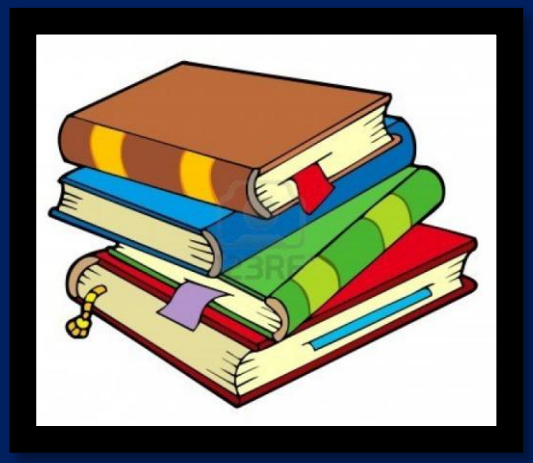

Academic Half Day: Making Your Medical Knowledge Stick

Education Scholars Team 2021-2023

Brenda Shinar, Director

Lise Harper, Aditi Kumar, Kristen Young

Banner University Medical Center Phoenix

Arizona Medicine Phoenix

Objectives

1. Describe the characteristics of a great physician.
2. Understand your AHD obligation.
3. Understand the process for active learning in AHD.
4. Understand the eight habits to effective studying.
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Becoming a *GREAT* physician…

1. Medical knowledge
2. Communication skills
3. Hard work ethic
4. Team player
5. Kindness/Compassion
6. Humility
7. Resilience

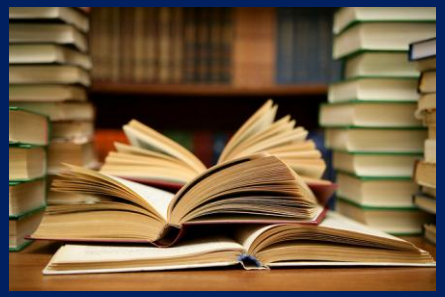
Medical Knowledge

- 10,000 hours of deliberate practice

- Time
- Effort
- Organization/Planning
- Little steps/bites with frequent review

"I am neither clever nor especially gifted. I am only very, very curious."

-Albert Einstein



1. Medical knowledge

- Knowledge is power to heal
- Life-long learning
- Wonder out-loud
- Taking Book knowledge to the bedside
- Learn from others' experience

For me being a doctor is about accepting the responsibility of caring for someones life and all the most vulnerable and intimate parts of that person. I know that during a patient's visit they may share things with me that no one else knows...not because we have a long history together, no because I look a certain way, and not because they know personal things about me...simply because they call me "Doctor".

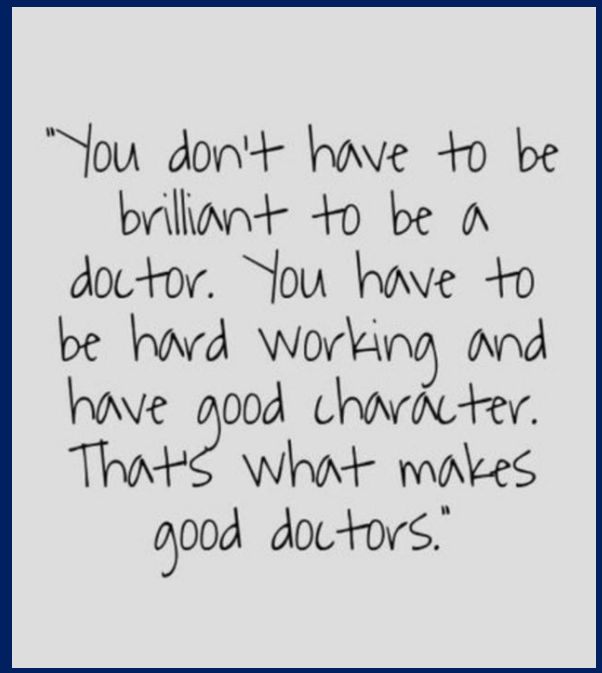
2. Communication

- Active Listening
- Translating medical information to non-medical people
- Taking the extra time to communicate
- Talking to patient's families
- Talking to your colleagues

3. Hard work ethic

- Physically demanding
- Mentally challenging
- Emotionally draining

- Extremely rewarding!



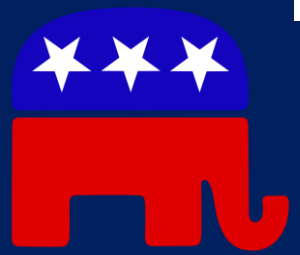
4. Team player

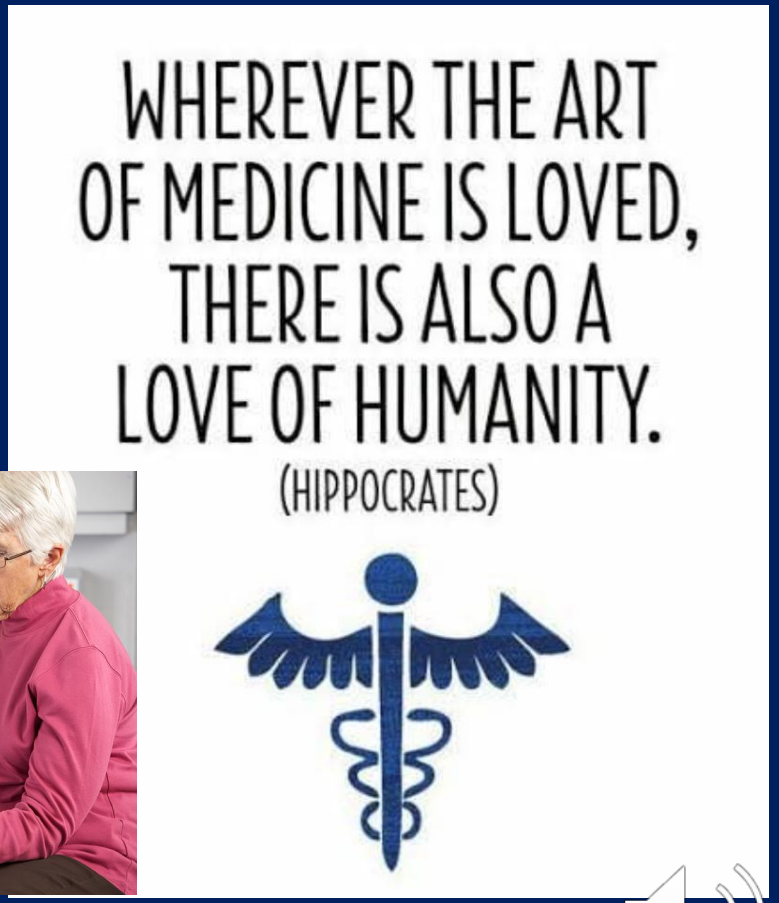
A PLAYER WHO MAKES A TEAM GREAT IS BETTER THAN A GREAT PLAYER

JOHN WOODEN

PICTUREQUOTES.com

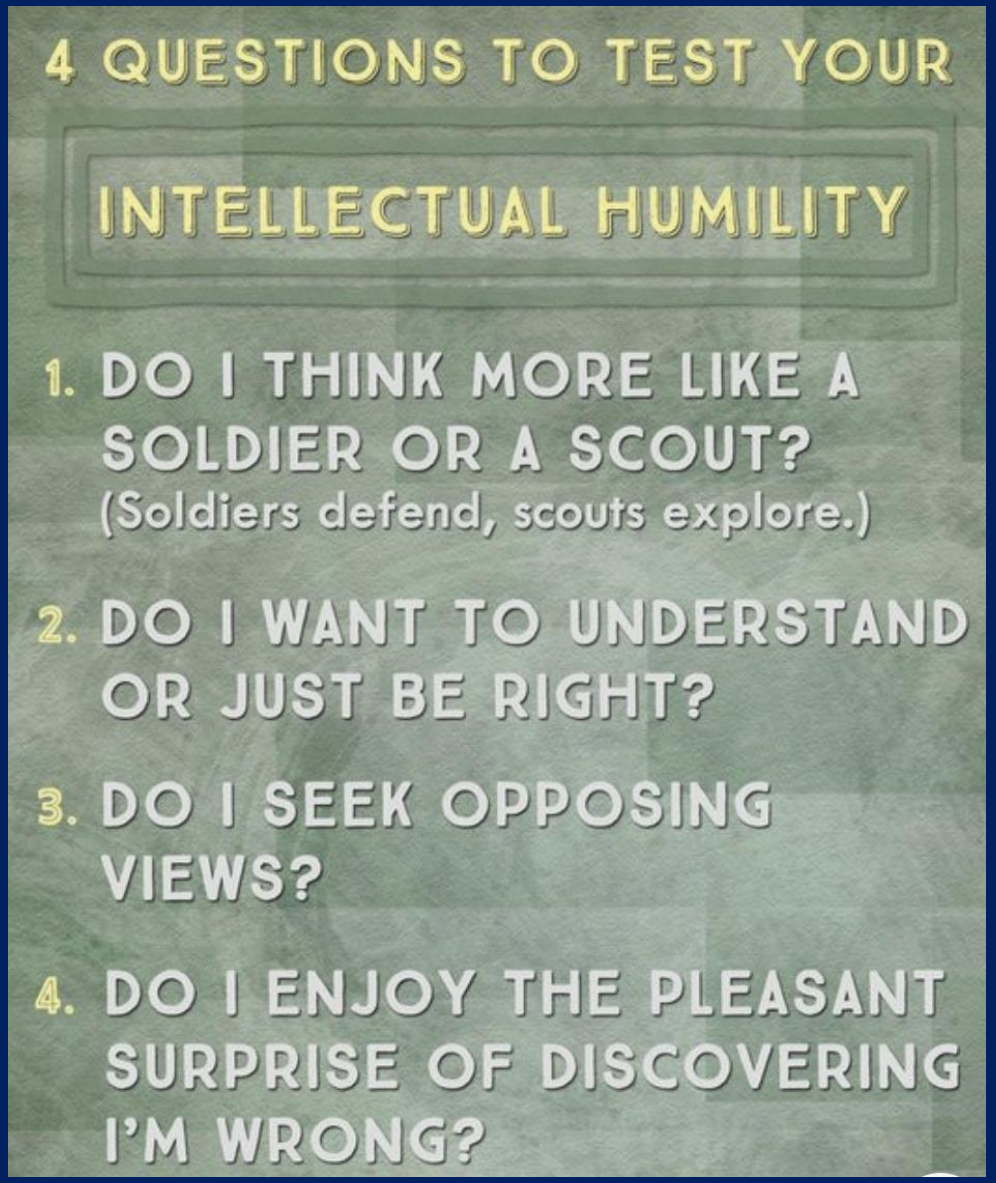
5. Kindness and Compassion





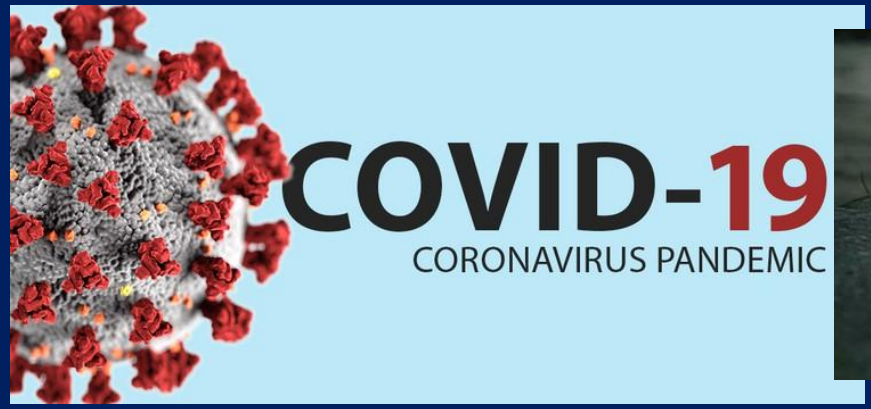
6. HUMILITY

- A humble doctor can never be humiliated!
- Pride goes before destruction, and a haughty spirit before a fall- PROVERBS 16:18



7. Resilience

- Ask for help when you need it!
- Look out for each other!
- Do what you advise your patients to do!



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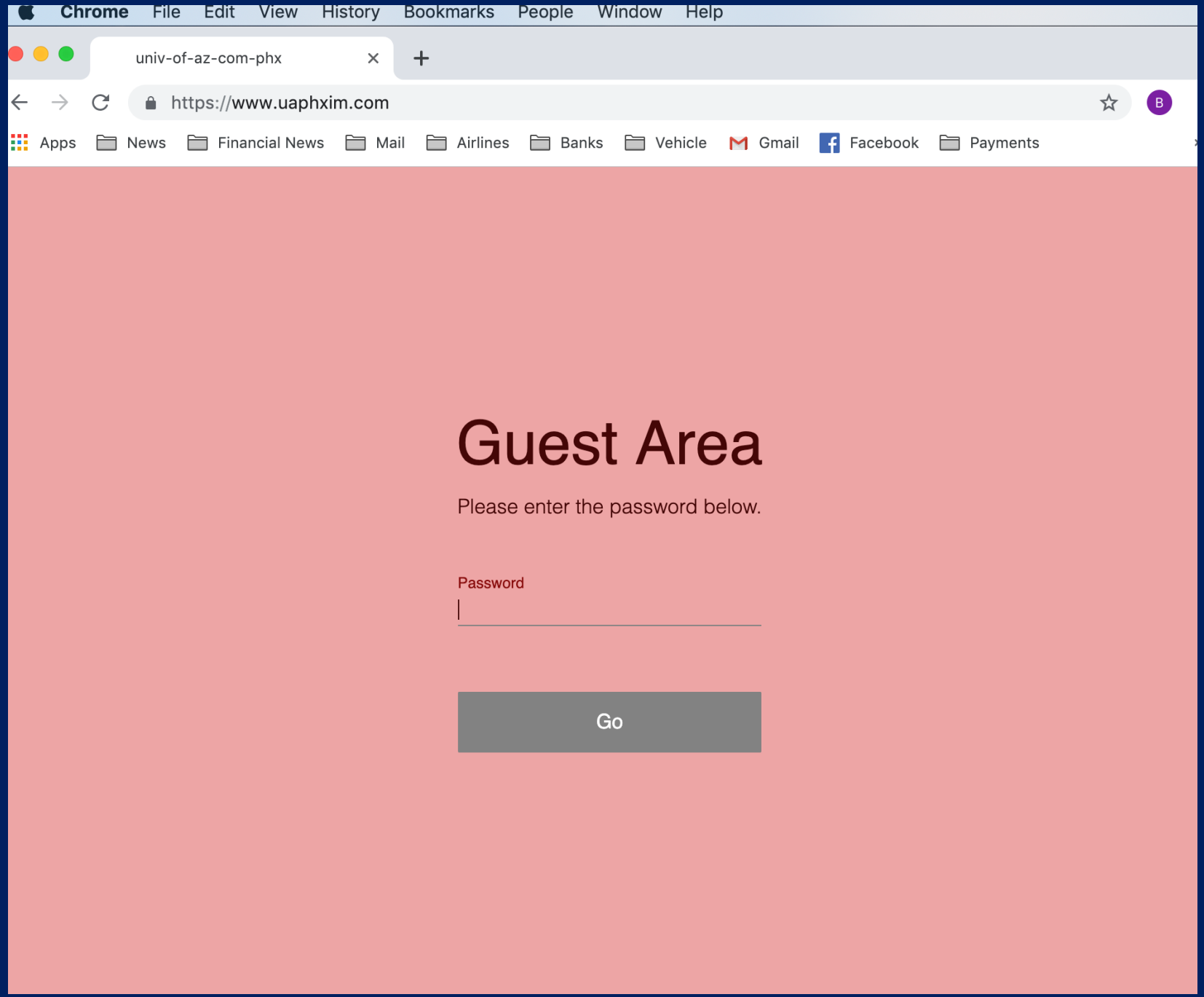
Academic Half Day (AHD)

- Articles/Objectives/ MKSAP questions
- Board Preparation/Patient Care
- ***This is now your job! You are being paid to learn!***



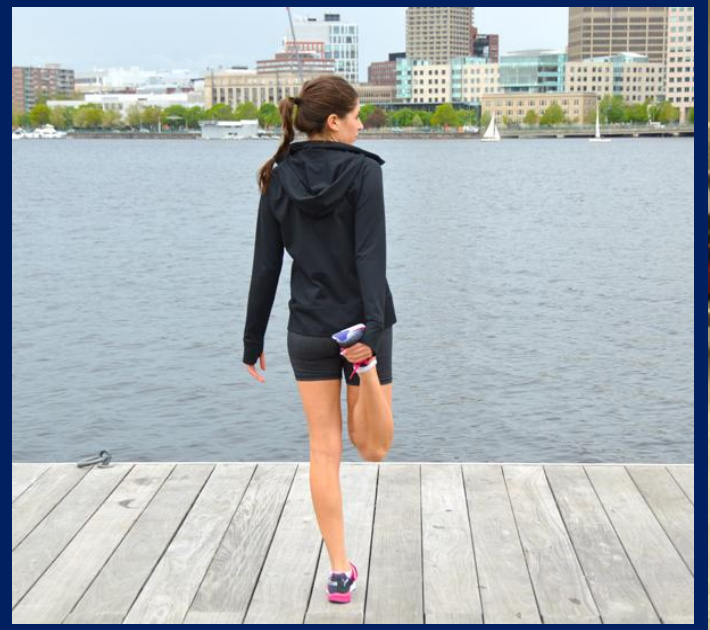
Go to:
“uaphxim.com”

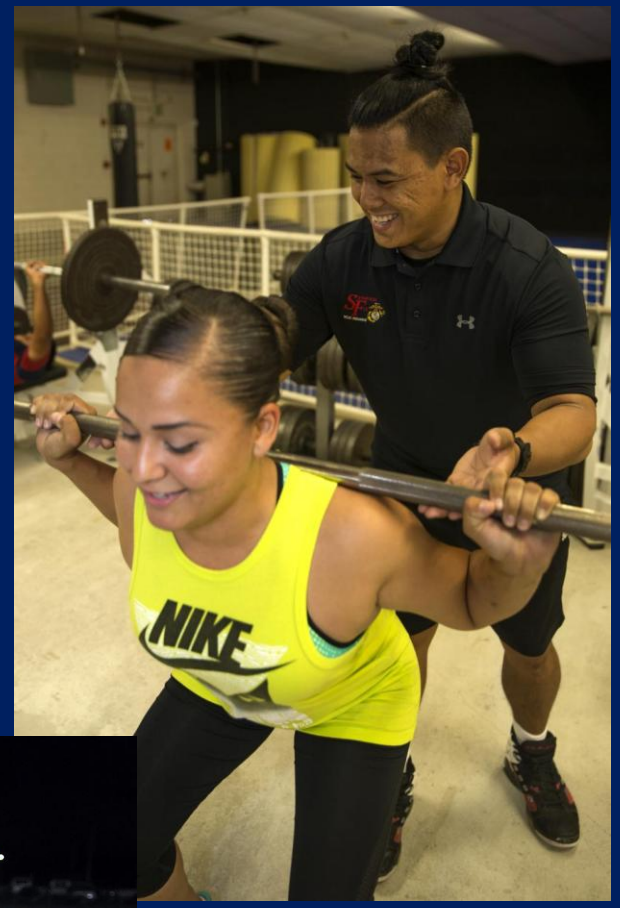
Password is:
“uaphxim”

Academic Half Day

(ie: Personal training session)

- We start at 9:15
- Prepare in advance*
- Bring your study materials
- Pay attention! Learn actively
- Write down something you learned from each lecture
- Engage your attendings when you go back to your clinical service…





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Education Scholars 2021-2023

Journal of the
American Association of Nurse Practitioners

REVIEW - SPONSORED

Medical management of acute coronary syndromes

Nicole Ciffone, MSN, ANP-C, AACC (Clinical Lipid Specialist and Founder)[1] **& Betsy B. Dokken,** NP, PhD (Director of Clinical Affairs)[2]

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Keywords
Coronary artery disease; acute coronary syndrome; disease management; secondary prevention; nurse practitioner; advanced practice nurse.

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Abstract

Background: Recent updates to clinical guidelines and pharmacological indications have added to the complexity of acute coronary syndrome (ACS) management. Advanced practice nurses working with ACS patients need clear and up-to-date information to optimize patient care.
Purpose: To provide a practical overview of the management of ACS from patient presentation through to long-term secondary prevention based on recent guidelines and randomized controlled trials, with particular emphasis on medical management.
Methods: Systematically reviewed recent studies and guidelines published 2011–2015 using PubMed search terms including "ACS management," "ACS hospital care," and "ACS secondary prevention."
Conclusions: The last decade has seen an increase in the number of antithrombotic (anticoagulant and antiplatelet) agents and an expansion of their licensed indications for treatment of ACS patients. Future trials will help identify which subgroups of patients will gain the greatest benefit from more intense antithrombotic therapy.
Implications for practice: Management of ACS is dependent on individual patient characteristics and risk stratification. Greater choice among therapies available for acute and long-term management will help to achieve optimal, patient-tailored care.

Introduction

Coronary artery disease (CAD) is a leading cause of mor-

Etiology of ACS: Role of endothelial dysfunction, oxidative stress, and inflammation

ACS refers to a spectrum of coronary conditions in

July 9, 2019 AHD Hospital Medicine

AHD Orientation

Acute Coronary Syndrome:

1. Describe the pathophysiology of STEMI and NSTEMI. Specifically describe the difference between type 1 and type 2 NSTEMI.
2. Understand the importance of risk stratification scores to determine likelihood of adverse events and optimal management strategy. Describe the GRACE and TIMI scores. Know the scores that indicate need for early invasive strategy.
3. Know the appropriate management of STEMI and NSTEMI based on ACC/AHA guidelines.
4. Describe the abnormal values for high-sensitivity troponin assays, and how to use the new assay in the evaluation of a patient with chest pain who rules out, rules in, and is in the indeterminant range for this biomarker.

Heme/Onc Emergencies:

Fill in the table as follows:

	SVC syndrome	Spinal cord compression	Tumor lysis syndrome	Hyperviscosity syndrome	TTP
Clinical syndrome					

GLOMERULAR DISEASES

	NEPHROTIC SYND.	vs	NEPHRITIC SYND.
CLINICAL	peripheral edema periorbital edema hypercoagulable state ↑infxn risk ONSET = insidious		HTN edema ↑JVP oliguria ONSET = abrupt
LABS	hypoalbuminemia HLD		normal / slightly ↓Alb ↓GFR
URINE	proteinuria > 3.5g/24h ⊕fatty casts/lipiduria		+/- mild proteinuria ⊕RBC casts/hematuria ARF = azotemia, oliguria

RAPIDLY PROGRESSIVE GLOMERULONEPHRITIS (=ANTIBODY-MEDIATED GN)

acute vs insidious
- acute → hematuria, ↓UOP, HTN, edema
- insidious → fatigue, edema

	ANTI-GBM DISEASE	PAUCI-IMMUNE GN	IMMUNE COMPLEX GN		MIMICS
CATEGORY	linear deposit of Ig along GBM	absence of Ig	granular deposits of Ig		
SEROLOGY	anti-GBM Ab ⊖ANCA nL C3	⊕ANCA neg anti-GBM nL C3	low C3 neg anti-GBM ⊖ANCA	nL C3 neg anti-GBM ⊖ANCA	nL C3 neg anti-GBM ⊖ANCA
MICRO	linear Ig & C3	sparse or absent Ig/C3	granular Ig & C3	granular Ig & C3	sparse or absent Ig/C3
	Anti-GBM disease Goodpasture's	Wegner's (granulomatosis w/ polyangiitis) Microscopic polyarteritis nodosum Renal-limited crescentic GN		IgA nephropathy HSPurpura Fibrillary GN	Malignant HTN HUS / TTP Interstitial nephrit Scleroderma crisis Toxemia Atheroemboli

CATEGORIES

OVERFLOW PROTEINURIA
= increased excretion of LMW proteins can occur w/ marked overproduction of a particular protein → increased glomerular filtration & excretion

* CAUSES:
- (most common) Ig light chains in MM
- lysozyme (in AML)
- myoglobin (rhabdo)
- free Hgb (intravasc hemolysis)

TUBULAR PROTEINURIA
= tubulointerstitial diseases can lead to ↓ reabsorptive capacity of the proximal tubule & up to 2g proteinuria per day due to impaired tubular absorption of filtered albumin and loss of tubular proteins (β_2 microglobulin)

GLOMERULAR PROTEINURIA
= sensitive marker for glomerular disease
= develops 2/2 increased filtration of macromolecules (eg albumin) across the glomerular capillary wall

DIPSTICK TESTING: can quantify proteinuria, but ONLY measures albuminuria!

∴ good screening test for proteinuria but cannot quantify proteinuria or detect immunoglobulin light chains

⇩

if positive for protein, check a protein/creatinine or albumin/creatinine ratio

24HR vs UPCR/UACR

PRO
- gold standard to measure protein excret.

CONS
- collection is difficult w/ errors

PROS
- easy collection
- good correlation

CONS
- heavily influenced by urine creatinine concentration & by total daily
- urine protein excretion can vary throughout the day

Differentiate onset and duration of vertigo in Menniere disease and BPPV. What are signs of central and peripheral vertigo?

	CENTRAL VERTIGO	PERIPHERAL VERTIGO
Nystagmus	can be any direction *can reverse direction when pt looks in direction of slow component	unidirectional horizontal w/ torsional component fast component toward normal ear
Response to provocative manuvers	short or no latency	latent 2-5s
N/V	variable +/- with HA	variable, can be worst at onset
Other neuro signs	CN issues present NO deafness/tinnitus	none +/- deafness/tinnitus
Posture dependency	severe instability ataxic gait +/- fall with walking	unidirectional instability gait preserved

<u>BPPV</u>

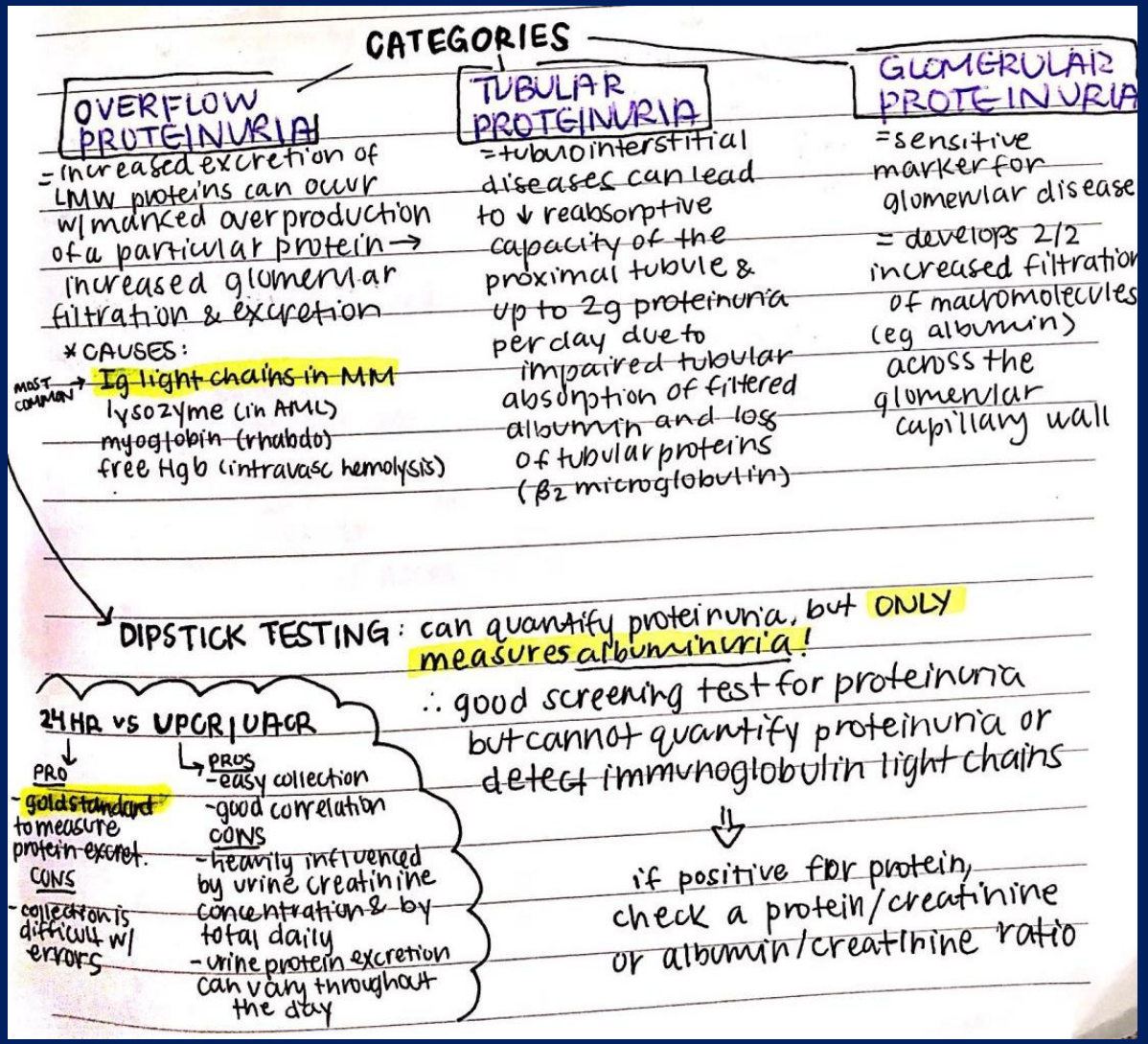
- recurrent
- brief episodes (secs)
- w/ predictable head movements or positional changes
- nystagmus: U/L, horizontal w/ torsional component, fast component to normal ear
- no neuro symptoms
- no auditory symptoms
- testing: reproducible w/ Dix Hallpike

<u>Meniere disease</u>

- recurrent
- episodes mins-hours
- spontaneous, no predictable factors
- nystagmus: U/L, horizontal w/ torsional component, fast component to normal ear
- no neuro symptoms
- +/- auditory symptoms: ear fullness/pain, U/L hearing loss, tinnitus
- testing: audiometry shows U/L low frreq sensorineural hearing loss

Expectations

- Prepare!
- Read articles ***and*** write out objectives before 9 am Tuesday morning each week
- Send via email to your education scholar before 9 am
- Organize to re-review when you take care of patients
- Review before practice test of the month



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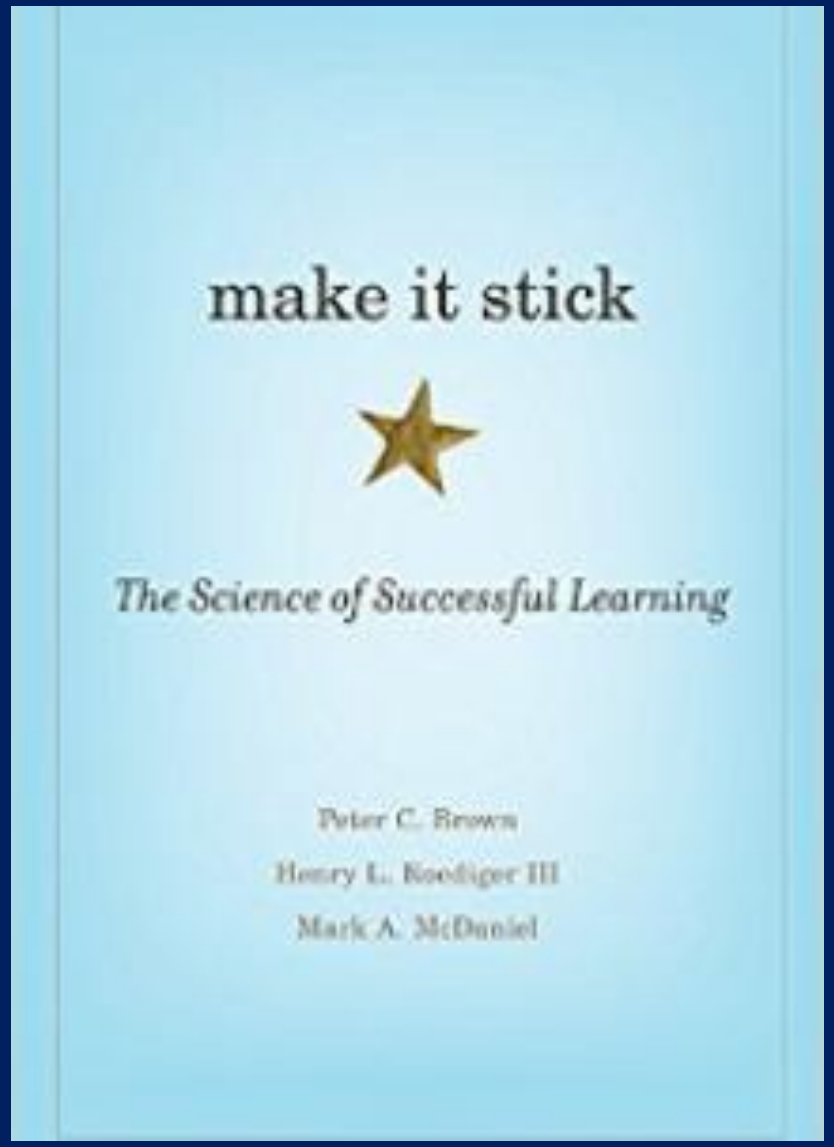
The Science of Learning

- There is no such thing as a personal learning style (visual, auditory, etc.)
- Learning is an acquired skill!
- Learning is deeper and more durable when it *requires effort.*
- ONLY reading and re-reading text gives a false security of mastery.
- Retrieval practice (recalling from memory) is more effective than re-reading and better when spaced out over time.



AHD “Lectures”

- Case-based instruction
- Audience response
- Numbered Pair Partners!
- Think about your answer/discuss with your partner, and you may get a chance to share with the group if your number is called!
- Quizzing helps knowledge retention.

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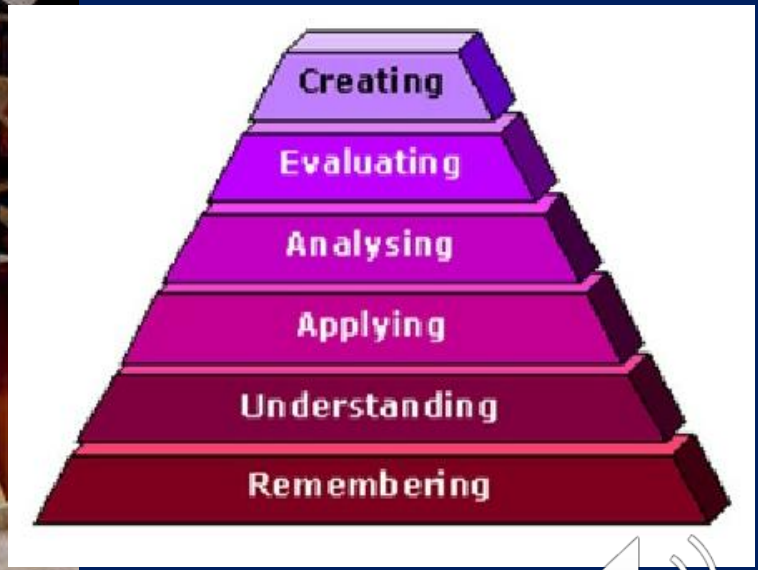
8 Habits for Effective Study

- 108 minutes a day
- Massive amount of information
- Retrieve from long-term memory
- Use for problem solving



1. Place for Study

- Alone vs. Partner
- Minimize distractions
- Try someplace different if you are having trouble

2. Set a Goal for Each Study Session

- Set a Specific, Achievable Goal
- 10/2 Rule
- How will you know you have mastered your goal?
- Test yourself
- Persevere until you pass!

3. Hand Write Your Notes

- Highlighting and underlining is useless
- Don’t cut and paste or copy verbatim
- Physically writing preferred over typing
- Summarize in your own words
- Sort/Categorize/Compare
- Color-code

4. Draw Pictures

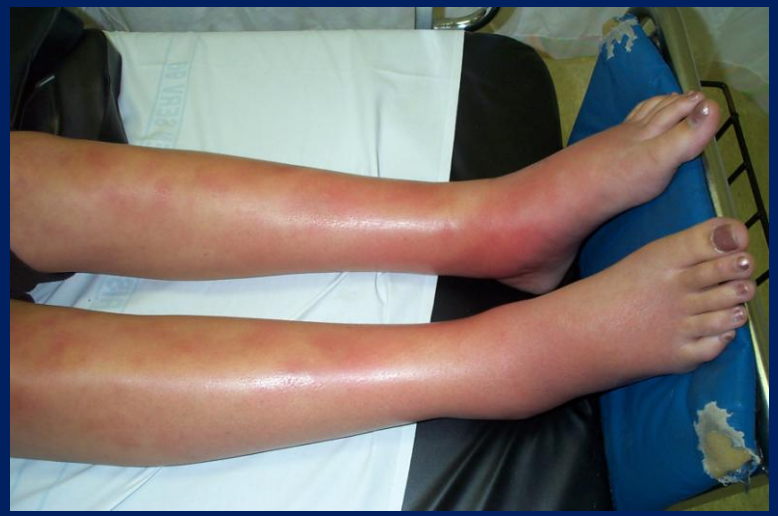
- Sketch and label
- Flowchart
- Diagram
- Cutting and pasting pictures or tables ***does not*** count!

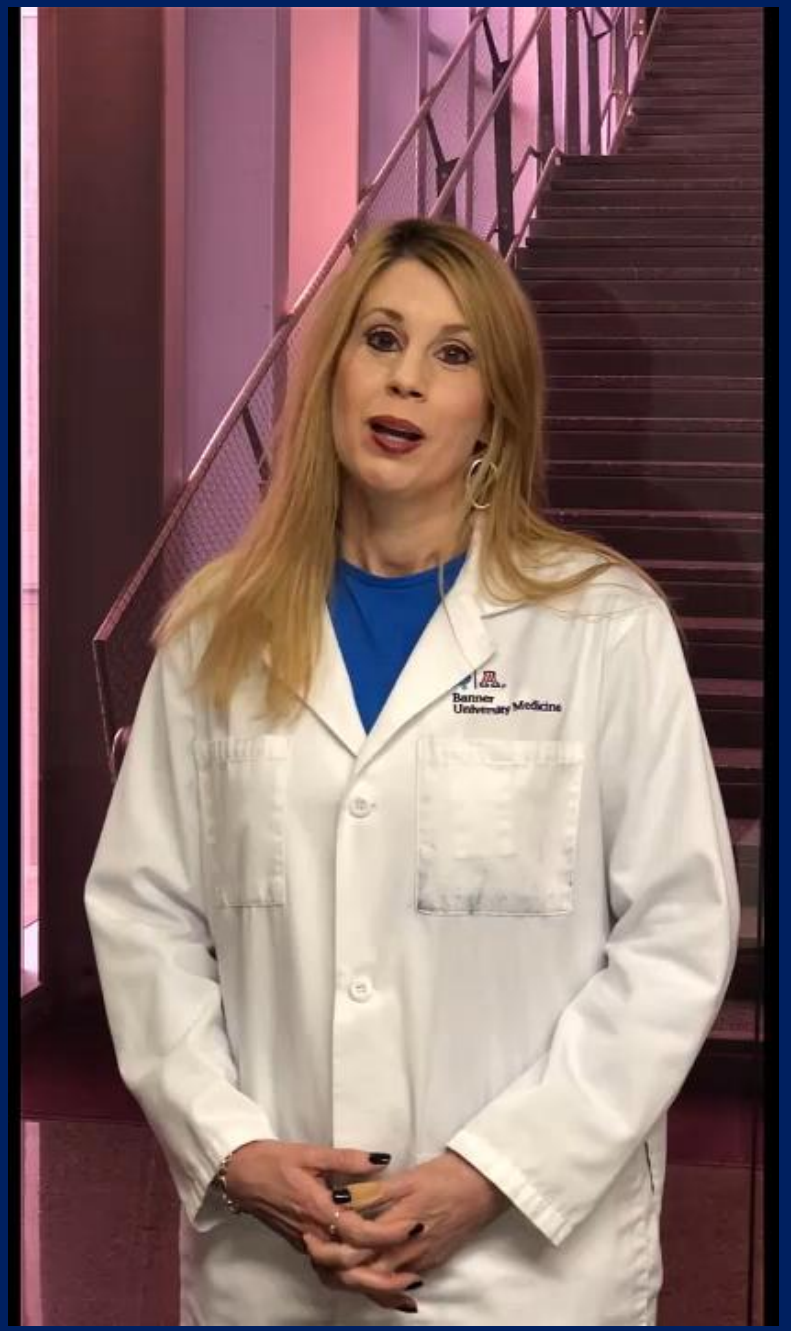
5. Rhyme, Rhythm, Chant

- Familiar Tune
- Rap/Chant
- Poem
- Mnemonic

6. Movement

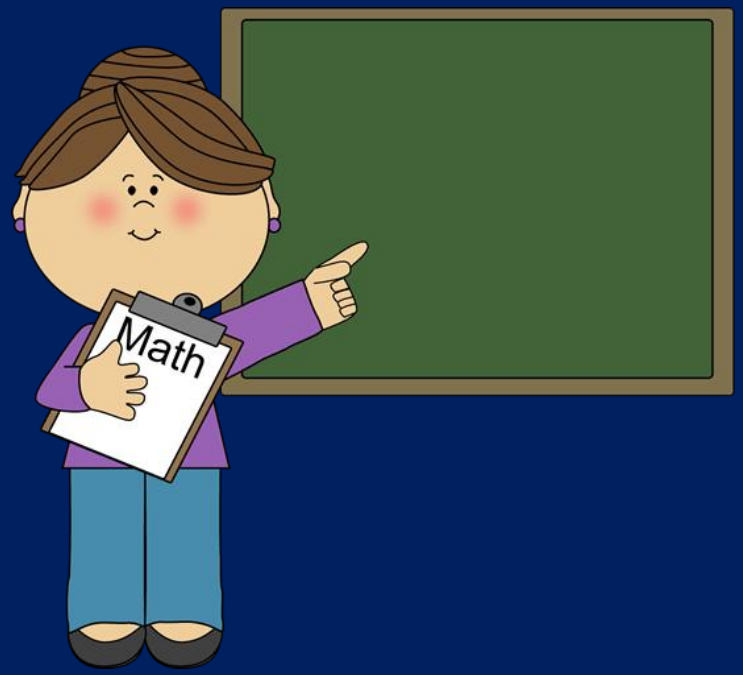
- Make up motions
- Change positions
- Take stretch breaks





7. Teach/Talk Out loud

- Partner share
- Video yourself
- Narrate PP slides
- Call your Grandma!



8. Repeat, Review, Reflect

- Repetition required
- Review your notes and correlate with patient care
- Reflect back to reinforce
- Wonder about what you know and what you don’t know- this requires reflection

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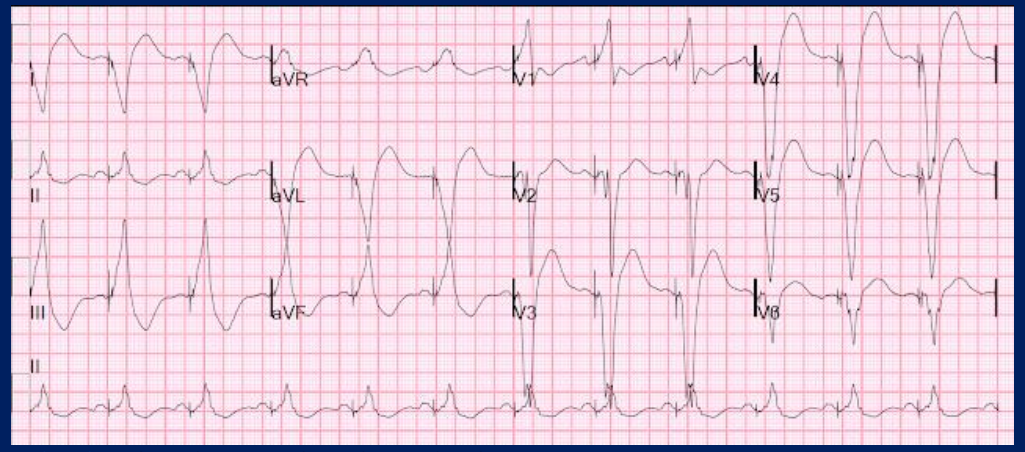
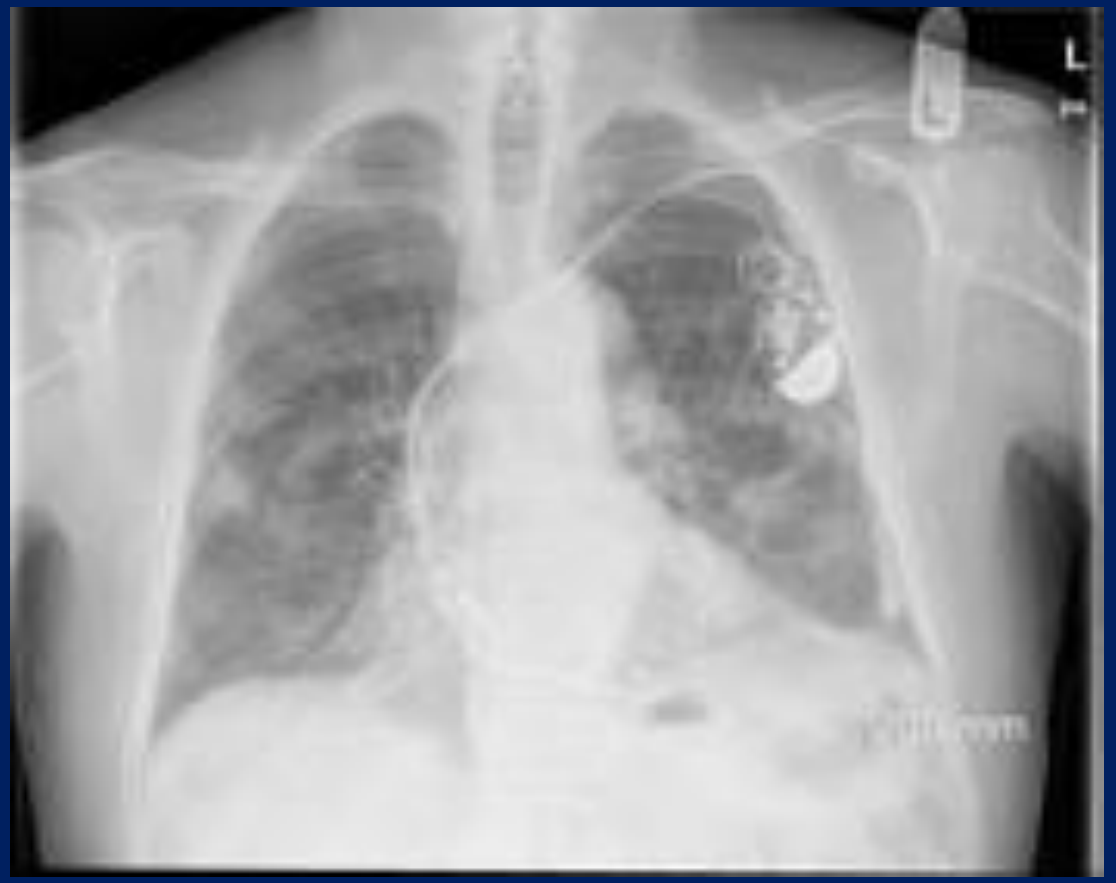
Use one of the habits of effective study!

- What are the indications for a biventricular pacemaker in the diagnosis of systolic heart failure?





What are the indications for biventricular pacer in systolic HF?

- Groups 1-8
  - Flowchart/Table
- Groups 9-16
  - Picture/Diagram
- Groups 17-23
  - Rhyme/Rhythm/Chant
- Groups 24-33
  - Movement/Dance
- Groups > 33
  - Pick a category

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Testimonials

- Iza Aguayo
- Hospitalist, Banner MD Anderson, Gateway
- ITE scores increased by 35% from PGY 2-3

- One Note
- U World Questions

Testimonials

- Dan Hannon
- Hospitalist, Scottsdale Thompson Peak
- ITE scores increased by 50%

- Organized a plan for studying
- Wrote out and reviewed notes in his own words

Testimonials

- Mayur Patel
- Cardiologist
- Board Certified
- ITE scores increased by 60%

- Start with a broad foundation
- Teach others!

What’s YOUR plan?