

- **Research/study question (new thing)**
  - Calculate PPV, specificity, basic stats
- **Surgical error, vaginal ring left in during D&C...came apart....counted as 2 instruments....**
  - **How to fix this error**
  - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3414600/table/t1-1841275/>

Protocols for preventing the retention of a foreign object after surgery

<p><b>Manual counting of surgical items</b></p> <p>Perioperative nurses (circulating and scrub nurses) manually and audibly count and document all surgical sponges and instruments at the beginning and end of the surgery</p> <ul style="list-style-type: none"> <li>• Sensitivity 62%–88%<sup>9</sup></li> <li>• Many occurrences of retained foreign objects have had correct counts<sup>3,4</sup></li> </ul>
<p><b>Perioperative radiographic screening</b></p> <p>Radiograph is obtained during abdominal surgery to identify radiopaque sponges and instruments</p> <ul style="list-style-type: none"> <li>• Less costly and more effective than traditional counting of surgical items</li> <li>• May be routine or restricted to high-risk operations</li> <li>• Detection rate 85.8% for selective and 95.5% for universal application of protocol<sup>9</sup></li> </ul>
<p><b>CT scanning</b></p> <p>Most often used as a follow-up investigative tool</p> <ul style="list-style-type: none"> <li>• Detection rate 61%<sup>2</sup></li> </ul>
<p><b>Use of bar-coded sponges</b></p> <p>Sponges with a bar code are scanned with a hand-held device at the beginning and end of the surgery</p> <ul style="list-style-type: none"> <li>• Detection rate 97.5%<sup>9</sup></li> <li>• Increased time in operating room and new technical difficulties introduced<sup>10</sup></li> </ul>
<p><b>Use of radiofrequency-tagged sponges</b></p> <p>Sponges with an embedded electronic chip are detected with a hand-held device that is scanned over the patient's body</p> <ul style="list-style-type: none"> <li>• Sensitivity and specificity 100%</li> <li>• Susceptible to electronic interference, mechanical failure and user error<sup>11,12</sup></li> </ul>

- **Another question about sponge left in patient...**
- **Cardio questions**
  - **Stethoscope questions (~10); needed to hear it really well...vignettes were short**
  - **Picture and which space you wanted to listen**
  - **~1-2 each block**
  - **Aortic dissection, hypertensive emergency, what do you give?**
    - **Iv hydralazine/labetalol**
  - **Vague ace inhibitor questions**
  - **5 EKG questions**
    - **Pretty tough**
    - **Electrical alternans and cardiac tamponade physio question**
    - **Afib question**
  - **Warfarin and Heparin know them really well**
- **Kid watching porno and got caught by mom, looked at the kind..hetero/homo/... what is going on with child?**
  - **Sexual orientation or normal development?**

- **Magnesium sulfate order, how do you write it?**
  - **No trailing zeros....write out the entire thing**

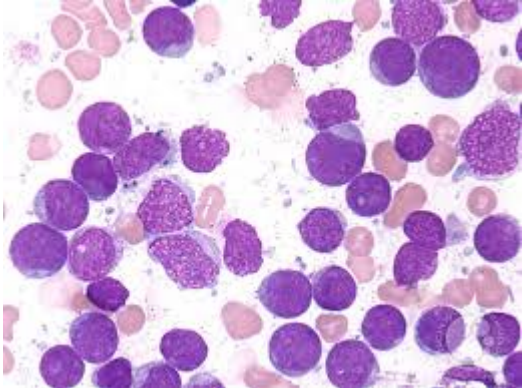
Official "Do Not Use" List <sup>1</sup>		
Do Not Use	Potential Problem	Use Instead
U, u (unit)	Mistaken for "0" (zero), the number "4" (four) or "cc"	Write "unit"
IU (International Unit)	Mistaken for IV (intravenous) or the number 10 (ten)	Write "International Unit"
Q.D., QD, q.d., qd (daily) Q.O.D., QOD, q.o.d, qod (every other day)	Mistaken for each other Period after the Q mistaken for "1" and the "O" mistaken for "I"	Write "daily" Write "every other day"
Trailing zero (X.0 mg)* Lack of leading zero (.X mg)	Decimal point is missed	Write X mg Write 0.X mg
MS	Can mean morphine sulfate or magnesium sulfate	Write "morphine sulfate" Write "magnesium sulfate"
MSO4 and MgSO4	Confused for one another	

<sup>1</sup> Applies to all orders and all medication-related documentation that is handwritten (including free-text computer entry) or on pre-printed forms.

- 
- **~20 easy questions pretty easy each block**
- **Pulmonary:**
  - **Cardiogenic vs. pulmonary related issue (PE)**
  - **Lipid deposits around eye picture...**
  - **Pneumothorax...physiology question about it whats going on with heart.**
- **GI**
  - **No crohn's/UC mgmt questions**
  - **Diarrhea questions..ecoli**
  - **Upper gi bleed; omeprazole PPI or fluids?**
  - **H. ducreyi questions**
  - **CREST, gave you corkscrew esophageal spasm...**
    - **Physiological stuff..dysmotility of esophagus**
    - **Plummer vinson**
  - **Couple questions on SAAG score**
  - **Light's criteria transudate/exudate**
  - **SBP question..give antibiotics**
- **Derm**
  - **Basic anaphylaxis, urticaria, give epi**
  - **Person with mole for awhile... changing mole.**
    - **Angry looking mole, diff colors, there was hair!!!!**
    - **Melanoma... wide excision..5cm!!! Mole was 1cm**
- **Jerking off in living room, sister comes in, yells at sister, sister wants to know whats wrong with him, and notices his pupils are really dilated?**
  - **Meth?**
- **Poison question... how it presented...**
- **Neuro**
  - **Subdural hematoma, what kind of herniation were they having?**  
**Patient was having blown right pupil**
  - **Optic neuritis for MS**
  - **Progressing tumor question...brain tumor**
  - **Huntington's with chorea question**
    - *A key neuropathologic feature of HD is selective neuronal loss in the **caudate and putamen (striatum)**. Because the caudate nucleus borders*



- Cystocele → pessary (lot of kids); vaginal prolapse
    - Neurogenic bladder (presenting overflow incont), didn't say anything else.
  - Pt with chronic renal failure. And cystic fibrosis, and doesn't like going in the sun...
    - Which is the main reason for the vitamin D deficiency
      - Lack of calcium
      - Decrease vit D absorption of gut (CF)
      - Lack of sun exposure
- Endocrine
  - siadh/DI differentiation
  - **Brittle's diabetes...**
    - *define brittle diabetes as severe instability of blood glucose levels with frequent and unpredictable episodes of hypoglycemia and/or ketoacidosis that disrupt quality of life. The unpredictable episodes of hypoglycemia and/or ketoacidosis are due to an absolute insulin dependency (undetectable C-peptide levels). Thus, brittle diabetic patients virtually always have type 1 diabetes.*
    - *Patients with brittle diabetes have wide swings in their blood sugar levels and report differing blood sugar responses to the same dose and type of insulin.*
    - *Thus, the diagnosis of brittle diabetes is established when a patient with absolute insulin deficiency (type 1 or rarely longstanding type 2 diabetes mellitus) has frequent episodes of severe hyper- and/or hypoglycemia, requiring frequent hospitalizations and preventing a normal lifestyle.*
  - **Insulin like growth factor acromegaly...**
    - *Vs. Paget's dz of bone: disorganized bony architecture d/t inc osteoclastic followed by inc osteoblastic activity. Complication of high output cardiac failure. normal calcium levels.*
    - **Acromegaly:**
      - *XS GH after growth plates close, usually 2/2 pituitary somatotroph adenoma; look for elevated IGF1 levels; confirm with OGTT (GH remain >2 after 2 hours = positive)*
  - **Diabetes questions**
  - **Graph nighttime glucose, morning, with meal time graph (meded)**
    - **Plus what patient is eating... but they only gave morning glucose and nighttime glucose... pt is taking metformin in morning, short acting insulin at breakfast or dinner...sugar is elevated @ dinner**
      - Add sulfonylurea
      - add/change carbs.
- Psych
  - **Type I DM.. not adhering to mgmt... in school + anorexia... BMI was normal... hba1c 12.2...doesn't wanna take insulin...**
    - **Brittle diabetes**
      - *Brittle diabetes mellitus (or labile diabetes) is a term used to describe particularly hard to control type 1 diabetes.*
      - *Those people who have brittle diabetes will experience frequent, extreme swings in blood glucose levels, causing hyperglycemia or hypoglycemia.*

- Anorexia
  - Hematology
    - 15 year old with AML and picture of blast crisis
      - 
    - Anemia questions
      - Iron deficiency anemia...haptoglobin/LDH; kid was running marathon...
    - Heat stroke: girl who ran a marathon, collapsed at end, asked what treatments are going to show the best outcome?
      - Cool body temp
      - Give her fluids to raise BP (80/40)
- Preventative care = high yield (screening)
  - Screening tests
  - Promiscuous girl going somewhere in the fall..what should she get?
- Rheum
  - Stress fracture (navicular?)
  - Nsaid question
  - RA arthritis treatment/mgmt
  - Arthrocentesis for RA what do you see?
    - Straw yellow, <3000 WBcs...
  - MIP joint...
  - Picture of guy with petechiae on legs..doesn't tell you if palpable... give you lab which is HepC+, cryoglobulinemia
  - Vasculitides
    - IgE, churg strauss, not super elevated, but there were eosinophils, igE

so with the exam it was definitely a hard exam but not nearly as impossible as everyone makes it seem in the question stems honestly to me did not seem much longer than any of the other questions I have been doing. So in terms of content make sure to know screening COLD I had so so many questions on screening at least one every block some blocks 2 or 3 questions one it!! Like for example when to start colon cancer screening when first degree relative has colon cancer and how many year follow up colonoscopy? Also be ready for some very weird questions such as a girl with Double E size breast at age 16, what is your next step in management, Patient has elbow pathology pitches 150 pitches a game what is would have prevented this, decrease pitches per game, decrease number of curve balls, resistant band training, stuff like that... It was pretty heavy on medicine of course and OBGYN, the others were pretty much evenly distributed. Biostats were honestly all pretty easy mostly sensitivity and specificity, there was an abstract that you had to dissect it was kind of annoying. There was only one heart murmur I had that you had to know the actual sound of the heart murmur all the others you could answer from the question stem, there was one question where you had to be able to read an ultrasound because there was like no question stem it was just what is the diagnosis, I had no clue lol i just based in on the patients age sex and most common

pathology. Seemed to be a lot of reassurance questions as always! Also they had a question about AML but it was not the common 15:17 translocation aml it was one of the other ones like M6, M7 so that kinda sucked ha ha been awhile since i had seen that. Also to me it seemed like more of what is the best next step instead of what is the diagnosis, but that very well be because those questions are a little trickier so I spent more time on them! That is about all i can think of at the moment... but if I think of more I will definitely let you know! Just a recap of what I would have changed is honestly knowing Uworld inside and out, you could honestly probably use that as your only resource and knowing it could be completely fine, but so I would have not read online med ed again because i knew it really well and would have went over master the boards two or three times, because there were some nit picky things that they asked that i know was in master the boards. So U world Cold and one board review book, not notes like online med ed, an actual review book and that is all!

What topic was heavily covered on my test?

- IM, OBGYN, Peds
- o IM → Q's mostly doable, time was a factor due to length of vignette.
- o OBGYN → Lots of "what's the next step in management" and risk factor questions. Would describe a diagnosis and would ask what is the most significant risk factor for this, or complication of specific risk factor.
- o Peds → Saw the typical things you would expect → hip problems (LCP vs SCFE vs Dysplasia). Lots of imaging, such as diagnosing based of abd xr (biliary/jejunal atresia, hirschprung, meconium ileus). Indications for when to do surg for meckels/management of umbilical hernias based on age, cryptorchidism, etc. Basically when do something and when to watch and wait.

- ***Asymptomatic Meckel diverticulum [7]***

*Incidentally detected on imaging studies: no treatment necessary*

*Incidentally detected on laparotomy/laparoscopy*

***Children or young adults: surgical resection of all incidentally detected Meckel diverticuli***

***Adults < 50 years: surgical resection only for Meckel diverticuli that have a high risk of developing complications***

***Adults > 50 years: no treatment necessary***

***Symptomatic or complicated Meckel diverticulum[1]***

*Initial stabilization of the patient*

***Surgical resection of all symptomatic/complicated Meckel diverticuli***

*Surgical procedures*

*Segmental resection : Indicated for a Meckel diverticulum that is **bleeding**, has a broad base, or a palpable abnormality*

*Diverticulectomy: Meckel diverticulum is resected at the base.*

What topic was least on my test?

- Surg/psych
- o Surg was kinda tough.

- Psych was super easy. Make sure you know the specific drug class used to treat each disorder (Example: SSRI for PTSD), Did not really need to pick which med is best in each class because, for example, most SSRI's have the same efficacy so they would only put one SSRI on the test. Basically just know which class each medicine belongs to and what it's used for (first line) and side effect profiles (especially EPS seen with antipsychotics and how you treat them). you should be fine.

What questions surprised me by amount expected vs amount seen?

- Biostat → 2-4 questions PER section on CK on my test.
- I hate biostat so I don't have any constructive feedback on this...

General tips:

- Know diseases that have a very specific treatment
- For example → **H. pylori** – triple therapy (**PPI, clarithro, amox**) vs quadruple. I had a question on this literally asking what the triple therapy consists of.
  - *microaerophilic, spiral or curved gram-negative bacillus. colonizes the gastric antrum but does not invade. Production of ammonia via urease creates an alkaline environment that protects from gastric acid*
  - *The urea breath test measures exhaled isotope-labeled carbon dioxide from ingestion of radiolabeled urea, indicating the presence of a urease-producing organism such as H. pylori.*
  - **Treatment includes triple therapy**
    - Proton pump inhibitor (PPI)
    - Amoxicillin (metronidazole if penicillin allergy)
    - Clarithromycin
  - **or quadruple therapy** for clarithromycin-resistant H. pylori
    - PPI
    - Bismuth therapy
    - Metronidazole
    - Tetracycline
- I had a large chunk of heme/onc so know blood dyscrasias, etc. Know how to differentiate blood disorders based off labs especially.
- Things like **cryoglobulinemia type II** showed up on my test so don't over look these things.
  - *The mixed CGs (types II and III) generally result from chronic inflammatory states, such as connective tissue diseases, like systemic lupus erythematosus or Sjögren's syndrome, or viral infections, such as HCV, although lymphoproliferative disorders have rarely been associated as well.*
  - *Cryoglobulin (CG) consists of immunoglobulins (Ig) and complement components and precipitates upon refrigeration of serum.*
  - *I: isolated IG (MM, waldenstromes)*
  - *II: persistent viral syndromes (HIV, hepC)*
  - *III: systemic rheumatic diseases*

- Nephrology was somewhat frequent. Know specifically strep pyo infections (skin vs pharyngitis) and how their complications are related (rheumatic fever, post strep glomerulonephritis) because I forget which at the moment but remember that one of them is mostly seen after strep pharyngitis than skin strep infections.

•

- Neuro → had a question on NF2 (patient had signs and they asked what is expected →

**bilateral acoustic neuromas)**

- hereditary neurocutaneous syndrome caused by mutations in the NF2 gene on chromosome 22, which encodes the tumor suppressor merlin/schwannomin

○ Know most specific things like NPH (triad involved), how to interpret LPs. Given a vignette describing a diagnosis, formulate the diagnosis and the answer choice required you to predict what the LP would show (example → patient clearly had bacterial meningitis, so answer choices were a list of LP findings (glucose, wbc, rbc, protein) and you had to predict what would be seen.

- Pulmonary:

- Treatment steps for asthma (as disease worsens, step up the meds)
- Interpreting ABG values, know how to calculate proper compensation and subsequently decide whether it is proper and determine if mixed acid base disorder and what not (memorize the formulas).
- COPD exacerbation, pulmonary edema were topics I remember so be familiar with management.

- Cardio:

- **Questions you would expect. Know which medications have mortality benefits and which ones do not for sure!!!**

- ID:

- Things I saw → Malaria, Lymes, hemorrhagic fevers, rashes, STI's.

**Lyme disease (or borreliosis)** is a tick-borne infection caused by certain species of the *Borrelia* genus (*B. burgdorferi* in the US), a genus of facultative intracellular bacteria. There are three stages of Lyme disease. **Stage I (early localized disease)** is characterized by erythema migrans (EM), an expanding circular red rash at the site of the tick bite, and may be associated with flu-like symptoms. In **stage II (early disseminated disease)**, patients may present with neurological symptoms (e.g., facial palsy), migratory arthralgia, and cardiac manifestations (e.g., myocarditis). Stage III (late disease) is characterized by chronic arthritis and CNS involvement (late neuroborreliosis) with possible progressive encephalomyelitis. Lyme disease is a clinical diagnosis in patients presenting with EM. Serological tests (e.g., Western blot; enzyme-linked immunosorbent assay) can help support the clinical diagnosis, especially if the presence of EM is not known or questionable. Lyme disease is treated with antibiotics; the drugs of choice is **doxycycline for stage I and ceftriaxone for disseminated disease. In children <8 use amoxicillin instead of doxy!**

- Immunology:

- At least 5 questions on immunodeficiency disorders (CGD, LAD, Chediak's etcetera).

§ For these disorders know how to interpret/determine White cell profile (B cell #, IG levels and what not) and what infections they are predisposed to (example – CGD predisposes patients to cat positive organism infections).

- Rheum:

○ Lupus questions → always have this as a differential in your head. Usually if I saw that they had a malar rash and joint pains or glomerular issues it had something to do with lupus.

- GI:

○ Crohn's vs UC

§ Complications as well

○ H. pylori and its complications

○ Celiacs showed up

- The subsequent autoimmune inflammatory reaction to gliadin, an alcohol-soluble fraction of gluten. This inflammatory reaction damages the gut mucosa, causing malabsorption.
- Celiac sprue has a strong hereditary component--HLA haplotypes DQ2 and DQ8 are strongly linked to disease. These HLA molecules present gliadin to helper T cells, which mediate inflammatory damage.
- Suspected celiac disease, the best initial test is a serum level of immunoglobulin A anti-tissue transglutaminase antibody (IgA TTG)
- **Dermatitis herpetiformis**, if present, can be treated with a gluten-free diet and **dapsone**.
  - Tropical sprue
    - Treatment of tropical sprue consists of tetracycline plus folic acid for 3-6 months.
    - Unlike celiac sprue, patients with tropical sprue have no response to the removal of gluten from the diet.

○ Whipple's showed up

- systemic infection caused by *Tropheryma whippelii* that typically affects the gastrointestinal tract, but may involve the heart, bones, lungs, and central nervous system.
- *Tropheryma whippelii* (*T. whippelii*) is a gram-positive, periodic acid-Schiff (PAS) positive bacillus bacterium
- **Oculomasticatory myorhythmia is pathognomonic for Whipple's disease.** It involves eye movement disturbances along with rapidly repetitive movement of facial muscles.
- best initial diagnostic test for *T. whippelii* infections is quantitative PCR of the stool and saliva, which helps detect bacterial load.
- mainstay of treatment is antibiotic therapy for 1-year. Treatment of choice is **IV ceftriaxone for 2-weeks, followed by trimethoprim-sulfamethoxazole (TMP-SMX) for 1-year.**

○ Most surgery questions for me were here

§ Indications for cholecystectomy and when to do it.

- Oncology:

○ Pancreatic (painless jaundice)

○ Colon

- Leukemias (CLL was common on mine → had to diagnose based off blood smear)

These are some things that I thought were recurrent themes on my exam. I hope this helps bro! Lemme know if you have any questions. Not sure if this will be helpful cuz I'm sure every test is different.

Ck

2 questions on stages of clinical trials. Focus on knowing stage 2 and 3. Stage 1 is just seeing if it is safe to give (dosage) and phase 4 is when the drug is being prescribed by clinicians and they're looking for long term side effects

Biostats

-Def know your biostats, these r easy points you don't want to miss. NNT and NNH. multiple questions on type of bias, and how those could have been avoided.

Odds ratio

-hiv screening test is only being used 84% of the time. How to improve this? Either posters in the office and waiting room, doctor retraining, educational session for patients

-2 questions on bias

-A doctor is going to start giving everybody over the age of 64 a pneumococcal vaccine bc she now has a financial incentive, what will this improve? Decrease incidence of pneumonia, increase percentage of ppl getting vaccinated(I put this), improved pt knowledge of vaccine

Dx of RMSF, centripetal rash, New England area. Remember tx is doxy even in children

Elderly pt h/o COPD and pneumococcal vaccine, gets pneumonia what was cause? S. pneumoniae, H.Influ, S Aureus, forgot other choices

CLL, just the Dx. Hepatosplenomegaly in an elderly pt with high white count and palpable LNs

Cml vs infection

Know lactose intolerance vs SIBO vs whipples vs celiac vs giardiasis vs IBS, like 4-5 questions on small bowel problems, gets confusing when all they give you is a long history of bloating

Septic joint in kid, next step is aspirated joint

What the next best step in pt with carpal tunnel sx? Splint, emg/nerve studies, xray, fasciotomy

Know your knee ligament tears, they just described the mechanism in two questions of the injury, didn't give physical exam but asked for what specific thing was torn. One of them was repeat from uwsa (medial meniscus tear)

For auscultations and listening to heart sounds, the vignette gives away the answer in like 4/5 of my questions.

Croup vs bronchiolitis vs asthma in child. Know this inside out so you don't spend more than 90 secs on the questions, sx where vague

The stages of asthma and tx plans of stages (asked me specifically what stage it is) uw has a few questions in this so memorize chart

No questions on development for me, but some ppl had 1-2.

Egg allergy what vaccine to give now in a person? I don't remember choices but CDC says you can give any vaccine

Lab values of pyloric stenosis, hypochloremic metabolic alkalosis and low potassium. Easy describes pyloric stenosis very well.

Know volvulus, it's similar to pyloric stenosis but without the olive mass and it's bilious vomiting. That was the only clue (bilious vomiting) Answer was asking for what most likely causes it, so know pathophys, I think it's malrotation of gut so some parts of gut are in wrong side

Weird question on XTEN1 mutation: was about a teenager that fell on his knee a lot dt skateboard injuries. He had a couple bony outgrowths in his knee. Asked if he had any change of malignancy or joint problems in the future?? Idk

Some preop pt on steroids and MTX with Rheumatoid arthritis, asked what will decrease postop complications? Either decrease MTX or steroids

Also know the fluid rate to give to peds pt

It's like 25ml/kg/hr or something

Biostats:

- Some Stupidly impossible; layups, positive skew is when **mean > medium**
- Sens/specs questions
- Page article 3 questions; should be a lay up but need to choose most right...confusing
- Do the article questions last to save time

Neurology:

- **Rolandic epilepsy; know this**
  - *Benign (childhood) epilepsy with centrotemporal spikes (BCECTS or BECTS)*
  - *Benign (childhood) epilepsy with centrotemporal spikes (BECTS, also called benign rolandic epilepsy) is the most common, presenting at a mean age of eight years, with focal motor or secondarily generalized seizures that occur mostly at night. (See 'Benign epilepsy with centrotemporal spikes' above.)*

- *•Centrottemporal spikes are seen on electroencephalography (EEG) in patients with BECTS. These have a distinctive morphology and are increased with sleep. Although this EEG pattern is highly correlated with BECTS, it can also occur in asymptomatic children.*
- *•A typical history and EEG are sufficient to establish the diagnosis of BECTS. The possibility of symptomatic epilepsy should be evaluated with magnetic resonance imaging when there are atypical features.*
- *•We suggest NOT routinely using antiseizure drugs in BECTS*
- Progressive polyneuropathy answer put
- Erb's Palsy (know nerves)
  - *Erb's palsy or Erb–Duchenne palsy is a paralysis of the arm caused by injury to the upper group of the arm's main nerves, specifically the severing of the upper trunk C5–C6 nerves. These form part of the brachial plexus, comprising the ventral rami of spinal nerves C5–C8 and thoracic nerve T1.*
- 2 brachial plexus questions
  - Guy broke clavicle, impinging “here” drew arrow, what symptoms will he have
- Kid with tumor in brain, guess where it would be
- Guy had HIV from stem (20 answer choice type thing); something going on brain; figure out theres a mass effect, and what's causing it? “ring enhancing single lesion”; rule out JC virus, rule out Toxo; is pretty damn sure it's a **HIV lymphoma** (EBV with AIDS → lymphoma)
- Strokes/Hemorrhages
  - Which blood vessel is messed up (but it wasn't straight forward) (~2 questions)
  - XET mutation gene defect; bony growths; answer put corresponded with degenerative joint – Proteus syndrome
- Intoxication:
  - Alcohol DTs...”hallucinating and autonomic instability-fever/tachy” what do you give? Lorazepam and diazepam both answer choices; lorazepam > diazepam bc longer half life.
  - **Cocaine necrotic myopathy**... lol he ruled out everything; weird labs; try to say he doesn't do drugs; but then say CK elevation, and then they do a biopsy, and he has necrotic muscle cells...
- Headache: increased ICP; don't do lumbar first, do brain imaging first r/o non obstructive
- Didn't recall brain herniations.
- Huntington's question, which part of brain (try to confuse you)-**caudate nucleus**.

## ID

- 2 questions on Enantomoeba Histiolytica.
  - Liver abscess for a long time...ruled out everything else.
- Tropheryma whipple'z dz
  - Remember joint pains, abd pain, KEY is minor CNS issues
- Infectious endocarditis, needs ppx, allergic to PCN; KNOW 2<sup>ND</sup> OR 3<sup>RD</sup> LINE!!!
  - No 2<sup>nd</sup> line, no 3<sup>rd</sup> line.... Right answer is **clindamycin** out of everything.
- Malaria vivax; got hyponozoites; ppx **primaquine to kill hypnozoites**.
  - **P vivax = not africa; P. falfiparum = africa (chloroquine should work)**

- Rheumatic fever?
- Know the opportunistic infections.
- 2-3 sarcoid questions
- Pericarditis question, straight forward

#### Psychiatry:

- Buspirone/Buspar; #1 for GAD...how does it work; know mechanism. Works as partial agonist and reuptake inhibitor; but technically its MORE of a **partial agonist** than anything else. Serotonin partial.
- Lady comes in sounds depressed, moments of highs, comes down to 4 or 5 SIGECAPS.....

#### Ob/Gyn:

- 3 questions with breast mass and age; ultrasound vs mammao >30 or less than <30; know that chart really well; at least 3 questions
- Ovarian epithelial cancer older lady 60s; what chemo drug?
  - Platinum based and taxanes; class of chemo drugs as each answer not exact name
- Pregnant she thought, had positive test, 8 or 10 weeks.....show you ultrasound that you've never seen before, its not snowstorm...he didn't see a baby...he's thinking now it's a partial mole? Piece of baby? Her beta hcg was only 3000. Doesn't remember what I put.
- Herpes picture female genital area; kinda seemed like folliculitis? But HSV
- Guy peeing painful; gram stain; **neutrophils only = chlamydia**
- Mullerian agenesis on there; no uterus, and didn't have one kidney....no period by 15. 46 XX; normal tanner stage...

#### Cardio:

- EKGs: at least 3...
  - Multifocal Atrial Tach
  - Pretty sure BBB; answers what could cause this (v1-v6 somewhere)
  - Afib EKG-what do you give her? **Argatroban** only answer choice that made sense (if non valvular Afib, valvular is Warfarin)
- 2 heart sounds
  - Totally benign, wanted you to jump at a murmur but trick you by making you listening to it
  - Aortic stenosis, pretty obvious;
- MVA decreased breath sounds on right side, mediastinum shifting to left; want you to pick tension pneumothorax....but NO JVD
  - went with **HEMOTHORAX bc didn't see JVD.**
- Tension pneumothorax question for sure
- Cardiogenic shock question
- Hypovolemic shock
- Vascular vasculitis-very confusing.
- At very end has ulcer that's non healing... was thinking pyoderma gangrenosum ?
- MVA accident = thoracic aorta injury/cardiac contusion
- 

#### Endocrine:

- 2 DKA questions
  - DKA in a kid = abdominal pain.

- What fluids? Just NS don't let them confuse you.
- Vitamin questions
- Crohn's, ileocecal resection 4 months ago, show picture of neutrophils....multilobes..what does she have? But then it says NO neurological signs found. MCV 120; want you to jump at b12. Went with **folate level**.
- SIADH/DI; just know the labs they're pretty straightforward; One answer psychogenic polydipsia
- A lot of thyroid questions
- **Girl with hypothyroidism, gives levothyroxine; now doctor gives OCP; estrogen in OCP causing increased TBG (made in liver); increase the LEVO.**
- Hip dysplasia kid

#### **Immuno:**

- WAS: rash once in awhile, bleeds, few infections, what does he have? Wiskott Aldrich syndrome
- Multiple myeloma, what you see on bone marrow? **Tons of plasma cells.**

#### **GI:**

- Diverticulitis question, treatment; **cipro and metro.**

#### **Heme/Onc:**

- AML..blast crisis....philadelphia chromosome anomaly
- Marfan's question; fibrillin 1. Used other terminologies to explain "**upward lens dislocation**"
- **Insulinoma question**  
Get pro insulin level...comes in with hypoglycemia; but blood sugar is normal ish..but then you do fasting test? Then she seizes...so what most important test now? Proinsulin level.
- Thalassemias/TTP/HUS/ITP
- Kid with ITP..cut out spleen....important thing to prevent infections? Vaccine...

#### **Nephrology:**

- Few questions with UA and diagnosis off that (Casts, no casts; RBcs wBcs etc)
- Kid had polyogiodraminos; what is she most at risk for...

#### **Ortho/Rheum:**

- Patellafemoral syndrome
- Bunion question LOL (xray of bunion)
- ESR was way too high... he put bunions.
- Whats highest risk factor for development? wearing tight shoes.
- Back pain: 1 of those
- Neurogenic claudication question doesn't remember answer
- Picture of psoriasis; what else can you get? Answer was **nail pitting**.
- Dermatomyositis question
- Confusing shoulder question; he put rotator cuff tear; old lady who fell down 50s?
- Anterior glenoid tear....
- SLE
- juvenile arthritis

- person had HEP c, what should you also test for in office? Tell her to stop taking acetameophen or stop drinking as much alcohol..but she has like 1 beer a month; liver panel was fine... went with **test for cryoglobulins** ; but had no symptoms or issues with it
- MS ; realize shes got symptoms, she had them last year got em again...MS; what test? MRI.

#### Dermatology:

- Impetigo question, cellulitis question...

#### GI Questions:

- Acute pancreatitis....3<sup>rd</sup> spacing, losing fluids
- UC vs Crohn's
- Less than 1 years old, but had 9 months of bloody bowel movements..not putting on weight...
- 10 months Kid from thailand...white growth in mouth; hepatomegaly; cotton wool spots; is it psychosocial factor? put HIV
- Guy had HIV (assume); give you 2 diff symptoms (thrush/fungal infections...? ) but look in eye and has cotton wool spots, wahts first drug you give him...???
- Fluconazole..amphotericin....right answer = **ganciclovir bc he has CMV** on top of all this.
- Achalasia question; show barium picture...
- Know ERCP; know Gallbladder labs

#### Cancer:

- imaging question: cancer in outer Pancoast tumor; not smoker, its adenocarcinoma, and you do a **LOBECTOMY**. To cure it. Everything else is chemo
- then another question with chronic pancreatitis; and pain is out of world; whats surgical remedy?
  - **Sympathomectomy**; cut sympathetic nerves; pain from viscera is through sympathetic nervesss; for chronic relapsing pancreatitis

#### Pulmonology:

- Ohio river valley, immunoCOMPETANT; pulm with cutaneous manifestations.... picked blasto, if immunocompromised would have picked histo.
- Transfusion related acute lung injury: TRALI; transfusion, all of a sudden o2 and co2; tachycardic...struggling for breath = most likely is TRALI; don't pick PE

#### Peds:

- Kids with retropharyngeal abscess = next best thing = drain it.
- Hip dysplasia kid; otolanis..**whats biggest risk factor? BREECH presentation** (looked it up after, he says kid has every risk factor ever but breech is highest)
- Tetanus questions
- One lysosomal storage disease questions
- Sickle cell-which increases lifespan? Or decrease mortality; hydroxyurea decreases mortality
- TGA question; confusing stem; but know they have a **SINGLE S2 for TGA**
- Kid high risk for lipids get lipid panel

#### Preventative/Immunizations:

- Pneumonia vaccines
- When to give herpes zoster vaccine, what age, know it. **60 years old**.

· Primary, secondary, tertiary prevention (asked twice); really confusing ways lol  
Ethics: very confusing

**“girl with seizures, wake up couldn’t move, drooling is key,” -rolandic benign epilepsy**

- Described a 15yr old girl hasn’t had her period but w/ breasts and pubic hair but no uterus or fallopian tubes  
Answer choices were 45X, 46XY, **46XX**, 46XXY etc
- Teenager or young college girl who fainted. Boyfriend dumped her and some other shit. C-peptide was 0, glucose was 35.
  - I put exogenous insulin use
- Lady had a stroke, one question said CT was normal, one didn’t have a CT.
  - Next step? Answers were drugs, aspirin, tpa etc
- Soldier w/ leg blown off w/ pain on his amputated leg and fibula was longer than tibia and red and tender.
  - Answer was **stump revision**
- Answer choices were between lyme dz, typhus and RMSF.
  - Went w/ **RMSF b/c rash went from hands towards torso**
- Nurse had lower back after lifting a patient. No muscles no sensory problems just some low back pain after 3 months, what is most likely outcome?
  - **Full resolution (i picked this)**, neuro signs, surgery, stuff that got worse
- Guy w/ children starting preschool, wakes up w/ pharyngitis. Showed picture of his mouth w/ no exudates or purulents or anything. Asked what the sequelae are?
  - Valvular, nothing...
- Kid who didn’t get along well w/ others, other kids called him weird wehn he played basketball. But he likes basketball and can name all the players and stats etc. No mental disability.
  - Schizotypal, avoidant personality disorder,
- A teenage girl was brought to the ER after her parents found out she took 30 pills from the medicine cabinet. Every lab was directly in the middle of the range. Normal vitals. What did she take?
  - Acetaminophen, aspirin, codeine, ibuprofen, metoprolol...
- Old lady had the urge to pee at night but didn’t make it to the bathroom in time. Recently had surgery on her ankle and came home from rehab. They made it sound like it was urge incontinence but i ended up selecting **Mobility issue**
  - Answer choices were: urge incontinence (description of it), mobility issue, drugs...
- Old guy masturbates first thing every morning. Only acheives boner on 75% of encounters w/ wife. What is the tx?
  - Viagra, psychotherapy
- Fake contractions, purulent discharge from cervix, they observe for 2hrs, nothing changes, how do you proceed now?
  - Observation only, tx with antibiotics

- Pregnant lady comes in w/ no fetal movement. U/S confirms fetus is dead. She delivers and the question is what do you do next?
  - Ask what they want to do? Get the baby out of the OR. Let them take a picture of it. Encourage them to hold it.
- **AMS secondary to steroid induced psychosis was question. Old patient with COPD exacerbation and became psychotic.**
- Lady told intern she wanted a ligation after her c section and signed off on it during the evening but it was the next shift that was performing the operation. The next morning oncoming resident asked if she wanted a ligation and the overnight intern (who looked tired) looked at wrong pt and said no. the morning shift included a new circulating nurse that hadn't completed her training yet and forgot to ask lady about it. She had the c section with no ligation. Question asked what the cause was: intern fatigue, **poor communication**, untrained nurse, poor clinical assessment.
- Bunch of drs studying patients then after they all got their results 2 of them sat down and examined 10 of the results together before going on to the other 100 on their own; question was what was purpose? To improve **inter rater reliability**
- Guy in military in central america for a couple of months woke up with swollen eyelid, then back in US weeks or months or something later, had some kind of heart problem. What caused it? Plasmodium vivax, ascaris, **trypanosoma (chagas-picked this)**
- Guy had some kind of reaction after 4th blood transfusion and they asked cause. Know the types of reactions.
- Bizarre parathyroidectomy question, 3.5 parathyroids removed but had hypercalcemia? No idea.
- **Osteoid osteoma** question; most common at "shaft of long bones"; shaft = diaphysis.
  - A benign bone tumor in the cortex of the **diaphysis** of long bones that typically occurs in patients 10–20 years of age. May be painful, and pain is characteristically relieved by **aspirin**. X-ray typically shows a **small lytic nidus surrounded by a dense sclerotic reaction**.
- 30s 40s female in triathlon swimming, pulled her out of water, hypothermia. She had already ran and biked a lot. 79 degrees.
  - Patients with moderate or severe hypothermia frequently become disproportionately hypotensive during rewarming from severe dehydration and fluid shifts [9,16,18]. Two large (14 or 16 gauge) peripheral IVs should be placed. Blood pressure is supported **with warmed (40 to 42°C) infusions of isotonic crystalloid**. Large infusions may be necessary. Use of warmed crystalloid is critical. Infusion of room-temperature fluids can worsen hypothermia. **Intraosseous (IO) access may be easier** to obtain than intravenous access in cold, vasoconstricted patients. IO lines should be primed with a 10 mL bolus of isotonic crystalloid with or without **lidocaine** immediately after insertion to open the marrow space and to help ensure good flow.
  - resuscitative efforts should be continued (occasionally for several hours) until the patient's core temperature reaches 32 to 35°C (90 to 95°F)
  - Individuals should be extracted from the hypothermic environment in the **horizontal position** whenever possible. Even low intensity use of peripheral

muscles should be avoided, as muscular perfusion and consequently core temperature afterdrop is accelerated by exertion

- She was <28°C or 79 degrees so:
  - **Active internal (core) rewarming (ACR)** — Active internal rewarming (also called **active core rewarming**) is the most aggressive strategy. It can be used alone or combined with active external rewarming (AER) in patients with severe hypothermia (<28°C) or patients with moderate hypothermia who fail to respond to less aggressive measures. In addition to IV administration of warmed crystalloid (40 to 42°C), effective **techniques include irrigation of the peritoneum or the thorax (via the pleural space) with warmed isotonic crystalloid, and extracorporeal blood rewarming.**
- Normal girl 25...left parotid gland is large on examination, a lot of saliva coming behind 4th left molar. What does she have? **Bulimia?**
- Guy presented messed up. Labs all over place. Serum osmolarity was 490. Cause? **Hyperglycemia (what I would put), or error (redo)**
- First prenatal visit → type and screen (mammogram,

## *Morbidity and mortality*

- **Non-bleeding esophageal varices** – hemorrhage develops in 1/3 of pts
  - Decrease mortality (by dec progression to large and eventually bleeding varices): propranolol, nadolol
  - § Ligation can be used as alternative if contraindications to BBs
- **Cirrhotic patient w/ GI bleeding**
  - Decrease mortality: prophylactic antibiotics (ceftriaxone)
  - § Dec infectious complications and recurrent bleeding too.
- **Neonatal exposure to HSV & VZV**
  - Decrease mortality: acyclovir
- **Preterm labor**
  - Decrease morbidity & mortality (through dec risk of RDS and neurological morbidities): tocolytics to postpone delivery (**indomethacin, nifedipine <34wks**), corticosteroids (betamethasone <34wks) to dec risk of RDS, and **Magnesium sulfate for fetal neuroprotection (<32wks).**
- **RDS**
  - Decrease mortality: exogenous surfactant
- **Nonviable fetal delivery**
  - Minimizes morbidity and mortality: vaginal delivery
- **COPD**
  - Decreases mortality: smoking cessation

- Decreases mortality: long-term supplemental oxygen therapy in pts w/ significant hypoxemia ( $SpO_2 \leq 88\%$ ,  $SpO_2 \leq 89\%$  w/ RHF or erythrocytosis)
- Decrease mortality: Lung reduction surgery in COPD subpopulations
- **Coronary heart disease**
- Decrease morbidity and mortality: dual antiplatelet therapy (aspirin and  $\_grel$ ), BBs, ACEi/ARB, statins, spironolactone, eplerenone
- **ACS**
- Decrease mortality: aspirin
- **CHF**
- Decrease mortality: ACEi>ARB, Metoprolol/carvedilol/bisoprolol, aspirin (d/t CAD), spironolactone/eplerenone
- **Severe PCP infection**
- Decrease mortality: corticosteroids ( $PaO_2 \leq 70$  or A-a gradient  $\geq 35$  on room air)
- **Colon cancer**
- Decrease mortality: high-sensitivity FOBT annually, flexible sigmoidoscopy q5y combined w/ FOBT q3y or colonoscopy q10y (most sens and spec)
- **Lung cancer**
- Decrease mortality: LDCT 55-80,  $\geq 30$ pk/yr and are currently smoking or quit w/I last 15yrs
- **Influenza during pregnancy**
- Decrease morbidity and mortality: **inactivated influenza vaccine**
- **AAA U/S screen**
- Decrease mortality: men 65-75 who have smoked
- **Kawasaki**
- Decrease morbidity and mortality: aspirin and IVIG
- **PAD**
- Decrease MI, Stroke and CV mortality: antiplatelet agents (aspirin, clopidogrel), high intensity statin up to 75 (atorvastatin 40-80, rosuvastatin 20-40), statins 40-75 w/ DM,  $LDL \geq 190$  or  $\geq 7.5\%$  ASCVD
- **Ovarian, breast cancer w/ BRCA (+)**
- Decrease mortality: premenopausal prophylactic BSO, <30 at first live birth, breastfeeding (in general population too)
- **Breast cancer**
- **Decrease mortality: cessation of alcohol consumption, breastfeeding, exercise**
- **Moderate alcohol consumption**
- Decrease overall mortality and possible CV benefits
- **Ovarian cancer**
- Decrease mortality: OCP

## 1) Stats

a) Describe whole study, give you stats, last sentences say “sensitivity of test was 73% and specificity was 19%”. Last sentence “which of following is accurate?” 6 answer choices; every number 19% or 81%....”they do not have disease, and 19% chance not selected. They do have disease and 19% chance of being selected” super confusing...

i) Do not have the disease and are not picked...

b) P value was 0.04 and confidence interval was 0.3-1.7; included it, means NOT significant. (CI if 1 is in the middle, its NOT significant).

c) Sample size too small type II error

d) Stages of trial, 0-4; know the stages; crossed out 0, and 4, 1 is just see if its safe. 1000 patients in trial.

Stage 0-pharmacokinetics

Stage I-testing with healthy volunteers for dose ranging, 20-100 people

Stage II:Assess efficacy, 100-300 people

Stage III: assess therapeutics; 300-3000 people

Stage IV: postmarketing surveillance

Phase 0	<a href="#">Pharmacokinetics</a> ; particularly, oral bioavailability and half-life of the drug	very small, subtherapeutic	clinical researcher	10 people		often skipped for phase I
Phase I	Testing of drug on healthy volunteers for <a href="#">dose-ranging</a>	often subtherapeutic, but with ascending doses	clinical researcher	20-100 normal healthy volunteers (or for cancer drugs, cancer patients)	approximately 70%	determines whether drug is safe to check for efficacy
Phase II	Testing of drug on patients to assess efficacy and side effects	therapeutic dose	clinical researcher	<b>100-300 patients with specific diseases</b>	approximately 33%	determines whether drug can have <b>any efficacy</b> ; at this point, the drug is not presumed to have any therapeutic effect whatsoever

Phase III	Testing of drug on patients to assess efficacy, effectiveness and safety	therapeutic dose	clinical researcher and personal physician	300-3,000 patients with specific diseases	25-30%	determines a drug's therapeutic effect; at this point, the drug is presumed to have some effect
Phase IV	<u>Postmarketing surveillance</u> – watching drug use in public	therapeutic dose	personal physician	anyone seeking treatment from their physician	N/A	watch drug's long-term effects

i)

## 2) Cardio

- 3 heart sounds questions...aortic stenosis...
- wenkebach cardio ekg, pilot, he works out; what do you do? Implant defib, pacemaker, start on these things, what you do is NOTHING. Don't do anything. Wenkebach = benign.
- Kid with hypertrophic cardiomyopathy; tell him he cant play football, but hes overweight, how do you get him to lose weight?
- Aortic dissection; CT picture descending thoracic or abdomen couldn't tell; whats the cause of hypotension? Described something that could have been heart..but look at CT and looks like rupture triple AAA, put intraabdominal hemorrhage for BP being so low. Other choices: sepsis...
- Lady with episode, vague heart issue maybe? Shortness of breath... what is your next step...ekg...other one was chest xray...to options basically you do regardless.
- Person had LOC with family.... picks head CT...

## 3) ID

- Really drunk lady, picked up by police, hammered, comes in, chest xray bc white count, cavitary looking things; no fluid level, just upper right lobe looks really messed up. Basically an abscess from **aspiration pneumonia**. Other answers, Tb...lung cancer...
- Girl ingests pills from cabinet, but vital signs are normal. Aspirin, ibuprofen, codeine, metoprolol, acetaminophen, was ingested 4 hours ago and was fine.. picked acetaminophen.**
- Some question about MRSA...but she also had low platelets...what caused the marrow suppression? Linezolid.
- Leptospiro question-guy in Hawaii; went for it. Had some kind of jaundice...Hawaii is buzz word.
- Question described hearing and petechiae...had to do with CMV, some variation of all this. Hearing, rash, **periventricular calcifications**, chorioretinitis; what would you see on presentation?
- Syphilis question-what does he have? Painless ulcer.

#### 4) Allergy/Immunology

#### 5) Endocrine

a) DKA 100% ;but glucose was about 100 something; answer choices; positive ketones; but had an infection

i) Dka, lactic acidosis, starvation ketosis

b) Insulinoma vs exogenous question:

i) Girl glucose was low; used boyfriend's insulin; surreptitious insulin was answer; c peptide was zero.

(1) C peptide and insulin production normally go hand in hand. If c peptide was zero then she had to have used insulin from something else.

#### 6) Pulm

a) Confusing lung lesion question; Describes lung lesion in distal lower left lobe... he smoked for 40 years; just retired; 70years old; worked his whole life at like a shipyard sandblaster classic pneumococconicndaf;lkds places so try to trip you there, he also had hyponatremia..... went with SCLC...even though it described it as more peripheral... question was hinting at paraneoplastic syndrome; SCC = PTHrP wasn't that; he was 131 Na..so SIADH... but it isn't usually peripheral so tough one.

#### 8) Heme/Onc

a) Know ALL, CML looks like on a slide

b) CLL 72 year old with really high white cell count, CLL, LAD.

c) 1.5cm lump in lady, showed mammogram, showed the lump; what is next step? FNA not answer choice, core biopsy (others: mastectomy...)

d) Last mammogram described as lines of calcification in her breast.... What do you wanna do?

i) picked cut it, in her 60s, she was old.

ii) How do you confirm intraductal papilloma? MRI.... Ductography (picked it);

e) Paclitaxel for ovarian, anthracycline for breast.

f) ALL treatment question in regards to kidney damage. Look this up.

g) Helmet cells picture, 2 blood slides, one super shitty (just looked like spherocytes); other one helmet cells; answer choices: antibody to receptor 1b membrane ....

h) Few ASCUS questions; 20 year old girl what test do you do? Sexually active test for chlamydia? Test for gonorrhea? Annoying because you test for both -\_-

#### 9) GI

a) Guy with esophageal cancer, given, what would you see on endoscopy? Answer choices bizarre....

b) Leukocyte count was 12,000, temperature was 100.4, had undergone some sort of heart thing; week goes by after heart surgery; and then started having diarrhea, profuse diarrhea 4 days in a row, and then bloody, and then lower left quadrant pain, diffuse tenderness, fever+leukocyte count..answer choices are what diagnosis, ischemic colitis/GI infection

c) Cdiff.

- d) Pancreatitis question: guy had jaundice, painless jaundice. Pancreatic cancer. No jaundice at tail so has to be head. Elevated enzymes. Asked what it was.
- e) Pregnant lady with history of cholelithiasis...came in with epigastric pain going to back, picked pancreatitis. Gallstone panc.
- f) Lynch syndrome in family; lady is 50 shows up with heavy bleeding during menstrual, and inter menstrual spotting; do you check for Ca125, or do you endometrial biopsy.
- g) Another endometrial biopsy; standard Postmenopausal bleeding
- h) RUQ pain; after fatty meals; obese female..seemed way too easy for cholecystitis....what is the exam that you do? Answers: ct, xray, **ultrasound**, hida.
- i) Person went to Mexico...diarrhea. E coli.

### **10) Nephro**

- a) Old guy with bun 70, cr 5, **dialysis**. Uremia. AMS also.
- b) Guy was stage IV chronic renal disease; needed contrast exam, how do you prevent damage? Fluids before and after; dialysis ppx.
- c) : picture of muddy brown cast; acute renal failure obvious, but answer choices were so vague....but he's an IV drug user + has track marks, 2 years ago hiv negative; hep C is what he picked.

### **11) Toxins:**

- a) **Opiate withdrawal; what do you treat? Methadone (overdose is naloxone!!!)**
- b) Taken buprenorphine like 8 hours ago, needed pain control... answers: hydrocodone, morphine, **ketorolac...picked ketorolac** (whatever not an opiate)

### **12) Neuro**

- a) Lady brought in by husband 52 or 55 years old...2 month history increasing forgetfulness, left stove on, got lost while walking dog, MSE = 29/30. Recalled 3 words....gave CT 2 slices....one showed ventricles, one showed ?; answer choices were idiopathic intracranial htn, alzheimers, lewy body.....
- b) Old guy with spinal stenosis..bilateral leg pain, relieved with sitting, worse walking...
- c) Fundus picture bright white disc, same finding in other eye; pulsating fundic veins. Right superior altitudinal visual deficit... answer choices: diabetic retinopathy, macular degeneration, **venous or arterial congestion (picked this)**; glaucoma were others..but no pain and it was bilateral. Pt was 27 or 28 years old.
- d) Lady with auditory/visual hallucinations... describing its getting worse; comes to see doctor; feels this every morning; and drinks afternoon 6 beers. She was having alcohol withdrawal because she would stop drinking at 9pm, and 12 hours later wake up would have these hallucinations. The answer choices were: alcohol withdrawal hallucinations 2/2 medical condition; medical condition related something; substance abuse....all of them describe what she could have been doing...frustrating question. picked just alcohol withdrawal because her chief complaint was "seeing things".
- e) BP 170/100; started him on spironolactone. What would you add to therapy...answer choices lisinopril, arb, beta blocker, aspirin, nitrate. picked metoprolol.

- f) 2 years ago, weakness of right side facial muscles, progressed for a week, stayed for 3 months, then disappeared, now its happening again. On examination = weakness of facial muscles. Different diagnostic tests.....female in 30s...sounded like MS...**he picked MRI**
- g) Neuro picture = 2 slices of CT for alzheimer's
- h) Kid biking, went off jump, hit head on left side, friends say he was out, and he woke up and with it, then epidural description....asked what you see on imaging? "isodense mass adjacent to left cerebral hemisphere" LOL; homogenous density adjacent...bahblah really confusing ways to explain location of bleeding.
- i) NF2 question, what screening test? Look for **bilateral acoustic neuromas...**
- j) Lower leg deficits, asked what blood vessel supplies that area or likely infarcted? Anterior cerebral artery

**13) Preventative/Immunizations/Screen**

- a) Hemangioblastoma in eye, found VHL, what do you screen for. **Ultrasound of abdomen(renal)**
- b) Guy from Laos, bunch of shots before he left; HIV +; viral load fine, everything was fine; what vaccination do you want to give him? Cd4 645. Hep A, hep B, meningococcal, **pneumococcal.....**
- i) had varicella, mmr, influenza: **MMRV**
- c) **Know primary, secondary, tertiary prevention**; question was people coming in to get something for their disease; people wanted a grant to teach those people to not get it again; so that's secondary prevention.

## The Levels of Prevention

	PRIMARY Prevention	SECONDARY Prevention	TERTIARY Prevention
Definition	An intervention implemented before there is evidence of a disease or injury	An intervention implemented after a disease has begun, but before it is symptomatic.	An intervention implemented after a disease or injury is established
Intent	Reduce or eliminate causative risk factors (risk reduction)	Early identification (through screening) and treatment	Prevent sequelae (stop bad things from getting worse)
Example	Encourage exercise and healthy eating to prevent individuals from becoming overweight.	Check body mass index (BMI) at every well checkup to identify individuals who are overweight or obese.	Help obese individuals lose weight to prevent progression to more severe consequences.

- d) HIV screening; how to improve (prompt on screen, posters, educational..)

**14) Drugs**

- a) Know cardio drugs, know antibiotics; and know **risperidone for tourettes**; that was bulk of medication type questions. Cardio more than others.

## 15) Derm

a) Melanoma question; showed picture; new lesion on thigh; doesn't tell you size and can't tell from picture. Slightly diff colored in middle; slightly irregularly shaped, question was "in addition to documenting other nevi on body, what do you do now?" -excise this mole only, follow up in 3 months, bunch of other ones; picks excise this one only or now.

- *Most important prognostic factor = VERTICAL DEPTH. (breslow thickness)*
- *If unresectable, can give Vemurafenib (if BRAF mutation, or unresectable)*
- *Treatment = excisional with negative margins*

Variants of melanoma include:

Type	Description	Prognosis
Superficial spreading	Radial growth; most common subtype	Good
Lentigo maligna melanoma	Radial growth, often seen on the face	Good
Nodular	Early vertical growth	Poor
Acral lentiginous	Arises on palms or soles, often in dark-skinned individuals. Not related to UV light exposure.	Poor

## 17) Peds

a) Congenital defects: shorter limbs, normal torso; said mom smoked and drank occasionally; asked what is the defect in the gene? The answers were **FGFR** (achondroplasia), fibrillin 1, adamts13; collagen synthesis defect Type I achondroplasia

b) Myelomeningocele, what are they at risk for. went with something with bladder problems.

- *Chiari type II malformations present similarly to Chiari Type I malformations, but it will be recognized immediately due to the presence of a myelomeningocele.*
- *Common complications of neural tube defects include:*
  - *CNS infection*
  - *Hydrocephalus*
  - *Urinary tract infections due to neurogenic bladder dysfunction*

c) Girl that came in (7 years old ish), was really sick, did a splenectomy, what do you give her on discharge? Amoxicillin, cipro, vanc, clinda, or nothing.

- *Penicillin for 5 years + vaccinations....*

d) Sickle cell what could have **prevented sepsis?** Daily oral penicillin; or immunizations after splenectomy.

- ***Ppx with PO penicillin.***

e) Peds 8 or 9 months along; vomiting or diarrhea; lethargic, wasn't eating; answer choices were; air contrast enema. Bloody diarrhea. Intussusception?

- f) Billous vomiting, and dad had billous vomiting as a kid; cecum not rotating, malrotation.
- g) Neuroblastoma = blue skin finding somewhere;
- **Wilm's tumor is associated with WAGR (Wilms tumor, aniridia, genitourinary abnormalities and mental retardation) Denys-Drash syndrome, and Beckwith-Wiedemann syndrome (BWS).**
  - Because Wilms tumor can spread to the lungs a CXR should be obtained.

Neuroblastoma	Wilms Tumour
Associated with <b>opsoclonus-myoclonus syndrome</b>	Associated with <b>WAGR syndrome and Beckwith-Wiedemann syndrome</b>
May <b>CROSS</b> the midline	Usually does <b>NOT</b> cross the midline
Usually <b>fixed and immobile</b>	May be <b>DISPLACED</b>
Constitutional symptoms <b>ARE</b> common	Constitutional symptoms <b>NOT</b> common

- 
- h) Kid with ADHD, mom can't sit still, splashing water on walls, all over; asked teachers, he's developmentally reached milestones; can't sit still, do his work while standing at counters to reduce fidgeting..what is diagnosis? ADHD or normal...but developmentally normal as in preschool.
- i) Described tourette's 6 month history; treatment risperidone.
- j) 15 year old girl tanner stage 5; no uterus no fallopian tubes; answer choices 46xx, 46xy, 45xo, xxy, xxx....basically just no uterus but normal everything else is Mullerian agenesis. Look at the chart in uworld for this. Recognize them by just the 46xy or xx things. **Uw question 3913.**
- k) Baby with opening pressure of 300 on LP; bulging fontanelles;
- l) Girl in preschool and for 2 days mom has noticed blood in diaper, what is cause? Report child abuse....
- hm.....

### **18) MSK/Ortho**

- a) 2 xrays of feet for one question; young in 20s. they described pain for 15 min morning,
- i) One was bad deformities in toes (hammer toe) ; 5<sup>th</sup> and 1<sup>st</sup> metatarsal to phalangeal joint = increased calcification
- (1) Narrow shoes is put
  - (2) Foot deformity
- b) Soldier with leg blown off; coming in for pain and leading you towards infection cellulitis, nec fasc, they do xray shows fibula longer than tibia; whats next step?
- i) Answer is revision of amputation; because fibula not supposed to be longer and was rubbing on prosthesis.

### 19) Psych-fine

## 20) Obgyn

- a) Lady gave birth, uterine atony, did massage + oxytocin, resolved, but still had laceration needed repair, uncomplicated posterior laceration grade II; comes in 3 weeks later she's somewhere random...has huge episode of vaginal bleeding. All of a sudden gushes blood. Felt dizzy, light headed, what was cause? Not a single answer close to pituitary necrosis or anything like that. picked **retained fetal parts?** No placental option. ... picked C section. Fetal heart rate tracing was normal.
- b) Urinary incontinence; laughing jogging lady; qtip test 45 degrees, what is the mechanical problem? **Intrinsic urinary sphincter dysfunction** or increased abdominal pressure
- c) Short one, twins, shared thin intermembrane,
- d) Lady was in labor, fetal head +1, contractions adequate, 100% effaced, 10cm dilated...you see cord pulsing, she asks for pain relief, husband says he doesn't want her to relief... picked you tell her to push; other choices: push umbilical cord back, push head back...., use forceps, emergency c section. Basically cord prolapse. Think **answer is actually c-section.**
- e) 3<sup>rd</sup> trimester bleeding questions
- i) Described placenta previa, what is next step? Digital exam was an answer choice; picked **ultrasound.**
- f) Something about being 1:32 titer and Rh exposure...what to do at that visit, doesn't remember much else
- g) Intraductal papilloma = whats diagnosis
- h) Mastitis ; antibiotics.
- i) Core needle biopsy for diff question.
- 21) Pain with ejaculation for 2 weeks, what do you see on physical exam: red scrotum, DRE induration tender prostate, picked tender prostate (**prostatitis**)
- 22) Egg allergy question-what do you give them?

:

Bunion question, XTEN question does it increase mortality regardless because you have gene, or increase mortality because you keep having trauma to joint.

Peds:

Kid can breathe only when prone, answer laryngomalacia, subepiglottic stenosis.

HIV on HAART – what will they die of? Cardiovascular? **MALIGNANCY**

Malabsorption obviously, low vitamin D; wasn't associated with eating anything...wasn't celiacs...wasn't irritable bowel...wasn't whipple... picked something he'd never heard of Glomerular hyperfiltration ...but said in a weird way.

Listen to heart = 4 = one was a baby whether indomethacin or prostaglandin to keep it open...keep it intact because he had patent ductus...holosystolic murmur...assumed VSD..5 days old...

**EKGs: SVT on ekg; unstable = cardioversion.** Adenosine was a choice.

WPW syndrome-delta wave; amiodarone? NO procainamide!!!!

Afib clear on EKG.

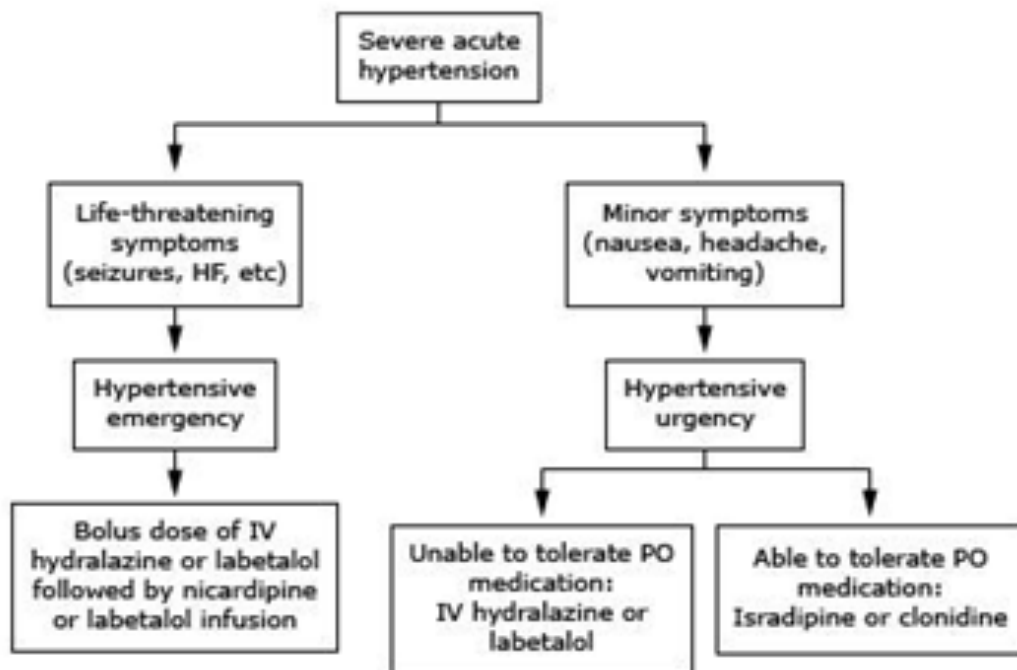
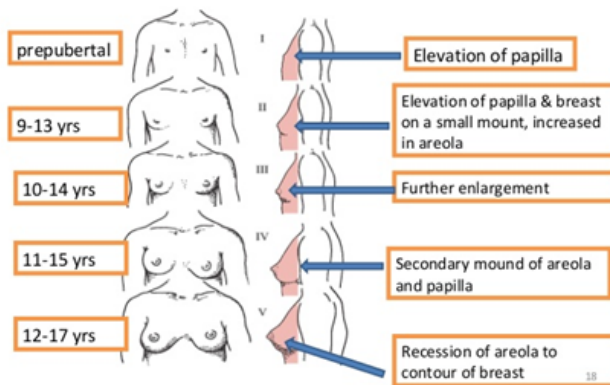
Cardio:

· Old guy fainted, no seizure, wife finds him, ekg normal; looked for aortic stenosis nothing there.... Answer choices were things you'd see one of these things...picked asystole.  
 Lady runs a lot, works at shoe store, all of a sudden she has pain and tenderness at her base of heel, went with plantar fasciitis, pain localizes to heel area...tricky bc one answer choice was calcaneal stress fracture, and toe stress fracture.  
 Another lady ran a lot, but heel was red on examination.....

**Plantar Fasciitis:** An orthopedic condition characterized by pain in the heel and bottom of the foot. It is most severe with the first steps after a period of rest and is aggravated by bending the foot and toes up towards the shin. Etiology is unknown but risk factors include long periods of standing, increase in exercise, a sedentary lifestyle, and obesity.

## Tanner staging of breast development

— Marshall and Tanner (1969)



- Prerenal Azotemia:
  - Hypoperfusion
  - BUN:Cr >20:1 (why is BUN elevated? Low volume = +ADH = increased urea absorption)
  - Fena <1%
  - Uosm >500; UNa <20 (LOW)
  -
- Intrarenal
  - BUN:Cr <20 (closer to 10:1)
  - UNa >40
  - UOsm <350

RTA

	Distal RTA I	Proximal RTA II	Type IV
Defect	Alpha cells fail to secrete H <sup>+</sup> and reabsorb K <sup>+</sup>	Proximal tubule cells fail to reabsorb HCO <sub>3</sub> <sup>-</sup>	HyperK <sup>+</sup> impairs NH <sub>4</sub> generation and excretion.
Cause	<ul style="list-style-type: none"> <li>● Drugs: Ampho B, Li, Analgesics</li> <li>● Autoimmune (Sjogrens, RA, SLE)</li> <li>● Congenital anomalies</li> <li>● Sickle Cell</li> </ul>	<ul style="list-style-type: none"> <li>● MM, Fanconi</li> <li>● Nephrotoxic Metals (Lead, mercury, copper)</li> <li>● Drugs: aminoglycosides/acetazolamide</li> </ul>	<ul style="list-style-type: none"> <li>● HypoAldo (adrenalinsuff, diabetic neph)</li> <li>● Aldo resistance</li> <li>● K sparing diuretics</li> <li>● Aces/Arbs</li> </ul>
Urine pH	>5.5	<5.5	<.5.5
K <sup>+</sup>	HypoK <sup>+</sup>	HypoK <sup>+</sup>	HyperK <sup>+</sup>
Stones	Yes	No	No
Test	Give acid	Give bicarb	Urine sodium loss
Treat	Bicarb	THZ and high dose bicarb	Fludrocortisone
Complications	Stones, growth failure, osteomalacia, metabolic acidosis	Phosphate wasting → bone demineralization	Arrhythmia d/t HyperK <sup>+</sup>

Hypovolemic shock: decreased CO (bc of decreased BV); decreased intravascular volume; NO JVD (volume depleted); give IVF

Cardiogenic shock: decreased CO (because decreased contractility of LV); JVD + pulm edema; do NOT give fluids

Septic shock: DECREASED SVR; warm extremities

Neurogenic shock: decreased SVR + bradycardia