

PANCE Study Guide

215 High-Yield Concepts for the PANCE

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*&strong&Category:&/strong& Medical / Physician Assistant Cert Prep |
&strong&Design:&/strong& Indigo + Gold*

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How to Use This Guide

This workbook distills the Physician Assistant National Certifying Examination (PANCE) into 215 high-yield concepts; organized to mirror the official content blueprint effective for all PANCE administrations beginning January 2025. The exam has five blocks of 60 questions with 60 minutes per block (300 questions, 300 minutes of testing time), 45 minutes of break time between blocks and a 15-minute tutorial; it is administered year-round at over 300 Pearson VUE testing centers, and the passing standard is 350 on the 200-800 scale. Every concept gives you Key Facts (what the exam wants you to know), a Strategy Tip (how to apply or remember it), and a Worked Example (a realistic clinical scenario). Concepts are organized by the blueprint's medical content categories and their percentages (Cardiovascular 11%, Pulmonary 9%, GI/Nutrition and Musculoskeletal 8% each, Infectious Diseases, Neurologic, Psychiatry, Reproductive, and EENT at 6-7% each, and the rest at 4-6%, with Professional Practice at 6%), plus the task categories the exam rewards (Formulating the Most Likely Diagnosis 18%, History Taking and Physical Examination 16%, Clinical Intervention 16%, Pharmaceutical Therapeutics 15%). Study in category order, then re-scan any system whose scenarios feel shaky.

PART 1 -- PANCE EXAM ESSENTIALS & BLUEPRINT (14 Concepts)

This part covers the exam itself: format, timing, eligibility, the six-years-six-attempts rule, scoring, and how the blueprint allocates questions. These facts are free points and frame every content part that follows.

Section 1.1: Exam Format and Administration

#	Term	Key Facts	Strategy Tip	Example
1	PANCE	The Physician Assistant National Certifying Examination, administered by NCCPA to graduates of ARC-PA-accredited entry-level PA programs; passing it earns the board-certified PA-C designation.	Define PANCE as "the national certification exam for entry-level PAs" - everything else follows from that.	A new PA graduate takes PANCE after program completion to become board certified.
2	Exam format	PANCE consists of five blocks of 60 questions, with 60 minutes to complete each block - 300 questions and 300 minutes of testing time in total.	Memorize the numbers cold: 5 blocks x 60 questions x 60 minutes = 300 questions / 5 hours.	A candidate sits for block 1 and sees exactly 60 questions with a 60-minute timer.
3	Break and tutorial time	There is a total of 45 minutes allotted for breaks between blocks and 15 minutes to view a tutorial; candidates manage their own break time.	Plan your breaks: use scheduled breaks to rest and to eat or drink, and do not overspend them.	A candidate takes a 10-minute break after block 2 and a longer one after block 4, keeping within 45 minutes.
4	Total testing versus appointment time	With 5 hours of block testing plus 45 minutes of breaks and a 15-minute tutorial, expect about 6 hours total at the center.	Book your day around a roughly six-hour session; do not schedule anything right after.	A candidate who starts at 8:00 AM plans to be done by ~2:00 PM including check-in.
5	Administration sites	PANCE is administered throughout the year at over 300		

Pearson VUE
testing centers.

Choose a date
comfortably
before program
and job

deadlines;
centers fill up in
peak months.

A graduate
books a center
appointment two
months after

graduation.

6	Tutorial and practice materials	NCCPA points candidates to a Pearson VUE exam tutorial and offers official practice exams through the NCCPA account.	Take the tutorial before test day so the interface adds no surprises on exam day.	A candidate watches the Pearson VUE tutorial twice and completes an official practice exam.
7	Registration and fee	You must submit an application with a \$550 payment when applying for PANCE; exam acknowledgment arrives within 3 days.	Budget the fee and apply as soon as your program notifies NCCPA of your expected graduation.	A candidate pays the \$550 application fee and receives an acknowledgment notice two days later.
8	Eligibility	You must graduate from an entry-level PA program accredited by ARC-PA to be eligible to take the PANCE.	Confirm your program's ARC-PA status at matriculation, not at graduation.	A graduate whose program was ARC-PA-accredited at matriculation is eligible even if accreditation changes later.
9	Six-years-six-attempts rule	Never-certified graduates of ARC-PA-accredited programs who graduated on or after January 1, 2003 may take PANCE for up to six years after graduation, up to six total attempts; whichever limit runs out first ends eligibility.	Track both clocks - years since graduation and attempts used - and never waste an attempt.	A graduate uses 2 attempts in 4 years: 2 attempts and 2 years remain; a delay of 2 more years would end eligibility first.
10	Restoring eligibility	Once the six-year or six-attempt limit is exhausted, the only way to regain PANCE eligibility is to complete another unabridged ARC-PA-accredited PA program.	Never gamble an attempt, because eligibility cannot be extended without repeating a whole program.	A candidate who exhausts six attempts must complete a full accredited program again to become eligible.

11	Exam-day security and accommodations	NCCPA treats exam security as critical, and testing accommodations are available through an application process for qualifying candidates.	If you need accommodations , start the application early; documentation takes time.	A candidate with a documented condition applies for extended-time accommodations before scheduling.
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Section 1.2: Scoring and the Blueprint

#	Term	Key Facts	Strategy Tip	Example
12	Passing standard	PANCE is scored on a 200-800 scale, and the passing standard is 350; you must reach or exceed 350 to pass.	Treat 350 as the floor, not the goal; study for comfortable margin because items vary in difficulty.	A candidate scoring 380 passes; a score of 340 does not, even though both are "close".
13	Scale scoring and pre-test items	Scale scores adjust for small differences in difficulty across forms; PANCE includes both scored items and unscored pre-test items that examinees cannot distinguish.	Do not waste energy guessing which items are pre-test; answer every item equally.	A candidate answers all 300 items seriously even though some were experimental.
14	Blueprint allocation	The content blueprint was built from a profession-wide practice analysis and specifies the percentage of questions for each medical content and task category.	Study proportionally: the biggest categories (Cardiovascular 11%, Pulmonary 9%) earn more of your time than 4% categories.	A student budgets study time by blueprint weight, giving Cardiovascular more days than Dermatologic.

PART 2 -- CARDIOVASCULAR SYSTEM (24 Concepts - Official weight 11%) & PULMONARY SYSTEM (20 Concepts - 9%)

Cardiovascular is the single largest content category; Pulmonary is the third largest. Together they make up one of every five questions. Learn the high-yield presentations, risk tools, and management moves here first.

Section 2.1: Cardiovascular System (24 Concepts)

#	Term	Key Facts	Strategy Tip	Example
15	Chest pain evaluation	First step is triage: ACS must be ruled out; then pericarditis, aortic dissection, PE, and GI causes.	Work the differential from life-threatening down: ACS, dissection, PE, then others.	A 55-year-old with crushing substernal pain and diaphoresis gets an ECG and troponin immediately.
16	Acute coronary syndrome	Spectrum of unstable angina, NSTEMI, and STEMI; caused by plaque rupture with thrombosis; STEMI shows ST elevation, NSTEMI/unstable angina often do not.	Distinguish by ECG and biomarkers: STEMI = ST elevation + elevated troponin; NSTEMI = troponin up without ST elevation.	A patient with ST elevation in leads II, III, aVF is diagnosed with inferior STEMI.
17	Angina pectoris	Chest pressure with exertion relieved by rest or nitroglycerin; stable angina is predictable, unstable angina is new, worsening, or at rest.	Ask about triggers and relief: exertional + relievable = stable pattern; at rest or escalating = unstable.	A patient's chest pressure occurs climbing stairs and resolves in 5 minutes of rest: stable angina.
18	Myocardial infarction management	STEMI: immediate reperfusion (primary PCI preferred, fibrinolysis if PCI unavailable); aspirin, antiplatelet, anticoagulant, and statin as indicated.	Remember "time is muscle": door-to-reperfusion goals drive STEMI management.	Emergency staff activate the cath lab within minutes of STEMI recognition.
19	Heart failure	Inability to pump adequately: HFrEF (reduced EF) vs HFpEF (preserved EF); symptoms		

include dyspnea,
edema, fatigue;
BNP is a key
marker.

Classify by ejection fraction first; treatment differs between HFrEF and HFpEF.	A patient with EF 30% and dyspnea is HFrEF; guideline therapy includes beta-blocker and
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ARNI.

20	Hypertension	Most primary (essential); secondary causes include renal disease, renal artery stenosis, hyperaldosteronism, drugs; emergent hypertension has end-organ damage.	Screen for secondary causes when BP is refractory, young patient, or abrupt onset.	A 30-year-old with resistant HTN and hypokalemia is evaluated for primary aldosteronism.
21	Hypertensive emergency vs urgency	Emergency = markedly elevated BP with acute end-organ damage (CNS, cardiac, renal); urgency = severe elevation without acute damage.	Ask what is damaged: stroke, encephalopathy, ACS, or AKI makes it an emergency needing IV therapy.	BP 210/120 with confusion and papilledema is a hypertensive emergency, not an urgency.
22	Atrial fibrillation	Irregularly irregular rhythm; risks include thromboembolism (stroke) and rate-related symptoms; CHA2DS2-VASc guides anticoagulation.	On any irregularly irregular pulse, think AFib and check anticoagulation need, rate, and rhythm.	A 70-year-old with AFib and hypertension is started on a DOAC for stroke prevention.
23	Atrial flutter	Regular rapid atrial rhythm with sawtooth flutter waves, often 2:1 conduction around 150 bpm; treated with rate or rhythm control and anticoagulation.	Suspect flutter when HR is ~150 and regular; look for flutter waves on the ECG.	An ECG shows 150 bpm with sawtooth P waves in the inferior leads: atrial flutter.
24	Bradycardia and heart block	Sinus bradycardia, first-degree AV block (PR prolongation), second-degree (Mobitz I/II), and third-degree (complete) block cause symptoms		

from fatigue to
syncope.

Mobitz II and
third-degree
blocks are
dangerous and
often need
pacing; Mobitz I
rarely does.

A patient with
syncope and
third-degree AV
block is admitted
for pacemaker
placement.

25	Ventricular tachycardia and fibrillation	VT is a wide-complex tachycardia; pulseless VT/VF are cardiac arrest rhythms treated with defibrillation and ACLS protocols.	Any pulseless wide-complex tachycardia = shock; stable VT can be treated medically per ACLS.	A code team defibrillates a patient in pulseless VT immediately.
26	Wolff-Parkinson-White and SVT	WPW shows a short PR and delta wave with paroxysmal SVT; avoid AV-nodal blocking drugs in AFib with WPW.	Seeing delta waves changes treatment; never give only AV nodal blockers to pre-excited AFib.	A young adult with palpitations and a delta wave is counseled about SVT and possible ablation.
27	Valvular disorders - aortic stenosis	Progressive outflow obstruction with exertional dyspnea, angina, syncope (classic triad); harsh systolic murmur radiating to carotids.	The triad of exertional syncope, angina, and dyspnea with a systolic murmur points to AS.	A 75-year-old with syncope while shoveling and a systolic murmur is evaluated by echo for AS.
28	Mitral regurgitation and prolapse	MR: holosystolic murmur at apex radiating to axilla, from valve/annulus/myocardial causes; MVP: mid-systolic click and late murmur.	Compare murmur timing and location: apical holosystolic = MR; click-murmur = MVP.	A pansystolic apical murmur radiating to the axilla in a patient post-MI suggests ischemic MR.
29	Infective endocarditis	Infection of valve surfaces; risk factors include prosthetic valves, prior IE, IV drug use; use modified Duke criteria and blood cultures.	Clinical clues: fever + new murmur + embolic phenomena; always obtain cultures before antibiotics.	A patient with fever, a new regurgitant murmur, and Janeway lesions is started on empiric IE therapy after cultures.
30	Pericarditis	Inflammation of pericardium: sharp pleuritic chest pain relieved by sitting forward, PR depression and diffuse ST		

elevation,
possible friction
rub.

Pain relieved by leaning forward + diffuse ST elevation is pericarditis, not ACS.	A patient's chest pain improves sitting up; ECG shows diffuse ST elevation and PR depression.
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31	Cardiomyopathies	Dilated (common, systolic failure), hypertrophic (diastolic dysfunction, sudden death risk), restrictive (stiff ventricle), and stress (takotsubo) forms.	Match presentation: young athlete + syncope + murmur = HCM until proven otherwise.	A teenager with exertional syncope and a systolic murmur gets echo screening for HCM.
32	Aortic dissection	Sudden severe tearing chest or back pain with pulse or BP differential; a surgical emergency requiring imaging (CT angiography).	Tearing pain + unequal pulses = dissection until disproven; check both arms' BP.	A patient describes tearing back pain with a BP difference between arms; CTA confirms dissection.
33	Peripheral arterial disease	Atherosclerotic narrowing of limb arteries: claudication, weak pulses, cool skin; ankle-brachial index is the first test.	Claudication = reproducible calf pain on walking relieved by rest; ABI $\leq$ 0.9 supports PAD.	A smoker with calf cramping after two blocks and ABI 0.7 is treated with risk reduction and exercise.
34	Deep vein thrombosis	Clots in deep veins: unilateral leg swelling and pain; D-dimer sensitive but not specific; duplex ultrasound confirms; treat with anticoagulation.	Use Wells score: unilateral swelling, cancer, recent surgery raise pretest probability.	A post-op patient with a swollen left calf and positive duplex scan is started on a DOAC.
35	Venous thromboembolism risk	VTE includes DVT and PE; risk from surgery, immobility, cancer, estrogen, and thrombophilia; prophylaxis prevents most hospital VTE.	Think prevention: early mobility and prophylactic anticoagulation are cheap, high-yield moves.	A hospitalized patient on bed rest receives pharmacologic VTE prophylaxis per protocol.

36	Hyperlipidemia	Elevated LDL drives atherosclerosis; statins are first-line; secondary causes include hypothyroidism, nephrotic syndrome, diabetes.	Check lipids after diagnosis of CAD or diabetes, and treat per risk, not just the number.	A patient post-MI starts a high-intensity statin regardless of baseline LDL.
37	Shock - cardiogenic	Failure of the heart to pump: hypotension with cool extremities and elevated filling pressures after MI or cardiomyopathy.	In shock with jugular distention and pulmonary edema, think cardiogenic - not sepsis.	A post-MI patient with hypotension and crackles is managed with inotropes and circulatory support.
38	Shock - distributive (sepsis, anaphylaxis)	Widespread vasodilation from sepsis, anaphylaxis, or neurogenic causes: warm extremities, low systemic vascular resistance; treat the cause, volume, and vasopressors.	Sepsis = source control + fluids + antibiotics; anaphylaxis = epinephrine first.	A patient with anaphylaxis after a bee sting receives IM epinephrine immediately.

Section 2.2: Pulmonary System (20 Concepts)

#	Term	Key Facts	Strategy Tip	Example
39	Asthma	Reversible airway obstruction with wheezing, cough, and dyspnea; triggers include allergens, exercise, and infections; peak flow and spirometry track it.	Step therapy by control: SABA as needed, then inhaled corticosteroids, then add-ons.	A patient using a SABA twice weekly is stepped up to daily low-dose inhaled corticosteroid.
40	COPD	Chronic airflow limitation from smoking: chronic bronchitis and emphysema; spirometry shows post-bronchodilator FEV1/FVC under 0.70.	Remember the spirometry number: FEV1/FVC ratio < 0.70 confirms obstruction.	A smoker with dyspnea has FEV1/FVC 0.55: COPD confirmed by spirometry.
41	COPD exacerbation	Acute worsening of dyspnea, cough, and sputum; management: bronchodilators, steroids, antibiotics for purulent sputum, oxygen titrated.	Bundle the treatment: nebulizers + prednisone + antibiotics when sputum is purulent.	A patient with increased purulent sputum and wheeze gets bronchodilators, prednisone, and an antibiotic.
42	Community-acquired pneumonia	Lung infection with fever, cough, and infiltrate; severity tools (CURB-65, PSI) guide inpatient vs outpatient; typical and atypical organisms matter.	Outpatient, healthy, < 65 : amoxicillin or doxycycline/macrolide; adjust for severity and resistance.	A 40-year-old with lobar pneumonia and normal vitals is treated as an outpatient with amoxicillin.
43	Tuberculosis	Mycobacterium tuberculosis: chronic cough, night sweats,		

weight loss,
hemoptysis;
latent vs active;
RIF resistance
changes
regimen;
airborne
precautions.

Think TB with
prolonged cough
+ risk factors;
AFB smears and

cultures guide
treatment;
directly observed
therapy aids
adherence.

A patient with a
3-month cough
and apical
cavitary lesion is

placed in
airborne isolation
and evaluated for
active TB.

44	Pulmonary embolism	Clots to the lungs: sudden dyspnea,
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pleuritic pain,
tachycardia,
hypoxia;
PERC/Wells
triage, D-dimer if
low-intermediate,
CTA to confirm.

Tachycardia +
dyspnea + risk
factors after a

negative cardiac
workup = think
PE.

A post-surgical
patient with
sudden dyspnea

and a positive
CTA is
anticoagulated.

45	Pleural effusion	Fluid in the pleural space: transudate (heart failure, cirrhosis) vs exudate (infection, malignancy); Light's criteria separate them.	Light's criteria: exudate if pleural protein/serum protein >0.5 , pleural LDH/serum LDH >0.6 , or LDH $>2/3$ upper limit.	Thoracentesis shows an exudate by Light's criteria; malignancy and infection join the differential.
46	Pneumothorax	Air in the pleural space: spontaneous or traumatic; tension pneumothorax has tracheal deviation and hemodynamic collapse needing immediate decompression.	Tension = decompress first (large-bore needle second intercostal space), imaging second.	A ventilated patient develops sudden desaturation, absent breath sounds, and hypotension: needle decompression.
47	Interstitial lung disease	Restrictive lung diseases (IPF, sarcoid, hypersensitivity pneumonitis): dry cough, crackles, restriction on PFTs, characteristic imaging.	Restriction = low TLC and FVC with normal or high FEV1/FVC, unlike obstruction.	A patient with dry cough and basal crackles has restriction on PFTs; HRCT shows usual interstitial pneumonia pattern.
48	Obstructive sleep apnea	Repeated airway collapse in sleep: snoring, witnessed apneas, daytime sleepiness, hypertension; polysomnography confirms; CPAP is first-line.	Screen any snoring, obese, hypertensive patient for OSA; Epworth score helps triage.	A patient with loud snoring and daytime sleepiness undergoes sleep study and starts CPAP.
49	Acute respiratory distress syndrome	Acute hypoxemic respiratory failure with bilateral infiltrates not from fluid overload; treat the cause and use lung-protective ventilation.	Oxygenation failure out of proportion to exam = consider ARDS with sepsis, pancreatitis, trauma.	A septic patient develops bilateral infiltrates and $\text{PaO}_2/\text{FiO}_2$ under 300; lung-protective ventilation is initiated.

50	Cor pulmonale and pulmonary hypertension	Right heart failure from pulmonary disease: dyspnea, edema, elevated JVP, loud P2; echo estimates pulmonary pressures.	Right heart strain signs with lung disease = cor pulmonale; treat the underlying lung problem.	A COPD patient develops leg edema and elevated JVP; echo shows right ventricular enlargement.
51	Lung cancer	Smoking-driven malignancy: persistent cough, hemoptysis, weight loss; NSCLC (adenocarcinoma, squamous) vs SCLC; staging drives therapy.	A smoker with a new lung nodule plus risk factors needs imaging follow-up or biopsy per guidelines.	A 60-year-old smoker with a 2 cm spiculated nodule undergoes PET-CT and biopsy showing adenocarcinoma.
52	Influenza and viral respiratory infections	Seasonal viral illness with fever, myalgia, cough; antivirals help early in high-risk patients; complications include pneumonia and bacterial superinfection.	Rapid testing and early oseltamivir matter most for high-risk or hospitalized patients.	A diabetic patient with flu-like illness for 2 days starts oseltamivir the same day.
53	Spirometry interpretation	Obstruction = reduced FEV1/FVC; restriction = reduced FVC/TLC with normal ratio; bronchodilator response supports asthma.	Read the ratio first: ratio low = obstruction; ratio normal with low volumes = restriction.	FEV1/FVC 0.65 with reversibility after albuterol points to asthma.
54	Oxygen therapy and targets	Titrate oxygen to a target saturation (usually 92-96% or 88-92% in COPD with CO2 retention risk); avoid both hypoxia and hyperoxia in unstable		

patients.

55	Smoking cessation	The single highest-yield preventive intervention for
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Do not give high-flow oxygen reflexively to a known CO2 retainer; titrate to target.	A COPD patient with sat 88% receives controlled low-flow oxygen targeting 88-92%.
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pulmonary and
cardiovascular
disease:
combination
counseling +
pharmacotherap
y (NRT,
bupropion,
varenicline).

Use the 5 A's
(Ask, Advise,
Assess, Assist,
Arrange) and

offer
pharmacotherap
y at every visit.

A clinician
prescribes
varenicline and
sets a quit date

with a patient
who smokes a
pack a day.

56	Pulmonary function and exercise testing	Spirometry, lung volumes, diffusing capacity, and 6-minute walk tests characterize disease and disability.	Low DLCO points to emphysema or interstitial disease; normal DLCO with obstruction favors asthma.	A patient with obstruction and low DLCO is diagnosed with emphysema rather than asthma alone.
57	Upper airway emergencies	Epiglottitis (drooling, stridor, tripod) and foreign body aspiration are airway threats needing urgent ENT and airway management.	Stridor + drooling + toxic appearance = secure the airway, do not poke and delay.	A child with stridor, drooling, and fever is taken for direct airway evaluation rather than a throat culture.
58	Cough and hemoptysis evaluation	Persistent cough: ACE inhibitors, reflux, post-nasal drip, asthma, and smoking dominate; hemoptysis warrants imaging (CXR, then CT).	Review meds for ACE-I cough and ask about smoking and hemoptysis quantity before scanning.	A patient's 3-month cough resolves after stopping lisinopril - no further workup needed.

PART 3 -- GASTROINTESTINAL SYSTEM/NUTRITION (18 Concepts - 8%), MUSCULOSKELETAL SYSTEM (16 Concepts - 8%), DERMATOLOGIC SYSTEM (8 Concepts - 4%)

GI and musculoskeletal are the two 8% categories after cardiovascular and pulmonary; dermatology is small but highly testable with pattern recognition. These three together approach one in four exam questions.

Section 3.1: Gastrointestinal System and Nutrition (18 Concepts)

#	Term	Key Facts	Strategy Tip	Example
59	Gastroesophageal reflux disease	Retrograde flow of stomach contents: heartburn, regurgitation, chronic cough; chronic disease risks esophagitis, stricture, Barrett esophagus.	Lifestyle + PPI trial first; alarm symptoms (dysphagia, weight loss, bleeding) need endoscopy.	A patient with heartburn and regurgitation improves on a PPI; alarm-free, no urgent scope is needed.
60	Peptic ulcer disease	Gastric or duodenal ulcers; H. pylori and NSAIDs are the main causes; duodenal pain improves with food, gastric pain worsens.	Test and treat H. pylori; stop NSAIDs; consider GI bleed risk with any ulcer.	A patient with epigastric pain and positive H. pylori breath test completes triple therapy.
61	H. pylori management	Helicobacter pylori causes gastritis, PUD, and gastric cancer risk; confirm eradication after therapy; regimens combine PPI + two antibiotics.	After treating H. pylori, confirm eradication with a non-endoscopic test 4 weeks after antibiotics.	A patient retests negative by stool antigen a month after quadruple therapy.
62	Upper GI bleeding	Hematemesis, melena, or coffee-ground emesis from varices, ulcers, or Mallory-Weiss tears; stabilize, transfuse, and scope.	Resuscitate first (two large-bore IVs, type and cross), then treat the cause endoscopically.	A patient with melena and hypotension receives fluids, transfusion, and urgent endoscopy showing a bleeding ulcer.
63	Lower GI bleeding	Hematochezia or maroon stools from diverticulosis, angiodysplasia, polyps, or hemorrhoids; hemodynamics		

and source
localization guide
care.

Bright red blood usually lower GI; unstable patients with massive bleeding need urgent evaluation.	A patient with painless bright red bleeding per rectum undergoes colonoscopy after stabilization.
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64	Acute cholecystitis and cholelithiasis	Gallstones cause biliary colic; acute cholecystitis adds fever, right upper quadrant pain, and a positive Murphy sign; ultrasound confirms.	Right upper quadrant pain + fever + Murphy sign = cholecystitis; treat with antibiotics and cholecystectomy.	An obese woman with postprandial RUQ pain and gallstones on ultrasound is scheduled for cholecystectomy.
65	Cholangitis	Infection of the bile ducts: Charcot triad (fever, jaundice, RUQ pain) and Reynolds pentad with shock/confusion; an emergency.	Fever + jaundice + RUQ pain = cholangitis until proven otherwise; needs urgent biliary drainage.	A jaundiced patient with RUQ pain, fever, and hypotension is taken for urgent ERCP.
66	Pancreatitis	Inflammation of the pancreas: epigastric pain radiating to back, elevated lipase, risk factors gallstones and alcohol; severity ranges mild to organ failure.	Diagnose with 2 of 3: characteristic pain, lipase over 3x normal, imaging findings; treat supportively.	A patient with gallstone pancreatitis and elevated lipase receives IV fluids, analgesia, and no oral intake.
67	Appendicitis	Inflammation of the appendix: periumbilical pain migrating to the right lower quadrant, anorexia, fever; CT or ultrasound confirms.	Migrating pain + localized RLQ tenderness = appendicitis; NPO, IV fluids, and surgery.	A young adult with RLQ pain, rebound tenderness, and an enlarged appendix on CT undergoes appendectomy.
68	Diverticular disease	Diverticulosis is asymptomatic outpouchings; diverticulitis adds pain, fever, and change in bowel habits; uncomplicated cases often need antibiotics selectively.	Left lower quadrant pain in an older patient = diverticulitis; CT confirms and grades severity.	A 70-year-old with LLQ pain and fever has diverticulitis on CT and is treated with bowel rest and antibiotics.

69	Inflammatory bowel disease	Crohn disease (transmural, anywhere mouth to anus, skip lesions) vs ulcerative colitis (continuous colonic mucosal disease, bloody diarrhea).	Crohn: fistulas, strictures, terminal ileum; UC: bloody diarrhea, starts in rectum continuously.	A patient with bloody diarrhea and continuous inflammation from the rectum up is diagnosed with ulcerative colitis.
70	Irritable bowel syndrome	Functional disorder with abdominal pain related to defecation and changed stool form; subtypes constipation, diarrhea, mixed; no alarm features.	Diagnosis of exclusion with Rome criteria; alarm features (bleeding, weight loss, night pain) demand workup.	A patient with cramping and alternating stool habits, normal exam and labs, meets Rome criteria for IBS.
71	Constipation and hemorrhoids	Constipation: infrequent hard stools, often lifestyle and medication driven; hemorrhoids are vascular cushions causing bleeding and itching.	Treat constipation with fiber, fluids, and activity before escalating; examine for fissures and masses.	A patient with hard stools and bright red bleeding per rectum has internal hemorrhoids on exam.
72	Esophageal disorders	GERD, achalasia (dysphagia both solids and liquids), esophageal strictures, Mallory-Weiss tear after retching, and esophageal varices from portal hypertension.	Painless progressive dysphagia in adults = cancer until proven; hematemesis after vomiting = Mallory-Weiss.	A patient with food and liquid sticking and regurgitation is found to have achalasia on manometry.
73	Cirrhosis and hepatic failure	Chronic liver damage with portal hypertension: ascites, varices, coagulopathy, encephalopathy;		

complications
are lethal and
testable.

Track
complications:
ascites
(paracentesis),
variceal bleed
(octreotide +
banding),

encephalopathy
(lactulose).

A patient with
cirrhosis and
asterixis is
treated for
hepatic
encephalopathy
with lactulose.

74	Viral hepatitis	A (fecal-oral, self-limited), B (sexual/vertical/perirectal, chronic), C (parenteral, highly chronic); vaccination prevents A and B; C is curable.	Match exposure route to virus: food/water = A; blood/sex = B and C; screen immigrants and baby boomers for C.	A patient with jaundice and positive anti-HCV RNA is referred for direct-acting antiviral therapy.
75	Nutrition and malabsorption	Celiac disease (gluten, anti-TTG, villous atrophy), lactose intolerance, and short-gut cause diarrhea and nutrient deficiencies.	Chronic diarrhea + weight loss + anemia = think celiac and check IgA-TTG before gluten withdrawal.	A patient with bloating and iron-deficiency anemia tests positive for celiac antibodies.
76	Functional and structural anorectal disorders	Anal fissure (painful tear with bright blood), fistula-in-ano from cryptoglandular infection, and perirectal abscess needing drainage.	Severe pain with defecation + sentinel tag = fissure; fluctuance + fever = abscess, drain promptly.	A patient with exquisite pain on defecation and a visible fissure is started on stool softeners and topical therapy.

Section 3.2: Musculoskeletal System (16 Concepts)

#	Term	Key Facts	Strategy Tip	Example
77	Osteoarthritis	Mechanical joint degeneration: pain with use, morning stiffness under 30 minutes, bony enlargement, joint space narrowing; hip, knee, hands.	Pain with activity + short morning stiffness + no systemic signs = OA; manage with exercise and weight loss first.	A 65-year-old with knee pain climbing stairs and joint space narrowing on X-ray is managed conservatively.
78	Rheumatoid arthritis	Systemic inflammatory arthritis: symmetric small-joint pain with prolonged morning stiffness, positive RF/anti-CCP, erosions; treat early with DMARDs.	Prolonged morning stiffness + symmetric hand/wrist involvement = RA until proven otherwise.	A patient with symmetric wrist and MCP swelling and positive anti-CCP starts methotrexate.
79	Gout	Crystal arthropathy from urate: sudden hot swollen first MTP joint, podagra; treat flares and lower urate long term.	First MTP + intense pain + normal over days = gout; aspirate for crystals when uncertain.	A man awakens with a fiery, swollen great toe; joint aspiration shows needle-shaped urate crystals.
80	Septic arthritis	Joint infection: acute monoarticular pain, effusion, fever, inability to bear weight; joint aspiration is diagnostic and treatment is surgical/antibiotic.	Any hot swollen joint with fever = aspirate before imaging; do not wait for labs to return.	A febrile patient with a swollen knee and inability to bear weight undergoes urgent joint aspiration.
81	Osteomyelitis	Bone infection, often from contiguous spread or hematogenous seeding in		

diabetes and
vascular disease;
MRI is sensitive;
treat with
prolonged
antibiotics.

A diabetic foot
ulcer over a bone
+ elevated
inflammatory
markers =
osteomyelitis

until excluded.

A patient with a
deep heel ulcer
and exposed
bone on probe
has
MRI-confirmed

osteomyelitis.

82	Low back pain and sciatica	Most mechanical and self-limited; red flags include fever, cancer history, cauda
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equina, and
neurologic
deficits requiring
imaging.

Screen red flags
first: saddle
anesthesia,
bowel/bladder
change, and

weakness are
emergencies.

A patient with
severe back pain
and new urinary
retention gets
urgent MRI and

surgical consult.

83	Rotator cuff and shoulder disorders	Impingement, tendinopathy, and tears cause
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pain and weakness with overhead activity; exam tests (Neer, Hawkins, drop arm) localize.

Weakness that persists after pain relief

suggests a tear;
imaging
(ultrasound/MRI)
confirms.

A patient with
painful arc and
weakness in

external rotation
is found to have
a supraspinatus
tear.

84	Fractures - general principles	Assess neurovascular status, splint, image in two planes; open fractures need antibiotics and urgent washout; some fractures require reduction.	Always check pulses, motor, and sensation distal to any fracture, and document them.	A distal radius fracture is splinted after confirming intact median and radial nerve function.
85	Hip fractures	Falls in older adults: inability to bear weight, shortened externally rotated leg; surgery within 24-48 hours is standard.	Any elderly fall with inability to bear weight needs imaging even with a negative initial X-ray.	A 78-year-old with a fall and shortened rotated leg is admitted for surgical fixation of a hip fracture.
86	Compartment syndrome	Elevated pressure in a fascial compartment: pain out of proportion, pain on passive stretch, paresthesias; a surgical emergency.	Pain out of proportion + pain with passive stretch after trauma/splint = measure pressure and decompress.	A patient with a tibia fracture develops severe pain on toe dorsiflexion; fasciotomy is performed emergently.
87	Sprains and strains	Ligament sprains and muscle-tendon strains graded by severity; most heal with protection, rest, ice, compression, elevation.	Grade by function: mild stretch (I), partial tear (II), complete tear (III); surgery for selected IIIs.	An ankle inversion injury with mild swelling and full weight-bearing tolerance is treated with RICE.
88	Pediatric orthopedic conditions	Osgood-Schlatter (tibial tubercle pain), slipped capital femoral epiphysis (adolescent hip/limp), developmental dysplasia of the hip, Legg-Calve-Perth		

hes.

			Any adolescent with a limp and hip or knee pain = SCFE until X-ray; it is bilateral in many cases.	An obese 13-year-old with a limping gait is imaged and found to have SCFE.
89	Carpal tunnel syndrome	Median nerve compression: nocturnal hand paresthesias,		

thenar wasting in
late disease;
night splints,
injections, then
surgery.

Tingling in the
first three fingers
worse at night =
carpal tunnel;

Tinel and Phalen
support it.

A typist with
night waking and
thumb/index
tingling improves

with a wrist
splint.

90	Tendinopathy and bursitis	Overuse of tendons (Achilles, lateral epicondyle) and bursae (trochanteric, olecranon, prepatellar); activity modification, therapy, injections.	Localize pain to the structure: lateral elbow pain with grip = lateral epicondylitis.	A tennis player with lateral elbow pain on wrist extension improves with eccentric exercise and rest.
91	Osteoporosis	Silent bone loss increasing fracture risk; DXA T-score -2.5 or below is osteoporosis; treat with calcium, vitamin D, and anti-resorptives.	Screen women 65+ and use FRAX when borderline; long-term glucocorticoids are a major secondary cause.	A 66-year-old postmenopausal woman with T-score -2.8 starts bisphosphonate therapy.
92	Fibromyalgia	Chronic widespread pain with fatigue and sleep disturbance; diagnosis is clinical with tender points/multisite pain; treatment is multimodal.	Widespread pain + fatigue + sleep issues with a normal exam and labs = consider fibromyalgia.	A patient with diffuse pain and fatigue and no inflammatory markers is started on exercise, sleep hygiene, and duloxetine.

Section 3.3: Dermatologic System (8 Concepts)

#	Term	Key Facts	Strategy Tip	Example
93	Cellulitis and erysipelas	Bacterial skin infection from streptococci or staphylococci: erythema, warmth, swelling, and tenderness with systemic signs possible.	Draw the border, culture when purulent, and reassess within 48 hours of antibiotics.	A diabetic patient with a hot, red, tender lower leg is started on antistreptococcal coverage.
94	Skin cancer - melanoma	Malignant melanocytes: ABCDE (asymmetry, border, color, diameter, evolving); depth (Breslow) drives prognosis and staging.	Any changing pigmented lesion with irregular borders earns a biopsy; do not freeze or shave casually.	A lesion with 6 mm diameter, multiple colors, and irregular borders is excised and found to be melanoma.
95	Skin cancer - basal and squamous cell	BCC: pearly papule with telangiectasias, slow growth, rarely metastasizes; SCC: scaly or keratinizing nodule, can metastasize from chronic sun damage.	Pearly + rolled border = BCC; rough scaly patch on sun-exposed skin = SCC; both need biopsy/excision.	A sun-exposed cheek shows a pearly nodule with telangiectasias; biopsy confirms basal cell carcinoma.
96	Contact and atopic dermatitis	Atopic: pruritic flexural eczema with personal/family atopy; contact: localized eruption from allergen or irritant (e.g., poison ivy, nickel).	Location is a clue: flexural and chronic = atopic; linear streaks = plant contact dermatitis.	A hiker with linear vesicular streaks on the legs is treated for poison ivy contact dermatitis.
97	Psoriasis	Chronic autoimmune plaques: well-demarcated silvery scale on		

extensor
surfaces, nails,
scalp; associated
with psoriatic
arthritis.

Extensor plaques with silvery scale and nail pits = psoriasis; ask about joint pain.	A patient with elbow and knee plaques and pitted nails is treated with
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topical steroids
and evaluated for
joint disease.

98	Herpes zoster (shingles)	Reactivation of varicella-zoster: unilateral dermatomal vesicular pain; antivirals early reduce duration; postherpetic neuralgia is a common complication.	Unilateral vesicular rash respecting a dermatome = zoster; start antivirals within 72 hours if possible.	A 70-year-old with a burning band of vesicles on the trunk starts valacyclovir and a pain plan.
99	Tinea and fungal skin infections	Dermatophytes (tinea corporis, cruris, pedis, capitis): annular scaling plaques; topical azoles for skin, oral terbinafine for scalp and nails.	Ring-shaped scaly rash with central clearing = tinea; KOH prep confirms before treating.	A child with a scaly bald patch on the scalp is treated with oral griseofulvin/terbinafine for tinea capitis.
100	Urticaria and angioedema	Mast-cell mediated wheals and swelling from drugs, foods, infection, or idiopathic causes; anaphylaxis features (hypotension, stridor) need epinephrine.	Wheals that migrate within 24 hours = urticaria; add epinephrine immediately if airway or BP is threatened.	A patient with hives after amoxicillin is switched antibiotics; no airway signs, so antihistamines suffice.

PART 4 -- INFECTIOUS DISEASES (14 Concepts - 7%) & HEMATOLOGIC SYSTEM (10 Concepts - 5%)

Infectious disease overlays every organ system, so exam questions pair organism presentations with their classic host and exposure. Hematology is pattern recognition: cell lines, deficiency states, and bleeding versus clotting.

Section 4.1: Infectious Diseases (14 Concepts)

#	Term	Key Facts	Strategy Tip	Example
101	Urinary tract infection and pyelonephritis	Cystitis: dysuria, frequency, urgency with negative systemic signs; pyelonephritis adds fever, flank pain, and costovertebral tenderness; E. coli dominates.	Localize: cystitis = bladder symptoms only; fever + flank pain = kidney infection needing longer therapy.	A young woman with dysuria and frequency but no fever is treated for uncomplicated cystitis.
102	Cellulitis and skin/soft tissue infection (MRSA)	Strep and Staph cause most cellulitis; MRSA abscesses need drainage plus culture-directed antibiotics; evaluate for deeper infection.	Any drainable abscess should be drained; culture purulence and treat according to resistance.	A patient with a warm, fluctuant abscess after antibiotics has it incised and drained; MRSA is cultured.
103	Pneumonia - community versus hospital	CAP organisms include S. pneumoniae, atypicals, and viruses; healthcare-associated infection expands resistance coverage.	Localize severity and venue: CURB-65 and prior healthcare contact change empiric drug choice.	A nursing-home resident with pneumonia receives broader empiric therapy than a healthy outpatient would.
104	Meningitis	Bacterial (meningococcal, pneumococcal) is a medical emergency: fever, headache, nuchal rigidity, altered mentation; empiric antibiotics plus dexamethasone promptly.	Do not delay antibiotics for imaging in suspected bacterial meningitis unless focal signs or papilledema; treat empirically.	An ER patient with fever, stiff neck, and petechiae gets empiric ceftriaxone + vancomycin immediately.
105	Sepsis and septic shock	Dysregulated host response to infection with organ dysfunction; recognize by		

qSOFA/SOFA,
give fluids,
cultures, and
broad-spectrum
antibiotics
urgently.

The first hour matters: lactate, cultures, antibiotics, and fluids are the bundle.	A patient with suspected infection, lactate 4, and hypotension is resuscitated and
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started on
broad-spectrum
antibiotics within
the hour.

106	Clostridioides difficile infection	Antibiotic-associated colitis: watery diarrhea, leukocytosis, toxin test confirms; treat with oral vancomycin or fidaxomicin; stop culprit antibiotics.	Diarrhea within weeks of antibiotics (especially in healthcare) = test for C. difficile; do not treat empirically with antimotility drugs.	A hospitalized patient on antibiotics develops watery diarrhea; stool tests positive for C. difficile toxin.
107	Sexually transmitted infections - gonorrhea and chlamydia	Chlamydia often silent, gonorrhea can cause cervicitis/urethritis; coinfection common; treat both and report to partners.	Treat presumptively for both chlamydia and gonorrhea when one is identified.	A patient with urethral discharge tests positive for gonorrhea and is also treated for chlamydia.
108	Syphilis	Spirochete with stages: primary chancre, secondary rash (including palms/soles), latent, and tertiary; neurosyphilis possible at any stage.	Painless chancre or maculopapular rash with palmar involvement = think syphilis and test.	A patient with a painless genital ulcer and painless generalized rash has reactive RPR confirmed by treponemal test.
109	HIV infection	Retrovirus damaging CD4 cells: acute seroconversion illness, then latency, then AIDS with opportunistic infections; treat all with ART and pre-exposure prophylaxis for prevention.	Any new HIV diagnosis starts ART regardless of CD4; screen partners and offer PrEP/PEP.	A patient with a new HIV diagnosis and CD4 500 starts integrase-inhibitor-based ART.
110	Tuberculosis (active versus latent)	Latent TB: positive test, no symptoms, not contagious, treat to prevent reactivation; active: symptoms with positive cultures/smears, airborne isolation		

and multidrug
therapy.

A positive IGRA without symptoms or abnormal chest X-ray = latent TB, which is still treated.	A healthcare worker with a positive IGRA and normal chest X-ray starts treatment for latent TB.
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111	Tick-borne diseases - Lyme	Borrelia burgdorferi: erythema migrans (target rash), then disseminated and late arthritis/neuro; treat early with doxycycline.	Expanding target rash after a tick bite is Lyme; treat clinically without waiting for serology.	A hiker with an expanding bull's-eye rash and flu-like symptoms starts doxycycline.
112	Foodborne and diarrheal illness	Campylobacter, Salmonella, Shigella, E. coli O157, and norovirus cause gastroenteritis; most are self-limited; antibiotics are selective and avoided in O157.	Hydrate everyone; culture bloody or severe diarrhea and avoid antimotility drugs when bloody.	A patient with bloody diarrhea after undercooked meat has supportive care; no antibiotics given until O157 is excluded.
113	Fungal infections - systemic	Histoplasmosis (bird/bat droppings), coccidioidomycosis (Southwest dust), blastomycosis, and cryptococcosis (meningitis in immunocompromised) have geographic patterns.	Match geography and exposure: Ohio/Mississippi valley = histo; Southwest = cocci; pigeon droppings + meningitis = crypto.	A pulmonary patient from the Ohio valley with hilar adenopathy is tested for histoplasmosis.
114	Parasitic infections	Malaria (travel, fever with cycles), giardiasis (diarrhea after camping/water), pinworms (anal pruritus in children), toxoplasmosis (cat litter, immunocompromised).	Ask travel and exposure history for every diarrheal or febrile illness that does not fit.	A returned traveler with cyclic fevers has a thick smear showing Plasmodium; treatment is started promptly.

Section 4.2: Hematologic System (10 Concepts)

#	Term	Key Facts	Strategy Tip	Example
115	Microcytic anemia	Low MCV from iron deficiency, thalassemia, anemia of chronic disease, or sideroblastic states; iron studies discriminate.	Iron deficiency: low ferritin, low iron, high TIBC; thalassemia: normal/elevated ferritin with abnormal ratio.	A patient with fatigue, MCV 72, and ferritin 6 is evaluated for occult blood loss.
116	Macrocytic anemia	High MCV from B12 or folate deficiency, alcohol, liver disease, or myelodysplasia; B12 deficiency can cause neurologic deficits.	Check B12 and folate; add methylmalonic acid/homocysteine when borderline; always consider GI and dietary causes.	A vegan with fatigue, MCV 108, and low B12 begins B12 replacement; neurologic symptoms improve.
117	Hemolytic anemia	Premature red cell destruction: jaundice, elevated LDH and indirect bilirubin, low haptoglobin, reticulocytosis; immune versus non-immune causes.	The triad jaundice + reticulocytosis + low haptoglobin = hemolysis; ask about drugs and family history.	A patient with dark urine and anemia after a new medication has a positive direct Coombs test.
118	Sickle cell disease	HbS polymerization causing vaso-occlusion: pain crises, acute chest syndrome, stroke risk, and infection susceptibility; treat crises and prevent complications.	Fever in sickle cell disease = treat as possible bacteremia (asplenia) after cultures and expand evaluation.	A patient with sickle cell disease and chest pain plus hypoxia is evaluated for acute chest syndrome.
119	Thrombocytopenia and ITP	Low platelets from decreased production, destruction, or		

sequestration;
ITP is immune
destruction with
isolated
thrombocytopeni
a usually
improving with
steroids.

Isolated low
platelets with
otherwise normal
blood counts =

suspect ITP;
watch for
bleeding and
treat when
severe.

A young adult
with bruising and
platelets 15,000
responds to

corticosteroids.

120	Coagulation disorders - hemophilia and VWD	Hemophilia A/B: factor VIII/IX deficiency with deep bleeding; von Willebrand disease: mucocutaneous bleeding, most common inherited disorder.	Joint/muscle bleeding = hemophilia; menorrhagia and epistaxis = think VWD; correct the specific factor.	A child with hemarthrosis after minor trauma is treated with factor VIII replacement.
121	Venous thromboembolism and anticoagulation	DVT/PE treated with anticoagulation (DOACs, warfarin, or heparin bridging); bleeding risk and reversal matter; cancer-associated thrombosis often uses LMWH.	Choose anticoagulant by indication, renal function, and reversibility; long-term VTE usually needs 3+ months.	A patient with an unprovoked PE completes 3 months of a DOAC and is reassessed for extended therapy.
122	Leukemia - acute versus chronic	AML/ALL: abrupt marrow failure (pallor, bleeding, infection); CLL: indolent lymphocytosis in older adults; CML: Philadelphia chromosome and targeted therapy.	Blasts in acute leukemia demand urgent oncology; chronic forms often found incidentally.	A patient with fatigue, bruising, and circulating blasts is admitted for acute leukemia workup.
123	Lymphoma and multiple myeloma	Hodgkin (contiguous nodes, Reed-Sternberg cells) vs non-Hodgkin; myeloma: CRAB (hypercalcemia, renal failure, anemia, bone lesions) with M spike.	Anemia + renal insufficiency + bone pain + elevated total protein = myeloma until proven otherwise.	An older patient with anemia, creatinine 2.1, and lytic lesions has an M spike on serum protein electrophoresis.
124	Transfusion reactions and risks	Acute hemolytic (ABO mismatch = emergency), febrile non-hemolytic,		

allergic, and TRALI; check patient identity and stop transfusion at any reaction.

Stop the transfusion, keep the line, and recheck identity and labs during

any acute
reaction.

A patient
develops fever
and back pain
during a red cell
transfusion; the

unit is stopped
and the reaction
is investigated.

PART 5 -- NEUROLOGIC SYSTEM (14 Concepts - 7%) & PSYCHIATRY/BEHAVIORAL SCIENCE (14 Concepts - 7%)

Neurology rewards localization: decide where the lesion is, then what it is.
Psychiatry rewards pattern recognition of syndromes and knowing first-line
treatments and safety risk.

Section 5.1: Neurologic System (14 Concepts)

#	Term	Key Facts	Strategy Tip	Example
125	Stroke - ischemic	Sudden focal deficit from vessel occlusion; time-critical: CT excludes hemorrhage, then thrombolysis or thrombectomy per window; stroke unit care.	Last-known-well time drives therapy; call the stroke team and get CT within minutes.	A patient with sudden right hemiparesis and slurred speech within the thrombolysis window is treated after CT excludes hemorrhage.
126	Stroke - hemorrhagic	Intracerebral or subarachnoid hemorrhage: sudden severe headache, vomiting, decreased consciousness, focal signs; control BP, reverse anticoagulation, neurosurgical consultation.	"Worst headache of my life" = subarachnoid hemorrhage until CT and often LP; reverse any anticoagulant.	A patient on warfarin with a thunderclap headache and CT showing subarachnoid blood receives reversal agents urgently.
127	Transient ischemic attack	Transient focal neurologic deficit without infarction; a warning sign of future stroke; urgent workup and secondary prevention.	Treat TIA as a stroke emergency: imaging, vascular studies, antiplatelets, risk-factor control.	A patient with 20 minutes of left-arm weakness is admitted for TIA evaluation and started on aspirin.
128	Headache - migraine	Recurrent moderate-severe unilateral throbbing headache with nausea and light/sound sensitivity, often aura; treat attacks early and prevent when frequent.	Ask about triggers and disability; triptans work best early; NTG and OCP considerations matter.	A patient with weekly disabling unilateral headaches with photophobia is offered a triptan plus a preventive.
129	Seizures and epilepsy	Abnormal synchronous neuronal		

discharge:
generalized
tonic-clonic,
absence, focal;
first unprovoked
seizure needs
evaluation;
status epilepticus
is an emergency.

In status
epilepticus, give
benzodiazepines

immediately,
then antiseizure
medications; do
not wait through
repeated
seizures.

A patient with
continuous
convulsions

receives
lorazepam
followed by
levetiracetam.

130	Parkinson disease	Progressive dopaminergic degeneration: resting tremor, bradykinesia, rigidity, postural instability; treat with levodopa and adjuncts.	The combination of bradykinesia plus tremor or rigidity = parkinsonism; ask about falls and depression.	A patient with a pill-rolling tremor and shuffling gait starts carbidopa-levodopa with good response.
131	Multiple sclerosis	Demyelinating disease, relapsing-remitting most common: optic neuritis, transverse myelitis, internuclear ophthalmoplegia; MRI with dissemination in space and time.	Young adult + optic neuritis or numbness + MRI lesions = MS; disease-modifying therapy reduces relapses.	A 30-year-old with unilateral vision loss and brain MRI demyelinating lesions is started on disease-modifying therapy.
132	Meningitis and encephalitis	Meningitis: fever, stiff neck, headache; encephalitis adds altered mentation and sometimes seizures; HSV encephalitis affects the temporal lobes.	Fever + altered mental status + seizures + temporal lobe findings = HSV encephalitis; start acyclovir empirically.	A febrile patient with confusion and temporal lobe changes receives empiric acyclovir plus antibiotics for meningitis overlap.
133	Peripheral neuropathy	Length-dependent symmetric (diabetes, alcohol, B12), polyradiculopathy (Guillain-Barre: ascending paralysis, areflexia), and focal mononeuropathies.	Ascending weakness after infection = Guillain-Barre, monitor respiratory function; distal burning in diabetes = polyneuropathy.	A diabetic patient with burning feet and absent ankle reflexes is managed with glucose control and neuropathic pain agents.
134	Dementia and delirium	Delirium: acute, fluctuating, attention impaired, often reversible; dementia: chronic progressive cognitive decline		

with subtypes
(Alzheimer,
vascular, Lewy
body).

Delirium is a
medical
emergency:
search for
infection, meds,
and metabolic
causes before
calling it
dementia.

A hospitalized
elderly patient is
acutely confused
with fluctuating
attention; a urine
infection is found
and treated.

135	Migraine versus tension versus cluster	Tension: bilateral band-like mild; cluster: severe unilateral orbital pain with autonomic tearing/nasal congestion, clustered episodes.	Cluster = severe pain + ipsilateral autonomic symptoms + agitation; give high-flow oxygen and triptans.	A man with 30-minute episodes of excruciating right eye pain with tearing is treated for cluster headache.
136	Vertigo - peripheral versus central	Peripheral (BPPV, vestibular neuritis): intense rotational vertigo, nystagmus, nausea; central (stroke): severe imbalance, other neurologic signs.	Neurologic signs (diplopia, dysarthria, weakness) = central; treat as stroke and image.	A patient with room-spinning vertigo on head movement and no neuro findings is treated for BPPV with repositioning.
137	Neuro-ophthalmologic deficits	Third nerve palsy (mydriasis = aneurysm until proven), sixth nerve (increased ICP), papilledema (optic disc swelling), visual field defects.	Painful third nerve palsy with a blown pupil is an aneurysm emergency.	A patient with ptosis, dilated pupil, and "down and out" eye gets urgent vascular imaging.
138	Coma and altered mental status	Coma = unarousable; use ABCs, glucose, toxidromes, and imaging; the mnemonic AEIOU-TIPS organizes causes.	Always check fingerstick glucose in any altered patient first, and give naloxone when opioid overdose is plausible.	An unresponsive diabetic patient gets IV dextrose after a fingerstick shows severe hypoglycemia.

Section 5.2: Psychiatry and Behavioral Science (14 Concepts)

#	Term	Key Facts	Strategy Tip	Example
139	Major depressive disorder	Persistent low mood or anhedonia plus neurovegetative symptoms for at least 2 weeks causing dysfunction; treat with antidepressants and therapy.	Screen every adult for depression (PHQ-2/9); ask about suicide risk directly.	A patient with 2 months of low mood, poor sleep, and fatigue scores high on PHQ-9 and starts sertraline plus therapy.
140	Bipolar disorder	Mania or hypomania with depressive episodes; mania = elevated/irritable mood, decreased need for sleep, grandiosity, risky behavior; mood stabilizers first-line.	Decreased need for sleep + grandiosity = mania; do not treat mania with antidepressant monotherapy.	A patient with 4 days of euphoria, no sleep, and spending sprees is started on a mood stabilizer.
141	Generalized anxiety disorder	Excessive worry most days for 6+ months with muscle tension, restlessness, poor concentration, and sleep problems; SSRIs/SNRIs and CBT first-line.	Worry out of proportion + physical tension without panic = GAD; avoid long-term benzodiazepines.	A patient with chronic worry and muscle tension starts an SSRI and CBT.
142	Panic disorder	Recurrent unexpected panic attacks with persistent worry about more attacks; attacks peak within minutes with palpitations, sweating, dyspnea, fear of dying.	Recurrent attacks + fear of attacks = panic disorder; SSRIs treat; rule out cardiac and thyroid first.	A patient with repeated episodes of racing heart and fear of dying, normal cardiac workup, responds to an SSRI.

143	Schizophrenia	Psychosis for 6+ months: hallucinations, delusions, disorganized speech or behavior, negative symptoms; antipsychotics and psychosocial support.	Think schizophrenia when psychosis is chronic with impaired function; check for substance and medical causes first.	A young adult with voices, fixed false beliefs, and social withdrawal starts an antipsychotic and case management.
144	Substance use disorders	Alcohol, opioids, stimulants, cannabis; diagnose with impaired control, cravings, tolerance/withdrawal, and continued use despite harm; MAT changes outcomes.	Alcohol withdrawal can kill: treat with benzodiazepines and thiamine; MAT (buprenorphine) is standard for opioid use disorder.	A patient with daily alcohol use and prior withdrawal is tapered with a symptom-triggered benzodiazepine protocol.
145	Alcohol withdrawal	6-24 hours after last drink: tremor, anxiety, diaphoresis; risk of seizures and delirium tremens; CIWA-guided benzodiazepines prevent complications.	Treat withdrawal proactively; give thiamine and folate; watch for Wernicke encephalopathy.	A patient with tremors and tachycardia 12 hours after stopping drinking receives CIWA-guided lorazepam.
146	ADHD in adults	Inattention and/or hyperactivity-impulsivity impairing function since childhood; stimulants are first-line with careful cardiac and substance screening.	Adult ADHD = childhood onset plus persistent impairment; treat with medication and organizational coaching.	An adult with lifelong inattention and missed deadlines is started on a long-acting stimulant with monitoring.
147	Eating disorders	Anorexia nervosa: restriction with low weight and fear of weight gain; bulimia: binges with		

purging; medical complications include electrolyte and cardiac risk.

Check electrolytes in any vomiting patient; bradycardia and hypokalemia signal medical

risk.

A patient with severe caloric restriction and bradycardia is medically stabilized and referred for

structured
eating-disorder
care.

148	Obsessive-compulsive disorder	Obsessions (intrusive thoughts) and compulsions (rituals) consuming an
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hour or more daily; ERP and SSRIs are first-line.

Ask directly about rituals; ERP is the most evidence-based psychotherapy.

A patient with hours of handwashing and contamination fears starts

exposure and
response
prevention.

149	Post-traumatic stress disorder	After trauma: re-experiencing, avoidance, hyperarousal, negative mood for over a month with dysfunction; trauma-focused therapy and SSRIs.	Screen for trauma in chronic pain and refractory anxiety; do not push details at the first visit.	A patient with nightmares and avoidance after an assault starts trauma-focused CBT.
150	Sleep disorders - insomnia	Difficulty falling or staying asleep with daytime consequences; treat with CBT-I first; avoid chronic hypnotics.	Make sleep hygiene and CBT-I the backbone; sedative-hypnotics are short-term adjuncts at most.	A patient with chronic insomnia is referred for CBT-I rather than started on nightly zolpidem.
151	Suicide risk assessment	Ask directly about thoughts, plan, intent, means, and protective factors; imminent risk means safety planning, reducing means, and urgent referral.	Asking about suicide does not plant the idea; document the assessment and keep the patient safe.	A patient endorsing a plan and access to means is not left alone; a safety plan and crisis resources are arranged.
152	Personality and behavioral concerns	Cluster A (odd), B (dramatic: borderline, antisocial), C (anxious); borderline = instability of mood, identity, and relationships; dialectical behavior therapy is first-line.	Keep boundaries, validate affect, and treat comorbid depression and anxiety; DBT reduces crises and self-harm.	A patient with chronic relationship turmoil and self-harm episodes begins dialectical behavior therapy.

PART 6 -- ENDOCRINE SYSTEM (12 Concepts - 6%), RENAL SYSTEM (10 Concepts - 5%), GENITOURINARY SYSTEM (6 Concepts - 4%)

Endocrine questions reward knowing the hormone axis by its presentation

pattern; renal questions test fluid, electrolytes, and the acute kidney injury differential; genitourinary covers the male urinary and reproductive tract.

Section 6.1: Endocrine System (12 Concepts)

#	Term	Key Facts	Strategy Tip	Example
153	Diabetes mellitus - diagnosis and monitoring	Type 1 (autoimmune, insulin-deficient) vs type 2 (insulin resistance, relative deficiency); diagnose by A1c, fasting glucose, or oral glucose tolerance; A1c tracks control.	Screen with A1c; if elevated confirm on a second test; individualize A1c targets and revisit annually.	A patient with A1c 8.1% on repeat testing is diagnosed with diabetes and starts metformin plus lifestyle changes.
154	Diabetic ketoacidosis and hyperosmolar state	DKA: hyperglycemia, ketosis, and anion-gap acidosis with type 1 preponderance; HHS: severe hyperglycemia with marked dehydration without significant ketosis in type 2.	Treat both with IV fluids and insulin; replace potassium before insulin when low to avoid arrhythmia.	A patient with glucose 600, ketonuria, and pH 7.15 is treated for DKA with fluids, insulin, and potassium.
155	Hypoglycemia	Low glucose with autonomic (tremor, sweating) and neuroglycopenic (confusion, seizure) symptoms; correct quickly and find the cause in a treated diabetic.	Treat conscious hypoglycemia with fast-acting carbs and recheck in 15 minutes; glucagon for severe cases.	A patient on insulin develops sweating and confusion; glucose 48 mg/dL improves after juice and a recheck.
156	Thyroid disorders - hyperthyroidism	Graves disease (diffuse goiter, orbitopathy) most common; symptoms: weight loss, tremor, palpitations, heat intolerance; suppress TSH, elevate free T4.	Low TSH with high free T4 = hyperthyroidism; treat with antithyroid drugs, beta-blockers as needed, definitive therapy later.	A patient with tremor, palpitations, and a low TSH is started on methimazole and a beta-blocker.

157	Hypothyroidism	Hashimoto thyroiditis most common: fatigue, weight gain, cold intolerance, constipation, bradycardia; high TSH, low free T4; replace with levothyroxine.	High TSH = primary hypothyroidism; start levothyroxine and recheck TSH in 6-8 weeks before adjusting.	A tired patient with TSH 12 and weight gain starts levothyroxine 50 mcg with TSH recheck.
158	Thyroid nodules and cancer	Most nodules benign; evaluate with TSH, ultrasound, and fine-needle aspiration per risk stratification (TIRADS); most thyroid cancers are papillary with good prognosis.	A dominant or suspicious nodule earns ultrasound and likely FNA; neck radiation history and family history raise risk.	A 2 cm hypoechoic nodule with microcalcifications on ultrasound is biopsied, showing papillary carcinoma.
159	Adrenal disorders	Cushing syndrome: cortisol excess with weight gain, striae, hyperglycemia; Addison disease: cortisol (+/- aldosterone) deficiency with hypotension, hyperpigmentation, hyponatremia.	Hypotension + hyperpigmentation + hyponatremia = adrenal crisis until proven; give stress-dose steroids.	A patient with fatigue, darkening skin, and sodium 126 is treated with hydrocortisone and fluids.
160	Hypercalcemia and hypocalcemia	Hypercalcemia: stones, bones, groans, psychiatric overtones (think hyperparathyroidism or malignancy); hypocalcemia: perioral tingling, Chvostek/Trousseau signs.	Correct calcium for albumin; order PTH to sort hypercalcemia: high PTH = primary hyperparathyroidism, low = malignancy.	A patient with nephrolithiasis and calcium 11.2 with elevated PTH is referred for parathyroid surgery.
161	Osteoporosis and metabolic bone disease	Low bone mass with fragility fractures; calcium, vitamin D, bisphosphonates		

; secondary causes include steroids, hyperthyroidism, and myeloma.

Diagnose by DXA T-score; investigate secondary causes before attributing

osteoporosis to
aging.

A
premenopausal
woman with a
low-impact
fracture has a full
secondary-cause

workup before
starting therapy.

162	Pituitary disorders	Pituitary adenomas cause hormonal excess (prolactinoma = galactorrhea, hypogonadism) or deficiency; large lesions cause mass effect (bitemporal hemianopia).	Prolactinoma is the most common functioning adenoma: treated with dopamine agonists, not surgery, in most cases.	A young woman with galactorrhea and a prolactin of 300 is started on cabergoline.
163	Metabolic syndrome	Cluster of abdominal obesity, elevated glucose, dyslipidemia, and hypertension raising cardiovascular and diabetes risk.	Diagnose the cluster and treat each component; weight loss improves all five.	A patient with increased waist circumference, BP 140/90, and A1c 6.2 is counseled on lifestyle modification.
164	Electrolyte disorders (sodium and potassium)	Hyponatremia: think volume status and SIADH/HF/cirrhosis; hypernatremia: free-water deficit; hypokalemia/hyperkalemia affect muscle and rhythm.	Correct sodium slowly (avoid osmotic demyelination); treat hyperkalemia urgently with calcium, insulin/glucose, then potassium removal.	A patient with potassium 6.8 and ECG changes receives IV calcium and insulin-glucose emergently.

Section 6.2: Renal System (10 Concepts)

#	Term	Key Facts	Strategy Tip	Example
165	Acute kidney injury	Sudden decline in GFR: prerenal (hypoperfusion), intrinsic (ATN, glomerular, interstitial), postrenal (obstruction); BUN/creatinine ratio and urine studies localize.	Fractional excretion of sodium under 1% suggests prerenal; urinary sediment with muddy casts = ATN.	A dehydrated patient improves with fluids; FENa 0.5% confirms prerenal AKI.
166	Chronic kidney disease	Progressive loss of function from diabetes and hypertension most commonly; stage by eGFR and albuminuria; manage BP, glucose, and complications.	Stage CKD and screen for complications: anemia, hyperphosphatemia, secondary hyperparathyroidism, acidosis.	A diabetic with eGFR 45 and microalbuminuria is started on an ACE inhibitor and SGLT2 inhibitor.
167	Nephrotic syndrome	Heavy proteinuria (>3.5 g/day), hypoalbuminemia, edema, hyperlipidemia; causes: minimal change (children), membranous, diabetic nephropathy.	Massive proteinuria + edema + low albumin = nephrotic; biopsy sorts the cause, treat underlying illness.	A child with generalized edema and 4+ protein on urinalysis is treated for minimal change disease with steroids.
168	Nephritic syndrome and glomerulonephritis	Hematuria, hypertension, oliguria, and modest proteinuria (RBC casts); post-streptococcal, IgA nephropathy, and vasculitides.	RBC casts = glomerulonephritis; treat the underlying cause and control BP.	A young adult with tea-colored urine after a sore throat and RBC casts is managed for post-streptococcal GN.
169	Nephrolithiasis	Kidney stones: flank pain radiating to groin, hematuria; calcium oxalate most common;		

CT confirms;
stone type
dictates
prevention.

Send the stone
for analysis and
work up
recurrent stones
(24-hour urine,
calcium, uric

acid, PTH).

A patient with
colicky flank pain
and a 5 mm
distal ureteral
stone passes it
with hydration

and analgesia.

170	Urinary tract infection and pyelonephritis	Lower UTI (cystitis) vs upper (pyelonephritis with fever/flank
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pain);
uncomplicated in
young women,
complicated with
anatomy,
pregnancy, or
catheters.

Treat
uncomplicated
cystitis with a
short course;
pyelonephritis

needs longer
therapy and
consideration of
resistance.

A young woman
with dysuria and
negative
pregnancy test
receives 3-5

days of
nitrofurantoin.

171	Electrolytes in renal disease	Hyperkalemia (CKD, ACE inhibitors, potassium-sparing diuretics), hyperphosphatemia, hypocalcemia; acidosis complicates advanced CKD.	In CKD, recheck potassium after starting ACE inhibitor or spironolactone and follow the trend over time.	A CKD patient on an ACE inhibitor and spironolactone develops potassium 5.9; the spironolactone is held and diet reviewed.
172	Acid-base disorders	Respiratory (CO ₂) versus metabolic (bicarbonate); use the anion gap to sort metabolic acidosis; compensation rules confirm chronicity.	Anion gap = Na - (Cl + HCO ₃); a high gap with osmolar or lactate clues points to the cause.	A patient with ketonuria and anion gap 18 has a high-gap metabolic acidosis from DKA.
173	Polycystic kidney disease	Autosomal dominant cysts causing hypertension, flank pain, hematuria, and progressive CKD; screen family members; complications include cyst infection and aneurysms.	Young adult + hypertension + flank masses + family history = think PKD; image and manage BP.	A 35-year-old with hypertension and a family history of PKD is found to have enlarged cystic kidneys.
174	Hematuria evaluation	Persistent microscopic or gross hematuria: rule out infection, stones, then malignancy (bladder, kidney) and glomerular disease; cystoscopy for older patients.	Gross hematuria in an older smoker = bladder cancer until proved otherwise; image and cystoscope.	A 65-year-old smoker with painless gross hematuria is referred for cystoscopy and imaging.

Section 6.3: Genitourinary System (6 Concepts)

#	Term	Key Facts	Strategy Tip	Example
175	Benign prostatic hyperplasia	Prostate enlargement causing hesitancy, weak stream, nocturia; alpha-blockers and 5-alpha-reductase inhibitors; rule out prostate cancer before treating.	Lower urinary tract symptoms in men = BPH until proven; check PSA and digital rectal exam.	A 68-year-old with a weak stream and bothersome nocturia starts tamsulosin after a PSA check.
176	Prostate cancer	Most common non-skin cancer in men: screening via PSA and DRE; Gleason score and staging drive treatment; watchful waiting for low-risk.	An elevated or rising PSA prompts shared decision-making about biopsy; high PSA velocity deserves attention.	A patient with PSA 8 and a nodule on DRE undergoes biopsy showing Gleason 3+4 adenocarcinoma.
177	Testicular pain and masses	Epididymitis (gradual, relieved by elevation, pyuria) vs testicular torsion (sudden severe pain, nausea, absent cremasteric reflex - surgical emergency).	Torsion is time-critical: any acute painful testicle gets immediate surgical evaluation; do not delay for imaging in high suspicion.	A teenager with sudden severe testicular pain and no cremasteric reflex is taken to surgery; torsion is detorsed.
178	Erectile dysfunction and hypogonadism	ED from vascular, neurogenic, endocrine, or psychogenic causes; assess cardiac risk and testosterone; PDE5 inhibitors first-line when safe.	Screen for ED in diabetes and heart disease; low testosterone with symptoms warrants measurement.	A diabetic patient with ED and normal testosterone starts a PDE5 inhibitor after cardiac risk is reviewed.
179	Male urinary obstruction and retention	From BPH, prostate cancer, stricture, or		

medications;
acute retention is
painful and
needs catheter
drainage; chronic
obstruction
damages
kidneys.

A patient who
cannot void with
a distended

bladder needs
prompt
catheterization
plus a cause
workup.

An elderly man
with a palpable
bladder and no

urine output is
catheterized and
scheduled for
urology
follow-up.

180	Phimosis, paraphimosis, and penile disorders	Phimosis (tight foreskin), paraphimosis (retracted foreskin trapped - emergency reduction), balanitis (glans inflammation), Peyronie plaques, and penile cancer risk.	Paraphimosis = reduce urgently with ice and compression; provide hygiene and diabetes screening for recurrent balanitis.	A patient with a swollen retracted foreskin is emergently reduced after ice and manual pressure.
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PART 7 -- EYES, EARS, NOSE, AND THROAT (12 Concepts - 6%) & REPRODUCTIVE SYSTEM (14 Concepts - 7%)

EENT is high-volume outpatient medicine: red eye, ear pain, and sore throat decisions. Reproductive covers obstetrics, gynecology, and male reproductive health with strong prevention content.

Section 7.1: Eyes, Ears, Nose, and Throat (12 Concepts)

#	Term	Key Facts	Strategy Tip	Example
181	Red eye - conjunctivitis versus more	Viral and bacterial conjunctivitis are common, self-limited, and typically benign; pain, photophobia, vision loss, or ciliary flush suggest uveitis, keratitis, or angle closure.	Red eye + pain/vision change = not simple conjunctivitis: check with fluorescein and slit lamp and refer urgently.	A patient with a red, painful eye and photophobia has a corneal ulcer on fluorescein and is referred to ophthalmology.
182	Acute angle-closure glaucoma	Ocular emergency: severe eye pain, headache, nausea, halos, blurred vision, mid-dilated pupil, and a rock-hard eye.	Urgent ophthalmology: lower pressure medically and prepare laser iridotomy; do not delay.	A patient with a painful eye, nausea, and halos around lights is treated for angle closure and referred the same day.
183	Otitis media and otitis externa	Acute otitis media: ear pain with bulging erythematous tympanic membrane, often after viral URI; otitis externa: canal pain with discharge, "swimmer's ear".	Pull the pinna: pain on manipulation = external otitis; otoscopy decides middle ear infection.	A child with fever and a bulging eardrum is treated for acute otitis media with analgesia and antibiotics when indicated.
184	Hearing loss - conductive versus sensorineural	Conductive (canal, eardrum, ossicles - cerumen, effusion, otosclerosis) vs sensorineural (cochlea/nerve - noise, aging, Meniere, acoustic neuroma); tuning fork tests help.	Weber lateralizes to the affected ear in conductive loss and away in sensorineural loss; Rinne flips in conductive loss.	A patient with asymmetric sensorineural hearing loss and tinnitus undergoes MRI to exclude acoustic neuroma.

185	Vertigo and vestibular disorders	BPPV (positional, brief, fatigable), vestibular neuritis (acute severe spinning, no hearing change), Meniere (episodic vertigo with tinnitus and fluctuating hearing).	Repositioning maneuvers cure most BPPV; central red flags (ataxia, diplopia) need imaging.	A patient with 30-second positional vertigo responds to the Epley maneuver.
186	Pharyngitis - viral versus bacterial	Most sore throats are viral; group A strep causes exudative tonsillitis with fever and tender nodes (Centor criteria); treat to prevent rheumatic fever.	Use Centor/McIsaac and confirm with rapid antigen or culture before antibiotics in most adults.	A patient with cough and rhinorrhea and a negative rapid strep is treated supportively without antibiotics.
187	Tonsillitis and peritonsillar abscess	Peritonsillar abscess: severe unilateral throat pain, trismus, muffled hot-potato voice, uvula deviation; needs ENT drainage and antibiotics.	Unilateral swelling + trismus + uvula shift = abscess; do not just re-prescribe antibiotics.	A patient with trismus and a deviated uvula is referred for incision and drainage of a peritonsillar abscess.
188	Epistaxis and sinusitis	Epistaxis mostly from Kiesselbach plexus, controlled with pressure; bacterial sinusitis: persistent purulent symptoms beyond 10 days, facial pressure, double sickening.	Persistent (>10 days) purulent nasal symptoms after a cold = bacterial sinusitis; reserve antibiotics for that pattern.	A patient with 12 days of facial pressure and purulent drainage after a URI improves on amoxicillin.
189	Hoarseness and laryngeal disorders	Most acute hoarseness is viral or vocal strain and self-limited; persistent		

hoarseness over
3-4 weeks in a
smoker warrants
laryngoscopy to
exclude cancer.

Red flags: >3 weeks, smokers, dysphagia, hemoptysis, neck mass - refer for visualization.	A smoker with 6 weeks of hoarseness is referred for laryngoscopy, which shows a
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glottic lesion.

190	Epiglottitis and airway emergencies	Supraglottic infection with stridor, drooling, and tripod positioning; an airway emergency in children and adults; do not examine the throat casually.	Stridor + drooling = secure the airway team, keep the patient calm, examine in a controlled setting.	A child with fever, drooling, and stridor is taken to the OR with ENT for direct airway evaluation.
191	Oral lesions and dental infections	Aphthous ulcers (painful, benign), herpes labialis, candidiasis (thrush), and leukoplakia (white patch, dysplasia risk); dental abscess can spread to deep neck spaces.	A non-healing oral ulcer beyond 2 weeks deserves biopsy; dental pain with facial swelling needs dental care and antibiotics.	A patient with a painless white patch on the lateral tongue is referred for biopsy of possible leukoplakia.
192	Allergic rhinitis	IgE-mediated nasal symptoms from allergens: sneezing, itching, clear rhinorrhea, congestion; intranasal steroids are first-line.	Differentiate from viral URI by chronicity and itch; intranasal steroids plus antihistamines treat most.	A patient with seasonal sneezing and itchy eyes responds to an intranasal corticosteroid.

Section 7.2: Reproductive System (14 Concepts)

#	Term	Key Facts	Strategy Tip	Example
193	Pregnancy diagnosis and dating	Confirm with urine or serum hCG; date by last menstrual period or first-trimester ultrasound; Naegele's rule estimates the due date.	Offer pregnancy testing to any reproductive-age woman with relevant symptoms before imaging and medications.	A patient with amenorrhea and a positive urine hCG is dated by ultrasound at 8 weeks.
194	Prenatal care and screening	Routine visits, blood pressure, urine, glucose screening, fetal anatomy scan, and aneuploidy screening; vaccination (Tdap, influenza, COVID) protects mother and baby.	Follow the schedule: first-trimester dating and screening, 20-week anatomy, glucose tolerance later.	A 28-week pregnant patient completes glucose tolerance screening and receives Tdap.
195	Ectopic pregnancy	Implantation outside the uterus: unilateral pain, vaginal bleeding, adnexal mass, risk factors prior ectopic, tubal surgery, IVF; a rupture is a surgical emergency.	Any first-trimester bleeding or pain gets a beta-hCG and ultrasound; ectopic must be excluded.	A patient with a positive pregnancy test, right-sided pain, and no intrauterine pregnancy on ultrasound is treated for ectopic pregnancy.
196	Hypertensive disorders of pregnancy	Gestational hypertension, preeclampsia (hypertension + proteinuria or end-organ effects), eclampsia adds seizures; magnesium sulfate prevents and treats seizures.	Headache + visual changes + RUQ pain in pregnancy = preeclampsia until proven; check BP, urine, platelets, LFTs.	A pregnant patient with BP 160/110 and headache receives magnesium and urgent obstetric care.

197	Gestational diabetes	Glucose intolerance first recognized in pregnancy; screen 24-28 weeks; treat with lifestyle and insulin/metformin as needed to control fetal risk.	Screen all pregnancies at 24-28 weeks with a glucose challenge; follow up abnormal results.	A patient with an abnormal glucose tolerance test at 26 weeks starts diet modification and glucose monitoring.
198	Postpartum hemorrhage and complications	Blood loss over 500 mL vaginal / 1000 mL cesarean: uterine atony is the top cause; treat with uterine massage, uterotonics, and source control.	Tachycardia and falling blood pressure after delivery = hemorrhage until proven; act early with oxytocin and fundal massage.	A postpartum patient with a boggy uterus and heavy bleeding receives oxytocin, massage, and hemorrhage protocol.
199	Abnormal uterine bleeding	Heavy, prolonged, or irregular bleeding; evaluate for pregnancy, structural causes (fibroids, polyps), and ovulatory disorders (PCOS, perimenopause).	First test for pregnancy, then examine and image (ultrasound); endometrial sampling when risk factors for hyperplasia/cancer exist.	A 48-year-old with heavy bleeding and thickened endometrium on ultrasound undergoes endometrial biopsy.
200	Polycystic ovary syndrome	Hyperandrogenism + ovulatory dysfunction + polycystic ovaries: irregular periods, acne, hirsutism; long-term risks include diabetes and metabolic syndrome.	Rotterdam criteria need two of three; treat for the patient's goals (cycles, fertility, metabolic risk).	A patient with irregular periods, acne, and elevated free testosterone is managed for PCOS with metformin and combined oral contraceptive.
201	Contraception	Options: LARC (IUDs, implant - most effective), combined hormonal, progestin-only, barrier, and emergency contraception; counsel on		

LARC as
first-line for most.

Effectiveness hierarchy: LARC > pills/patch/ring > barriers; discuss intrauterine and implant first.	A patient desiring long-term reversible contraception chooses a levonorgestrel IUD after counseling.
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202	Menopause and hormone therapy	Transition marked by vasomotor symptoms, sleep disturbance, and vaginal dryness; HT is effective for symptoms but use the lowest dose for the shortest time when indicated.	Treat symptoms, not the lab value; HT decisions weigh age, time since menopause, and cardiovascular/breast risk.	A 52-year-old with bothersome hot flashes and no contraindications chooses low-dose systemic HT, reviewed annually.
203	Breast disorders and breast cancer	Palpable mass, nipple discharge, and skin changes need evaluation; imaging (ultrasound under 30, mammography 30+) and biopsy when indicated.	Simple cysts and fibroadenomas are common, but a new dominant mass earns imaging; screen per guidelines.	A 40-year-old with a new discrete breast mass undergoes diagnostic mammography and ultrasound with biopsy of a suspicious lesion.
204	Cervical cancer and screening	HPV causes most cervical cancer; screen with cytology and/or HPV testing by age; abnormal results proceed to colposcopy when indicated.	Follow screening intervals: start at 25, co-testing or primary HPV per guidelines; vaccination prevents most HPV cancers.	An unscreened 45-year-old has HPV-positive, cytology-negative results and is scheduled for repeat testing per protocol.
205	Ovarian masses and cancer	Most adnexal masses are benign cysts; complex masses, elevated CA-125 with symptoms (bloating, pelvic pain), or postmenopausal presentation raise concern.	Simple cysts under threshold are reassuring; complex or enlarging masses get ultrasound follow-up or surgical referral.	A postmenopausal patient with a complex adnexal mass and bloating is referred to gynecologic oncology.
206	Male reproductive health and fertility	Couple infertility: evaluate both partners; semen analysis, ovulation, hormone checks, and structural studies guide		

treatment (IUI,
IVF).

A year of
unprotected sex
without
conception (6
months if 35+)
triggers
evaluation of
both partners.

A couple with 14
months of
infertility begins a
workup with
semen analysis
and ovulation
assessment.

PART 8 -- PROFESSIONAL PRACTICE (8 Concepts - 6%) & TASK-CATEGORY STRATEGY (1 Concept Series)

Professional practice questions cover ethics, law, and professionalism; the task categories describe how every content question is framed. Learn the professional practice rules and the task mix, then use the strategy series to convert content knowledge into correct answers.

Section 8.1: Professional Practice (8 Concepts)

#	Term	Key Facts	Strategy Tip	Example
207	Informed consent and refusal	Patients must understand the proposed procedure, risks, benefits, and alternatives; they may refuse care; document capacity, discussion, and the decision.	Use teach-back to confirm understanding, and document capacity assessment when refusal is against medical advice.	A patient understands the risks of declining surgery and signs an against-medical-advice form; the refusal is documented.
208	Advance directives and code status	Living wills and medical power of attorney speak for patients who cannot; code status (DNR/DNI) must be clarified and honored; organ donation follows legal consent processes.	Ask about and document code status and advance directives early, not in a crisis.	A patient with a living will naming a healthcare proxy is admitted; the proxy is confirmed and code status documented.
209	Confidentiality and HIPAA	Protected health information stays private; share on a need-to-know basis and with patient authorization; breaches are reportable and can carry heavy penalties.	Release information only with consent or legal grounds; do not discuss cases in public or with family without authorization.	A clinician verifies the patient's written authorization before sharing records with an attorney.
210	Patient-provider relationship and termination	The relationship is voluntary with responsibilities on both sides; termination of care requires proper notice and continuity, and abandoning a patient is unethical.	When ending a relationship, give written notice and ensure the patient has access to ongoing care.	A practice gives a patient 30 days' written notice and provides records and referrals, avoiding abandonment.

211	Medical errors and disclosure	Errors should be disclosed honestly to patients; report sentinel events per policy; the goal is transparency, learning, and harm reduction.	Disclose errors promptly and honestly, document the conversation, and report through the safety system.	After a medication error, the clinician tells the patient what happened, the harm, and the plan, and files a safety report.
212	Cultural, religious, and personal preferences in care	Respect patient beliefs about treatment (blood products, fasting, modesty, end of life) and work within the law and safety standards.	Ask about preferences and document them; seek ethics consultation for conflicts.	A patient declines a transfusion for religious reasons; alternatives and risks are discussed and documented.
213	Professional boundaries and impaired colleagues	Maintain boundaries with patients; recognize impairment (substance use, mental illness) in colleagues and intervene through reporting channels.	Act on concerns for patient safety through structured channels; keep documentation factual.	A clinician reports a colleague's suspected impairment to the medical staff office per policy.
214	Scope of practice and supervision	PAs practice under physician supervision per state law and organizational policy; know your delegated scope, and escalate beyond it.	Know your state's supervision requirements and your practice agreement before acting.	A PA consults the supervising physician before starting a high-risk procedure outside the delegation agreement.

Section 8.2: Task-Category Strategy Series

#	Term	Key Facts	Strategy Tip	Example
215	Task categories - how the exam tests content	Every content question is coded to a task: Formulating the Most Likely Diagnosis 18%, History Taking and Physical Examination 16%, Clinical Intervention 16%, Pharmaceutical Therapeutics 15%, Health Maintenance/Education 11%, Diagnostic and Laboratory Studies 10%, Foundational Science 8%, Professional Practice 6%.	Spend effort where the tasks live: diagnosis, history/exam, and treatment questions together cover two-thirds of the exam.	A student drills differential-diagnosis vignettes (18%) and management decisions (16%) before pure recall facts (8%).