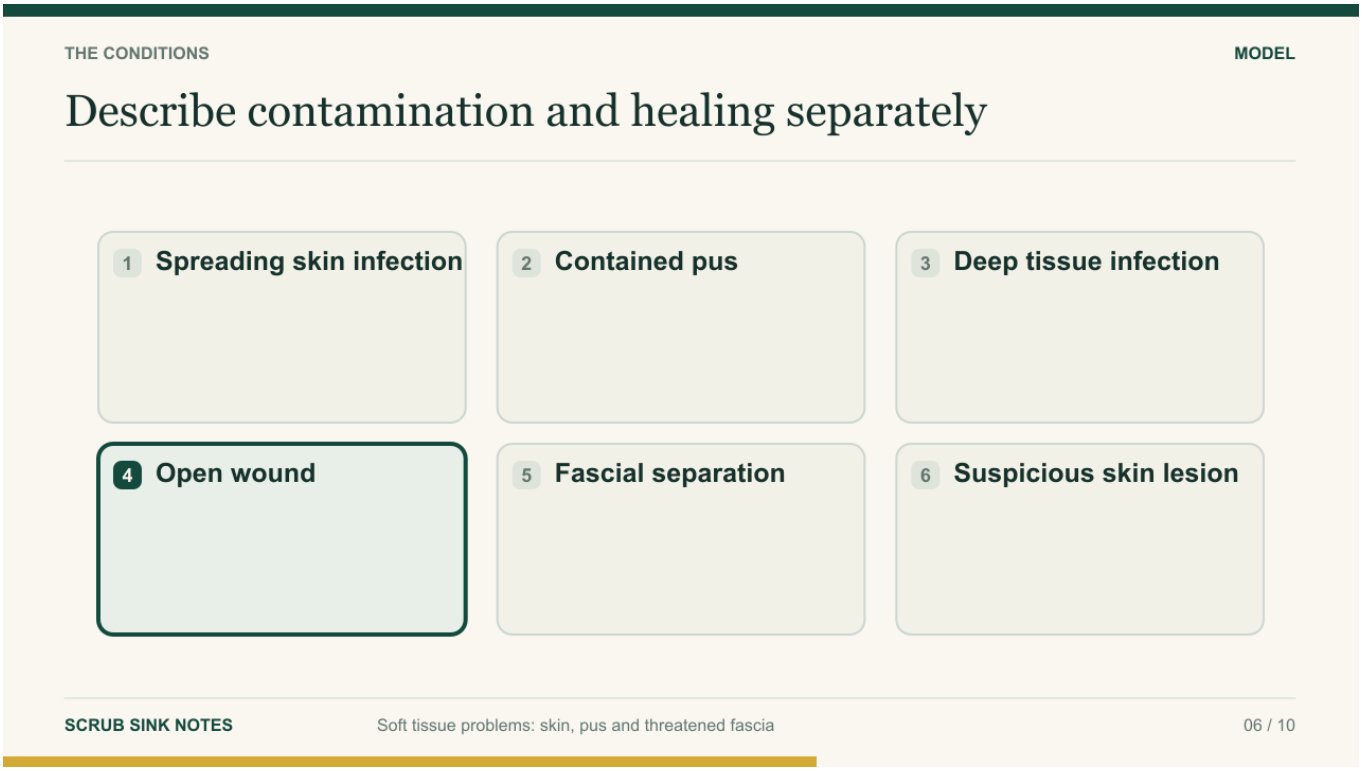


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 16 / REVIEW AND TRANSFER

Soft tissue problems: skin, pus and threatened fascia



Wound class describes the contamination encountered: clean, controlled entry into a viscus, gross contamination, or established infection. It helps explain risk without assigning one fixed infection percentage to every patient. Closure strategy is a separate decision. Primary healing brings edges together; secondary healing leaves the wound to granulate; delayed closure allows reassessment before approximation. Tissue viability, contamination and tension guide the choice. The mechanism is to create conditions in which healing can occur, rather than simply close every visible gap.

Check the reasoning

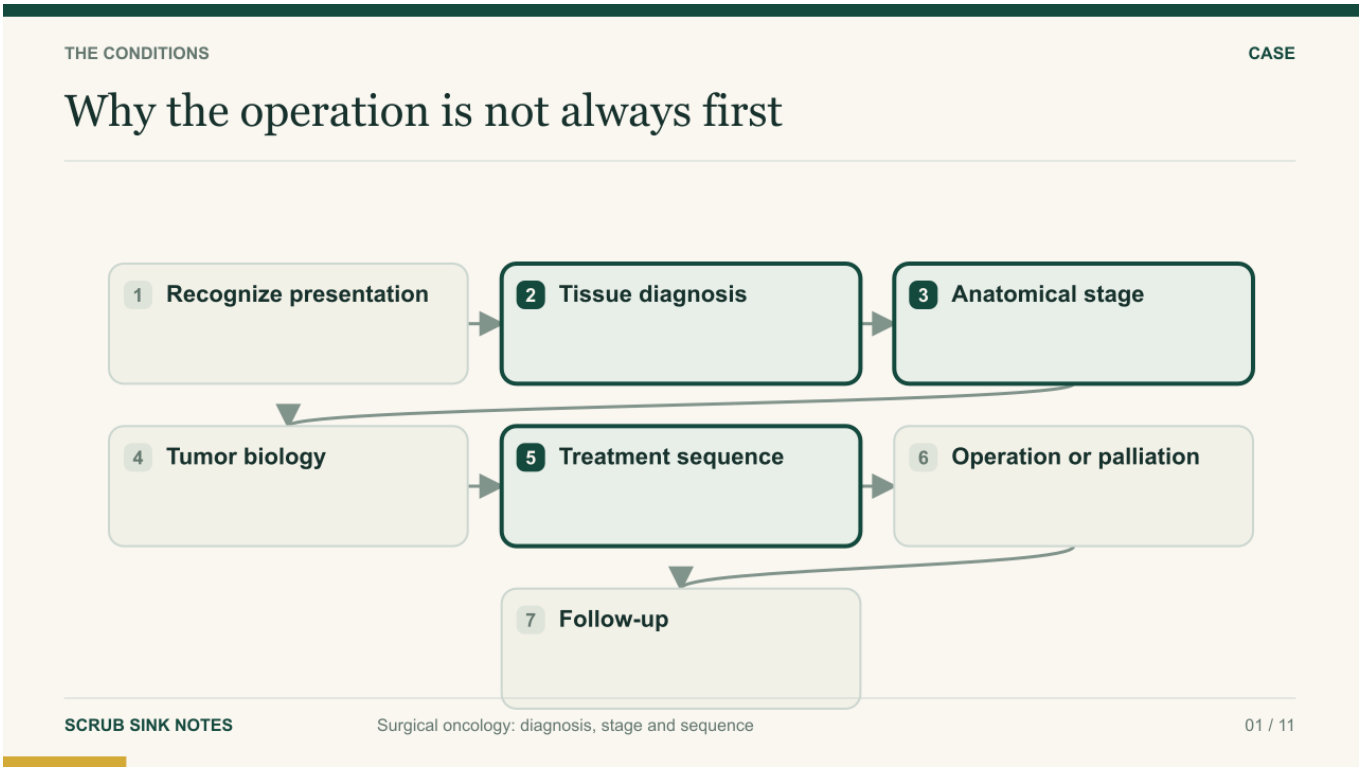
Pause and name the next step for four presentations: a stable superficial skin infection, a painful collection, rapidly worsening pain with systemic illness, and an evolving pigmented lesion. For each, explain what treatment addresses the mechanism and what expertise is needed. State the finding that would make you escalate. Your summary should show why antibiotics, drainage, debridement and diagnostic sampling solve different problems even when all four involve the skin.

Change one fact. What would change your next step?

LESSON 17 / TRY THE CASE

Surgical oncology: diagnosis, stage and sequence

A fictional patient has a biopsy confirming a gastrointestinal cancer and asks why surgery is not booked immediately. The answer begins with extent and treatment sequence. Removing a primary tumor can be valuable, but the team needs to know where disease is, what biology is present, what the patient can tolerate and which sequence offers benefit. Your clerkship task is to explain that reasoning clearly, rather than memorize a different operation for every organ.

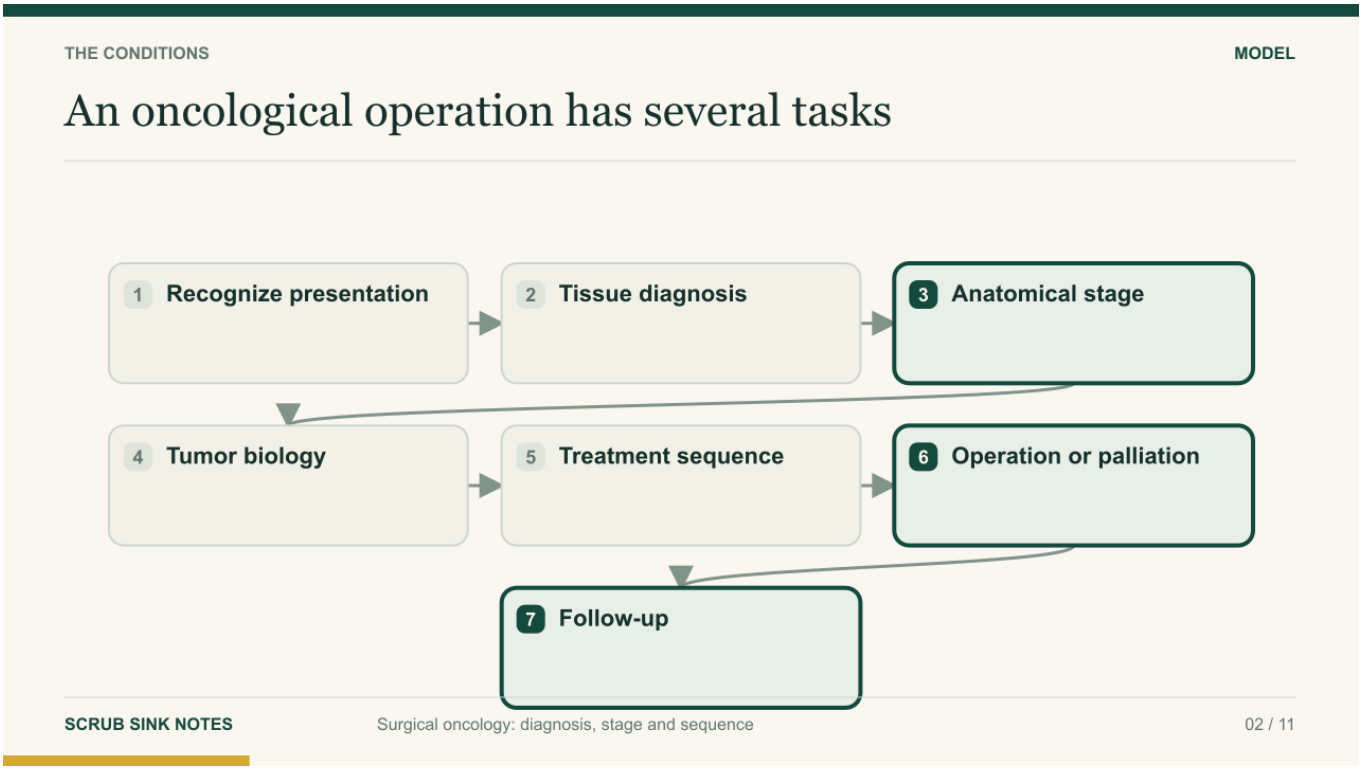


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 17 / REVIEW AND TRANSFER

Surgical oncology: diagnosis, stage and sequence



An operation may remove the primary with appropriate margins and regional tissue needed for staging, then reconstruct function where possible. Nodal assessment can change the stage and the postoperative plan. Palliation has a different goal: relieving obstruction, bleeding or pain through a stent, bypass, diversion or another intervention. Describe the intended benefit in the patient's terms. A large procedure is not inherently better if it cannot meet a worthwhile goal or carries disproportionate burden.

Check the reasoning

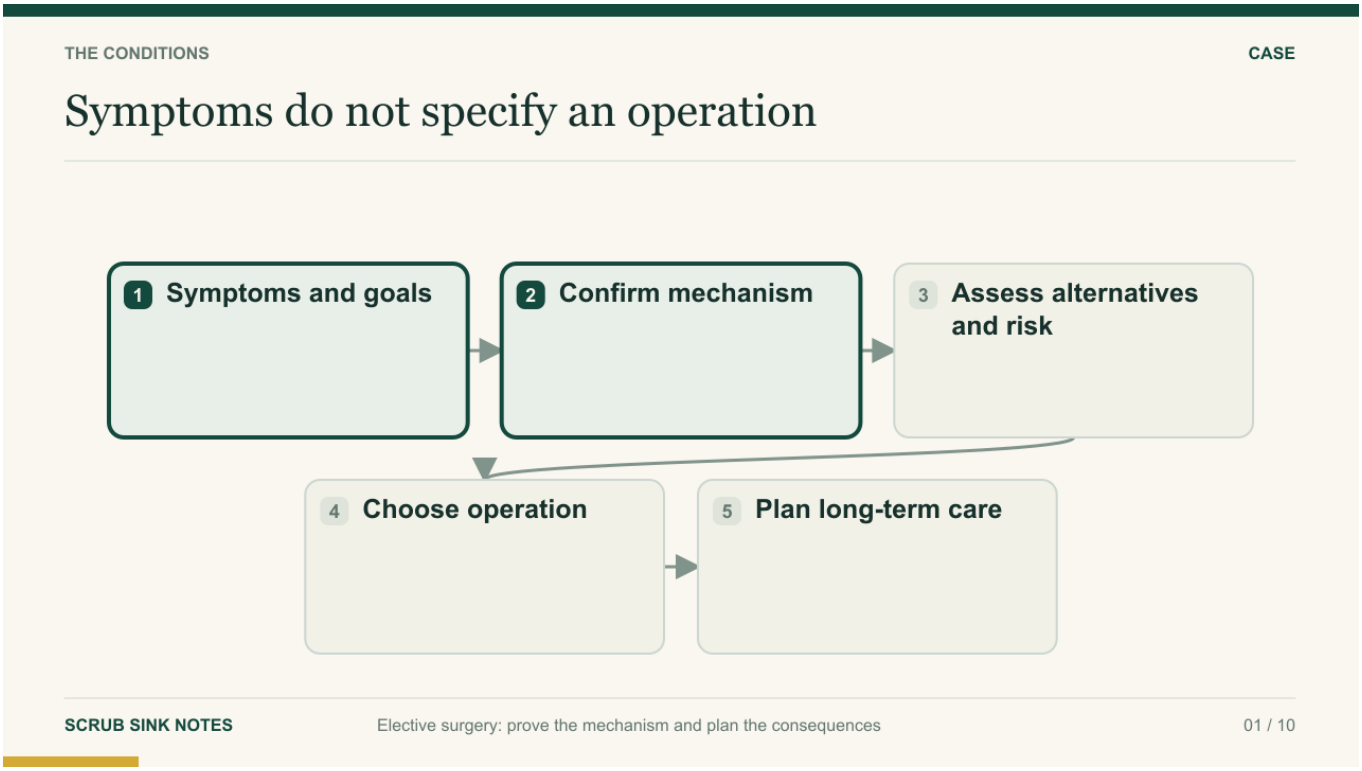
Pause and answer the patient's original question. Explain what is known from tissue, what staging must clarify and how that could alter the sequence. Then name the goal of the proposed operation or palliative treatment and one functional consequence the patient needs to understand. A useful oncology presentation includes diagnosis, extent, biology, fitness and intention. It leaves room for the multidisciplinary plan to change as pathology and treatment response add information.

Change one fact. What would change your next step?

LESSON 18 / TRY THE CASE

Elective surgery: prove the mechanism and plan the consequences

A fictional patient asks whether an operation can fix persistent regurgitation. Before discussing a named procedure, establish what mechanism is producing the symptoms and what the patient hopes to change. Elective surgery allows time to test that explanation, consider alternatives and plan consequences. This lesson applies that approach to foregut disease, metabolic surgery, abdominal wall repair and splenectomy. The key is to connect each operation to a problem it can actually improve.

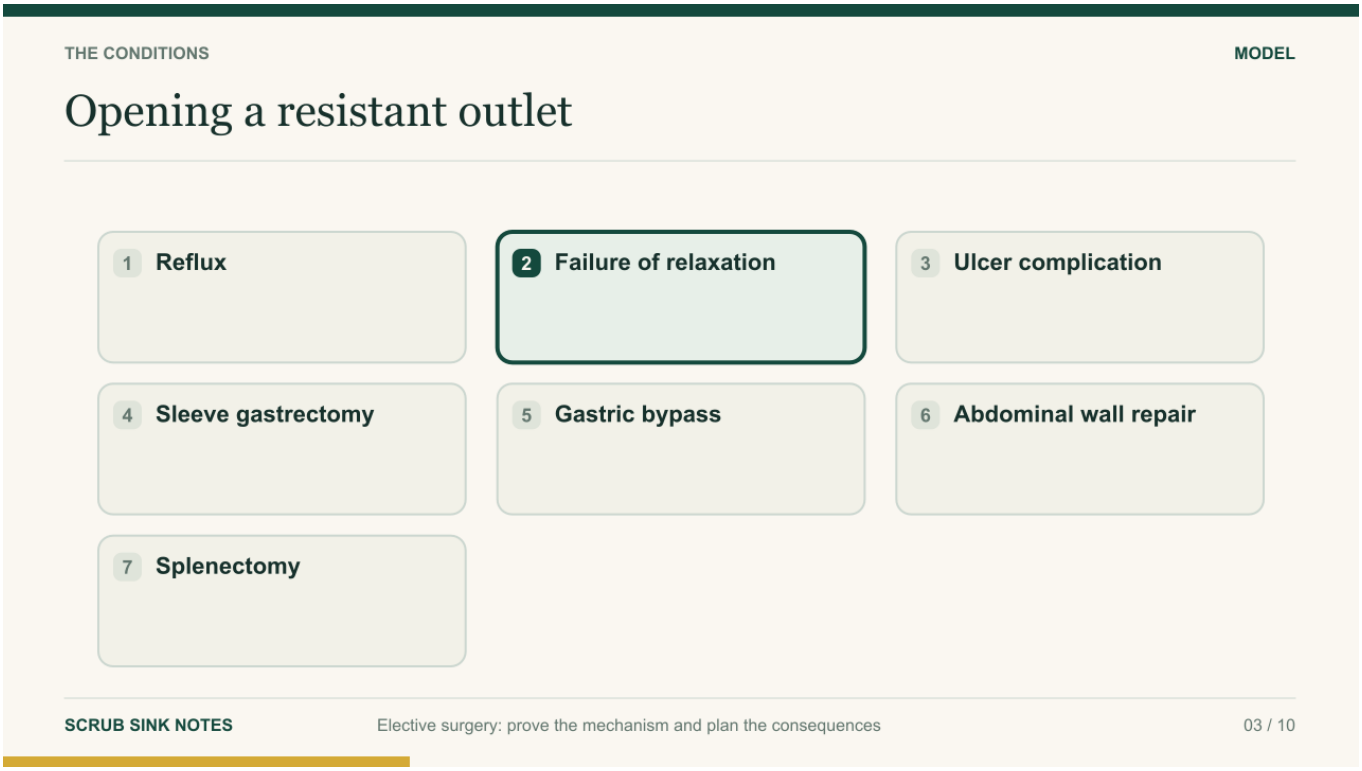


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 18 / REVIEW AND TRANSFER

Elective surgery: prove the mechanism and plan the consequences



In achalasia, poor lower sphincter relaxation and absent effective peristalsis interfere with passage. Difficulty with both liquids and solids and regurgitation fit that mechanism. Manometry confirms the disorder. Dilatation or a myotomy aims to reduce outlet resistance; selected surgical approaches also address reflux risk. Compare that with fundoplication. One operation strengthens a barrier that permits reflux, while the other releases resistance that impairs emptying. Similar symptoms can therefore lead to very different procedures.

Check the reasoning

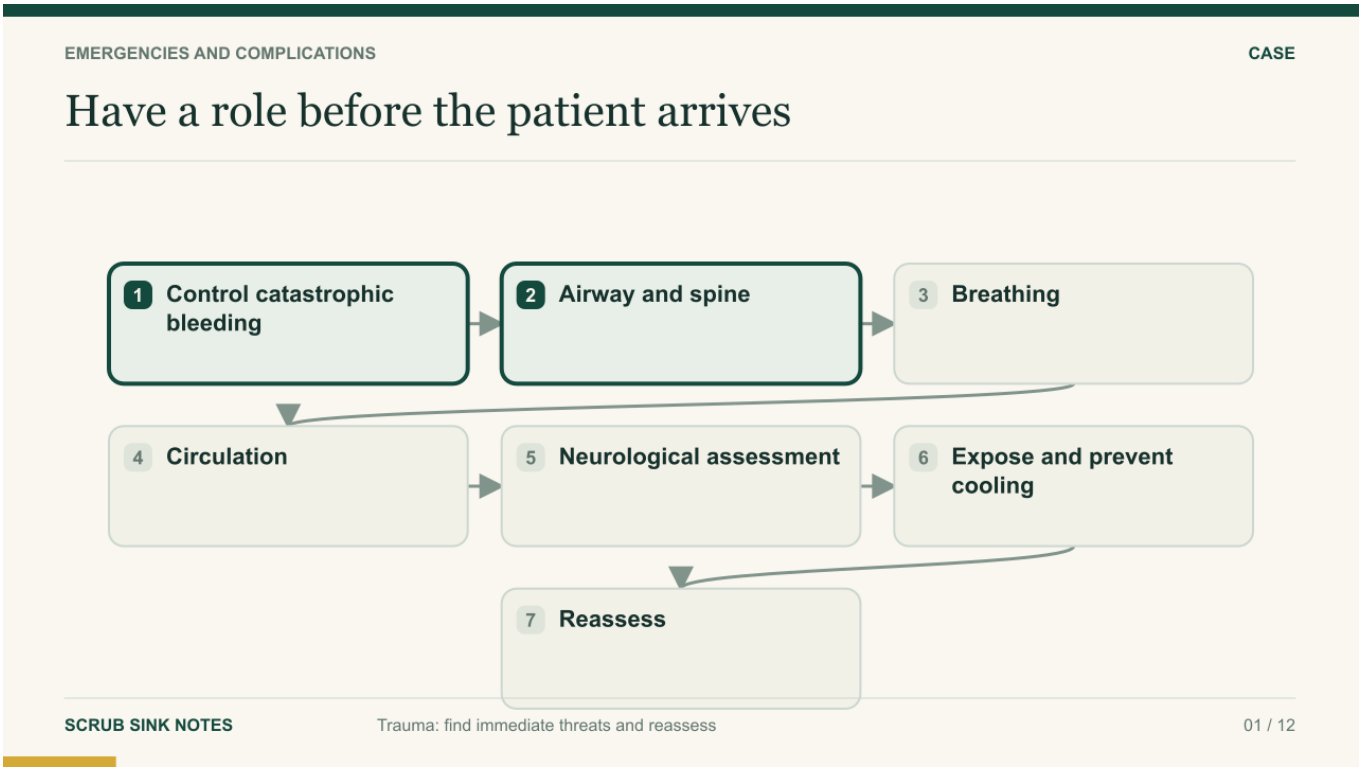
Pause and choose one of these patients: proven reflux, achalasia, severe weight-related disease or a symptomatic hernia. Explain the mechanism, the evidence you need before treatment, the intended benefit and one important consequence. Finish with the follow-up required. A complete elective plan is more than a booking for surgery. It connects a confirmed problem to a procedure, prepares the patient for its tradeoffs and carries responsibility into recovery and long-term care.

Change one fact. What would change your next step?

LESSON 19 / TRY THE CASE

Trauma: find immediate threats and reassess

A fictional trauma patient is arriving after a major collision. Before arrival, the team needs a leader, clear roles, protective equipment and a shared report of mechanism, physiology and treatment. As a student, know who supervises your task and how to report a change. The primary survey gives the team an order for addressing immediate threats. Catastrophic external hemorrhage may require control at the very start, while other assessment and resuscitation continue in parallel.

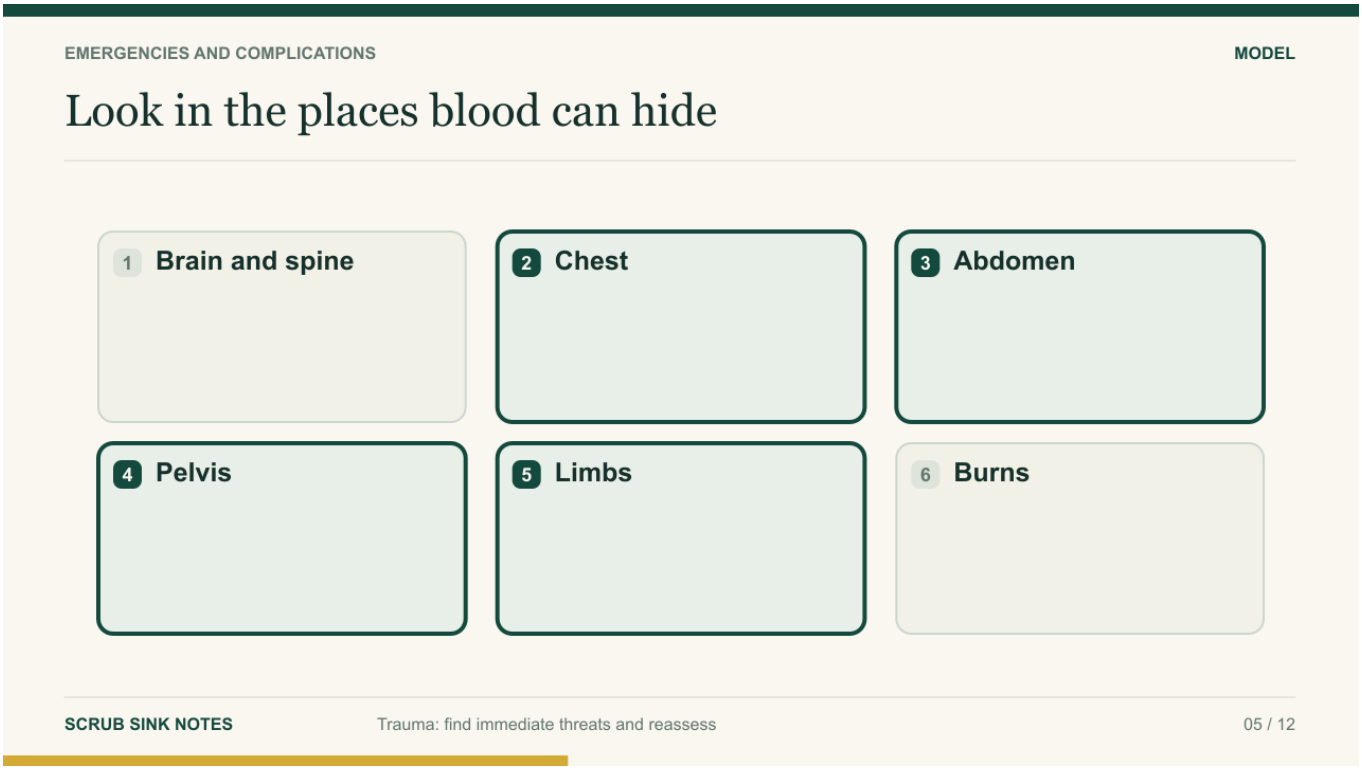


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 19 / REVIEW AND TRANSFER

Trauma: find immediate threats and reassess



For circulatory compromise, control external bleeding and assess the chest, abdomen, pelvis and long bones. Direct pressure, appropriate tourniquet use, pelvic stabilization and splinting address different sources. Major hemorrhage may require a coordinated blood-product pathway rather than repeated large crystalloid volumes. Give time-critical medicines such as tranexamic acid when indicated by the trauma protocol. Pulse, pressure, skin and consciousness help assess response, but a particular heart rate does not reveal an exact percentage of blood lost.

Check the reasoning

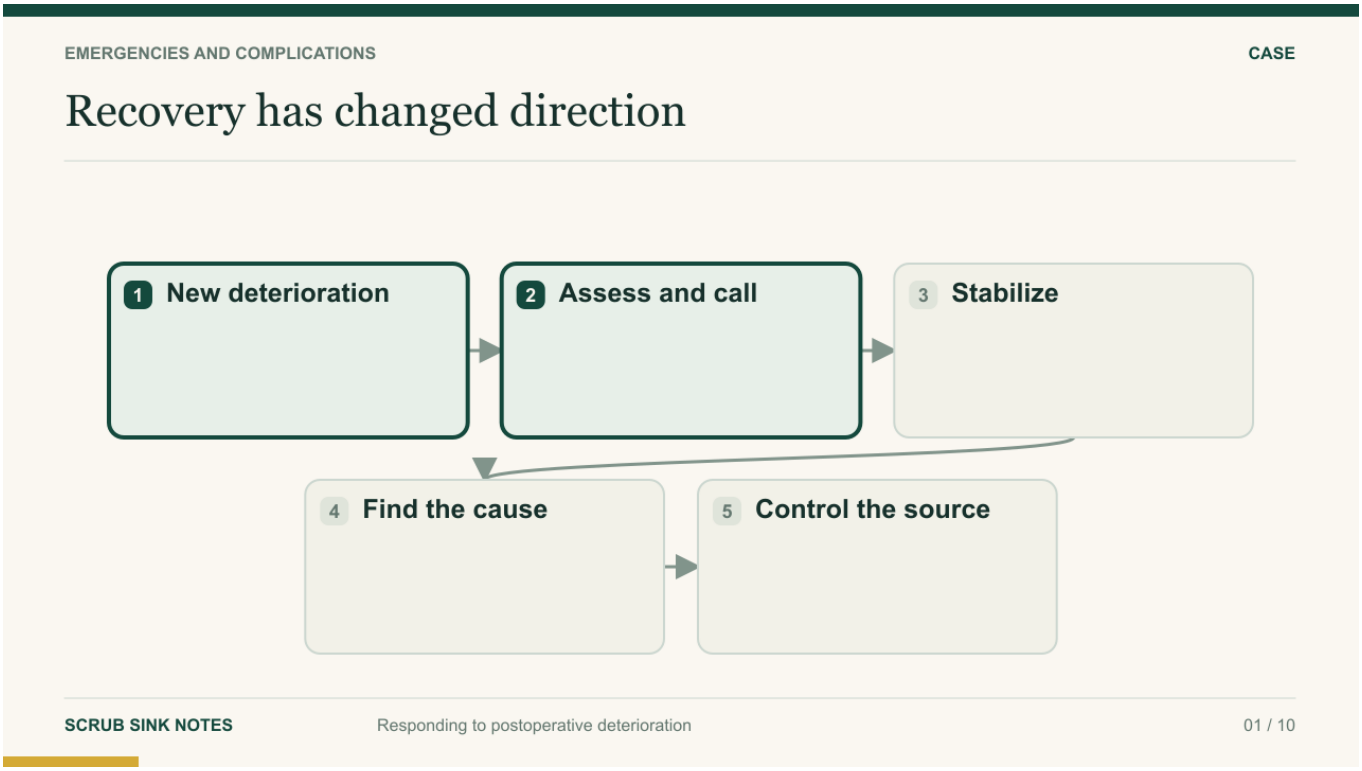
The accompanying source summary also revisits gastrointestinal bleeding, diverticular complications, perianal sepsis, breast assessment and neck masses. Their shared principle is to establish the problem and treat physiology while obtaining the right specialist assessment. A persistent adult neck mass needs investigation; a rapidly worsening perineal infection needs urgent source control. In trauma, make your own contribution specific: describe the current threat, the change after treatment and the next reassessment. Pause and deliver that update in thirty seconds.

Change one fact. What would change your next step?

LESSON 20 / TRY THE CASE

Responding to postoperative deterioration

A patient recovering from an abdominal operation becomes less alert and their pulse rises. Begin by seeing the patient, checking airway, breathing and circulation, and calling for appropriate help. Tell the team what changed and when. Bleeding and an intra-abdominal complication deserve early consideration, but keep other causes in view. The first task is to recognize deterioration and support the patient while the cause is investigated.

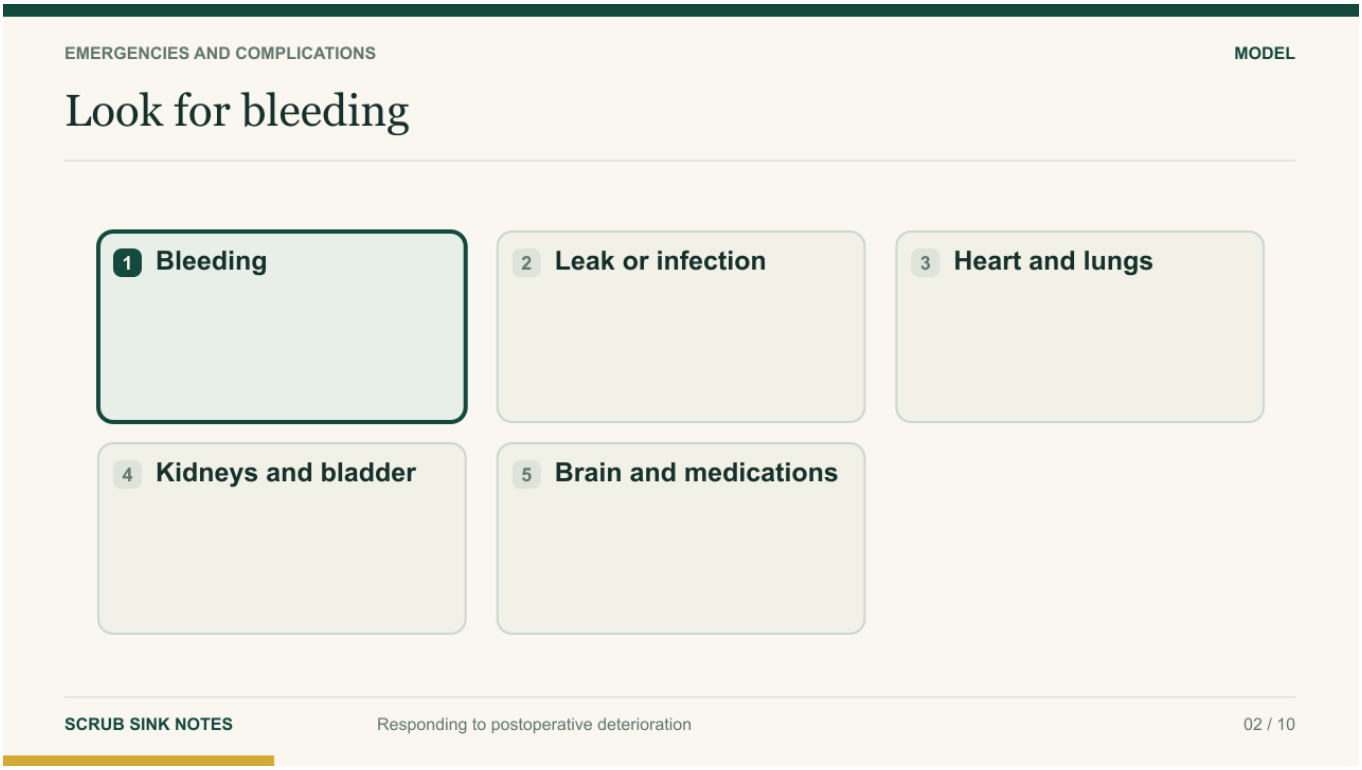


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 20 / REVIEW AND TRANSFER

Responding to postoperative deterioration



Bleeding may be visible in a drain, concealed in the abdomen or compressing a structure such as the airway after neck surgery. Hemoglobin can lag behind acute blood loss, so assess the clinical state and trends. The team arranges access, blood tests, crossmatching, resuscitation and control of bleeding. Threatened airway from a postoperative neck hematoma requires immediate emergency surgical and anesthesia response. A student calls for help and supports the trained team.

Check the reasoning

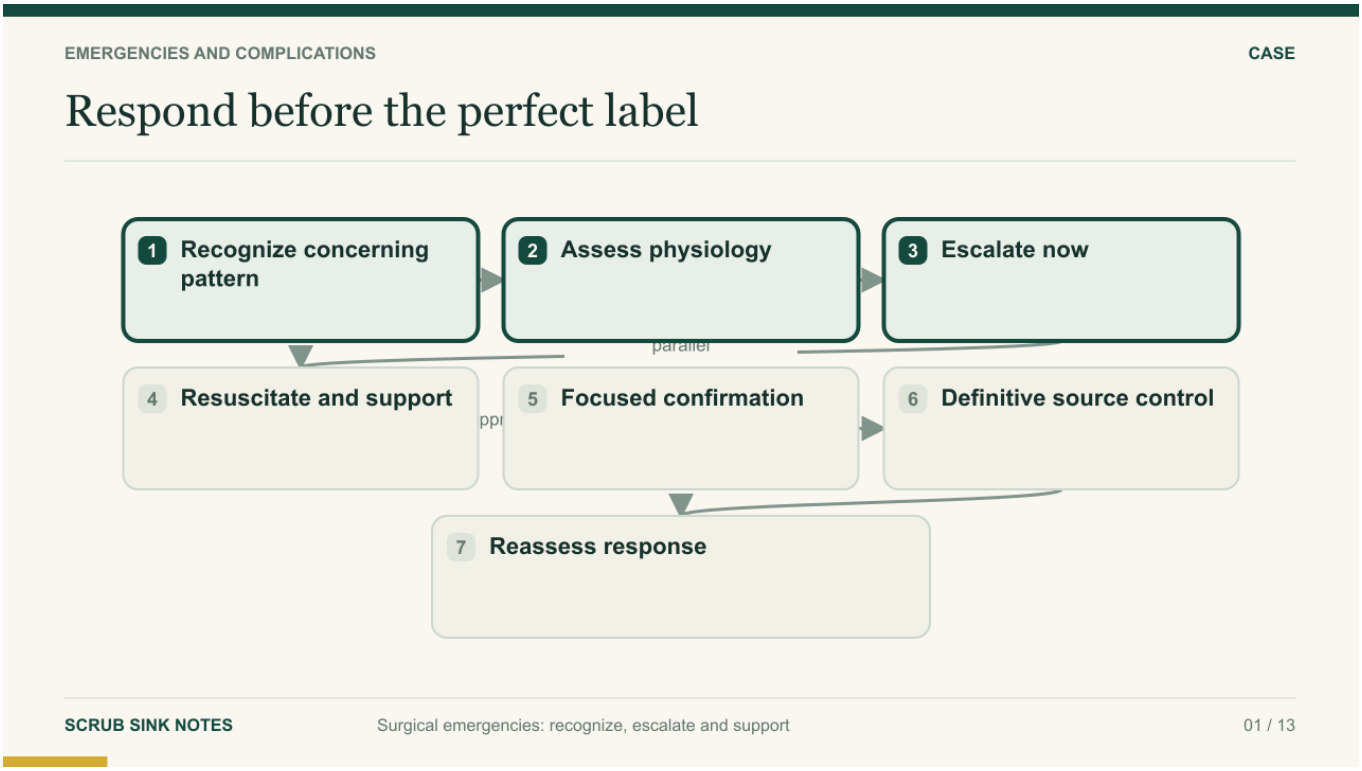
Return to the patient with a rising pulse and altered alertness. State the operation, postoperative day, time course, current observations and the finding that worries you most. Name the immediate help you need. Then explain two competing causes and the evidence that would distinguish them. End with what has already been done and what remains pending. A clear handover lets the next clinician act on your assessment without reconstructing it.

Change one fact. What would change your next step?

LESSON 21 / TRY THE CASE

Surgical emergencies: recognize, escalate and support

A fictional patient becomes unwell while you are collecting a history. You do not yet know the diagnosis. Start with current physiology, call for help and continue a focused assessment. Surgical emergencies share mechanisms: bleeding, lost blood supply, uncontrolled infection, pressure and leakage from structures that should contain their contents. We will connect each mechanism to recognizable patterns and the response it needs. The aim is timely action with appropriate supervision, not a student independently performing a catalogue of emergency procedures.

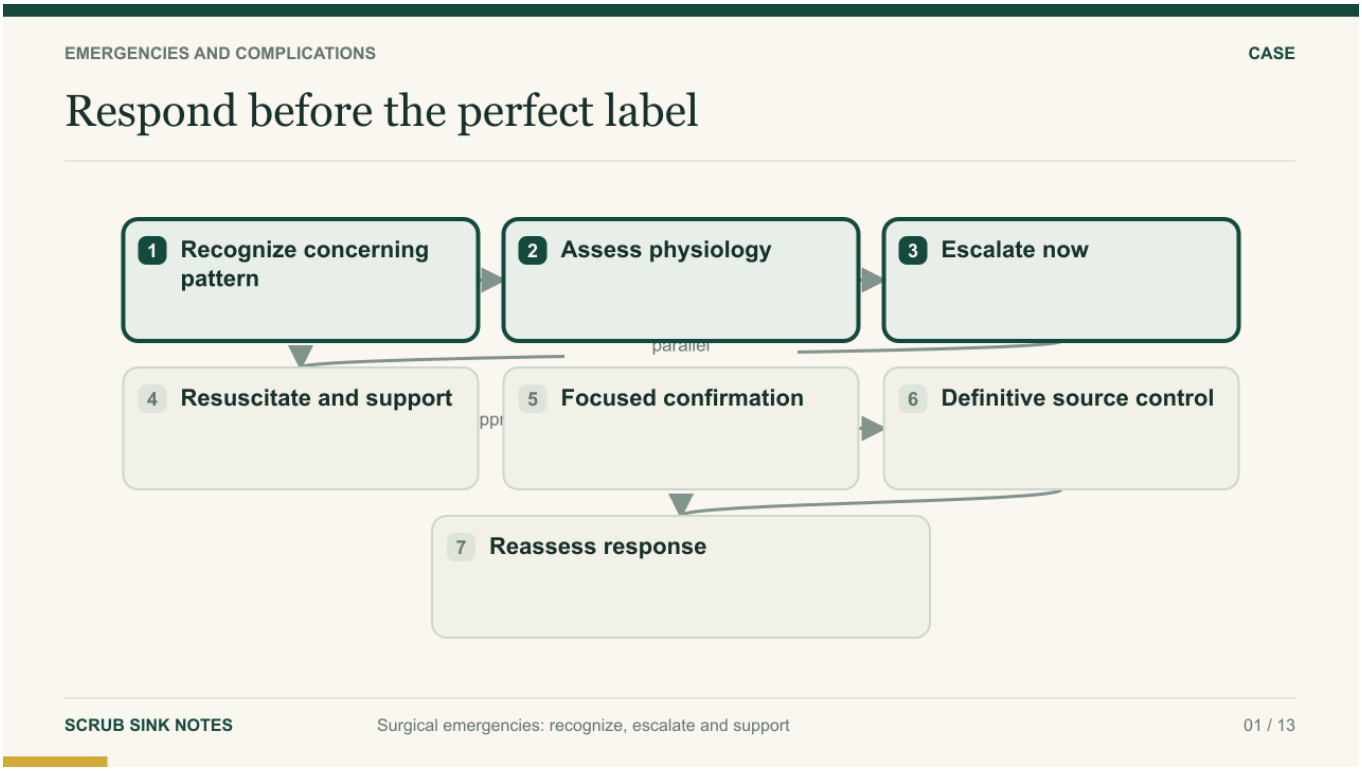


Your first response

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LESSON 21 / REVIEW AND TRANSFER

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Check the reasoning

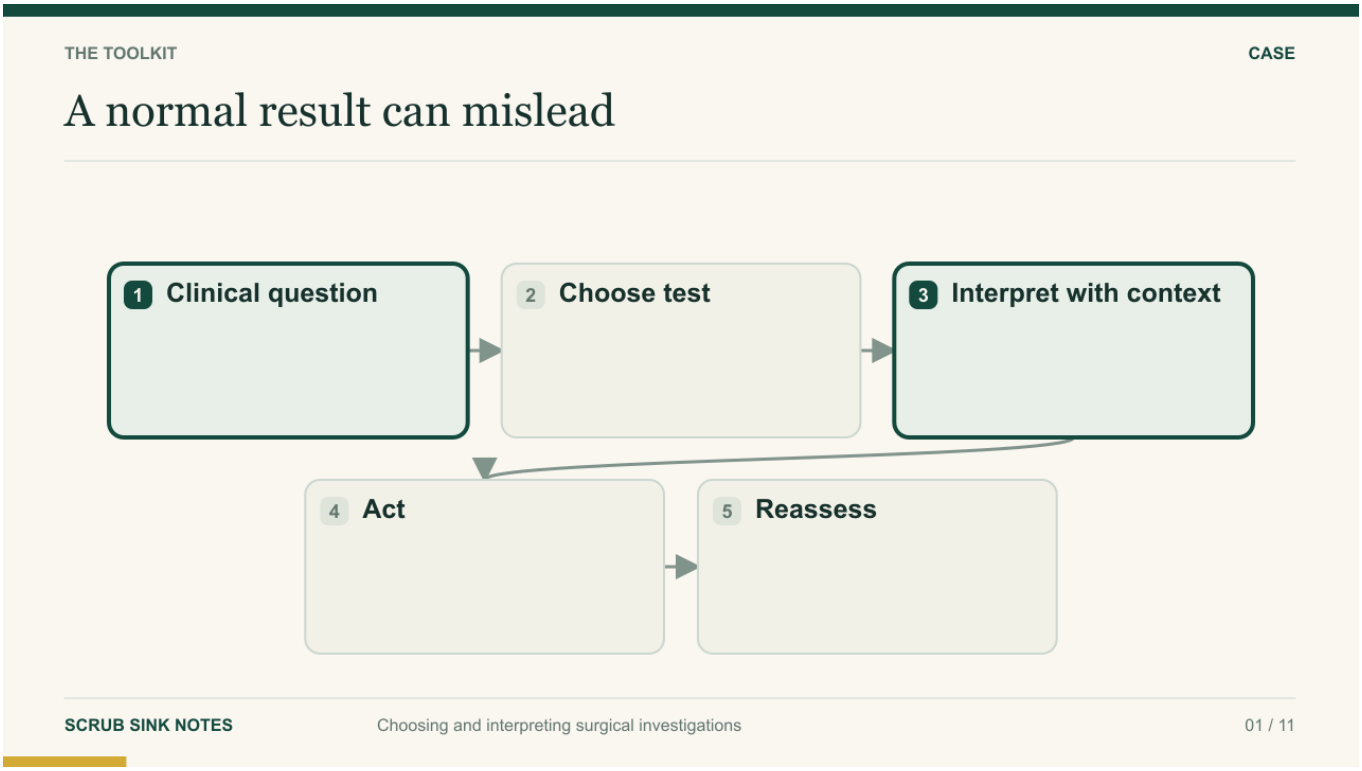
Pause and choose one case from the lesson. Make a thirty-second emergency call. Say where you are, what changed, the current physiology and the mechanism you are worried about. State what support is underway and what help you need now. Then say when you will reassess or call again if the patient worsens. A clear call turns recognition into action. A long list of possible diagnoses without an immediate request can leave the patient waiting while everyone assumes someone else is responding.

Change one fact. What would change your next step?

LESSON 22 / TRY THE CASE

Choosing and interpreting surgical investigations

A patient has new abdominal pain and looks unwell, but the first hemoglobin and white count are within range. Do these results settle the assessment? Hemoglobin may initially conceal acute blood loss, while a normal white count does not exclude an important surgical diagnosis. Begin with the clinical question. A result becomes useful when you connect it to timing, baseline values, examination and what you will do next.

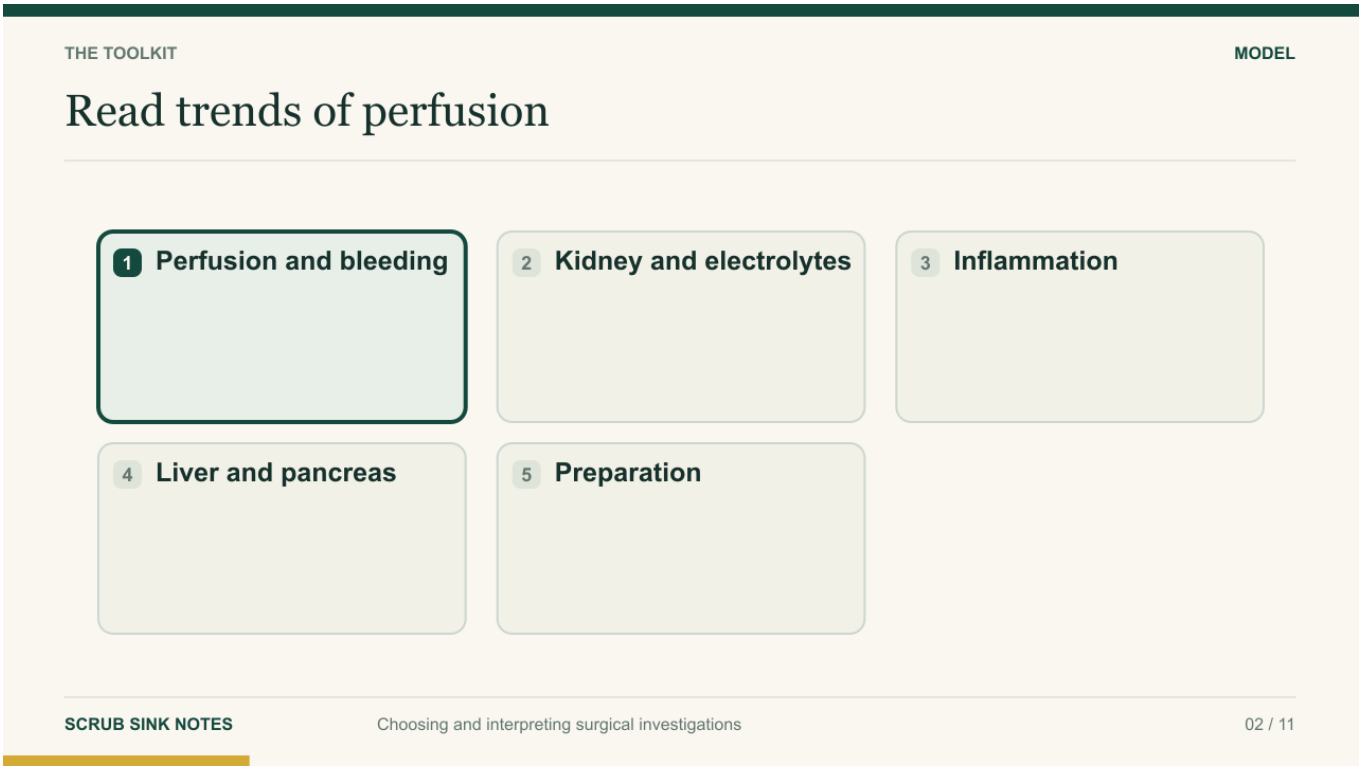


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 22 / REVIEW AND TRANSFER

Choosing and interpreting surgical investigations



Trend hemoglobin alongside bleeding and perfusion. Restrictive transfusion thresholds apply to selected stable patients and must be individualized, especially with active bleeding or ischemia. Creatinine helps identify changing kidney function. Lactate may rise with impaired perfusion and other physiological stress. A rising value with abdominal pain increases concern, but a normal value cannot guarantee viable bowel. Reassess the patient while arranging the next step.

Check the reasoning

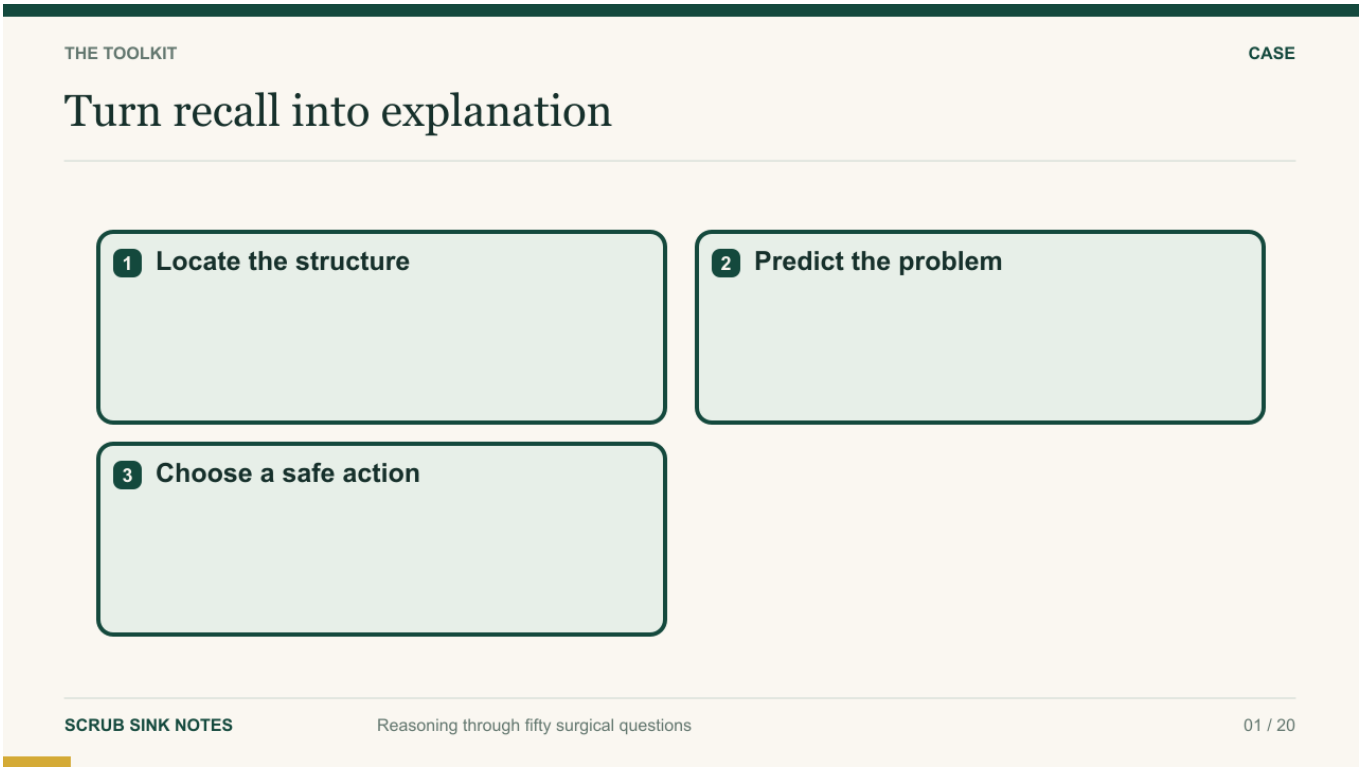
Pause with three requests, a lactate, an abdominal computed tomography scan and a chest radiograph after tube placement. For each, name the clinical question, one limitation and the action the result could enable. Then explain what you would do if the patient worsened while waiting. Investigations support assessment and treatment. Their value comes from using the result at the right time in the right patient.

Change one fact. What would change your next step?

LESSON 23 / TRY THE CASE

Reasoning through fifty surgical questions

A question on rounds often sounds like a request for a fact. The useful answer connects the fact to anatomy, physiology or a decision. This lesson revisits fifty questions in groups. Pause before each explanation and say the answer aloud. Then add why it matters. If the clinical situation is uncertain, identify the information you still need. A concise explanation is more valuable than a confident number detached from the patient.

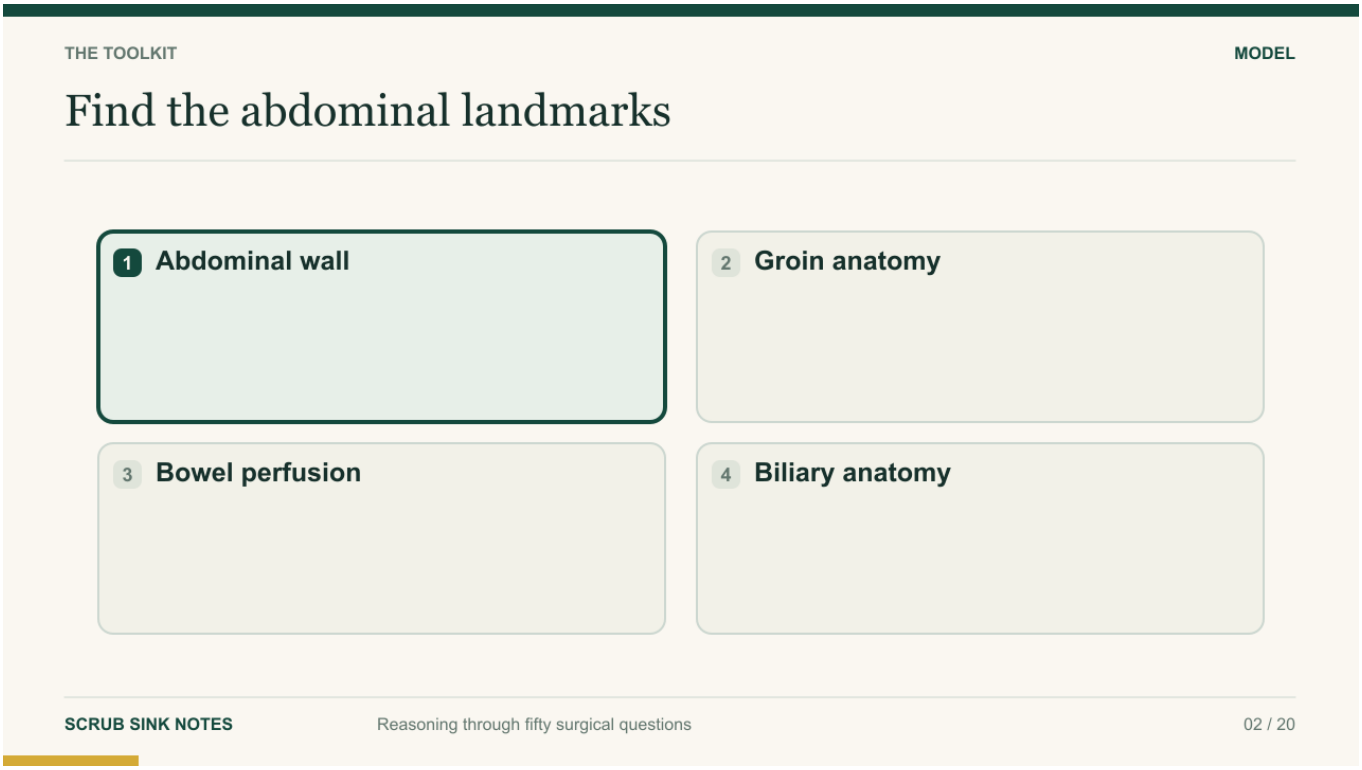


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 23 / REVIEW AND TRANSFER

Reasoning through fifty surgical questions



McBurney's point lies about one third of the distance from the anterior superior iliac spine toward the umbilicus. It is a surface landmark associated with classic appendiceal tenderness, while anatomy and presentations vary. A midline laparotomy passes through skin, subcutaneous tissue, the linea alba and deeper fascial and peritoneal layers. The midline avoids cutting through rectus muscle, but the incision still requires attention to bleeding and structures underneath.

Check the reasoning

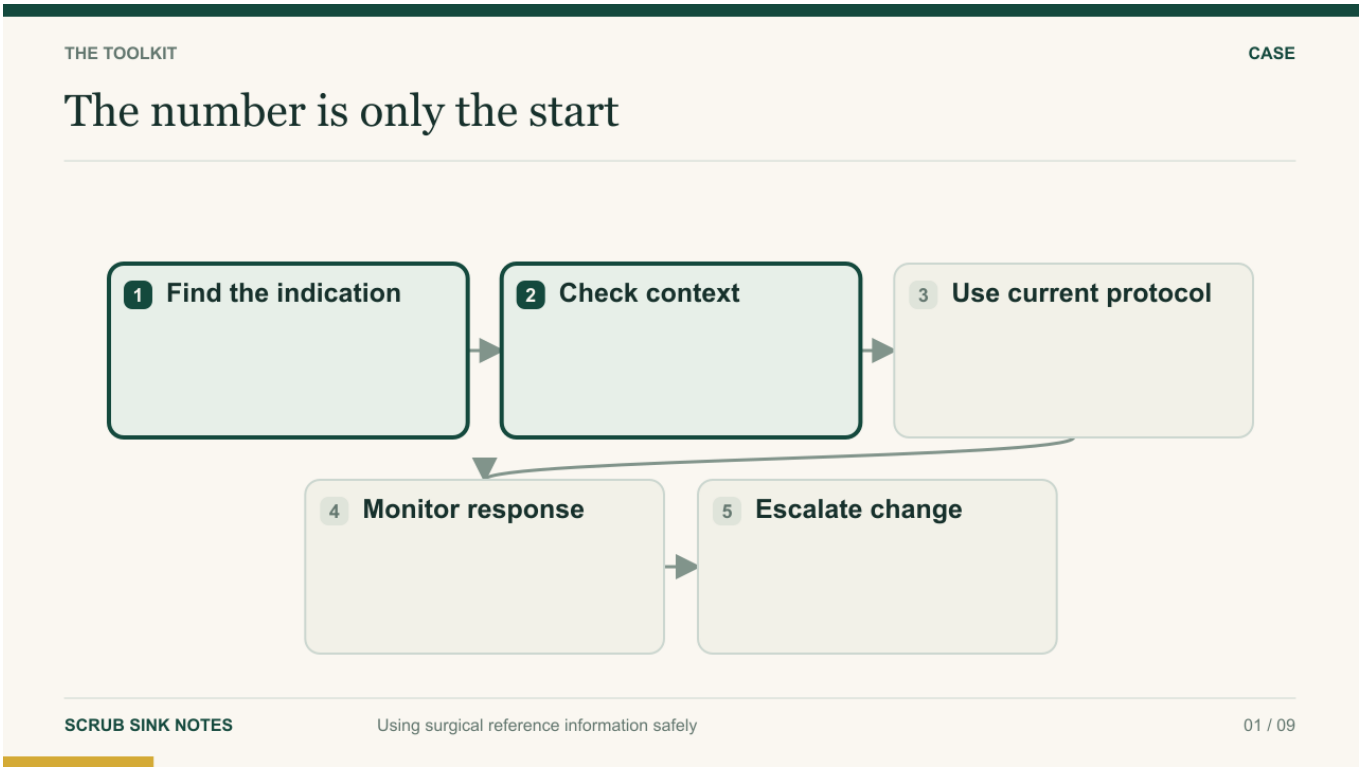
Diverticular bleeding is an important cause of significant, often painless lower gastrointestinal bleeding, but the patient still needs stability assessment and investigation suited to the bleeding pattern. A rising lactate in abdominal pain raises concern about perfusion, ischemia or sepsis and needs prompt reassessment. Now select five questions from this lesson. For each, give the fact, explain the mechanism and state the clinical action or uncertainty it creates.

Change one fact. What would change your next step?

LESSON 24 / TRY THE CASE

Using surgical reference information safely

A reference table gives a fluid volume, a transfusion threshold or a urine-output target. Before using it, identify the patient's problem. Maintenance, abnormal losses and resuscitation require different plans. Potassium replacement also depends on renal function and monitoring. A low hemoglobin in a stable patient differs from active hemorrhage. Use the current patient-specific prescription and reassess its effect. The adult maintenance calculation is not interchangeable with the hourly four-two-one formula.

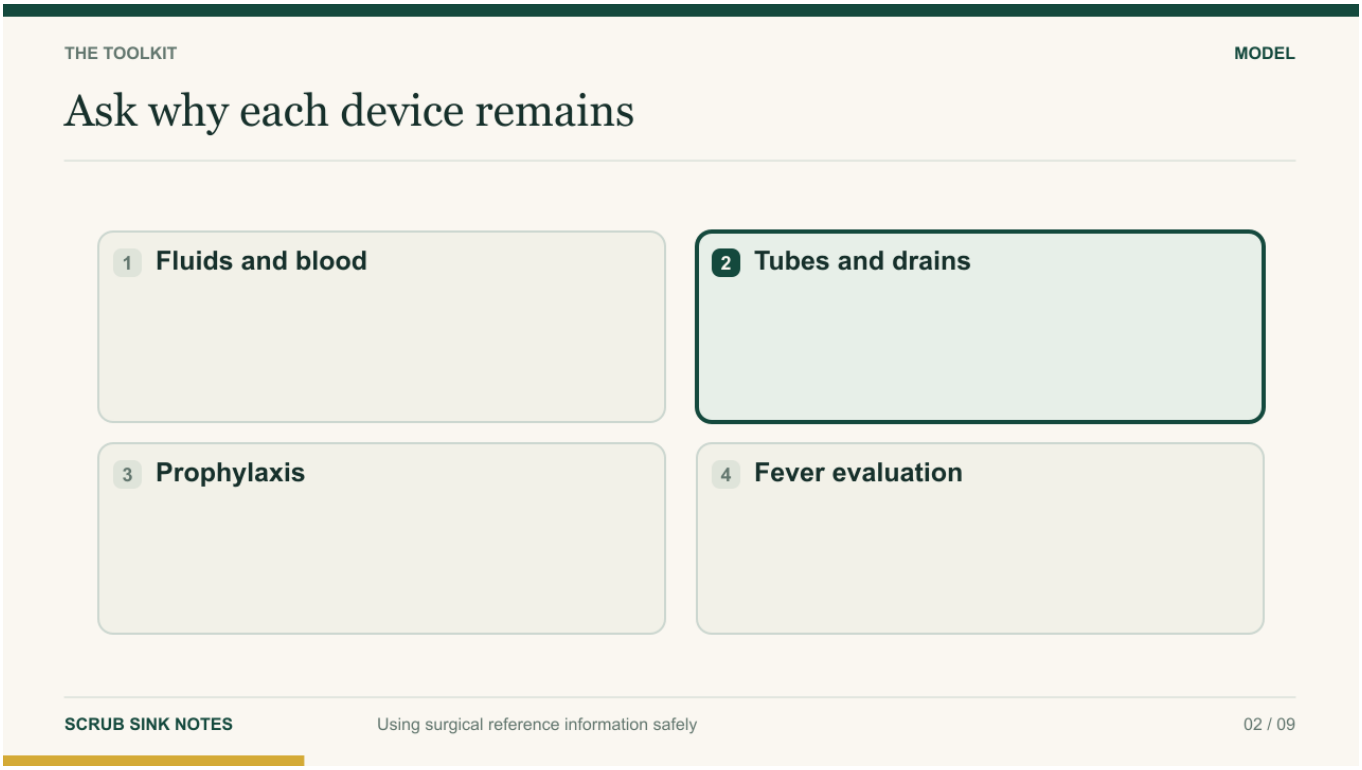


Your first response

What is the central decision? Which fact matters most? State an action and the reason for it.

LESSON 24 / REVIEW AND TRANSFER

Using surgical reference information safely



For each tube, record its indication and the finding that would prompt review. Measure gastric losses, watch urinary output and review catheter necessity. Drain volume and character can reveal a new problem. Chest drains require trained assessment of lung expansion, output and air leak. Stoma colour, output and hydration matter more than a number copied from yesterday. Removal depends on the operation, clinical course and supervising plan.

Check the reasoning

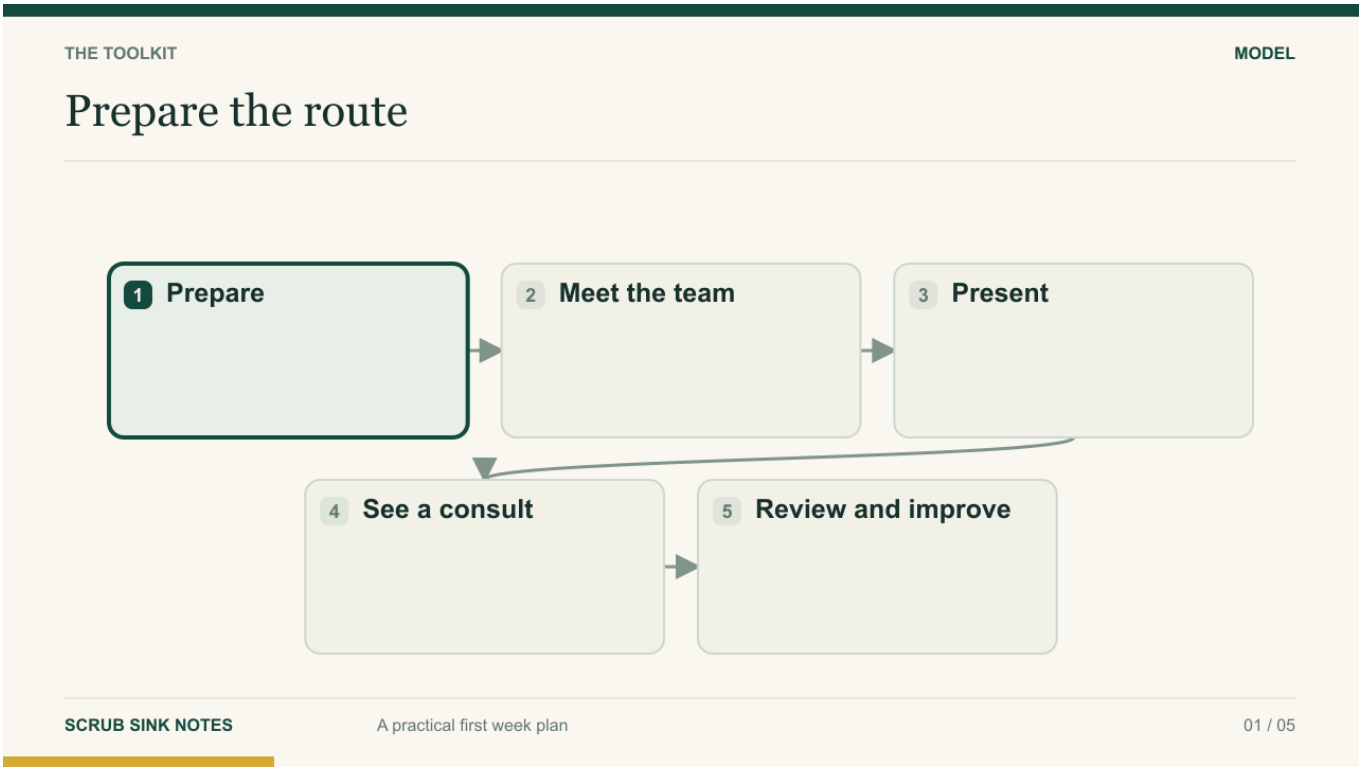
New chest pain, breathlessness, confusion, low blood pressure, a marked pulse change, low urine output, unexpected drain bleeding, peritonism or a dusky stoma may need urgent review. So can a nurse's concern before the numbers are dramatic. Pause and rehearse a call with the operation, current problem, trends and the action you need. Confirm the escalation plan rather than assuming that an observation below a printed threshold is safe.

Change one fact. What would change your next step?

LESSON 25 / TRY THE CASE

A practical first week plan

Before day one, find the meeting time, location, operating list and route to contact your supervising team. Review the basic presentation structure and the next operation's anatomy. Practice simple ties on a model. Prepare the equipment and secure note-taking method your placement permits. Your aim is to arrive able to find the team and ask useful questions about how the service works.

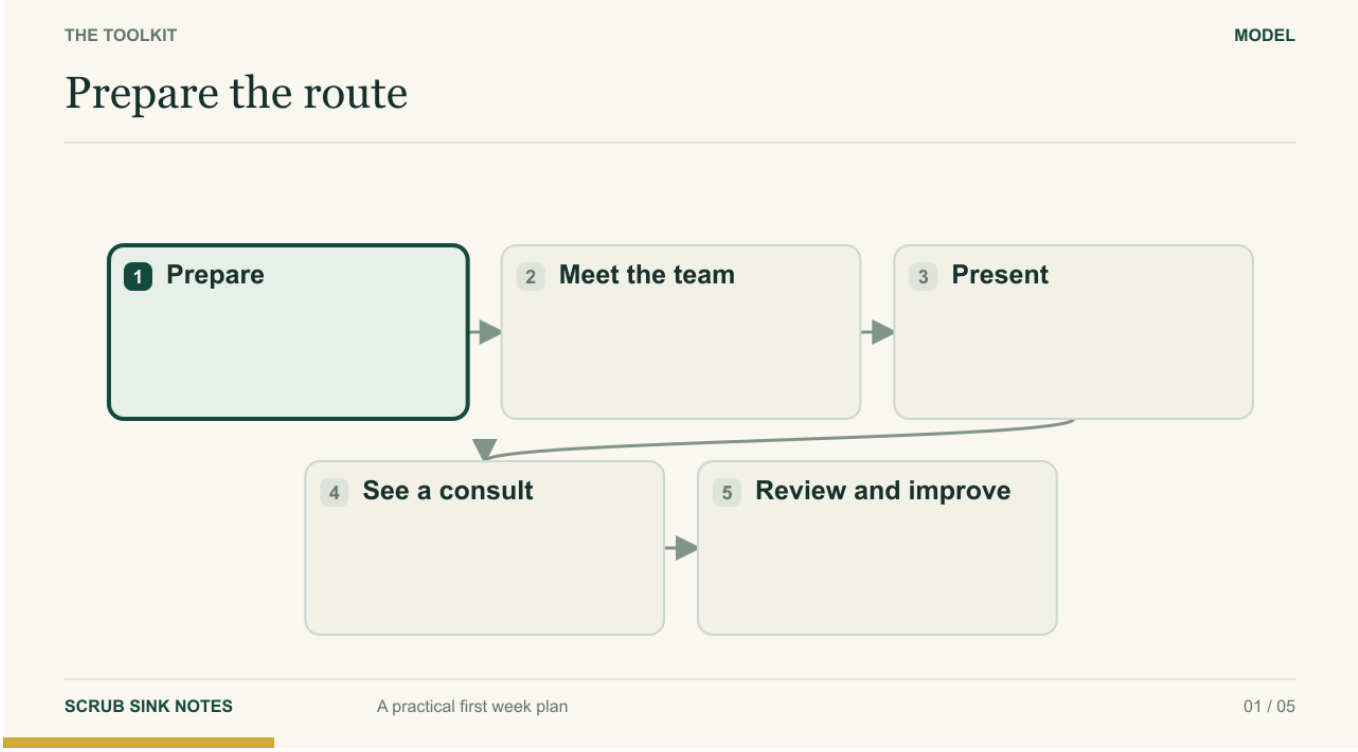


Your first response

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LESSON 25 / REVIEW AND TRANSFER

A practical first week plan



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Check the reasoning

At the end of the week, name the presentations you saw and one you need to revisit. Ask for one piece of feedback, write the action you will take and test it the next week. Each day, know your patients, communicate uncertainty and close your tasks. Eat, rest and use the support available. Pause now and write your first meeting point, contact person and one skill to practice.

Change one fact. What would change your next step?

A useful final review

Choose three lessons you found difficult. For each, draw the relationship from memory, speak through a fresh case, then check the figure. Record the reason for any change in your answer.

Source and scope

These original practice pages follow the matching video storyboards. Clinical corrections and source references are supplied with the course. A source locator records provenance, not independent validation of every statement. Interview models are constructed teaching examples, not real school answers or a guaranteed scoring formula.