

2026–2027 Edition

6000+
GEMS

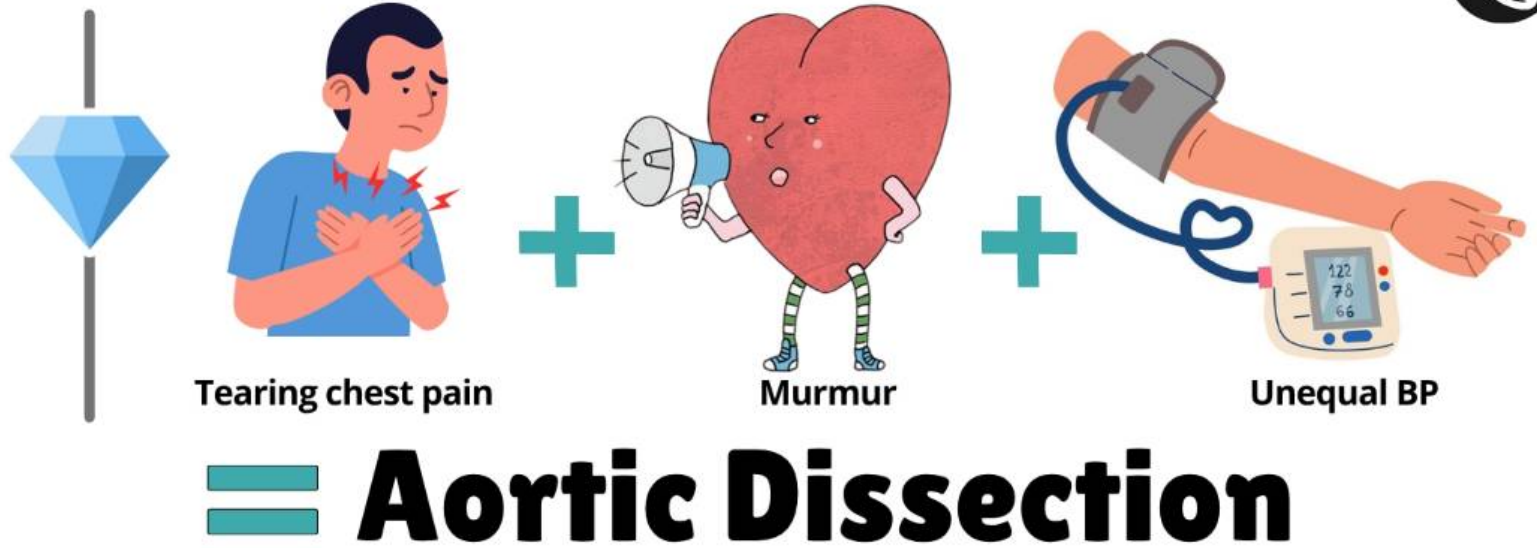
FREE SAMPLE OF OUR GEMS

- Your shortcut to mastering USMLE Step 2 CK
- Crafted with ultra-concise, high-yield Gems



Disclaimer

- This book is provided as a free sample and contains **only 50** carefully selected Gems taken from different chapters. It is intended to give you a brief overview of the content, structure, and educational approach.
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Scenario Summary

A 70-year-old male presents with **severe chest pain** radiating to the back, **unequal BP** between arms, and a **diastolic murmur**. Creatinine is elevated.

Diagnosis

Type A Aortic Dissection

Why?

Tearing pain, aortic regurgitation murmur, and pulse differential are hallmark signs of ascending dissection

Best step

Transesophageal Echocardiography (TEE) → Preferred in unstable patients or those with renal dysfunction due to no contrast need.

Treatment

- ☀ First-line imaging → **TEE** (safe with renal insufficiency).
- 🚫 Emergency **surgical repair** if confirmed.
- 💉 **IV B-blockers** to control BP.

Takeaway Points

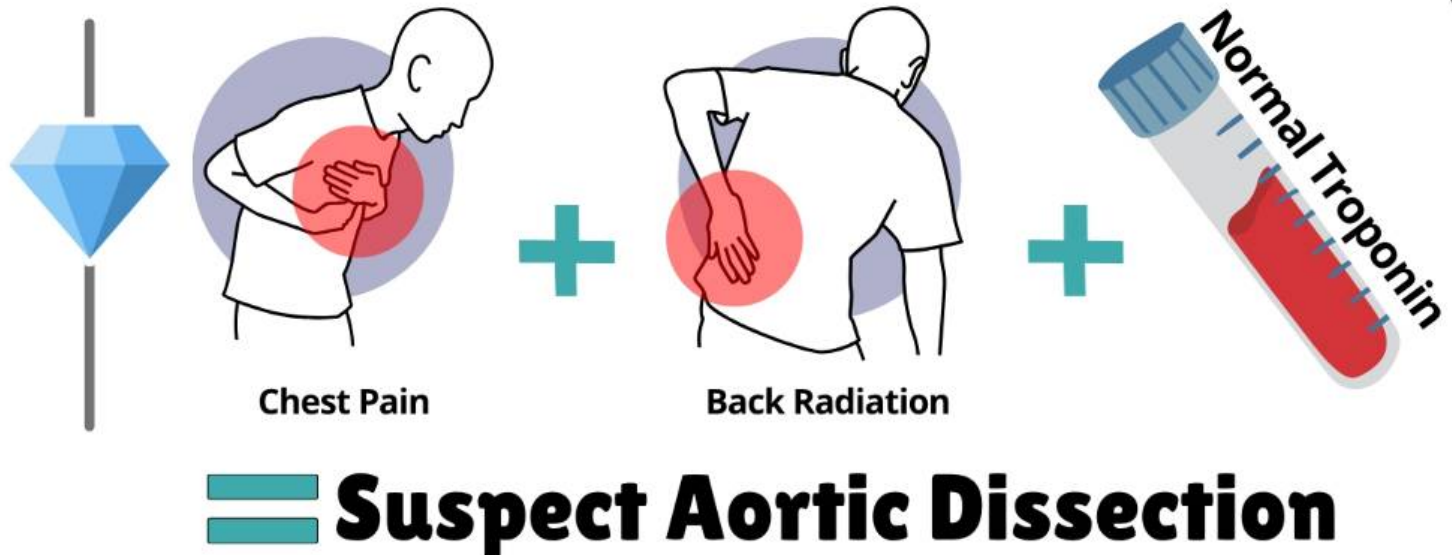
TEE is preferred in suspected aortic dissection with **renal impairment** or **hemodynamic instability**.

Pitfall to Avoid

Avoid CT angiography in patients with renal dysfunction or unstable vitals.

USMLE tip

In a hypertensive patient with back pain, murmur, and high creatinine, **TEE is the ideal first test** for suspected type A aortic dissection.



Scenario Summary 📝

A 65-year-old man presents with **sudden chest pain** followed by brief syncope. BP is **high bilaterally**, D-dimer is elevated, troponin is normal, and CT shows dissection.

Diagnosis 🎯

Acute Ascending Aortic Dissection (Type A)

Why?

Sudden tearing pain, high BP, and widened mediastinum in an older hypertensive patient with normal troponin fits Type A dissection.

Best step ★

Emergent Surgical Repair

Treatment

☀ First-line management → **Urgent surgical repair** of the ascending aorta.

🩺 **Pre-op BP control** using IV beta blockers to reduce shear stress.

🚫 **Avoid thrombolytics or antiplatelets.**

Takeaway Points ✓

Type A dissections can **mimic MI** but require emergent surgery, not anticoagulation.

Pitfall to Avoid 🚫

Don't give **aspirin, heparin, or thrombolytics**—these increase bleeding in dissection.

USMLE tip 🧠

A patient with chest pain, syncope, and mediastinal widening needs emergency surgery for Type A dissection, even with normal troponin.



= Immediate Surgery

Scenario Summary

A 34-year-old male with a **gunshot wound** to the **thigh** has a **cool leg and faint distal pulses**.

Diagnosis

Vascular Injury with Distal Ischemia

Why?

Penetrating trauma + signs of ischemia (coolness, weak pulses) = hard sign of vascular injury.

Best step

Urgent Surgical Exploration

Treatment

- ⚡ **Immediate surgery** without delay for imaging.
- 📌 **Arteriography** can be done intraoperatively if needed.
- 📌 Restore perfusion + repair vessel.

Takeaway Points

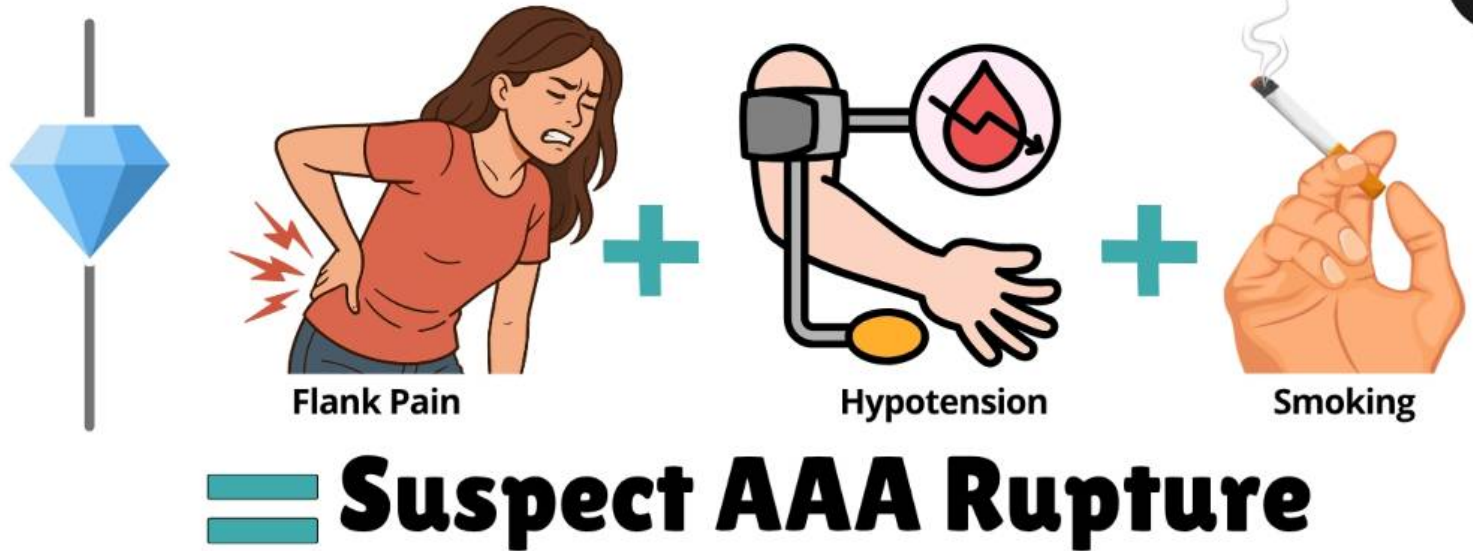
Hard signs of vascular injury = **go to OR now**.

Pitfall to Avoid

Don't delay for imaging in unstable or ischemic limbs.

USMLE tip

Gunshot + cool limb + weak pulses = **surgical exploration is the next step**, not Doppler or CT angiography.



Scenario Summary 📝

An 84-year-old man with HTN and smoking history presents with **sudden left flank pain**, **hypotension**, and CVA tenderness.

Diagnosis 🎯

Ruptured Abdominal Aortic Aneurysm (AAA)

Why?

Elderly smoker with **sudden flank pain, hypotension, and cool extremities** → classic signs of retroperitoneal AAA rupture.

Best step ★

Focused Abdominal Ultrasound (if unstable)

Treatment

🔴 **Emergency surgical repair** is required.

💧 Initiate fluid resuscitation and consult vascular surgery immediately.

🚫 Avoid delays—AAA rupture has **high mortality**.

Takeaway Points ✓

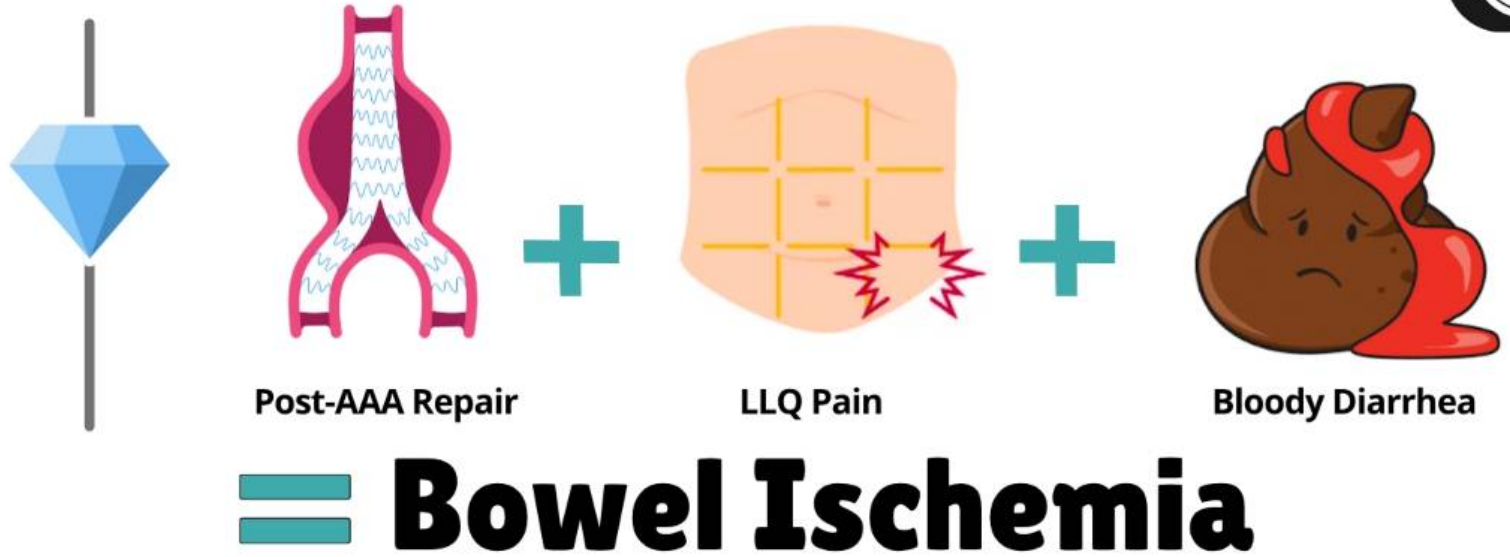
AAA rupture should be high on the differential in elderly patients with sudden flank pain + hypotension.

Pitfall to Avoid ⚠️

Don't confuse with **renal colic or pyelonephritis**—those don't cause shock or decreased pulses.

USMLE tip 🧠

In an elderly male with flank pain and hypotension, AAA rupture is the most likely cause—even without known aneurysm history.



Scenario Summary 📝

A 72-year-old man develops **left lower quadrant pain** and **bloody diarrhea** on day 1 after infrarenal abdominal aortic aneurysm (AAA) repair. WBC is elevated. Femoral pulses are symmetric.

Diagnosis 🎯

Bowel Ischemia due to Graft-Related Hypoperfusion

Why?

Compromised perfusion to the sigmoid colon due to IMA loss post-AAA repair leads to ischemic colitis.

Best Diagnostic Test ★

CT Abdomen with Contrast

Treatment

- ☀️ **Supportive care** with IV fluids and bowel rest if no signs of necrosis.
- 📌 **Surgical resection** if signs of peritonitis or gangrene.
- 📌 Monitor hemodynamics closely post-vascular surgery.

Takeaway Points ✓

Post-op bloody diarrhea + LLQ tenderness = think **ischemia after aortic surgery**.

Pitfall to Avoid ⚡

Don't assume C. difficile just because the patient received antibiotics—presentation and timing matter.

USMLE tip 🧠

In patients with **abdominal pain and hematochezia** after aortic surgery, suspect bowel ischemia, not pseudomembranous colitis.



Dysphagia



Food Impaction

= Vascular Ring

Scenario Summary

A 2-year-old girl has recurrent **solid food impactions** and **growth delay**. Barium esophagram shows **posterior esophageal compression** near T4.

Key features

Recurrent food impaction, difficulty swallowing solids, history of **middle-lobe pneumonia**, posterior impression on esophagus.

Overview

These findings suggest a **congenital vascular ring** compressing the esophagus.

Most likely cause

Congenital vascular malformation encircling the esophagus and/or trachea.

Takeaway Points

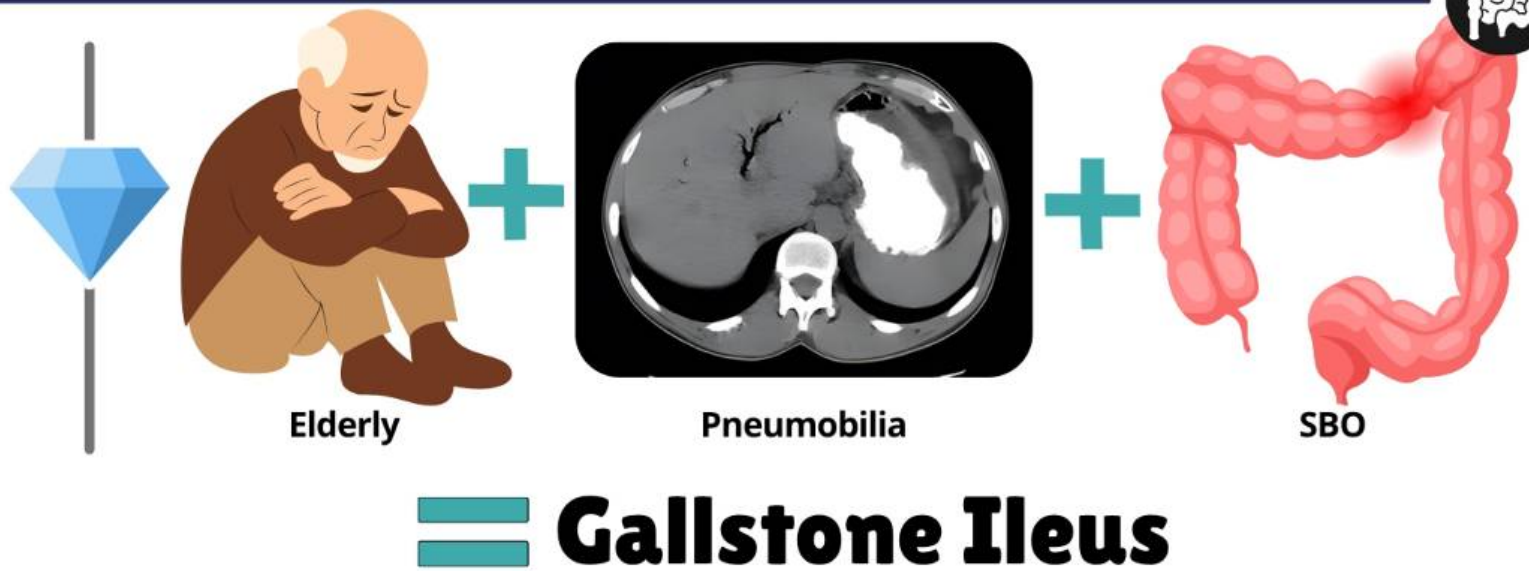
Vascular rings can cause chronic dysphagia and **recurrent respiratory infections** due to **tracheoesophageal compression**.

Pitfall to Avoid

Don't mistake this for **eosinophilic esophagitis or achalasia** — those wouldn't cause posterior esophageal compression.

USMLE tip

In a child with recurrent **food impaction** and **esophageal compression** on barium imaging, suspect a **vascular ring** as the underlying cause.



Scenario Summary 📝

An 82-year-old woman with a history of gallstones presents with **abdominal distension**, **vomiting**, and **air in the biliary tree** on imaging.

Key features 🔍

Pneumobilia, bowel obstruction, **colicky pain**, elderly woman.

Overview ⓘ

This is **gallstone ileus**, caused by stone migration through a **biliary-enteric fistula**.

Definitive management ★

Surgical stone extraction + cholecystectomy.

Takeaway Points ✓

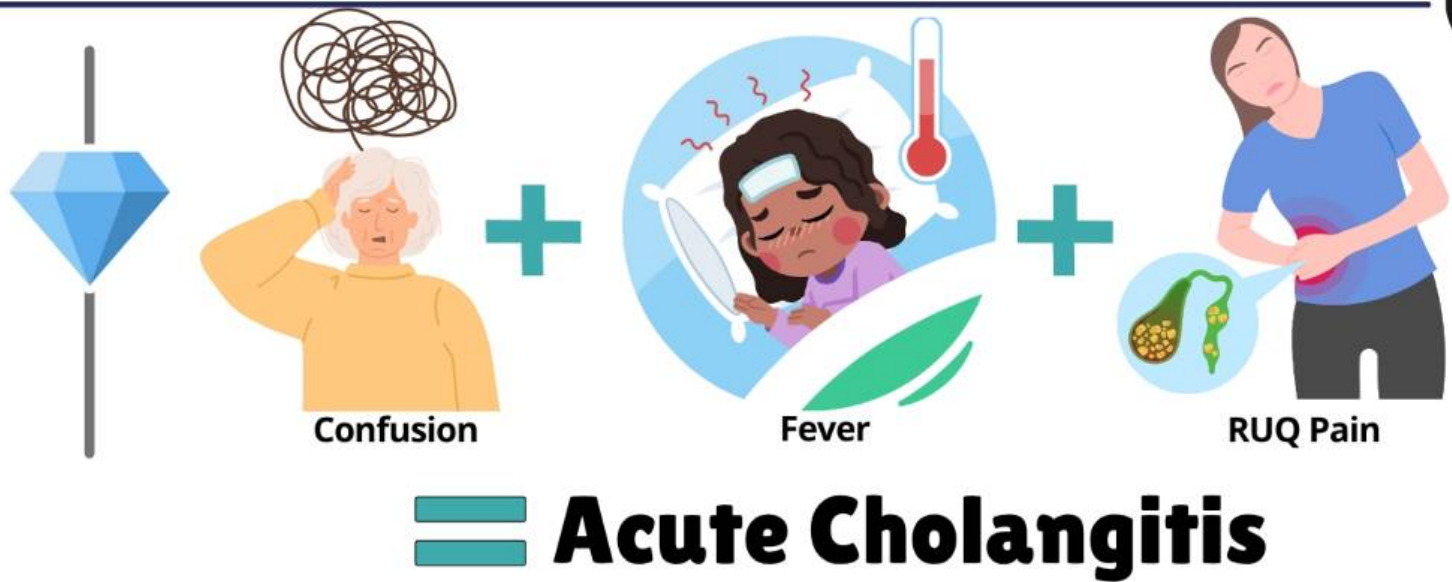
In elderly patients with **SBO** and air in the biliary tree, always **suspect gallstone ileus**.

Pitfall to Avoid ⚠️

Don't confuse with **paralytic ileus** — this is mechanical.

USMLE tip 🧠

Gallstone ileus presents with small bowel obstruction and **pneumobilia**; treat with surgical stone removal and **cholecystectomy**.



Scenario Summary 📝

A 39-year-old woman with **type 1 diabetes** presents with **RUQ pain**, **confusion**, **fever**, and vomiting. Labs show **high direct bilirubin**, **elevated ALP**, and normal lipase.

Key features 🔍

Fever, confusion, **hypotension**, **hyperbilirubinemia**, and **leukocytosis** = **Reynolds Pentad** (suggestive of severe cholangitis).

Overview ⓘ

This is likely **acute cholangitis**, caused by ascending infection through an **obstructed biliary tract**.

Key intervention ★

Start IV antibiotics and perform biliary drainage via ERCP within 24–48 hours.

Takeaway Points ✓

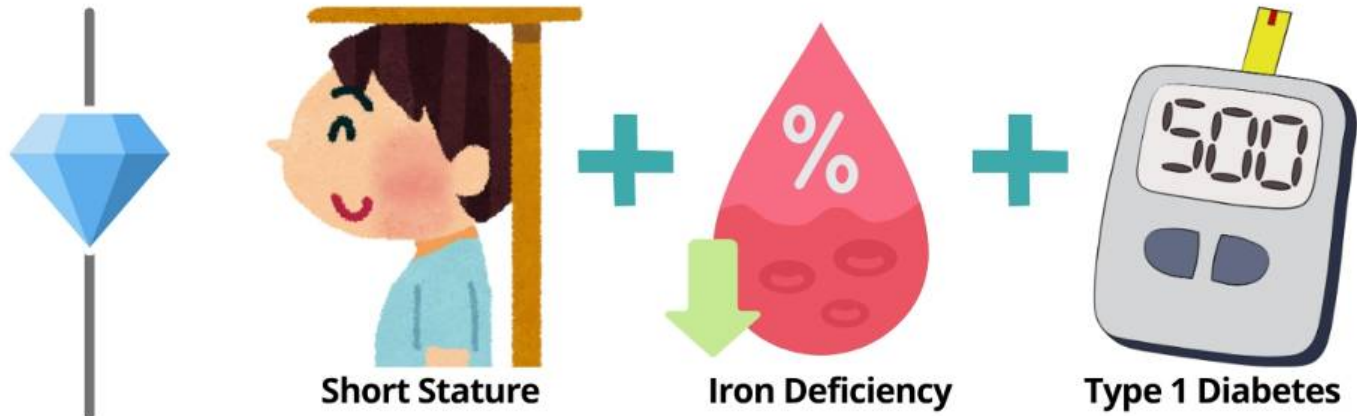
Charcot Triad = **fever**, **RUQ pain**, **jaundice**. Add hypotension and AMS = **Reynolds Pentad** = severe disease.

Pitfall to Avoid ⚠️

Normal urinary ketones and glucose >400 do **NOT equal DKA** if mental status change is better explained by sepsis. Don't be misled by diabetes alone.

USMLE tip 🧠

When a patient has **RUQ pain**, **jaundice**, **fever**, and **mental status changes**, think of **acute cholangitis** due to biliary obstruction and **manage urgently with ERCP**.



Screen for Celiac

Scenario Summary

A 13-year-old boy with **type 1 diabetes** and **growth delay** has **microcytic anemia** and **recurrent hypoglycemia** despite good appetite.

Key features

Growth delay, iron deficiency anemia, abdominal bloating, **autoimmune comorbidity**.

Overview

Consider **celiac disease** in any child with type 1 diabetes and signs of malabsorption, especially with unexplained anemia or poor growth.

Best next step

Order anti-tissue transglutaminase IgA antibodies.

Takeaway Points

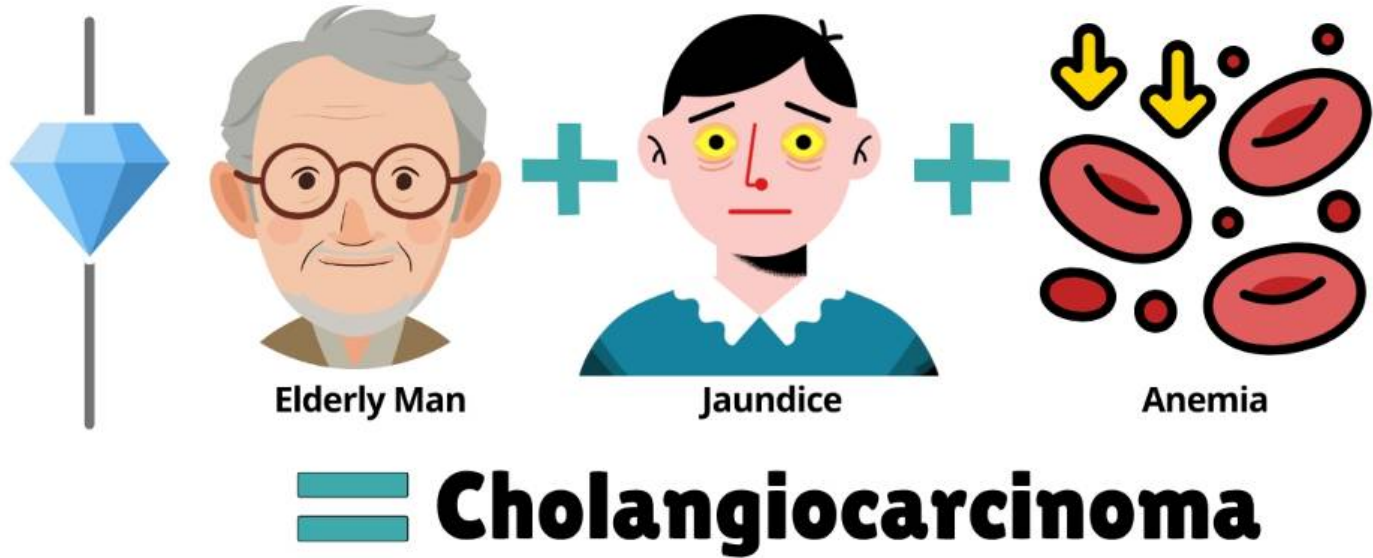
Celiac disease is a common **autoimmune comorbidity in type 1 diabetes**. GI symptoms may be subtle or absent.

Pitfall to Avoid

Don't jump to imaging or fecal tests **without** first screening for celiac serology in this context.

USMLE tip

In a diabetic child with microcytic anemia and poor growth, always screen for **celiac disease** with **anti-tissue transglutaminase IgA**.



Scenario Summary 📝

A 75-year-old man presents with **jaundice**, **weight loss** (15 lbs), and **pallor**. Labs show **conjugated hyperbilirubinemia** (total bilirubin 8.0 mg/dL, direct 6.5 mg/dL) and **anemia** (Hb 9.0 g/dL). MRCP shows **biliary stricture**.

Key features 🔍

Painless jaundice, weight loss, cholestatic pattern, **biliary stricture**, elderly patient, no gallstones.

Overview ⓘ

This is likely **cholangiocarcinoma** causing biliary obstruction.

Best test ★

Perform MRCP and ERCP with biopsy to confirm malignancy.

Takeaway Points ✓

Cholangiocarcinoma presents with jaundice, weight loss, and biliary strictures. **MRCP/ERCP is diagnostic**; staging guides treatment.

Pitfall to Avoid ⚠️

Do not confuse with **pancreatic cancer** (pancreatic mass) or **PSC** (IBD history, younger patients). **Avoid** delaying biopsy.

USMLE tip 🧠

In an elderly patient with jaundice, weight loss, and biliary stricture, cholangiocarcinoma is diagnosed with **MRCP/ERCP**, guiding biopsy.



Red Eye



Enlarged Cornea in a Baby

= Test for Glaucoma

Scenario Summary 📝

A 9-month-old has **tearing and eye redness**. Exam shows an **enlarged left cornea** and globe, **photophobia**, and a **port-wine stain** over the left face.

Key features 🔍

Unilateral tearing, **photophobia**, globe enlargement, **port-wine stain** (suggestive of Sturge-Weber).

Overview ⓘ

This is likely **congenital glaucoma**, commonly associated with Sturge-Weber syndrome.

Best test ★

Use **tonometry to assess intraocular pressure (IOP)**.

Takeaway Points ✓

Infantile glaucoma presents with **corneal edema**, enlargement, and **photophobia**. It can cause vision loss if not promptly treated.

Pitfall to Avoid ⚡

Don't misdiagnose as **conjunctivitis** or **blocked tear duct** — enlarged cornea/globe is key.

USMLE tip 🧠

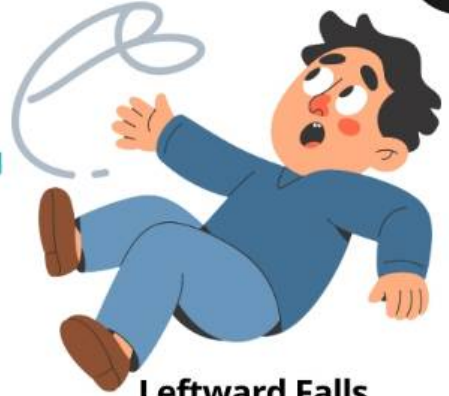
A baby with **unilateral photophobia**, **eye tearing**, and a **port-wine stain** should have tonometry to check for elevated intraocular pressure due to **glaucoma**.



Headache



Room Spinning



Leftward Falls

= Central Vertigo (Possible Stroke)

Scenario Summary

A 64-year-old woman develops sudden **headache**, **vertigo**, nystagmus, and **falls toward the left**.

Key features

Persistent **vertigo**, **central nystagmus**, inability to walk, **headache**.

Overview

Red flags for **central vertigo**, especially **cerebellar stroke**.

Best next step

Noncontrast CT scan of the head (to rule out cerebellar stroke/bleed).

Takeaway Points

Inability to walk + **persistent vertigo** = **suspect central cause (stroke)**, not benign peripheral vertigo.

Pitfall to Avoid

Do not reassure and treat symptomatically until stroke is ruled out.

USMLE tip

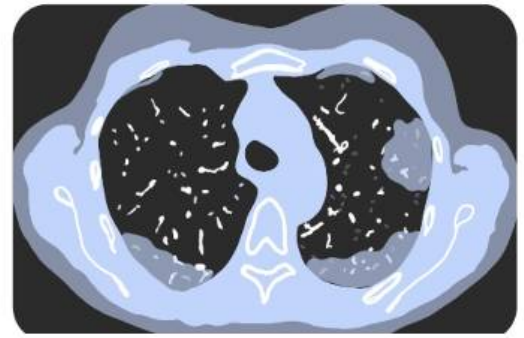
Persistent vertigo + **inability to walk** → order **head CT urgently**.



Acute Ataxia



Left-Sided Dysmetria



Normal CT

= Acute Stroke → Alteplase

Scenario Summary 📝

A 62-year-old woman develops **sudden vertigo, left-sided dysmetria, and headache**, but CT is normal.

Key features 🔍

Persistent vertigo, dysmetria, posterior headache, normal initial CT.

Overview ⓘ

Cerebellar infarct (posterior circulation stroke) should be treated as ischemic stroke.

Best next step ★

Administer intravenous alteplase.

Takeaway Points ✓

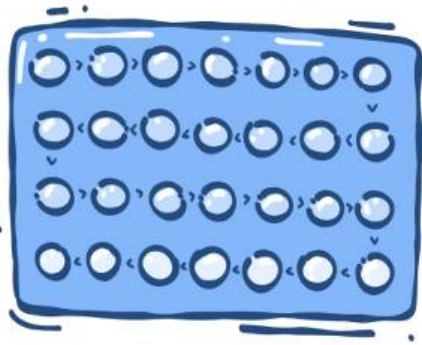
Posterior circulation strokes can initially appear like peripheral **vertigo** — beware!

Pitfall to Avoid ⚠️

Don't miss window for **thrombolysis** — treat within 4.5 hours even if CT is normal.

USMLE tip 🧠

Central vertigo + ataxia + normal CT early → **still thrombolyse!**



OCP



Migraine With Aura

= STOP Estrogen!

Scenario Summary 📝

An 18-year-old woman with **classic migraines with aura** (paresthesia before headache) is using **combined oral contraceptives**.

Key features 🔍

Unilateral **throbbing headache**, **nausea**, **aura with tingling/numbness**, on combined hormonal contraceptives.

Overview ⓘ

Migraine with aura + estrogen-containing contraceptives = **↑ risk of ischemic stroke**. Estrogen must be discontinued.

Best next step ★

Discontinue estrogen-containing contraceptives immediately.

Takeaway Points ✓

Aura = **contraindication to estrogen**. Consider switching to progestin-only methods.

Pitfall to Avoid ⚠

Don't initiate migraine prophylaxis before addressing the stroke risk from estrogen.

USMLE tip 🧠

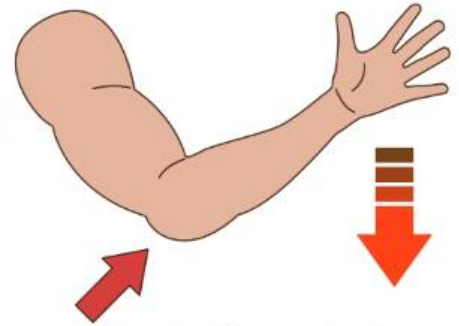
In any patient with **migraine with aura**, avoid or **stop estrogen-based contraceptives** to minimize **thrombotic stroke risk**.



Pain



Numb Thumb



Weak Elbow Flexion

= Radiculopathy

Scenario Summary 📝

A 37-year-old male develops **neck and arm pain** radiating to the thumb with decreased sensation. **No motor weakness** is noted.

Key features 🔍

Pain **radiates to thumb and index finger**, pinprick loss, no weakness, likely C6 nerve root involvement.

Overview ⓘ

: This is a **cervical radiculopathy**, likely caused by acute disc herniation at C5–C6.

Initial management ★

NSAIDs and avoidance of provocative activity.

Takeaway Points ✓

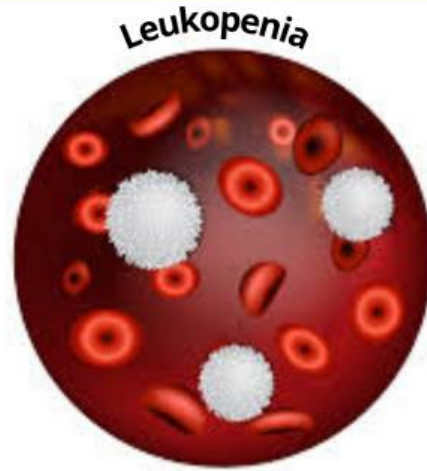
Most cervical radiculopathies resolve with **conservative management** unless there are red flags.

Pitfall to Avoid ⚠️

Don't jump to imaging unless there's **progressive neurologic decline** or red flag symptoms.

USMLE tip 🧠

In a healthy patient with radiating neck pain and C6 pattern sensory loss, initial management is **NSAIDs and avoiding neck strain.**



= Empiric Ampicillin + Gentamicin

Scenario Summary📄

A 3-day-old newborn becomes **irritable and refuses feeding**. Temp is normal, but WBC is low. Exam reveals inconsolable **crying** and no specific findings on cardiorespiratory or abdominal exam.

Key features🔍

- Age **under 7 days**
- **Poor feeding**, irritability
- **Leukopenia**
- **No fever**, but tachycardic

Overview📖

This is suspected early-onset **neonatal sepsis**, most likely due to **GBS**, **E. coli**, or **Listeria**.

Best treatment approach★

Start **IV ampicillin and gentamicin** immediately while obtaining cultures.

Takeaway Points✓

- Early-onset sepsis is often **subtle**.
- Even in normothermic neonates, signs like lethargy, poor feeding, or irritability should prompt concern.
- **Low WBC** can be a **red flag**.

Pitfall to Avoid🚫

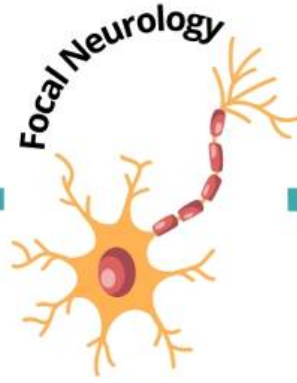
- Don't wait for fever.
- **Avoid ceftriaxone** in neonates — risk of **kernicterus** and no Listeria coverage.

USMLE tip🧠

In neonates with **poor feeding and leukopenia**, use **ampicillin and gentamicin** as first-line empiric treatment to cover GBS, E. coli, and Listeria monocytogenes.



Child with Tetralogy of Fallot



= Brain Abscess

Scenario Summary

A 3-year-old boy with **DiGeorge syndrome** and **unrepaired tetralogy of Fallot** (TOF) presents with **morning** headaches, vomiting, **right leg** weakness, and a generalized **tonic-clonic seizure**.

Key features

Cyanotic congenital heart disease, fever, morning headache, vomiting, **focal neurologic** deficit, and seizure.

Overview

Children with **right-to-left shunt** (e.g., TOF) are at risk of **brain abscess** due to hematogenous spread of organisms that **bypass pulmonary filtration**. The **classic triad**: headache, fever, and focal neurologic findings.

Diagnosis

Initial step: **Neuroimaging (CT/MRI)**. **Definitive**: **Aspiration or biopsy of lesion**.

Takeaway Points

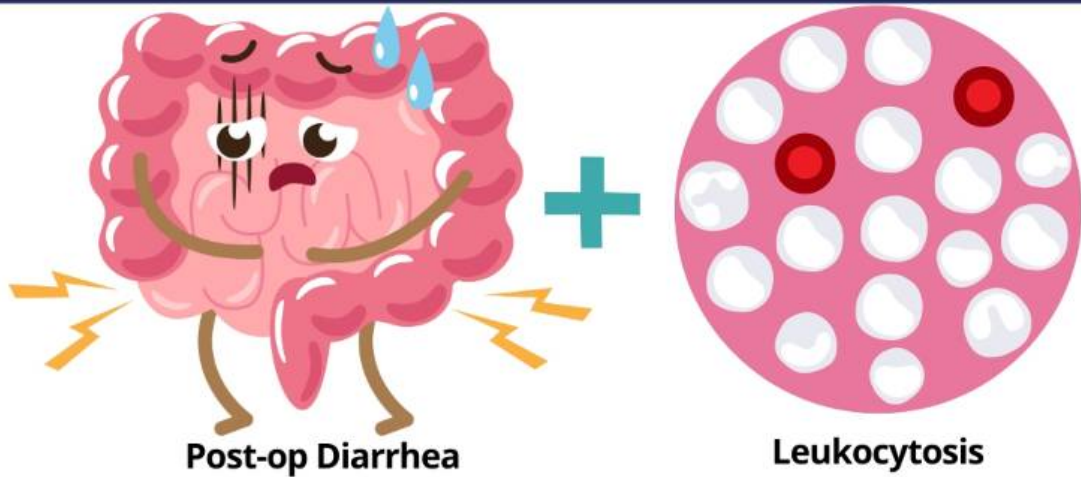
In any **cyanotic** heart disease patient with **neurologic** changes, think **brain abscess**. These kids skip the lung's natural defense against circulating bacteria.

Pitfall to Avoid

Don't misdiagnose as stroke or meningitis. Brain abscess has progressive, localized symptoms and fever.

USMLE tip

TOF + new **focal deficit** + fever + seizure = **brain abscess**, especially in a child from a developing country.



= **Suspect C. difficile**

Scenario Summary📝

A 50-year-old man develops **watery diarrhea** and fever on day 7 after abdominal **surgery**. He previously received **antibiotics** for post-op infection. Labs show **leukocytosis**.

Key features🔍

Recent antibiotics, watery diarrhea, fever, leukocytosis, and recent hospitalization.

Overview📖

This is classic **Clostridioides difficile infection (CDI)** in a postoperative patient after recent antibiotic exposure.

Best next step★

Order **stool toxin** testing or **PCR** for C. difficile to confirm diagnosis and begin treatment.

Takeaway Points✔

Always suspect CDI in hospitalized patients with new-onset diarrhea and leukocytosis, especially after antibiotic exposure.

Pitfall to Avoid🚫

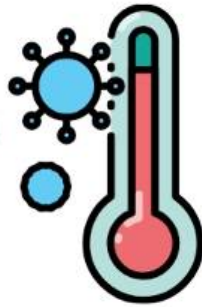
Don't treat empirically without confirming the diagnosis via **stool assay** unless the patient is critically ill.

USMLE tip🧠

In a hospitalized patient with diarrhea and leukocytosis after antibiotic exposure, confirm **C. difficile infection** with stool toxin testing or PCR and initiate appropriate treatment.



Neonate



Fever



Poor Feeding



Jaundice

= Full Sepsis Workup

Scenario Summary

A 21-day-old girl presents with **poor feeding**, **hypothermia**, **lethargy**, and **jaundice**. She has a full fontanelle and reduced tone.

Key features

Hypothermia, weak suck, jaundice, full fontanelle, and lethargy in a neonate under 28 days.

Overview

These are classic signs of **neonatal sepsis and meningitis**, which can be subtle but rapidly **fatal** if missed.

Best initial step

Immediately **obtain** blood, urine, and CSF cultures, then **start** empiric ampicillin and gentamicin.

Takeaway Points

Neonates with poor feeding, temperature instability, or irritability need a **full sepsis evaluation** even if afebrile.

Pitfall to Avoid

Never assume a benign cause for poor feeding in neonates. Delay in cultures or antibiotics can be fatal.

USMLE tip

In neonates with hypothermia and altered behavior, always obtain blood, urine, and CSF cultures before empiric antibiotics to diagnose **sepsis or meningitis**.



Pregnant Woman



Syphilis



penicillin allergy

= Penicillin Desensitization

Scenario Summary

An 8-week **pregnant** woman with **confirmed syphilis** and a reported **penicillin allergy** (pruritic rash).

Key features

Pregnant, early syphilis, non-severe penicillin allergy (no anaphylaxis), no HIV, rash-based allergy history.

Overview

In pregnancy, penicillin is **essential** for treating syphilis, even with a mild allergy history.

Best step

Skin testing and **desensitization**, then treat with **benzathine penicillin G**.

Takeaway Points

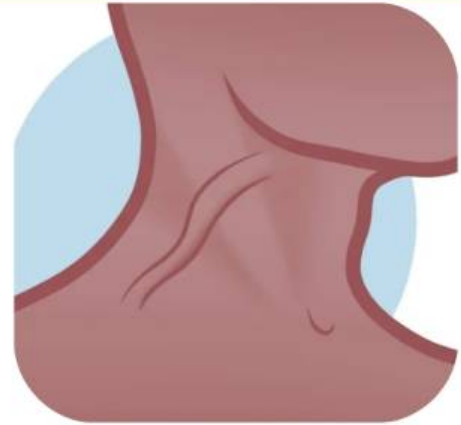
Only penicillin effectively treats maternal and fetal syphilis. Allergy evaluation and desensitization is mandatory.

Pitfall to Avoid

Avoid using macrolides or doxycycline in pregnancy. They are ineffective or **contraindicated**.

USMLE tip

A pregnant woman with **syphilis** and **non-anaphylactic penicillin allergy** needs skin testing followed by desensitization before penicillin treatment.



Penetrating Chest Trauma + Hypotension + Distended Neck Veins

= Tension Pneumothorax

Scenario Summary 📝

A 22-year-old man presents after a **stab wound to the right chest**. He is **hypotensive, tachypneic, and in respiratory distress**. Breath sounds are **absent on the right, and neck veins are distended**. He becomes **obtunded** during the exam.

Key features 🔑

Right-sided **absent** breath sounds, **distended** neck veins, hypotension, tachycardia, **midline trachea**, and **altered** mental status.

Overview ⓘ

This is likely a case of **tension pneumothorax** due to **penetrating chest trauma** causing a **one-way valve effect** and **cardiovascular compromise**.

Most appropriate next step ★

Immediate **needle thoracostomy** should be performed **without delay** to decompress the tension.

Takeaway Points ✓

Tension pneumothorax presents with **unilateral** absent breath sounds, hypotension, and neck vein distension. It is a clinical diagnosis and requires **immediate decompression**.

Pitfall to Avoid ☹️

Do not delay for imaging or intubation. **Positive pressure ventilation** can worsen the collapse and precipitate arrest.

USMLE tip 🧠

In patients with penetrating trauma and signs of obstructive shock, needle thoracostomy must be performed **immediately** to **relieve** a tension pneumothorax and **prevent** cardiovascular collapse.



Alcoholic + Foul Sputum + Cavitary Lesion

= Anaerobic Lung Abscess

Scenario Summary 📝

A disheveled, **homeless** man with **poor dentition** presents with **fever, chills, weight loss, and a cough productive of foul-smelling sputum**. Chest imaging shows a **right-sided cavitary infiltrate** with an **air-fluid level**.

Key features 🔍

Subacute onset, **poor** oral hygiene, aspiration risk (**alcohol use, homelessness**), **cavitary** lesion with **air-fluid level**.

Overview ⓘ

This is a classic presentation of a **lung abscess** caused by **aspiration of anaerobic bacteria from the oropharynx**.

Best management approach ★

Start **empiric antibiotics** with **ampicillin-sulbactam** or **clindamycin** to cover anaerobes.

Takeaway Points ✓

Anaerobic organisms like **Fusobacterium, Bacteroides, and Peptostreptococcus** are the usual culprits in lung abscess. Imaging shows a **thick-walled cavity** with an **air-fluid level**.

Pitfall to Avoid ☹️

Do not rely on sputum cultures — anaerobes are hard to grow. **Avoid** attributing all cavitary lesions to TB or cancer without considering aspiration.

USMLE tip 🧠

In a homeless, alcoholic patient with foul-smelling sputum and cavitary infiltrate, think **anaerobic bacterial infection** due to **aspiration**.



Smoker + Chronic Cough + Mild Hemoptysis
= Chronic Bronchitis

Scenario Summary📄

A 55-year-old construction worker with long-term morning cough and recent **blood-streaked sputum**, no systemic symptoms.

Key features🔍

Chronic **daily cough for >2 years**, smoking history, and mild hemoptysis.

Overview📖

This is a classic presentation of **chronic bronchitis**, a form of COPD, primarily caused by smoking.

Etiology note★

Chronic inflammation of bronchi → mucus hypersecretion → daily sputum production.

Takeaway Points✔

Chronic bronchitis is the most common cause of **hemoptysis in smokers** with long-standing cough.

Pitfall to Avoid🚫

Don't jump to TB or cancer without weight loss, fever, or systemic signs. Always **rule out malignancy** with imaging if hemoptysis persists.

USMLE tip🧠

In smokers with longstanding morning cough and recent hemoptysis, the likely cause is **chronic bronchitis**, unless red flags suggest otherwise.



Pleuritic Chest Pain + OCP Use + Long Flight =
= Pulmonary Infarction

Scenario Summary 📝

A 34-year-old woman develops **pleuritic chest pain** and mild hemoptysis after flying from Central Asia. She uses **oral contraceptives** and is tachypneic.

Key features 🔍

Acute pleuritic chest pain, tachypnea, hemoptysis, recent flight, OCP use.

Overview ⓘ

Classic **pulmonary embolism** with peripheral infarction causing pleuritic pain and bleeding.

Mechanism ⭐

Thrombus blocks peripheral artery → ischemia → **infarction and pleuritis**.

Takeaway Points ✓

PE can cause infarction in distal arteries → **sharp pain and hemoptysis**.

Pitfall to Avoid ⚠

Don't assume it's pericarditis or pneumonia. No fever or systemic signs, and pericarditis rarely causes hemoptysis.

USMLE tip 🧠

In a woman with pleuritic chest pain and hemoptysis after a long flight + OCP use, the likely cause is **pulmonary infarction due to PE**.



Term Neonate + Tachypnea + Fluid in Fissures

= **TTN**

Scenario Summary📝

A term baby develops **tachypnea** shortly after C-section. CXR shows *hyperinflated lungs and interlobar fluid*.

Key features🔍

Term delivery, cesarean birth, mild respiratory distress, fluid in fissures.

Overview📖

This is **Transient Tachypnea of the Newborn (TTN)** due to delayed clearance of fetal lung fluid.

CXR hallmark★

Fluid in interlobar fissures and hyperinflation confirm TTN.

Takeaway Points✅

TTN resolves **spontaneously** within 1–3 days. Supportive care only is needed.

Pitfall to Avoid🚫

Avoid unnecessary antibiotics or surfactant. TTN is **self-limited**.

USMLE tip🧠

Newborns with tachypnea and interlobar fluid after C-section likely have Transient Tachypnea of the Newborn, **not infection or RDS**.



Hypertension + Hypokalemia

= Primary Hyperaldosteronism

Scenario Summary

Young hypertensive man with diuretic-induced hypokalemia (**muscle cramps, weakness**).

Key features

Resistant hypertension, hypokalemia, **metabolic alkalosis**, adrenal **mass** on CT.

Overview

Conn syndrome (aldosterone-secreting adenoma) or **bilateral adrenal hyperplasia**.

Best test

Plasma **aldosterone/renin ratio** (PAC/PRA >20 + aldosterone >15 ng/dL confirms diagnosis).

Takeaway Points

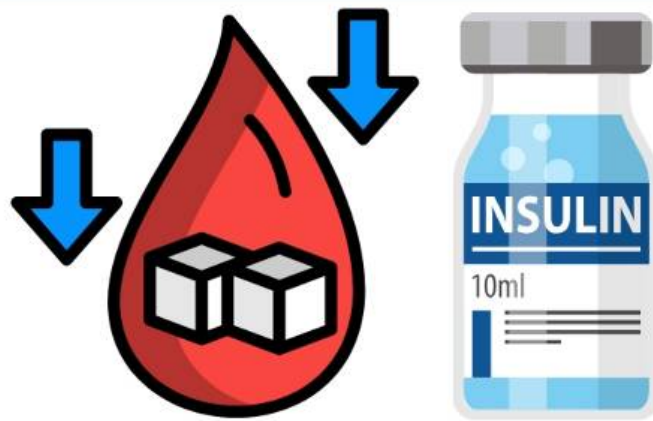
Hypokalemia + hypertension = screen for **hyperaldosteronism**. Adrenal venous sampling differentiates **adenoma** (surgical cure) from **hyperplasia** (medical therapy).

Pitfall to Avoid

Starting spironolactone before testing (**falsely lowers aldosterone**).

USMLE tip

Epicernone/spironolactone (mineralocorticoid antagonists) are **first-line** for hyperplasia or nonsurgical candidates.



Hypoglycemia + Inappropriately Elevated Insulin

= Insulinoma

Scenario Summary 📝

Young adult presents with episodic palpitations, tremors, and confusion. Lab shows hypoglycemia with inappropriately high insulin, C-peptide, and proinsulin levels. Symptoms **resolve with glucose**.

Key features 🔍

Whipple's triad (hypoglycemia, symptoms, relief with glucose), elevated insulin/C-peptide/proinsulin, negative sulfonylurea screen.

Overview ⓘ

Beta-cell tumor (insulinoma) is most likely due to autonomous insulin secretion despite hypoglycemia.

Best test ★

Supervised fasting test with serial glucose/insulin levels.

Takeaway Points ✓

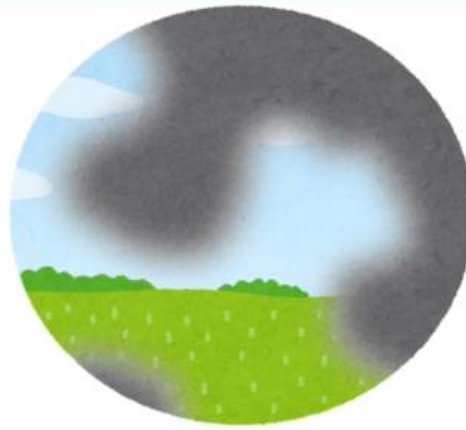
Insulinoma is the **most common pancreatic neuroendocrine tumor**. Elevated proinsulin >5 pmol/L is highly suggestive.

Pitfall to Avoid ⚠️

Don't confuse with **exogenous insulin use** (low C-peptide) or sulfonylureas (positive drug screen).

USMLE tip 🧠

In hypoglycemia with **elevated insulin, C-peptide, and proinsulin**, the diagnosis is insulinoma. Non-beta cell tumors (e.g., IGF-II-secreting) suppress insulin/C-peptide.



Child with Polyuria + Visual Field Defects

= Craniopharyngioma

Scenario Summary 📝

Young child with polydipsia, polyuria, and frequent collisions due to **peripheral vision loss**. Imaging shows a **suprasellar mass**.

Key features 🔍

Diabetes insipidus (dilute urine, high sodium), bitemporal hemianopsia, growth failure.

Overview ⓘ

Craniopharyngioma **compresses the optic chiasm** (vision loss) and pituitary stalk (ADH deficiency).

Best test ★

MRI brain (cystic/calcified suprasellar mass).

Takeaway Points ✓

Derived from Rathke pouch remnants. **Treatment:** surgery + radiation.

Pitfall to Avoid ⚠

Don't miss **pituitary adenoma** (no calcifications) or Rathke cleft cyst (no visual defects).

USMLE tip 🧠

A **calcified suprasellar mass** in a child with DI and visual field defects is craniopharyngioma.



Secondary Adrenal Insufficiency from Steroid Withdrawal

Scenario Summary 📝

A patient on **chronic prednisone for polymyalgia rheumatica** develops **fatigue, nausea, and hypotension after abrupt cessation**. Labs show hyponatremia and hypoglycemia.

Key features 🔍

- HPA axis suppression → low ACTH/cortisol
- No hyperpigmentation or hyperkalemia (aldosterone intact).

Overview ⓘ

Exogenous glucocorticoids suppress CRH/ACTH → **adrenal atrophy**.

Best test ★

Morning cortisol (low) + **ACTH stimulation test** (blunted response).

Takeaway Points ✓

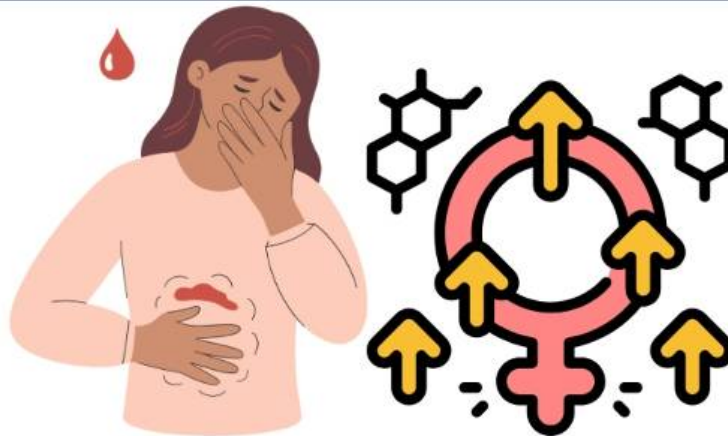
- Taper steroids slowly to allow HPA axis recovery.
- Stress-dose steroids needed for illness/surgery.

Pitfall to Avoid ⚠

:Missing **primary adrenal insufficiency** (expect hyperkalemia and hyperpigmentation).

USMLE tip 🧠

Hyponatremia and hypoglycemia after **steroid withdrawal** indicate secondary adrenal insufficiency.



Postmenopausal Bleeding + Unopposed Estrogen = Endometrial Cancer Risk

Scenario Summary

Obese postmenopausal woman with **new vaginal bleeding** and history of PCOS.

Key features

- **Chronic anovulation** → unopposed estrogen → endometrial hyperplasia
- PCOS is a **major risk factor** for endometrial adenocarcinoma

Overview

Estrogen stimulation without progesterone leads to uncontrolled endometrial proliferation.

Best test

Transvaginal ultrasound (endometrial thickness >4mm warrants biopsy).

Takeaway Points

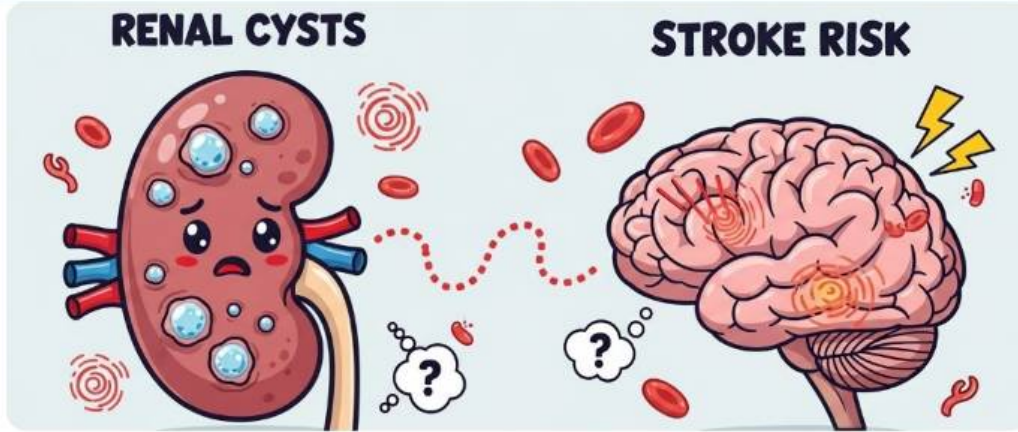
- **Progestin therapy** for hyperplasia without atypia.
- PCOS patients need **endometrial surveillance** after age 40.

Pitfall to Avoid

Attributing bleeding to **atrophy** without imaging.

USMLE tip

Postmenopausal bleeding in a PCOS patient requires evaluation for **endometrial cancer**.



Renal Cysts and Stroke Risk

= Watch the Brain

Scenario Summary 📝

A 33-year-old man with no comorbidities is evaluated for **flank pain**. Renal ultrasound reveals **bilateral cysts**.

Key features 🔍

Bilateral renal cysts on ultrasound in a young adult, no significant medical history, positive family history of early sudden death.

Overview ⓘ

This is consistent with **ADPKD**, which carries increased risk of intracranial aneurysms and subarachnoid hemorrhage, especially with **family history**.

High-risk complication ★

Patients with ADPKD have an increased risk of **intracranial bleeding from ruptured berry aneurysms**, often presenting as sudden death or stroke.

Takeaway Points ✓

Consider brain imaging for aneurysm screening in ADPKD patients with family history of aneurysm or stroke.

Pitfall to Avoid ⚠️

Do not overlook the **neurologic risks of ADPKD** — screening can be life-saving in the right context.

USMLE tip 🧠

In patients with ADPKD, the most feared complication is **intracranial hemorrhage from a ruptured cerebral aneurysm** — especially with a family history of sudden death.



Severe Hypercalcemia

= Hydration First, Always

Scenario Summary 📄

An older man presents with confusion, nausea, and abdominal pain. Labs reveal **serum calcium of 14.1 mg/dL**, acute kidney injury, and signs of dehydration.

Key features 🔍

Severe hypercalcemia, confusion, vomiting, dehydration, elevated creatinine.

Overview ⓘ

This is likely **hypercalcemia of malignancy**, which requires immediate volume resuscitation due to renal vasoconstriction and polyuria-induced volume loss.

First-line intervention ★

Normal saline infusion is the most important initial step to correct volume status and promote renal calcium excretion.

Takeaway Points ✓

Severe hypercalcemia (**>14 mg/dL**) presents with neuro and GI symptoms. Start with saline, then consider calcitonin and bisphosphonates.

Pitfall to Avoid ⚠

Avoid **immediate use of loop diuretics** unless volume overload exists. Also, don't delay hydration while arranging bisphosphonate therapy.

USMLE tip 🧠

In patients with severe symptomatic hypercalcemia, the priority is **aggressive saline hydration to correct volume depletion** and enhance renal calcium clearance.



Dark Urine + HTN + Proteinuria in Teen

= Glomerular

Scenario Summary 📝

A 16-year-old girl presents with **dark brown urine**, fatigue, and elevated BP. Urinalysis shows **proteinuria and RBCs**.

Key features 🔍

Cola-colored urine, proteinuria, hypertension, elevated creatinine — all suggest **glomerular hematuria**.

Overview ⓘ

This is likely **glomerulonephritis, possibly post-infectious or lupus nephritis**.

Best next step ★

Order serum complement levels (C3, C4) to evaluate glomerular injury.

Takeaway Points ✓

Dark urine with proteinuria + RBCs + HTN needs **complement evaluation** to rule out PSGN, lupus, MPGN.

Pitfall to Avoid ⚠

Avoid imaging or waiting; this is not a lower UTI. Do not order urine culture unless infection is suspected.

USMLE tip 🧠

A teen with brown urine, HTN, proteinuria, and elevated creatinine should be evaluated for **glomerulonephritis** by checking serum complement levels.



Aniridia + Genitourinary Anomalies in Newborn

= WAGR Syndrome

Scenario Summary 📝

A newborn boy has **bilateral aniridia**, **hypospadias**, and left undescended testis. Vitals are stable, and growth is appropriate.

Key features 🔍

Absent irises, **genitourinary anomalies**, normal delivery, no dysmorphic facial features.

Overview ⓘ

This is likely **WAGR syndrome**, a genetic deletion disorder (11p13) with risk of Wilms tumor, Aniridia, Genitourinary abnormalities, and intellectual disability.

Next step ★

Begin abdominal ultrasound screening every 3 months in infancy to detect early Wilms tumor.

Takeaway Points ✓

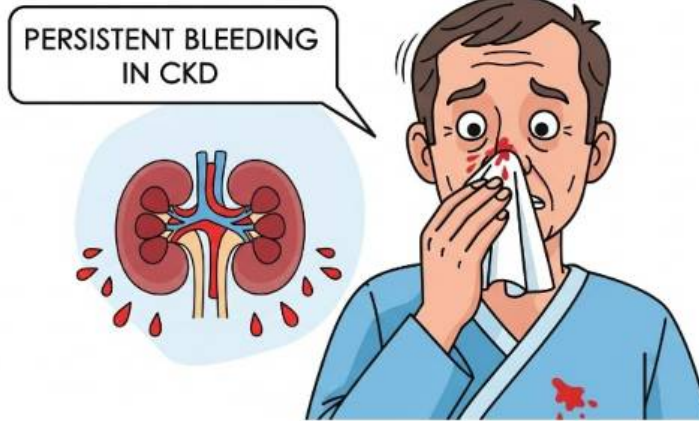
Suspect WAGR syndrome in newborns with aniridia and genitourinary defects.
WT1 gene deletion raises Wilms tumor risk.

Pitfall to Avoid ⚠

Don't confuse with **Down syndrome** (which may have Brushfield spots, not aniridia) or **neurofibromatosis** (which shows café-au-lait spots, not genitourinary anomalies).

USMLE tip 🧠

In a newborn with aniridia and GU abnormalities, always evaluate for WAGR syndrome, and initiate regular ultrasound screening for **Wilms tumor** due to WT1 gene deletion.



Persistent Bleeding in CKD

= Platelet Dysfunction

Scenario Summary 📄

A 69-year-old diabetic man with **ESRD** experiences persistent bleeding after a blood draw. Labs show normal platelet count, normal PT/aPTT, and **elevated creatinine**.

Key features 🔍

Normal labs but **prolonged bleeding**, baseline CKD, and dialysis access history.

Overview ⓘ

This is **classic uremic platelet dysfunction**, a common cause of bleeding in chronic kidney disease (CKD).

Pathophysiology ★

Impaired platelet adhesion and **aggregation** due to uremic toxins like guanidinosuccinic acid.

Takeaway Points ✓

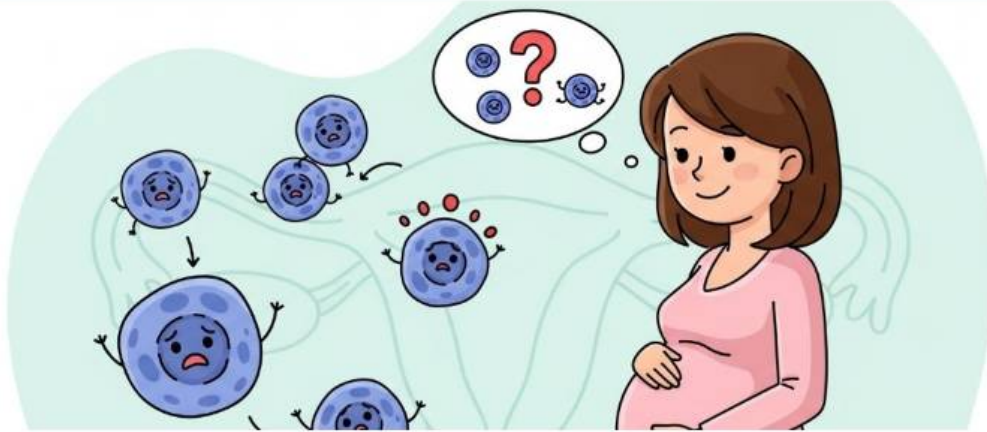
In CKD patients, bleeding despite normal counts and coagulation = suspect **platelet dysfunction**.

Pitfall to Avoid ⚠

Do not **transfuse platelets unnecessarily**. They rapidly become inactive in uremic plasma.

USMLE tip 🧠

In patients with CKD and normal platelet counts who develop unexpected bleeding, the most likely cause is **platelet dysfunction**, not thrombocytopenia or coagulopathy.



Gestational Thrombocytopenia

= Benign & Self-Limited

Scenario Summary 📝

A 29-year-old woman at 29 weeks has **fatigue, leg edema, and platelets** 115K/mm³ (down from 140K). No bleeding.

Key features 🔍

Mild thrombocytopenia, no HTN/proteinuria. **Exclusion diagnosis** (normal coagulation, no HELLP/TTP).

Overview ⓘ

Gestational thrombocytopenia (platelets 100–150K/mm³) from hemodilution.

Takeaway Points ✓

No treatment needed; resolves postpartum. **Differentiate** from ITP (platelets <100K, petechiae).

USMLE tip 🧠

Isolated mild thrombocytopenia in an **asymptomatic** pregnant woman is likely **gestational thrombocytopenia**, requiring **no intervention**.



Cracked Nipples and Blood

= Check That Latch

Scenario Summary 📋

A woman 7 days postpartum has **severe nipple pain**, **bloody discharge**, and is **unable** to breastfeed.

Key features 🔍

Bloody nipple discharge, bilateral nipple abrasions, **breast engorgement**, **worsened pain** with feeds.

Overview ⓘ

Improper latch-on technique is the most common cause of nipple trauma in early breastfeeding.

Key intervention ★

Assess infant latch and positioning, and **provide education** on proper breastfeeding technique.

Takeaway Points ✓

Cracked, painful nipples with bleeding are usually from poor latch. Early intervention can **prevent** complications and **promote** breastfeeding **success**.

Pitfall to Avoid ⚠️

Don't assume mastitis or infection if there is no fever, redness, or localized breast tenderness. Also, **don't stop** breastfeeding unless medically necessary.

USMLE tip 🧠

Painful, cracked, and bleeding nipples in a breastfeeding mother without signs of infection point toward **poor infant latch technique**, not infection or cancer.



Facial Pigmentation in Pregnancy = It's Just Melasma

Scenario Summary 📋

A 32-year-old woman at 28 weeks has **light brown facial macules on cheeks** and **nose** that spare the nasolabial folds. No other symptoms.

Key features 🔍

Symmetric hyperpigmented macules in malar distribution, normal vitals and labs, **no proteinuria**.

Overview ⓘ

This is **melasma**, a benign pigmentation disorder in pregnancy due to hormonal stimulation of melanocytes and sun exposure.

Best action ⭐

No further evaluation needed. **Reassure** and **recommend sun protection**.

Takeaway Points ✓

Melasma is **common** in pregnancy, **resolves** postpartum, and is **diagnosed** clinically.

Pitfall to Avoid ⚠️

Don't confuse melasma with lupus rash — lupus is typically erythematous and scaly with systemic signs.

USMLE tip 🧠

Symmetric facial hyperpigmentation in pregnancy without systemic signs is melasma, and the correct approach is **clinical diagnosis without further workup**.



Heavy Bleeding + Nonviable Fetus

= Suction Curettage

Scenario Summary 📄

A 29-year-old woman at 10 weeks gestation presents with **massive vaginal bleeding**, low BP, and a **nonviable fetus** on ultrasound.

Key features 🔍

Hemodynamic **instability**, open cervix, large **clots**, no fetal **cardiac activity**.

Overview ⓘ

This is an **inevitable abortion** in a hemodynamically unstable patient requiring urgent evacuation.

Immediate management ★

Perform **suction curettage** to **control** bleeding and **evacuate** retained tissue.

Takeaway Points ✓

Suction curettage is **first-line** in unstable patients with **heavy** bleeding and **inevitable** abortion.

Pitfall to Avoid ⚡

Don't delay with expectant or medical management — these are for stable cases only.

USMLE tip 🧠

In early pregnancy with heavy bleeding, open cervix, and nonviable fetus, the right approach in an unstable patient is **suction curettage**.



Claw Hand + Ptosis

= Think Klumpke Palsy

Scenario Summary 📝

A newborn boy after **forceps delivery** with **shoulder dystocia** shows right-hand weakness, "**claw hand**" and right-sided **ptosis**.

Key features 🔍

Macrosomic baby, forceps delivery, **absent grasp reflex**, **intact** biceps reflex, **ipsilateral** ptosis.

Overview ⓘ

This is **Klumpke palsy** due to lower brachial plexus (C8-T1) injury during shoulder dystocia.

Pathophysiology ★

Nerve root traction causing motor loss in hand + **sympathetic** fiber disruption → **Horner syndrome**.

Takeaway Points ✓

Claw hand + Horner's syndrome = **Klumpke palsy**. Often resolves with physiotherapy.

Pitfall to Avoid ⚠

Don't confuse with Erb's palsy (C5-C6, "waiter's tip") or fractures. This is lower plexus + sympathetic.

USMLE tip 🧠

A newborn with a **claw-like hand**, absent grasp reflex, and ptosis/miosis following shoulder dystocia likely has injury to the C8 and T1 nerves, consistent with **Klumpke palsy**.



High FSH + Streak Ovaries = Turner Syndrome

Scenario Summary 📝

A 15-year-old girl with no breast development is found to have a prepubertal uterus and **high FSH/LH** on labs.

Key features 🔍

Primary amenorrhea, absent secondary sex characteristics, **short stature**, **elevated FSH/LH**.

Overview ⓘ

This is consistent with gonadal dysgenesis from Turner syndrome (45,X), leading to primary ovarian insufficiency.

Pathophysiology clue ⭐

Loss of the second X chromosome → **streak ovaries** → **low estrogen** → **elevated FSH** from lack of **negative feedback**.

Takeaway Points ✓

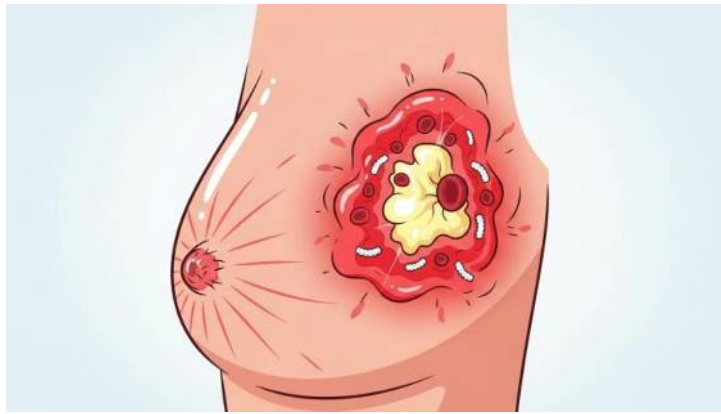
Turner syndrome presents with **short stature**, **primary amenorrhea**, and elevated gonadotropins. Karyotyping confirms 45,X.

Pitfalls to Avoid ⚠️

Don't confuse with **hypothalamic causes** of **amenorrhea** — **low FSH** would be expected in those.

USMLE tip 🧠

A girl with **primary amenorrhea**, **high FSH**, and small prepubertal ovaries likely has **Turner syndrome** due to congenital absence of an X chromosome.



Breast Abscess = Fluctuant + Erythematous + Febrile

Scenario Summary 📝

A 32-year-old **breastfeeding woman** presents with a week of worsening left breast pain, **erythema**, and **fever**. Exam shows a fluctuant 4-cm mass with surrounding **erythema** and axillary lymphadenopathy.

Key features 🔍

Fluctuant, tender breast mass with **fever**, localized **erythema**, and axillary lymph nodes following untreated **mastitis**.

Overview ⓘ

This is a **breast abscess**, a complication of **mastitis** when **milk stasis** and infection progress into localized purulent collection.

Next step ★

Perform **needle aspiration** and prescribe **antibiotics** to cover methicillin-sensitive **Staphylococcus aureus**.

Takeaway Points ✓

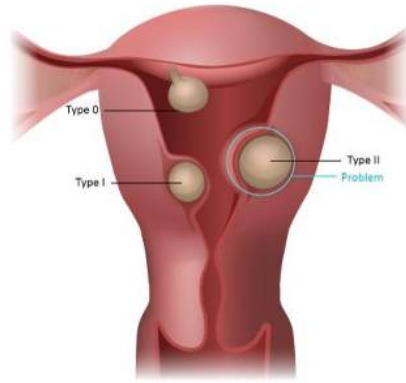
Breast abscess typically requires drainage + **antibiotics**, not just conservative therapy. Continued breastfeeding is encouraged.

Pitfalls to Avoid ⚠️

Don't confuse this with **mastitis** alone — fluctuation indicates abscess. Breast binding worsens stasis.

USMLE tip 🧠

In breastfeeding women with **focal erythema**, **fever**, and a **fluctuant mass**, the proper next step is **needle aspiration** and antibiotic therapy to treat a **breast abscess**.



Submucosal Fibroids

= Cause Recurrent Miscarriage

Scenario Summary 📝

A 35-year-old woman with three **early pregnancy** losses is found to have a 2-cm **submucosal fibroid** on ultrasound.

Key features 🔍

Recurrent first-trimester losses, normal cycles, negative thrombophilia workup, **intracavitary fibroid**.

Overview ⓘ

The fibroid is disrupting the endometrial cavity, impairing implantation or placental development, and causing early miscarriage.

Best treatment ★

Hysteroscopic myomectomy to remove the **submucosal fibroid** and restore normal uterine anatomy.

Takeaway Points ✓

Submucosal fibroids that distort the endometrial cavity are a well-known cause of **recurrent pregnancy loss** and must be surgically removed.

Pitfalls to Avoid 🚫

Don't use clomiphene or heparin unless the problem is hormonal or thrombotic. This is a structural cause.

USMLE tip 🧠

When recurrent **early pregnancy** loss is linked to a **submucosal fibroid** on imaging, the next step is **hysteroscopic myomectomy** to improve uterine environment and outcomes.



Simple Ovarian Cyst in Postmenopause = Check CA-125

Scenario Summary 📝

A 62-year-old woman has an incidental 5-cm **ovarian cyst** found on routine **pelvic ultrasound**. No symptoms or **family history** of cancer.

Key features 🔑

Asymptomatic, **postmenopausal**, normal Pap test, simple **ovarian cyst** on imaging.

Overview ⓘ

In **postmenopausal women**, even benign-looking **adnexal masses** warrant further evaluation due to higher **malignancy risk**.

Best next step ★

Serum CA-125 level to risk-stratify the cyst before deciding between observation or further imaging/surgery.

Takeaway Points ✓

Postmenopausal women with **adnexal masses** need CA-125 testing, even if the cyst appears benign, due to higher cancer risk.

Pitfalls to Avoid ⚡

Never aspirate **ovarian cysts** — risk of peritoneal seeding. Don't observe without checking CA-125 in **postmenopausal** cases.

USMLE tip 🧠

In asymptomatic **postmenopausal women** with a simple-appearing **ovarian cyst**, the next best step is to assess **malignancy risk** with a serum CA-125 level.



Ovarian Cyst Rupture

= Observe if Stable

Scenario Summary 📝

A 32-year-old woman with recent discontinuation of OCPs has sudden LLQ pain and ultrasound showing a simple **ovarian cyst** and free fluid.

Key features 🔍

Acute-onset unilateral pain, recent ovulation, negative pregnancy test, thin-walled cyst, moderate pelvic fluid.

Overview ⓘ

This is likely ruptured physiologic **ovarian cyst**, which can cause sudden **pelvic pain** post-ovulation..

Management decision ★

If hemodynamically stable and no **fever**, observation and **reassurance** is appropriate

Takeaway Points ✓

Ovarian cyst rupture is often self-limiting. Manage conservatively if the patient is stable.

Pitfalls to Avoid 🚫

Avoid unnecessary imaging or surgery if the ultrasound and vitals support benign rupture.

USMLE tip 🧠

In a reproductive-aged woman with sudden unilateral pain and pelvic free fluid after stopping contraceptives, the best approach is observation and **reassurance**, indicating **ruptured ovarian cyst**.



Uneven Hair Loss + Sparse Brows = **Trichotillomania**

Scenario Summary

An **adolescent girl** presents with **irregular patches** of hair loss, sparse eyebrows, and a habit of **wearing hats**. She enjoys her school play role.

Key features

Patchy hair loss with **broken hairs**, sparse eyebrows, emotionally stable, **compulsive behavior**.

Overview

This presentation is typical of **trichotillomania** (**hair-pulling disorder**), a **compulsive behavioral** condition often triggered by stress or **performance pressure**.

Best treatment

Begin **habit reversal training**, a type of **CBT**.

Takeaway Points

Hair pulling leads to irregular, **non-scarring hair loss** with hairs of different lengths. Eyebrows and **eyelashes** may also be affected.

Pitfalls to Avoid

Don't confuse with **alopecia areata**, which presents as **smooth**, completely **hairless patches** without **broken shafts**. Avoid misdiagnosing as **tinea** or **lupus**.

USMLE tip

When a young female presents with irregular hair loss and sparse eyebrows without **inflammation**, the diagnosis is **trichotillomania**, best treated with **habit reversal CBT**.



MAOI + SSRI = Serotonin Syndrome

Scenario Summary 📝

A woman with [depression](#) develops [agitation](#), tremor, fever, and [hypertension](#) after starting [phenelzine](#) one week after [stopping escitalopram](#).

Key features 🔍

Recent MAOI use, [hyperthermia](#), [tremors](#), [dilated pupils](#), [hyperreflexia](#), [altered mental status](#).

Overview ⓘ

This is a case of serotonin syndrome due to insufficient washout between [SSRI](#) and MAOI.

Likely cause ★

[Serotonin toxicity](#) from [phenelzine](#) following recent [SSRI](#) ([escitalopram](#)).

Takeaway Points ✓

[Serotonin syndrome](#) features mental status change, [autonomic instability](#), and neuromuscular hyperactivity. Allow 2 weeks (5 for fluoxetine) before switching to MAOI.

Pitfalls to Avoid ⚠️

Do not confuse with [tyramine hypertensive crisis](#) or NMS. Hyperreflexia and dilated pupils favor [serotonin syndrome](#).

USMLE tip 🧠

When a patient on [phenelzine](#) presents with [agitation](#), tremor, [hyperthermia](#), and recent [SSRI](#) use, the cause is [serotonin syndrome](#) due to [poor medication transition](#).



New Confusion + Tremor + Seizure = **Lithium Toxicity**

Scenario Summary 📄

A 73-year-old man with **bipolar** disorder becomes confused, tremulous, and ataxic after starting hydrochlorothiazide. He then has a **seizure**.

Diagnosis 🔍

Chronic **lithium** toxicity

Why ⓘ

Symptoms + recent thiazide (↓ **lithium** clearance) point to **accumulation** and **neurotoxicity**.

Most Likely Culprit ⭐

Lithium ■ Common triggers: thiazides, NSAIDs, ACE inhibitors. ■ Watch for signs: **ataxia**, confusion, GI upset, seizure.

Takeaway Points ✓

Lithium levels rise with renal clearance reduction—especially with thiazide diuretics.

Pitfalls to Avoid ⚡

Don't attribute new neurologic symptoms in **bipolar** patients to aging—check meds first.

USMLE tip 🧠

In bipolar patients on **lithium** with ataxia and confusion, suspect toxicity, especially if taking thiazides or NSAIDs.



Lithium Level >2.5 + Neurologic Signs?
= Dialysis Now

Scenario Summary 📝

A 31-year-old woman with **bipolar** disorder is somnolent and confused with fasciculations, **vomiting**, and a **seizure**. Her **lithium** level is 2.8 mEq/L.

Diagnosis 🔍

Acute **lithium** toxicity

Why ⓘ

Classic signs (GI upset, **altered mental status**, neuromuscular symptoms) and a toxic **lithium** level >2.5 mEq/L.

Best Next Step ★

Hemodialysis

Management Details 📋

▪ **First-Line Treatment** → Hemodialysis for **lithium** level >2.5 + significant symptoms. ▪ Avoid activated charcoal—ineffective for **lithium**. ▪ Monitor renal function and electrolytes during treatment.

Takeaway Points ✓

Hemodialysis is **indicated** in **lithium** toxicity with high levels or severe neurologic symptoms.

Pitfalls to Avoid 🚫

Don't waste time on gastric decontamination—**lithium** is poorly absorbed by charcoal.

USMLE tip 🧠

In any patient with neurologic signs + **lithium** level >2.5, the next step is hemodialysis—no exceptions.



Stopped Paroxetine + Flu-like Symptoms? = It's ADS

Scenario Summary 📝

A 35-year-old woman reports [chills](#), tremor, [myalgias](#), and [insomnia](#) after [missing several doses](#) of [paroxetine](#) during travel.

Diagnosis 🔍

Antidepressant discontinuation syndrome (ADS)

Why ⓘ

Short half-life [SSRI](#) ([paroxetine](#)) + flu-like symptoms, tremor, irritability = classic [ADS](#).

First-Line Treatment ★

Restart the [SSRI](#)

Management Details 📋

- Restart [paroxetine](#) → symptoms usually resolve within 24–48 hours.
- Consider switching to [fluoxetine](#) if recurrent [ADS](#) occurs, due to its long half-life.
- Warn patients to avoid abrupt discontinuation.

Takeaway Points ✓

[ADS](#) can mimic viral illness—especially with short half-life SSRIs like [paroxetine](#) and [venlafaxine](#).

Pitfalls to Avoid 🚫

Don't give antibiotics or antivirals—this is not an [infection](#).

USMLE tip 🌟

If a patient develops tremor, restlessness, and flu-like symptoms after stopping [paroxetine](#), the next step is to restart the [SSRI](#).

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Pulmonology & Critical Care	287
Endocrine, Diabetes & Metabolism	231
Renal, Urinary System & Electrolytes	232
Pregnancy, Childbirth & Puerperium (Obstetrics)	260
Female Reproductive System & Breast (Gynecology)	264
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