The Evergreen PA-C

CARDIOLOGY + PULMONOLOGY

A Comprehensive PANCE Flashcard Booklet

PANCE Flashcards

Set 1- Cardiology

What is the most common cause of infectious Dilated Cardiomyopathy?	Virus- typically Coxsackievirus B
What are some common causes of toxic Dilated cardiomyopathy?	Alcohol, Cocaine, Doxorubicin (anthracycline)
What vitamin deficiency can cause Dilated Cardiomyopathy?	Vitamin B1 (Thiamine)
Is Dilated cardiomyopathy systolic or diastolic dysfunction?	Systolic
**How would a patient with Dilated Cardiomyopathy present? (Left or Right sided HF)	Left sided HF: Dyspnea, SOB, fatigue Right sided HF: peripheral edema, JVD, hepatomegaly GI Symptoms
What is the hallmark auscultation finding with Dilated Cardiomyopathy?	S3 Gallop
What is the Diagnostic test of choice for Dilated Cardiomyopathy?	echocardiogram
Is ejection fraction expected to be increased or decreased with Dilated Cardiomyopathy?	Decreased

Echocardiogram findings in Dilated Cardiomyopathy	Dilated left ventricle
Chest radiograph findings with Dilated Cardiomyopathy	Cardiomegaly
Dilated cardiomyopathy management	Treat like standard systolic HF: ACEi, Beta Blockers, diuretics
Is Restrictive Cardiomyopathy systolic or diastolic dysfunction?	Diastolic dysfunction (Ventricles are **restricted** so it is a filling aka **diastolic** issue)
What is the most common cause of Restrictive Cardiomyopathy?	Amyloidosis *Sarcoidosis or hemochromatosis are also causes
Is restrictive cardiomyopathy more likely to present with left sided or right sided HF symptoms?	Right sided (edema, JVD, hepatomegaly, ascites, etc.)
What is the diagnostic test of choice for Restrictive Cardiomyopathy?	Echocardiogram
Restrictive cardiomyopathy echocardiogram findings	Non-dilated ventricle with normal to mildly thickened ventricles and **dilation** of **both atria.**
What diagnostic test can give you a definitive diagnosis of restrictive cardiomyopathy?	Endomyocardial Biopsy -would show underlying cause, like amyloidosis or sarcoidosis
What is the treatment of restrictive cardiomyopathy?	Treat underlying cause and treat symptoms (diuretics for edema)

Which cardiomyopathy is Kussmual's sign a/w?	Restrictive
Hypertrophic Cardiomyopathy cause	Typically genetic (Autosomal dominant)
Symptoms of Hypertrophic Cardiomyopathy	Dyspnea (MC), fatigue, angina, dizziness, syncope, arrythmias
What diagnosis should you suspect in a young male patient with sudden cardiac death while playing sports?	Hypertrophic Cardiomyopathy
What arrythmia causes the sudden cardiac death seen with Hypertrophic cardiomyopathy?	Ventricular fibrillation
Murmur associated with Hypertrophic cardiomyopathy	Harsh systolic murmur best heard at the left sternal border
What physical movements would increase the murmur in Hypertrophic Cardiomyopathy?	Standing and Valsalva
What physical movements would decrease the murmur in Hypertrophic Cardiomyopathy?	squatting, laying supine, Leg raise
Echocardiography findings in Hypertrophic cardiomyopathy	Asymmetric ventricular wall thickness
Hypertrophic cardiomyopathy EKG Findings	LVH
First line medical management for Hypertrophic Cardiomyopathy	Beta Blockers

What should patients with hypertrophic cardiomyopathy avoid? (3 things)	1. Dehydration 2. Extreme exertion 3. Exercise
What medications should patients with hypertrophic cardiomyopathy avoid? (3)	1. Nitrates 2. Digoxin 3. Diuretics
A 50 year old man presents with dyspnea and fatigue, on physical exam you hear a s3 gallop, what is the most likely diagnosis?	Dilated Cardiomyopathy
A patient with a pmhx of amyloidosis presents with peripheral edema and an increase in JVD with inspiration, what is the most likely diagnosis?	Restrictive cardiomyopathy
On physical examination you hear a harsh systolic murmur at the left sternal border, you suspect Hypertrophic cardiomyopathy, what would make this patients murmur increase?	Standing or valsalva
What is the most common chronic arrythmia?	Atrial fibrillation
What is the physiological cause of a fib?	Multiple irritable atrial foci fire at fast rates
Symptomatic presentation of a fib?	Dizziness, fatigue, palpitations
How would a patient with **unstable** a fib present?	Hypotension, refractory chest pain, AMS
How does a fib present on ECG?	Irregulary irregular rhythm with **no discrete P waves** and fibrillatory waves

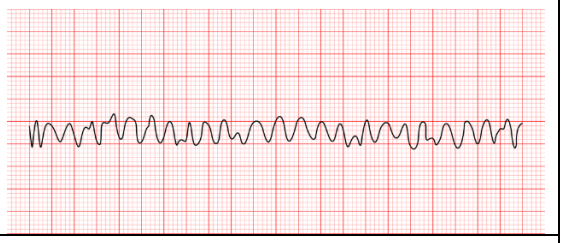
What is the treatment of stable a fib?	Beta blockers or non-dihydropyridine calcium channel blockers
What is the treatment of unstable a fib?	Synchronized cardioversion
What is the name of the criteria for anticoagulation protocol in patients with a fib?	CHA2DS2-VASc score
CHA2DS2- VASc criteria	**C**ongestive heart failure (1 pt) **H**ypertension (1 pt) **A**ge >75 (2 pts) **D**iabetes Mellitus (2 pt) **S**troke, TIA, Thrombus Hx (2 pt) **V**ascular dz (h/o MI, PAD) (1 pt) **A**ge 65-74 (1 pt) **S**ex-female (1 pt)
How many points on the CHA2DS2-VASc score criteria indicate a need for chronic oral anticoagulation?	2 or more (considered moderate to high risk)
If a patient has 1 point on the CHA2DS2-VASc score is chronic oral anticoagulation recommended?	Score of 1= low risk for embolization Anticoagulation recommended in some case, use clinical judgement and risk vs. benefit
What are some examples of anticoagulant agents used in patients with a fib?	Warfarin Aspirin + Clopidogrel (Plavix) Xa inhibitors: Apixaban, Edoxaban, Rivaroxaban Dabigatran

What must be monitored when using Warfarin?	INR
INR goal range	2-3
How often should INR be checked?	Every 4-6 weeks after INR goal is established
What is the physiological cause of atrial flutter?	1 atrial focus firing at a fast rate (a fib is multiple foci)
How would a patient with symptomatic atrial flutter present?	Chest pain, dizziness, palpitations
How would a patient with **unstable** atrial flutter present?	Hypotension, refractory chest pain, AMS
Atrial flutter ECG Findings	Sawtooth pattern with no discernable p waves
Stable atrial flutter treatment	Beta blockers or Non-dihydropyridine CCB (Diltiazem or Verapamil)
Unstable atrial flutter treatment	Synchronized cardioversion
What is the **definitive** treatment for a fib and a flutter?	Radiofrequency catheter ablation
Identify this rhythm and describe it 	SVT (Supraventricular Tachycardia) or PSVT (supraventricular tacycardia

	Description: regular narrow complex tachycardia
SVT is also known as a _____ re-entrant tachycardia	AV node
What is the treatment of **stable** SVT?	Vagal manuevers or Adenosine
What is the treatment of **unstable** SVT?	Synchronized cardioversion
What is the definitive treatment of SVT?	Radiofrequency catheter ablation
Describe the rate and rhythm seen with multifocal atrial tachycardia	Rate >100 bpm and >3 p wave morphologies ---insert example (if <100 bpm-> wandering atrial pacemaker)
What are the 3 components of WPW ECG?	1. Delta Wave 2. Short PR interval (<0.12) 3. Wide QRS (>0.12)
What is the treatment of **stable** WPW?	Procainamide
What is the treatment of **unstable** WPW?	Synchronized cardioversion
What is the definitive management of WPW?	Radiofrequency catheter ablation

What is the first line treatment for bradycardia?	Atropine
Describe the rhythm seen with sick sinus syndrome?	Alternating bradycardia and tachycardia
What is the treatment of unstable sick sinus syndrome?	Atropine
What is the definitive management of sick sinus syndrome?	Pacemaker
Describe the ECG seen with a first degree AV block	Prolonged PR interval (>0.2sec) with each P wave followed by a QRS
Describe the ECG seen with a Mobitz 1 (Wenkebach) second degree AV block	Progressive PR lengthening with a dropped QRS "Going, going, gone, Wenkebach 1"
Describe the ECG seen with a Mobitz II second degree AV block	Constant prolonged PR interval with a dropped QRS
First line medical management for symptomatic 1st and 2nd degree AV blocks?	Atropine
What is the definitive management of AV blocks?	Pacemaker
Describe the ECG seen with a 3rd degree AV block	Complete AV dissociation, regular P-P intervals and Regular R-R intervals, but they are not related to each other

What is the treatment of an acute or symptomatic 3rd degree AV block?	Transcutaneous pacing
What is the most common etiology of Ventricular Tachycardia?	Underlying ischemic heart disease
Describe the ECG seen with V tach?	Regular wide complex tachycardia >100 BPM
What is the treatment of stable V Tach?	Amiodarone
What is the treatment of unstable V Tach with a pulse?	Synchronized Cardioversion
What is the treatment of unstable V Tach w/o a pulse?	Defibrillation (unsynchronized cardioversion) + CPR
What is Torsades de pointe (TDP)?	A variation of V tach
Describe the ECG seen with TDP	Polymorphic V tach that has the appearance of twisting around the baseline
What is the first line treatment of TDP?	IV Mg sulfate
A patient is unresponsive and pulseless, what dysrhythmia would you suspect?	Ventricular fibrillation
What is the most common cause of V fib?	Ischemic heart disease

Describe the ECG seen with V fib	Erratic pattern of electrical with no P waves 
What is the treatment of V fib?	Defibrillation and CPR
How are Pulseless electrical activity (PEA) and Asystole treated?	CPR, Epinephrine, and check for shockable rhythm every two minutes
Procainamide and Quinidine are associated with a drug induced _____ like syndrome.	Lupus
What are the 3 cardio selective beta blockers?	Atenolol Metoprolol Esmolol Remember "AME" they are aiming for the B1 receptors
Which beta blockers would be preferred in a patient with COPD or Asthma?	Cardio selective BB (AME)
What is a common side effect of Amiodarone?	Thyroid disorders
Which Antiarrhythmic is ideal for a wide QRS complex tachycardia?	Amiodarone
Which antiarrhythmic is ideal for bradycardias?	Atropine

What is the most common type of atrial septal defect?	Ostium secundum
What is the murmur present in atrial septal defect	Systolic ejection murmur at the pulmonic area (LUSB) with a **wide fixed split S2** that does not vary with respirations
What is the diagnostic test of choice for Atrial Septal Defect?	Echo
ASD Management	<5mm – observation >1 cm or symptomatic – Surgical correction
What is the cause of a Patent Ductus Arteriosus?	Continued Prostaglandin production after birth
What are the two physical exam findings seen in PDA? (Hint: 1 murmur, 1 cardiovascular exam finding)	Murmur: continuous machine like murmur at the pulmonic area *Think of a PDA handheld device as a machine to help remember this one CV exam: Bounding Pulses (wide pulse pressure)
What is the best diagnostic test for PDA?	Echo
What is the first line medical treatment for PDA?	NSAIDS (Typically IV Indomethacin)
A patient presents with upper extremity hypertension with lower extremity hypotension and weak pulses with occasional bilateral claudication, what cardiac abnormality would you expect?	Coarctation of the aorta

Chest Xray finding in coarctation of the aorta	Posterior rib notching (3 sign)
Coarctation of the aorta treatment	Surgeru with prostaglandin treatment preoperatively
Patient presentation in Tetralogy of Fallot	Infant with cyanosis or child with Tet spells- squatting to relieve cyanosis
What is the murmur a/w Tetralogy of Fallot	Harsh systolic murmur with right ventricular heave
Chest Xray findings in Tetralogy of Fallot	Boot shaped heart
Tetralogy of Fallot treatment	Surgery with preoperative prostaglandins
What is the most common type of congenital heart disease in childhood?	Ventricular septal defect
What is the most common type of VSD?	Perimembranous
VSD patient presentation (Hx and Physical exam)	Infant with fatigue, sweating, poor feeding and a harsh holosystolic murmur at LLSB
VSD Diagnostic test of choice	Echo
VSD treatment	Observation if small or surgery if larger/symptomatic

What is the worst risk factor for coronary artery disease, also considered a coronary artery disease equivalent?	Diabetes Mellitus
What is the most important **modifiable** risk factor for coronary artery disease (CAD)?	Smoking
Describe the chest pain in **stable** angina	Substernal, exertional, poorly localized, Relieved with rest or nitroglycerin
What is the most important non-invasive testing in CAD?	Stress test
What is the initial test that should be ordered in a patient with suspected angina?	ECG
Typical ECG findings of stable angina	ST depressions and T wave inversions
What tests gives a definitive diagnosis and is the gold standard in diagnosing CAD?	Coronary angiography
What 4 medications should a patient with stable angina be on?	Beta blocker Aspirin Statin Nitroglycerin (As needed)
What are the 4 indications for a coronary artery bypass graft?	1. Left main coronary artery stenosis 2. 3 vessel disease 3. 2 vessel disease in diabetics 4. Left ventricular EF <40%
Describe class I Angina	Angina only with extremely strenuous activity (running). No limitations

Describe class II Angina	Angina with more prolonged or rigorous activity (walking up hill). Some limitations
Describe class III Angina	Angina with usually daily activity (walking to the mailbox). Moderate Limitations
Describe Class IV Angina	Angina at rest, Unable to do any physical activity
T or F: Beta blockers and Aspirin decrease mortality in CAD	True
How would a patient present with Acute coronary syndrome (unstable angina, NSTEMI, STEMI)	New onset chest pain at rest lasting longer than 30 min that is progressively worsening -Not Relieved with Nitroglycerin
ECG Findings in Unstable angina (UA) or NSTEMI?	ST Depressions or T wave inversions
Cardiac enzyme findings in UA vs. NSTEMI	UA: negative cardiac enzymes NSTEMI: Positive cardiac enzymes
Anterior wall MI ECG Findings	ST Elevations in leads V1-V4
Septal MI ECG findings	ST Elevations in leads V1-V2
What artery is involved in an anterior and septal MI	Left anterior descending

Lateral wall MI ECG findings	ST Elevations in I, aVL, V5, and V6
'What artery is involved in a lateral wall MI?	Circumflex artery
Inferior MI ECG findings	ST Elevations in II, III, and aVF
What artery is involved in an inferior MI	Right coronary artery (RCA)
Posterior wall MI ECG findings	ST **Depressions** in V1-V2
What arteries are involved in a posterior wall MI?	RCA and circumflex
Which cardiac marker is the most sensitive and specific?	Troponin
Which cardiac marker appears the fastest?	Myoglobin (appears in 2-4 hrs)
How long does it take for troponin to return to baseline?	7-10 days
When does troponin peak?	12-24 hrs
How long does it take for troponin to first appear?	4-8hrs

A patient presents to the ED with a suspected MI what are the next steps (medical management/diagnostics) that should be taken?	"MONA" Morphine Oxygen Nitroglycerin Aspirin Obtain ECG within 10 minutes
If ECG is consistent with a STEMI what needs to be done after MONA?	Start antithrombotics (Heparin) and Beta blockers and Reperfusion (PCI) within 90 minutes (door to PCI 90 min)
What medication needs to be starts in patients with a STEMI for long term management?	ACE1
If ECG is consistent with a UA or NSTEMI, what is the next step in management?	Cardiac enzymes to determine if UA or NSTEMI and then treat both with heparin and beta blockers after MONA
What two medications should be avoided in inferior and posterior wall MIs?	Morphine and Nitroglycerin
What are some abnormal physical exam findings that can be seen with inferior and posterior MIs?	Bradycardia, S4, increased JVP, Kussmual sign
What are the contraindications to nitroglycerin?	-Use of PDE-5 inhibitors (Sildenafil) -inferior and posterior MIs -systolic BP <90
If PCI reperfusion is not available what is an alternative MI treatment?	Thrombolytics- Alteplase (rTPA)
What can trigger vasospastic (prinzmetal or variant) angina?	Cocaine, cold weather, exercise

Describe the chest pain seen with prinzmetal angina?	at rest and not exertional, typically from midnight to early morning
ECG findings with prinzmetal angina	Transient ST elevations that resolve when symptoms resolve
What diagnostic test can definitively rule out coronary artery disease when coronary vasospasm is suspected?	Angiography
Coronary vasospasm (variant/prinzmetal angina) treatment	Calcium channel blockers first line
What is the most common cause of heart failure?	Coronary artery disease
Systolic or diastolic: decreased ejection fraction, S3 heart sound	Systolic Tip: Remember it as SYS = S3 because it has 3 letters
Systolic or diastolic: preserved ejection fraction, S4 heart sound	Diastolic DIAS = S4 (4 letters)
What are the clinical manifestations of left sided heart failure (Physical exam and Hx)?	Left=L=Lungs Dyspnea (exertional), orthopnea, fatigue PE: Rales, rhonchi, wheezing
Describe the New York heart association hear failure classification system	I: no symptoms II: symptoms with normal activity III: symptoms with minimal activity, only comfortable at rest IV: symptoms at rest
What are the clinical manifestations of right sided heart failure?	Right=R=Roads (vascular system) Peripheral edema, JVD, Nausea, hepatojugular reflux

What is the diagnostic test of choice for heart failure?	Echocardiogram
What is the most determinant of prognosis in heart failure?	Ejection failure
Echo findings in systolic heart failure	Decreased EF Thin ventricular walls Dilated ventricular chamber
Echo findings in diastolic heart failure	Preserved EF Thick ventricular walls Small ventricular chamber
What are the initial tests of choice for decompensated CHF?	CXR and BNP
CHF radiograph findings	Kerley B lines Bat wing appearance Pleural effusions Pulmonary edema
A BNP value of >____ indicates CHF	100
First line medical management for CHF	ACEi
What are the 4 drugs that decrease mortality in CHF?	**"BASH"** **B**eta blockers **A**CEi **S**pirononlactone **H**ydralazine+ Nitrates
What are the potential adverse effects of spirononlactone?	Hyperkalemia Gynecomastia

What is the treatment regimen for acute decompensated heart failure?	LMNOP Lasix (furosemide) Morphine Nitrates Oxygen Position (sit up and have legs hang over bed), Positive pressure ventilation
Hypertension is considered a systolic BP of ___ and/or a diastolic BP of __.	Sys: 130 Dias: 80
To make a diagnosis of hypertension you must have ____ readings on ___ different visits.	2 readings on 2 different visits
What is the most common cause of secondary hypertension?	Renovascular causes (renal artery stenosis)
What should the initial workup include after the diagnosis of hypertension is made?	ECG Fundoscopy Creatinine Urine albumin to creatinine ratio
What is the initial management of choice for a patient that is newly diagnosed with hypertension?	Lifestyle changes -salt restriction -smoking cessation -exercise -diet -weight reduction Next line is medical management if no improvement in BP with lifestyle changes
What are the 4 drug classes that can be used as initial management in hypertension?	1. Thiazide diuretics 2. ACE inhibitors 3. ARBs 4. Calcium channel blockers

What two drug classes are preferred in African American patients with hypertension?	Thiazide diuretics and calcium channel blockers
With what comorbidities should patients with hypertension avoid thiazide diuretics?	Gout and diabetes (Because thiazides cause hyperuricemia and hyperglycemia)
What are two potential adverse effects of spironolactone?	Hyperkalemia and gynecomastia
Which hypertensive medication class is associated with cough and angioedema?	ACEi
Define Hypertensive urgency	Sys BP>180 and/or dias BP >120 **without evidence of end organ damage**
Hypertensive urgency management	**Oral** medications (clonidine, captopril)
In hypertensive urgency the mean arterial pressure should be reduced by no more than __% over 24-48 hrs with medication.	**25**
Define hypertensive emergency	Sys BP >180 and/or Dias BP >120 **with evidence of end organ damage**
What is the most common presenting symptom in hypertensive urgency or emergency?	Headache
How could end organ damage present in a patient with hypertensive emergency?	Stroke Seizure HTN encephalopathy Aortic dissection Acute heart failure Acute coronary syndrome (MI)

	Acute kidney injury/proteinuria/ hematuria
What is the first line management of hypertensive emergency?	IV blood pressure reduction agents
In hypertensive emergency the mean arterial pressure should be reduced gradually by ___% in the first hour and an additional ___% over the next 23 hours	10-20% in the first hour 5-15% over the next 23
How would a patient with HTN encephalopathy present?	Headache, confusion, N/V
What medication should be used in a patient with hypertensive emergency with/ neurologic end organ damage (encephalopathy, stroke)?	Nicardipine
What medication should be used in a patient with hypertensive emergency with cardiac end organ damage (dissection, MI, HF)?	Dissection, MI: BB HF: Furosemide
Define postural/orthostatic hypotension	20 mmHg fall in systolic BP and/or 10 mmHg fall in diastolic BP after standing for a few minutes
What test can be used to diagnose orthostatic hypotension?	Tilt table test
What is the initial management of choice for orthostatic hypotension?	Conservative- increase fluid and salt intake
If conservative management of orthostatic hypotension fails what is the first line drug of choice?	Fludrocortisone

What is the most common cause of syncope?	Vasovagal hypotension
T or F: Vasovagal syncope has a prodromal phase of lightheadedness, dizziness, palpitations, etc.	True
What is the underlying cause of cardiogenic shock?	Cardiac disease (MI), arrhythmia, cardiomyopathy
What is the treatment of cardiogenic shock?	Fluids (not an aggressive amount), inotropic agents (Dobutamine, epinephrine)
What are the risk factors of hyperlipidemia?	Hypertension Smoking family hx Relative with coronary heart disease
What makes a patient high risk for developing hyperlipidemia?	Having greater than 1 risk factor
For individuals considered high risk for hyperlipidemia what age should screening start?	20 for males and 30 for females
For individuals considered low risk for hyperlipidemia what age should screening start?	35 for males 45 for females
What is the best medication for lowering LDL?	Statins
What is the best medication for lowering triglycerides?	Fibrates
What is the best medication for increasing HDL?	Niacin

What is a well-known adverse effect of statins?	Rhabdomyolysis and myositis
What is a well-known adverse effect of niacin?	Flushing
What can be done to prevent the flushing associated with Niacin?	Taking NSAIDs or Aspirin 30 minutes before taking niacin
What is the most common valve involved in endocarditis?	Mitral valve
What is the most common valve involved in endocarditis in IV drug users?	Tricuspid valve
Which bacteria most commonly causes acute endocarditis?	S. aureus (also mcc in IV drug users)
Which bacteria most commonly causes subacute endocarditis?	Strep viridans
Which bacteria most commonly causes prosthetic valve endocarditis?	Staph epidermis
What are the two presenting signs/symptoms that should make you suspect endocarditis?	Fever + New onset murur
What are the skin and ocular manifestations of endocarditis? (4)	1. Osler nodes 2. Janeway lesions 3. Splinter hemorrhages 4. Roth spots

What are Osler nodes?	Painful raised violaceous **nodules** on the pads of the fingers and palms O for Ow! Osler nodes hurt and Janeway lesions are not
What are Janeway lesions?	Painless **macules** on the palms and soles
What are Roth spots?	Retinal hemorrhages with central clearing R for Retina
If a patient is suspected to have endocarditis what two diagnostic tests need to be ordered?	Blood cultures and echocardiogram -3 sets of blood cx 1 hr apart -transthoracic echo done first, but transesophageal most sensitive
What two findings are considered major Duke's criteria?	1. 2+ blood cultures 2. Endocardial involvement (+ echo, or new murmur)
What are the minor Duke's criteria?	1. Fever 2. Vascular phenomena (Janeway lesions, pulmonary emboli) 3. Immunologic phenomena (Osler's nodes, Roth spots, + rheumatoid factor) 4. 1 + blood cx or echo not consistent with major criteria) 5. Predisposing criteria
How many major and how many minor of Duke's criteria are needed for diagnosis?	2 major Or 1 major and 3 minor Or 5 minor

First line empiric therapy for endocarditis (2 drug therapy)	Nafcillin or Oxacillin + Ceftriaxone or Gentamicin
First line empiric therapy for prosthetic valve endocarditis (3 drug therapy)	Vancomycin + Gentamicin + Rifampin
What is the recommended duration of antibiotic therapy in endocarditis?	4-6 weeks (aminoglycosides for the first two weeks after)
When is endocarditis prophylaxis indicated for dental and respiratory procedures?	1. Prosthetic heart valve 2. h/o endocarditis 3. congenital heart disease
What is the recommended antibiotic regimen for endocarditis prophylaxis?	2g or amoxicillin 30-60min before the procedure Or Clindamycin 600mg if allergic to penicillins
A patient presents with a sudden onset pleuritic chest pain that is improved with sitting up, what diagnosis should you suspect?	Acute pericarditis
What viruses are typically the cause of pericarditis?	Coxsackievirus or echovirus
What is a common auscultation finding in pericarditis?	Pericardial friction rub
What is the diagnostic test of choice in acute pericarditis?	ECG

ECG findings in acute pericarditis	Diffuse ST elevations in V1-V6
First line treatment for pericarditis	NSAIDS
What is Dressler syndrome?	Post MI pericarditis + fever + pleural effusion
How would a patient with pericardial effusion present? (s/sx + PE findings)	Chest pain with muffled heart sounds
What is the diagnostic test of choice in pericardial effusion?	echo
ECG findings in pericardial effusion	Electrical alternans: alternating QRS amplitudes, and low QRS voltages
Pericardial effusion treatment	Treat the underlying cause or pericardiocentesis if large and symptomatic
What are some underlying causes of pericardial effusions?	Pericarditis, cancer (Lung MC), viral, idiopathic
What is the triad of clinical manifestations a/w cardiac tamponade?	Becks triad: Muffled heart sounds JVD Hypotension
What is the diagnostic test of choice for cardiac tamponade?	Echo

Echo findings in pericardial effusion	Effusion and diastolic collapse of heart chambers
What is the treatment of cardiac tamponade?	Emergent pericardiocentesis
What are the screening recommendations for an abdominal aortic aneurysm (AAA)?	One time screening via abdominal ultrasound for men 65-75 years who have ever smoked
What are some of the clinical manifestations of AAA (unruptured)?	Typically asymptomatic, abdominal bruit or pulsatile abdominal mass heard on physical exam
How would a ruptured AAA present?	Abdominal/flank pain, pulsatile abdominal pain, hypotension and flank ecchymosis
What is the best diagnostic test in symptomatic and hemodynamically **stable** patient?	CT w/ IV contrast
What is the best diagnostic test in a symptomatic and hemodynamically **unstable** patient?	Bedside abdominal ultrasound
What is the treatment of a ruptured AAA?	Immediate surgical repair
What is the management of a AAA that measures >5.5cm?	Surgical repair
What is the management of a AAA >4.5cm?	Refer to vascular surgeon
What is the management of a AAA 4-4.5 cm?	Monitor with ultrasound every 6 months

What is the management of a AAA <4cm?	Monitor with ultrasound every year
T or F: Descending aortic aneurysms are more common than ascending aortic aneurysms.	False, ascending aortic aneurysms are the most common
What is the most important risk factor in aortic dissections?	Hypertension
Describe the chest pain that would present with an aortic dissection	Severe ripping/tearing pain in the chest or back, may radiate to the scapula (more a/w descending)
What pulse and blood pressure findings would make you suspect aortic dissection?	Unequal blood pressure and pulse readings in the arms
What is the first line diagnostic test of choice for aortic dissection?	CT angiogram or TEE (transesophageal echo)
What is the classic chest radiograph finding seen with aortic dissection?	Widened mediastinum
What parts of the aorta are involved in a Stanford A or Debakey I and II aortic dissection?	Ascending aorta and/or aortic arch and possibly descending aorta
What parts of the aorta are involved in a Stanford B or Debakey III aortic dissection?	Just the descending aorta
How is a Stanford A/Debakey I and II aortic dissection treated?	Surgical repair
How is a Stanford B/Debakey III aortic dissection treated?	Medically with BB (nonselective, like Labetalol) and sodium nitroprusside if needed.

What is the most common symptom of peripheral arterial disease?	Intermittent claudication
Where on foot/ankle would a ulcer caused by arterial disease be located?	Lateral malleolar region
What skin changes can be seen with peripheral arterial disease?	Thin, shiny skin with hair loss (usually on the lower legs)
What is the most useful **screening** test in peripheral arterial disease?	Ankle- brachial index
An ABI value of <____ is consistent with a diagnosis of peripheral arterial disease.	<0.9
What is the gold standard diagnostic test for peripheral arterial disease?	Arteriography
What is the first line therapy for peripheral arterial disease?	Supportive- exercise, smoking cessation
If supportive care is not effective what medication is used in the treatment of peripheral arterial disease?	Cilostazol
What is the most common site for acute arterial occlusion?	Superficial femoral or popliteal arteries
What are the 6 Ps of acute arterial occlusion?	Paresthesias Pain Pallor Pulselessness Poikilothermia Paralysis

What diagnostic test should be ordered if an acute arterial occlusion is suspected?	CT angiogram
What is the treatment of an acute arterial occlusion?	Surgical reperfusion
A 50 year old woman presents with headache, jaw claudication, and visual changes with scalp tenderness. What is the most likely diagnosis?	Giant cell arteritis
Although Giant cell arteritis is a clinical diagnosis, what is the only test that can give you a definitive diagnosis?	Temporal biopsy
What is the treatment for giant cell arteritis?	High dose corticosteroids
What is the most common complication of Giant cell arteritis?	Blindness
How would superficial thrombophlebitis present?	Pain, edema, and erythema along the course of the vein with a palpable cord
If superficial thrombophlebitis is suspected what diagnostic test should be ordered?	Venous duplex ultrasound
What hematologic disorder is associated with thrombophlebitis?	Factor V leiden
What is the treatment of superficial thrombophlebitis?	Supportive- NSAIDS, extremity elevation, warm compresses

Most DVTs originate in the _____.	Calf
What are the three components of Virchow's triad? Name an example of each	Intimal Damage: (trauma, infection) Stasis: (immobilization, sitting on a plane for multiple hours) Hypercoagulability: (oral contraceptive use, malignancy, pregnancy, smoking)
A female patient presents with calf pain and swelling, what diagnosis should you suspect	Deep vein thrombosis (DVT)
What is the first line diagnostic test that should be ordered if a DVT is suspected?	Venous doppler ultrasound
T or F: One of the main uses of a D-Dimer is to exclude DVT as a diagnosis if it is negative in a patient that is low risk for developing a DVT.	True
What is the first line treatment for DVT?	Anticoagulation LMWH + Warfarin LMWH + Dabigatran Monotherapy with Xa inhibitors
In what situations would an IVC filter be indicated in a patient with a DVT?	Recurrent DVT despite anticoagulation Or Patients with a contraindication to anticoagulants
What is the minimum amount of time that a patient with a DVT should stay on anticoagulants?	3 months
A patient presents with leg pain that is worse with prolonged standing and improved with walking or elevation,	Venous

would you suspect arterial or venous insufficiency?	-arterial insufficiency leg pain is improved with rest and worsened with exercise
Where would a ulcer caused by venous insufficiency present?	Medial malleolus *medious venous, lateral arterial
What skin changes can be seen with venous insufficiency?	Brown pigementation with eczematous rash (stasis dermatitis) with pitting leg edema
What is the first line management of venous insufficiency?	Conservative: leg elevation, compression stockings, exercise
If a murmur is described as harsh or rumbling should you be thinking stenosis or regurgitation?	Stenosis (aortic or mitral)
If a murmur is described as blowing, should you suspect stenosis or regurgitation?	Regurgitation (aortic or mitral)
What are the systolic murmurs?	Aortic stenosis Mitral regurgitation Pulmonic stenosis MR PSAS sighed – S for systolic
What are the diastolic murmurs?	MS PRARTS Died Mitral stenosis Pulmonary regurgitation Aortic regurgitation Tricuspid stenosis Died- Diastolic Whole mnemonic MR PSAS sighed when MS PRARTS Died

Name the murmur: systolic crescendo-decrescendo murmur heard best at the right upper sternal border that radiates to the carotid.	Aortic stenosis
Name the murmur: **Diastolic blowing** decrescendo murmur hears at the left upper sternal border that increases while leaning forward.	Aortic regurgitation
Name that murmur: prominent S1 with an **opening snap with a diastolic rumbling murmur**	Mitral stenosis
Name that murmur: **Blowing** holo**systolic** murmur with a widely split S2 best heard at the apex with radiation to the axilla.	Mitral regurgitation
What murmurs are increased by sitting up and leaning forward?	Aortic murmurs (AR, AS)
What murmurs are increased by lying on the left side?	Mitral murmurs (MR, MS)
What positions/movements increase venous return?	Squatting, leg raise, supine
What murmurs increase with squatting, supine, or leg raise (increased venous return)?	ALL OF THEM (except HOCM) -decreasing distance between extremities and heart
What movements/positions decrease venous return?	Standing, Valsalva -increasing the distance between extremities and heart, making vascular system work harder
Which valvular disorder is associated with a Water Hammer pulse (swift upstroke	Aortic regurgitation

and rapid fall of radial pulse) or bounding pulses?	
Which valvular disorder is associated with Quincke's pulse (nail ped pulsations) and head bobbing?	Aortic regurgitation
Which murmurs increase with handgrip?	Regurgitant murmurs (AR, MR)
What is the most common cause of mitral regurgitation in the US?	Mitral valve prolapse
What can be heard on auscultation in Mitral Valve prolapse (MVP)?	Mid-late systolic ejection click
What makes the ejection click heard with MVP earlier?	Standing, valsalva
What delays the ejection click heard with MVP?	Squatting, supine, leg raise
What is the treatment in aortic stenosis?	Surgery
What is the treatment in mitral stenosis?	Surgery
What is the treatment in aortic and mitral regurgitation?	Vasodilators (ACEi), surgery is definitive
What is the treatment in MVP?	Reassurance if asymptomatic, Beta Blockers if autonomic dysfunction is present (palpitations, anxiety)

Set-2 Pulmonology	
T or F: COPD is reversible airflow obstruction.	False, COPD is IRREVERSIBLE airflow obstruction
What are the two types of COPD?	Emphysema and chronic bronchitis
What is the most important risk factor in COPD?	Cigarette smoking/exposure
What genetic disorder is linked to COPD?	Alpha-1 antitrypsin deficiency
Which type of COPD is known as a permanent enlargement of the terminal airspaces and loss of elastic recoil?	Emphysema
How would a patient with emphysema present?	Dyspnea Barrel chest (increased AP diameter) Pursed lip expiration "pink puffers"
What is the gold standard diagnostic test in COPD?	Pulmonary function test
What findings indicate COPD on a pulmonary function test?	Decreased FEV1 FEV1/FVC <70%
What are the expected findings on CXR in a patient with emphysema?	Flattened diaphragms Increased AP diameter Decreased vascular markings Bullae

Which type of COPD is caused by mucous gland hyperplasia?	Chronic bronchitis
How would a patient with chronic bronchitis present?	Chronic cough w/sputum production Dyspnea Wheezing, rhonchi, rales Cyanosis Obesity "blue bloaters"
What CBC findings would be consistent with chronic bronchitis?	Increased hemoglobin and hematocrit
What ABG findings would be consistent with COPD?	Respiratory acidosis
What three factors in COPD management reduce mortality	Smoking Oxygen (use when oxygen saturation <88%) Pneumococcal and influenza vaccinations
What is the first line treatment of COPD in a minimally symptomatic patient with a low risk of exacerbation?	SAMA or SABA (combination can also be used?
Give an example of a SAMA	Ipratropium
Give an example of a SABA	Albuterol
If a SAMA or SABA is not controlling symptoms what is the next step in COPD management?	LAMA or LABA

Give an example of a LAMA	Tiotropium
Give an example of a LABA	Salmeterol
If symptoms are persistent in COPD what is the next step in management after a LAMA or LABA is added	LAMA + LABA combo therapy or LAMA +inhaled glucocorticoid
What are the three indications for starting oxygen therapy in a patient with COPD?	O2 saturation <88% PaO2 <55mmHg Cor pulmonale
What antibiotic classes should be used in acute exacerbations of chronic bronchitis?	Macrolides Caphalosporins Fluoroquinolones Amoxicillin-Clavulanate
What is a common clinical manifestation of cystic fibrosis in infancy?	Meconium ileus
What is the most common cause of bronchiectasis in the US?	Cystic fibrosis
Patients with cystic fibrosis may have a malabsorption of which vitamins?	Fat soluble vitamins (A, D, E, K)
What is the test of choice in cystic fibrosis?	Sweat chloride test
How do you treat cystic fibrosis?	Manage frequent respiratory infections with antibiotics Replace fat soluble vitamins

	Symptom management (bronchodilators, mucolytics)
T or F: Asthma is a reversible obstructive airway disease.	True
What is the strongest risk factor for asthma?	Atopy (atopic dermatitis (eczema, allergic rhinitis, Asthma)
What is Samter's triad?	Asthma Chronic rhinosinusitis w/polyps Sensitivity to NSAIDS/Aspirin
How would a patient with Asthma present? (triad)	Dyspnea Cough wheezing
What is the gold standard diagnostic for Asthma?	PFT
What is the best way to assess an exacerbation and response to treatment in asthma?	Peak expiratory flow rate
T or F: Respiratory acidosis is expected in an acute asthma exacerbation.	False, respiratory alkalosis is expected
What is the first line treatment for asthma exacerbation?	SABA (albuterol)
What are the three rescue drugs used in acute asthma exacerbation?	Albuterol Ipratropium (antimuscarinic) Prednisone (or any corticosteroid)
How would you define intermittent asthma?	Symptoms <2x day and <2 days a week, <2 days of nighttime symptoms

What is the treatment regimen for intermittent asthma?	SABA PRN
How would you define mild persistent asthma?	Symptoms >2 days a week, but not daily SABA use > 2 days, but not daily 3-4 episodes of night time symptoms per month
What is the treatment regimen for mild persistent asthma?	SABA PRN + low dose ICS (inhaled corticosteroid)
How would you define moderate persistent asthma?	Daily symptoms, daily SABA use and nigthtime symptoms >1/wk
What is the treatment regimen for moderate persistent asthma?	Low/medium ICS + LABA
How would you define severe persistent asthma?	Symptoms throughout the day and SABA use several times a day with nightly symptoms
What is the treatment regimen for severe persistent asthma?	High dose ICS + LABA
What is the classic CXR finding in Sarcoidosis?	Bilateral hilar lymphadenopathy
What are the two skin findings that can be seen with sarcoidosis?	Lupus pernio and erythema nodosum
Would a PFT of a patient with sarcoidosis show a restrictive or obstructive pattern?	Restrictive

What would be the most accurate diagnostic test for sarcoidosis?	Tissue biopsy
What is the classic biopsy finding in Sarcoidosis?	Noncaseating granulomas
What lab finding is specific to sarcoidosis?	Increased ACE levels
What is the first line treatment for **symptomatic** sarcoidosis?	Oral corticosteroids
What is the classic CXR/CT finding for idiopathic pulmonary fibrosis?	Reticular opacities (honeycombing)
Is idiopathic pulmonary fibrosis a restrictive or obstructive lung disease?	Restrictive (decreased lung volume) (increased FEV1/FVC)
What is the only possible cure/treatment for idiopathic pulmonary fibrosis?	Lung transplant
What occupations are high risk for developing silicosis?	Sandblasting, working with glass/pottery, quarry work with granite, slate, quartz
What is the classic CXR findings for silicosis?	Eggshell calcifications in the hilar and mediastinal nodes and nodular opacities in the upper lobes
What is expected on CXR in coal workers pneumoconiosis (black lung disease)?	Small nodules in the upper lung and hyperinflation of lower lung in an **obstructive** pattern.
What is the name of the syndrome that includes coal workers pneumoconiosis and rheumatoid arthritis?	Caplan syndrome

What occupations put you at risk for berylliosis?	Aerospace and electronics industry
Which occupational lung disease is caused by cotton exposure in the textile industry?	Byssinosis
Asbestosis is common in what occupations?	Renovation of old buildings, dealing with insulation
What are the classic CXR findings in asbestosis?	Pleural plaques in the lower lobes with the **shaggy heart sign** (indistinct heart border with ground glass appearance)
What are the two complications seen with asbestosis?	Bronchogenic carcinoma (MC) Malignant Mesothelioma
Alpha 1 antitrypsin deficiency can cause what lung disease?	Panacinar emphysema
What is the infecting agent in Parrot Fever (Psittacosis)?	Chlamydophila psittaci
What antibiotic class is first line in treating parrot fever?	Tetracyclines
How would a patient with parrot fever present?	Flu like symptoms with exposure to infected birds
How does influenza typically present?	Abrupt onset of myalgia (typically legs and back), headache, fever, chills, and URI symptoms

How is influenza diagnosed?	Rapid flu swab
How is influenza treated?	Acetaminophen and supportive treatment for mild disease Antivirals in hospitalized or high risk patients (>65)
When should antivirals (oseltamivir) be administered for optimal outcome in influenza?	Within 48 hours of symptom onset
T or F: In a long-term facility, if there is an influenza outbreak, all residents should be put on chemoprophylaxis.	True
At what age can an annual influenza vaccine be started?	6 months
T or F: The influenza vaccine is contraindicated in pregnancy.	FALSE
What are the 4 contraindications to the influenza vaccine?	1. Anaphylaxis to influenza vaccine 2. Guillain-Barre syndrome w/i 6 wks of a previous influenza vaccine 3. High fever 4. Infants <6 mo of age
Acute bronchitis is most commonly caused by _____.	Viruses
How would a patient with bronchitis present?	Cough (>5 days), URI symptoms, hemoptysis Wheezing and rhonchi on PE

How is acute bronchitis treated?	Supportive- fluids, antitussives, antipyretics
What respiratory infection presents with paroxysmal coughing fits with an inspiratory whooping sound and possibly post-tussive vomiting?	Pertussis (Whooping cough)
Infecting agent in whooping cough	*Bordatella pertussis*
How is pertussis/whooping cough diagnosed?	Clinical diagnosis, but throat culture and PCR should be ordered
How is pertussis treated?	Supportive therapy is mainstay of treatment: oxygen, nebulizers, Azithromycin often used to reduce contagiousness and prevent secondary infections
What is the most common cause of acute bronchiolitis?	Respiratory syncytial virus (RSV)
What age range is most commonly affected with bronchiolitis?	6mo to 2 yrs
How would a patient with bronchiolitis present?	Viral prodrome of URI symptoms followed by respiratory distress (wheezing, tachypnea, cysnosis, nasal flaring, retractions)
How is bronchiolitis treated?	Supportive- Humidified oxygen, fluid, nebulized saline, cool mist humidifier
What medication is used as prevention for bronchiolitis in high risk infants?	Palivizumab

A 4 year old male presents to the ED in a tripod position with a fever, drooling, difficulty breathing and dysphagia, what is the most likely diagnosis?	Acute epiglottitis
What is the most common cause of acute epiglottitis?	Haemophilus influenzae B If immunized a Group A streptococcus is also a common cause
What diagnostic test will give a definitive diagnosis of acute epiglottitis?	Laryngoscopy
What sign is seen on Cervical radiograph in epiglottitis?	Thumb/thumbprint sign
Acute epiglottitis treatment	1. Maintain airway- intubation in OR 2. Antibiotics- ceftriaxone ocefotaxime
What is used as epiglottitis prevention to close contacts?	Rifampin
Which respiratory infection presents with a seal-like barking cough with inspiratory stridor and hoarseness?	Croup (laryngotracheitis)
What sign is seen on frontal cervical radiographs in croup?	Steeple sign ** needs photo
What is the most common cause of croup?	Parainfluenza virus
Mild croup management (no respiratory distress)	Supportive- cool humidified air mist, maybe dexamethasone

Moderate croup management (mild-mod respiratory distress, stridor)	Dexamethasone
Severe croup management (stridor at rest with retractions)?	Dexamethasone+ nebulized epinephrine
What is the most common cause of community acquired pneumonia?	*Streptococcus pneumomniae*
How does typical pneumonia typically present? (Hx +PE findings)	Fever, productive cough, pleuritic chest pain PE: Dullness to percussion, **increased** tactile fremitus, egophany
How does atypical pneumonia typically present?	Dry nonproductive cough with extrapulmonary symptoms (myalagies, nausea, volmiting, diarrhea, pharyngitis) **Normal pulmonary exam**
Which bacteria produces rust colored sputum in pneumonia?	Streptococcus
Which bacteria produces a currant Jelly (purple) colored sputum in pneumonia?	Klebsiella pneumoniae
Which pneumonia causing bacteria is associated with chronic alcoholism?	Klebsiella pneumoniae
What is the most common cause of atypical pneumonia?	Mycoplasma pneumoniae

How does mycoplasma pneumonia typically present?	Typically in a college aged/military patient, presents with URI prodrome followed by a dry nonproductive cough
What is the test of choice in mycoplasma pneumonia?	PCR
What is the antibiotic of choice in mycoplasma pneumonia?	Azithromycin (or any macrolide) or Doxycycline
What is a hematologic complication of mycoplasma pneumonia?	Cold autoimmune hemolytic anemia (IgM)
How is Legionella pneumonia transmitted?	Through contaminated water sources
Hoe does legionella pneumonia typically present?	Typically presents with GI symptoms (diarrhea) and neurologic symptoms (headache, confusion)
What is the diagnostic test of choice in legionella pneumonia?	PCR
What is the antibiotic of choice in legionella pneumonia?	Macrolides (azithromycin, clarithromycin) or respiratory FQ (Levofloxacin, Moxifloxacin, Gemifloxacin)
What is the distinction between community acquired pneumonia and hospital acquired pneumonia?	CAP: acquired outside the hospital or developed w/I 48 hours of hospital admission HAP: developed after 48 hours of admission
How do typical vs. atypical pneumonias present on Radiographs?	Typical: lobar pneumonia Atypical: diffuse, patchy, interstitial or reticulonodular infiltrates

What is the first line treatment of choice for outpatient management of community acquired pneumonia?	Macrolide or Doxycycline
What is the treatment of choice for inpatient management of community acquired pneumonia?	Macrolide + B lactam (ceftriaxone) or FQ
What is the treatment of choice for hospital acquired pneumonia?	(antipseudomonal B lactam (Piperacillin/tazobactam, cefepime) + Aminoglycoside or FQ
What is the first line antibiotic of choice for aspiration pneumonia?	Ampicillin-Sulbactam (Unasyn)
What is the admission criteria for pneumonia?	CURB65 Confusion Uremia Respiratory Rate >30 BP (low <90/60) Age >65
Aspiration pneumonia is most common in the ____ lobe.	Right lower
How would an aspiration pneumonia present?	Foul-smelling sputum (rotten egg smell)
How is histoplasmosis transmitted?	Inhalation of bird and bat dropping in the Mississippi and Ohio river valleys
How can histoplasmosis present?	Can be asymptomatic, present like atypical pneumonia, or dissemination can cause hepatosplenomegaly, diarrhea, oral ulcers

How is histoplasmosis treated?	Asymptomatic- no treatment needed Mild-moderate- Itraconazole Severe- Amphotericin B
When is he PCV13 pneumococcal vaccine given?	4 vaccine series from 6 wks- 5 yrs
When is the PPSV23 pneumococcal vaccine indicated?	>65 years of age or in younger patients at an increased risk for developing pneumonia
What is the most common opportunistic infection in HIV?	Pneumocystis pneumonia (*pneumocystis jirovecii)*
How does pneumocystis pneumonia present on CXR?	Diffuse bilateral interstitial infiltrates
What abdormal lab value can be seen in pneumocystis pneumonia?	Increased LDH
What is the treatment of choice for pneumocystis pneumonia?	Bactrim (Trimethoprim-Sulfamethoxazole) If HIV+ add prednisone for hypoxia
How does tuberculosis typically present?	Cough, hemoptysis, fever, chills, night sweats, chest pain
What is tuberculosis of the spine called?	Pott's disease
What is tuberculosis effecting the cervical lymph nodes called?	Scrofula

How would reactivation of a latent TB infection look on CXR?	Upper lobe (Apical) fibro cavitary disease
How would a primary TB infection look on CXR?	Middle/lower lobe consolidation
How does miliary TB look on CXR?	Millet seed like nodular lesions
How would a latent TB infection look on CXR?	Caseating granuloma
What is the treatment regimen of active TB?	RIPE Rifampin Isoniazid Pyrazinamide Ethambutol
How long should RIPE medications be administered for?	RIPE for 2 months followed by RI for 4 months (6 months total)
Which TB drug causes orange colored secretions?	Rifampin
Which TB drug causes hepatitis and peripheral neuropathy (caused by pyridoxine (B6) deficiency)?	Isoniazid Neuropathy can be prevented by administering with B6
Which TB drug causes optic neuritis?	Ethambutol
What is the treatment regimen for latent TB infection?	Isoniazif (INH) + Pyridoxine (B6) for 9 months

What are the criteria for diagnosing latent TB infection?	1. Must be asymptomatic 2. + PPD 3. No sign pf active infection on CXR/CT scan
A PPD would be considered positive if reaction(induration) measured >5 mm in what individuals? (3 scenarios)	1. HIV or immunosuppressed 2. Close contact with patients with active TB 3. CXR consistent with healed TB (granuloma)
A PPD would be considered positive if reaction(induration) measured >10 mm in what individuals?	All high risk indviduals or high prevalence populations -crowded conditions (prisons/shelters) -immigrants from endemic countries -healthcare workers
What is considered a positive PPD reaction in the general population with no risk factors?	>15mm
What blood test can be used instead of PPD with higher specificity and is not affected by BCG vaccination?	Quantiferon gold TB tests or interferon gamma release assay
What is the most common cause of a solitary pulmonary nodule?	Infectious granuloma
Does the following describe a pulmonary nodule that is high or low risk for malignancy: spiculated, >2cm, irregular borders, asymmetric, enlarging, >40 yrs age, smoker	High risk
Does the following describe a pulmonary nodule that is high or low risk for malignancy: smooth borders, <1 cm, <30 yrs of age, dense diffuse calcification	Low risk
After a pulmonary nodule is seen on CXR, what is the next imaging modality that	Chest CT

should be used to determine the likelihood of malignancy?	
T or F: The lungs are the most common site for carcinoid tumors	False, GI tract is the MC, lungs are the 2nd MC
How would carcinoid syndrome present? (5 things)	Diarrhea Flushing Tachycardia Bronchoconstriction Hemodynamic instability
How would a carcinoid tumor appear on bronchoscopy?	Centrally located and well vascularized pink/purple tumor
Which cancer is the most common cause of cancer related deaths in the US?	Bronchogenic(lung) carcinoma
What is the most common cause of lung cancer?	Smoking
What are the three types of non-small lung cancers?	Adenocarcinoma Squamous cell Large cell
T or F: Non-small lung cancers can usually be treated with surgical resection.	True
What is the initial management of choice for small cell(oat cell) lung cancer?	Chemotherapy
What is the current screening recommendation for lung cancer? (USPSTF)	Annual low dose CT chest for 50-80 y.o with a 20 PPY who currently smoke or have quit in the last 15 years

What is the most common type of lung cancer?	Adenocarcinoma
Are adenocarcinomas of the lung typically centrally or peripherally located?	Peripherally
Are squamous cell carcinomas of the lung typically located centrally or peripherally?	Centrally
What three characteristics are associated with squamous cell lung cancer? Hint: SCC CCP	Cavitary lesions Hyper**c**alcemia Pancoast syndrome
T or F: small cell or oat cell lung cancers are highly aggressive and are associated with early metastasis.	True
Small cell lung cancers are associates with _____ syndromes.	Paraneoplastic (SIADH, SVC syndrome, cushings, Lambert eaton)
Are small cell lung cancers typically centrally or peripherally located?	Centrally
Which paraneoplastic syndrome is associated with facial plethora and dilated and prominent neck and chest veins?	Superior vena cava syndrome
Which paraneoplastic syndrome presents with proximal muscle weakness that improves with movement, dry mouth, and hyporeflexia?	Lambert-Eaton myasthenic syndrome
How is lambert-eaton syndrome treated?	Treat the underlying malignancy and pyridostigmine for medical management

Where are Pancoast tumors located?	Superior sulcus
How would a Pancoast tumor present in a patient?	Shoulder/arm pain, arm and hand weakness/neuropathy, and Horner syndrome (ptosis, miosis, anhidrosis)
Which type of lung cancer is associated with Pancoast tumors?	Squamous cell lung cancer
Mesothelioma is most commonly caused by _____ exposure.	Asbestos
How would mesothelioma appear on CXR?	Unilateral pleural thickening
What is the most common foreign body aspirated in children?	Peanuts
T or F: foreign bodies are most common on the left.	False, foreign bodies are more common on the right because the right main bronchus is wider and more vertical than the left)
How would a child with a foreign body aspiration present?	h/o choking, cough, and dyspnea since the aspiration incident with wheezing and asymmetric breath sounds
What is the most common CXR finding in a foreign body aspiration?	Air trapping
What is the definitive diagnostic test in foreign body aspiration?	Rigid bronchoscopy
What is the treatment for foreign body aspiration?	Removal of object with rigid bronchoscopy

A patient presents with chest pain that is worse with breathing and coughing, there is tenderness to palpation of the chest and no palpable edema, what is the most likely diagnosis?	Costochondritis
How is costochondritis treated?	NSAIDS
If a patient presents with pleuritic chest pain and chest wall tenderness **with** palpable edema what is the most likely diagnosis?	Teitze syndrome
What is a parapneumonic pleural effusion?	Non-infected pleural infusion secondary to pneumonis
What is an empyema?	Infection of the pleural space (purulent)
What is a hemothorax?	Blood in the pleural space
What is the most common cause of a pleural transudate?	CHF
A pleural effusion would present with _____ to percussion and _____ fremitus.	Dullness to percussion and decreased fremitus
What on CXR can indicate a pleural effusion?	Blunting of costophrenic angles******
What is the diagnostic gold standard for pleural effusions?	Pleural effusions

What are Light's criteria for determining if a pleural effusion is an exudate?	1. Protein >0.5 2. LDH >0.6 or >2/3 upper limit of normal LDH
How are pleural effusions treated?	Treat underlying cause unless it is an empyema which needs to be drained with chest tube
How do you differentiate a pneumothorax from a tension pneumothorax?	A tension pneumothorax will push the trachea and heart to the contralateral, in a regular pneumothorax they will not move.
On PE a pneumothorax will present with _____ to percussion and _____ fremitus.	Hyperresonance to percussion and decreased fremitus
How does a pneumothorax look on CXR?	Decreased peripheral markings and a visceral pleural line (companion lines)
What is the recommended treatment for a small primary spontaneous pneumothorax?	Observation and supplemental oxygen
What is the recommended treatment for a stable spontaneous pneumothorax?	Chest tube or catheter thoracostomy
What is the recommended treatment for a tension pneumothorax?	Needle aspiration followed by chest tube
How would a patient with pulmonary hypertension present?	Signs of right sided heart failure and an accentuated S2
What test produces a definitive diagnosis for pulmonary hypertension?	Right heart catheterization
What ECG finding would be consistent with pulmonary hypertension?	Cor pulmonale

What is the first line treatment for pulmonary treatment?	Calcium channel blockers
How would a patient with a pulmonary embolism present?	Shortness of breath Tachypnea Tachycardia Chest pain
What is the best initial test if a pulmonary embolism is suspected?	CT
What ECG finding is consistent with a pulmonary embolism?	Sinus tachycardia- MC S1Q3T3- Wide deep S in lead 1, q wave and T wave inversion in lead III
What test is used if a pulmonary embolism is suspected but the patient cannot get a CT (pregnancy)?	V/Q scan
What is the first line treatment for a pulmonary embolism?	Anticoagulation (heparin bridge + warfarin or Xa inhibitor)
In what scenarios are IVC filters indicated?	1. Anticoagulants contraindicated (bleeding disorder, recent bleed) 2. Anticoagulants were not effective 3. RV dysfunction on echo
What are the pre/post op things that can be done to prevent a PE?	1. Early ambulation 2. Compression stockings/pneumatic compression devices 3. LMWH for high risk procedures
What are the three main components of diagnosing acute respiratory distress syndrome (ARDS)?	1. Hypoxemia 2. Bilateral diffuse infiltrates on CXR 3. Pulmonary capillary wedge pressure of <18mmHg
What patient population is at the highest risk for developing ARDS?	Critically ill patients
What is the treatment of ARDS?	Noninvasive/mechanical ventilation (CPAP, PEEP, low tidal volume) and treat the underlying cause (usually sepsis)

An obese male has a h/o snoring, unrestful sleep, and daytime sleepiness, what is the most likely diagnosis?	Sleep apnea
What test is used to diagnose sleep apnea?	Polysomnography
How is sleep apnea treated?	CPAP + lifestyle changes (weight loss)