

High Yield Step 1:

- 1 cleft palate: failure of fusion of LATERAL PALENTINE, NASAL SEPTUM
- 2 cleft lip: failure of fusion of MAXILLARY, MEDIAL NASAL.
- 3 Case of alcoholic pancreatic AST>ALT, ALT>AST in viral h.
- 4 Oocyte arrested in prophase of meiosis 1 for years until ovulation.
- 5 Case of infant of missing kidneys ~ oligohydramnios.
- 6 girl who has loss of eversion and lifting whole leg to walk,nerve? common peroneal
- 7 Loss of sensation of lateral digits ~ median n.
- 8 Tumor compressing renal vein, what is result? (edema in lower leg or varicocele?)
- 9 Blood supply to descending colon ~ Inferior mesenteric artery.
- 10 man with bloody diarrhea, biopsy shows psuedopolyps ~ ulcerative colitis.
- 11 What participates in late wound repair ~ collagen type 1.
- 12 ~ Gross photo of brain ~ oligodendrocytes in CNS.
- 13 ~ Boy with DM type 1 ~ absence of B cells in pancreas.
- 14 ~ Section of lymph node, arrow at paracortex ~ houses T cells.
- 15 ~ Transection of Reticular Nucleus ~ loss of consciousness.
- 15 ~ Gross photo of brainstem, where is cranial nerve 5?
- 17 ~ Visual field defect of homonymous hemianopsia, where is the lesion? ~ past the optic chiasm.
- 18 Knee jerk reflex arc.
- 19 Where do the cerebral veins drain into ~ find on angiogram.
- 20 Case of asthmatic given O2 and then PO2 drops from 75% to 60%, CO2 retention drops, what happened? I put diffusion problem.
- 21 ~ Gross pic of bone ~ find epiphyseal plate.
- 22 ~ Histology of muscle fiber. Where does ATP and mysosin work?
- 23 ~ Graph of chemical synapse. Included receptors alpha and beta, Dopamine, Acelyacholine, Norepi and Epinephrine. What drug would activate beta 1 receptor?
- 25 woman going into res. Distress and dies, what happened? ~ pulmonary infarct.
- 26 ~ Case of sensitivity and specificity.
- 27 ~ One case of mode. ~ most appearing score.
- 28 ~ One case of cohort study. ~ forward in time
- 29 ~ One case of clinical study ~ compares 2 or more treatments.
- 30 Case of pt having psychotic symptoms, weight loss, agitation, dilated pupils, what drug abused? Amphetamine.
- 31 ~ Case of premature delivery. Parents don't want child. What do you do? Deliver and attempt resuscitation even if prognosis is bad.
- 32 Pt tells medical student not to tell anyone about his homosexuality, what do you do? ~ make note in chart for treatment team.
- 33 ~ Deteriorating alcoholic pt told neighbor DNR if hospitalized, what do you do? Choice is not to or resuscitate. resuscitate.
- 34 ~ Case of grieving widow. Depression normal up to one year.
- 35 Case of alcoholic ~ thiamine def, destruction of mamillary bodies.
- 36 What neurotransmitter does cocaine effect?
- 37 Case of pessimistic, stressful, overly critical man most likely to dvelop ~ MI or

- gastric ulcer? Gastric ulcer more than MI
- 38 Case of denial..Man who doesn't want to exercise after MI says that he'll run the marathon after doing nothing after MI.
- 40 Case of 6 year old boy starting to wet bed after birth of younger sister. Mom brings him to Dr. Dr. doesn't give meds but rather asks questions about problems in family and tells mom she should spend more time with boy.
- 41 Case of father bringing 10 year old boy to Dr. cuz he's worried he's a homo cuz his best friend is another boy
- 42 Cognitive changes in elderly.
- 44 Case of pregnant woman having seizures and vomiting, hypertension, proteinuria
- 45 Case of virgin having symptoms of UTI, what is pathogen?
- 46 Case of boy having bloody diarrhea after eating hamburger?
- 47 Case of hyperthyroid man with normal TSH, normal radioactive Iodine uptake, normal thyroid size, what's the problem?
- 48 What does haloperidol act on?
- 49 Pic of DNA replication, where is helicase?
- 50 Few cases of modes of inheritance.
- 51 One Hardy-Weinberg population genetics problem.
- 52 Case of pt taking anti-depressive eats cheese and wine having headache
- 53 Case of G6PD deficiency
- 54 Case of McArdle's dis. What is deficient? Glycolysis or Gluconeogenesis? Ans: Glycolysis (glycogen phosphorylase is deficient--> glycogen not degraded--> no glucose--> no glycolysis in muscle--> no lactate in blood during exercise)
- 55 Case of PKU
- 56 Case of Alkaptonuria
- 57 Case of Lesch-Nyhan syndrome
- 58 Case of elderly woman who doesn't have marked osteoporosis, why?
- 59 What does estrogen do to lipid profile?
- 60 What is evident in lung section of fetus with Respiratory Distress syndrome?
- 61 Na pump
- 62 Case of megaloblastic anemia without peripheral neuropathies
- 63 Case of cystic fibrosis with infection
- 64 What causes goose bumps?
- 65 What organism survived boiling?
- 66 Case of child with hematuria after sore throat, what titer is elevated?
- 67 What can cause shock?
- 68 Staph is CATALASE +
- 69 Case of cellulitis, cocci in chains
- 70 Case of enteritis after eating Mexican cheese, gram + coccobacillus
- 71 What organism causes pneumonia and grows on charcoal media?
- 72 Infection in burn pt.
- 73 What can give most lasting treatment for ulcer?

- 74 woman in camping trip having sex with friend now having sore wrists and ankles with multiple lesions on trunk and arms, aspirate of fluid show spirochetes~ lymes dis.
- 75 Case of meningitis in AIDS pt.~ cryptococcus sp.
- 76 Alpha 1 antitrypsin def., What causes destruction of lung?~ unopposed action of elastase.
- 77 Most effective vaccine~ live attenuated?
- 78 Case of DiGeorge synd.
- 79 One problem of Complement-Fixation test.
- 80 Case of asthmatic taking drug to improve FEV1~ bronchodilator.
- 81 Case of Down Synd.~ meiotic DISJUNCTION of HOMOLOGOUS chromosomes.
- 82 Case of Duchenne's Ms Dystrophy~ defect in dystrophin gene which results in hypertrophy in calf muscle, replaces with fat. Dx with biopsy.
- 83 Case of Marfan's Synd.~ autosomal dominant
- 84 ACE inhibitors cause renal damage.
- 85 Case of elevated alpha feto-protein in 16 week of pregnancy. Maybe possible overestimation of fetal age.
- 86 STAGE has more prognostic value than grade.
- 87 Case of man having backpain and difficulty in urination~ prostatic adenocarcinoma-metastasis.
- 88 Case of man with diff in urination, enlarged prostate but normal PSA ~ chronic prostatitis or Benign Hypertrophy ?
- 89 M spike on electrophoresis~ multiple myeloma
- 90 Case of mega colon~ Hirschsprung's dis
- 91 Pt with resting tremor~ substantia nigra. Parkinson's
- 92 Temporal arteritis can lead to~ blindness.
- 93 Case of girl getting sick after drinking alcohol, what drug is she on?~ metronidazole, disulfiram like effect.
- 94 Griseofulvin~ interferes with microtubular function, disrupts mitosis.
- 95 Mechanism of action of Acyclovir
- 96 DOC for CMV~ ganciclovir, Foscarnet is ganciclovir fails.
- 97 Case of pt taking nasal decongestant, what receptor is activated?~ alpha 1.
- 98 Side effects of Lithium~ hypothyroidism and nephrogenic DI.
- 99 ACE inhibitors will INCREASE renin due to reflex inhibition.
- 100 Man with high lipids and hypertension having muscle pains and myalgias, which drugs are causing symptoms?~ lovastatin and loop diuretic.

~ Acetazolamide will cause~ metabolic acidosis.

~ Pt on warfarin has infarct, what other drug is he taking?~ phenobarbital, induces

P450 system.

~ Case of gout what drugs to use? colchicine not answer, probenecid was a choice.

~ Mech. Of action of Allopurinol? inhibits xanthine oxidase.

~ Side effect of PTU? agranulocytosis.

~ One half life problem.

~ Pt has anemia after taking anti malarial drug, what def. Does pt have? G6PD def.

~ One case with cardiac cycle.

~ Case of new born with bleeding? def. Vit K.

~ Case of child with Necator americanus infection and anemia why? def. of iron.

~ Case of D. latum infection and anemia why? B12 def.

~ landmark distinguishes indirect from direct hernias? inferior epigastric artery.

~ Woman on menopause, which is hypofunctioning? ovary

~ person with infections of Candidiasis, what is the defect? cellular immunity.

~ loss of sensation of face, what nerve is affected? Maxillary branch of CN V.

~ Cystic fibrosis pt with malabsorption, what will you see on biopsy of pancreas? Atrophy

~ Pt taking pills develops acute hepatic reaction based on enzyme levels, AST>ALT, what did she take? acetaminophen.

~ Case of hypothyroidism, high TSH, low thyroid levels? Hashimoto's

~ Case of what happens to liver after ethanol ingestion? fatty change.

~ Case of Diphtheria toxin? inhibition of elongation factor.

~ Case of hypertensive having orthostatic hypotension, what drug? Prazosin.

~ Where does anti-cancer effect of Vincristine and Vinblastine work? DNA or RNA?

~ Case of hypertensive develops Lupus-Like symptoms, what drug is she taking? Hydralazine. Other drugs include: procainamide

-vincristine side: peripheral neuropathy

-bleomycin side: lung fibrosis

-all of the ANS receptors and their corresponding 2nd messenger systems

-Image of a newborn's hand showing 2 fingers fused together... failure of what process resulted in this abnormality? Apoptosis

-patch clamp technique for Physio... to study ion channels and function of neurons, cells with these channels

-laws concerning 16 year old mother's right (or lack thereof) to make medical decisions for her baby (?)

-APKD and berry aneurysms

-criteria for being required to release patients against medical advise

-the Phospholipase A2, AA, PG, and Leukotriene cascade, COX I and II, drugs that work here

-closing a PDA

-pressure-volume loop of LV and different, points of the opening and closing of valves, isovol cont, isvol relax, syst, diastole

-calculating % ionized and % non-ionized of a drug

-carpal tunnel syndrome

-terrible triad for knee injury

- confidence interval calculation (gotta know the equation)
- cohort vs. case-control study
- sublimation, repression, displacement
- conversion reaction w/ la bella indifference after a guy dumps his girlfriend
- pedigree analysis for an AR disease; given the carrier rate, calculate the probability that the sibling of the proband is a carrier
- PKU and why affected patient must avoid Nutrasweet
- diseases prevalent in Ashkenezzi Jews
- ADH action and 2nd messenger system
- Michealis-Menten enzyme kinetics, K_m , V_{max} , effect of comp. and non-comp. inhibitors, both types of graphs
- tyrosine kinase receptors for insulin and growth factors
- DD b/w folate def. caused vs. B12 def. caused megaloblastic anemia
- DOC for Lyme Disease (tetracycline was not an option): for mild symptoms: amoxi or doxy ..for severe syptoms or late stage: ceftriaxone or penicilinG
- pseudo-membranous colitis
- condyloma lata vs. condyloma acuminata
- viral vaccines

-pepsin vs. papain Ig digestion: ans: pepsin: $F(ab')_2$...it capable of aggregation of Ags: agglutination in solid base, precipitation in liquid base, Fc fragment degraded
papain: $2Fab + Fc$...as Fab monovalent not capable of Ag aggregation but Fc can fix IgG and activates complement

- TNF-alpha vs. IL-1
- CGD and NTZ test
- Neurofibramotosis, VHL
- Cri-du-chat syndrome and chromosome 5p
- elevated alpha-FP with neural tube defects
- ACE inhibitors and teratogenecity
- tumor grade vs. stage
- ectopic ADH secretion by a lung small cell carcinoma
- lab diagnosis of DIC
- Crohn's vs. UC
- Broca's vs. Wernicke's aphasia and their locations
- diagnosis of gout
- post-MI complications
- left atrial myxoma diagnosed by clinical vignette
- C-anca and Wegener's Granulomatosis
- HLA-B27 and associated diseases
- metoclopramide: Stimulates motility in GI tract. Used in Diabetic pts with constipation, due to Diabetic neuropathy
- 5'A-T-T-A-3'--what is the hormone?--Growth hormone.
- cys-cys ----- what interleukin? --il-8
- Prostaglandin pathway.--fill in the missing names.
- Heme synthesis pathway..B6 needed for which product?

- Action of Restriction endonucleases
- Pedigree analysis for AD disease
- Triple test for genetic diseases--hCG,AFP, unconjugated estriol (available to any woman who is between the 15th and 22nd weeks (4-5 months) of pregnancy)
- RFLP's
- Bayesian method for genetic risk.--- $P(a)/P(a)+P(b)$
- Codons and anticodons..given a codon to find 1st base of anticodon.
- EDH
- Structure affected in Huntington's
- Medulloblastoma
- Infarct in post. limb of internal capsule.
- Lesion in temporal lobe.what is affected?CN2,3,4,MLF.. CNIII involved in uncal herniation.
- Structure where foramen of Magendie drains.... subarachnoid space
- Identify structure for the circadian rhythm... suprachiasmatic nucleus of hypothalamus
- Craniopharyngioma.
- chronic SDH..what is the deficit?
- Industrial bronchitis
- HLA B-27
- MHC 1 and 2
- Invariant chain synthesis
- Haptens
- mRNA splicing
- Uric acid stones and leukemia.
- Hydroxyurea and Sickle cell anemia..how it helps?...>inc Hbf
- Why measles not given before 9 months?...>maternal antibodies.
- CGD -what is the problem?
- patient diagnosed with complement deficiency but is always normal->C9 deficiency or C2 deficiency ...it's the most common complement defect.
- Placental binding site of Immunoglobulin--asked to point out on the figure. Fc fragment
- T-lymphocyte independent response graph which interleukin is missing?---->IL-4
- Gaussian curve problem..which values fall above 95th percentile?
- Van-der Waals forces in Insulin receptor
- HLA compatibility given the pattern in 3 people..which one is ideal donor?
- 2nd messenger for nitroglycerine--->cGMP
- 2 DnA's---which one has a higher melting point?----->one with more G-C pairs.
- Streptozocin and Insulinoma. ... alkylating agent in treatment of pancreatic cancer
- Patient wants to take only 1 drug for seizures and bipolar disorder...valproate.
- G-6PD deficiency..seen in which race?
- Duodenal atresia and Down,s syndrome.
- Calculation of filtration fraction from the graph.
- Hematocrit of 33% How much is Hb?----> 11%
- Fusobacterium and alcoholism... loss of consciousness predisposes to aspiration and aspiration pneumonia due to anaerobes and lung abcess
- H.Influenza meningitis.
- Sporothrix.

- Earliest marker for t-cell-->Tdt
- Receptor for EBV--CD21
- Picture of N. Meningitidis...what receptor is the toxin acting?--CD14
- Photograph of child with blue sclera..where is the mutation?..in Procollagen.
- Myasthenia gravis and Ach receptor.

- 1 Mechanism of Duchenne Muscular Dysrtophy in a daughter -> Maybe skewed X inactivation
- 2.Liver transplantation to a patient with familial hypercholesterolemia -> incresed LDL receptor -> most effective drug? -> Nicotinic acid
- 3 Pathway of Arachidonic Acid
- 4 Filtration Fraction,Na excretion rate
- 5 a thalassemia->HbH? fetal hydrops in thalassemia
- 6.phosphorylation of mannose -> golgi apparatus
- 7.PBS: ring form malaria -> vector : Anopheles
- 8.Picture: Spherule -> Coccidioido
- 9.tx of Sporothrix : itraconazole
- 10.mechanism of Tetracycline : inhibition of ribosome on aminoacyl tRNA
11. cause of Quinidine syncope : Torsade Pointes
- 12.frame shift mutation
- 13.17-a-hydroxylase deficiency
- 14.mechanism of Meningocele
- 15.Mecanism of m/c anomoly of TOF.. unequal division of the truncus arteriosus
- 16.Px : Substantia Nigra
17. structure inducing vertebral body : Notochord
- 18.Membranous nephropathy : EM->spike
- 19.mechanism of Azd
- 20.Ex. of Epinephrine
- 21.mechanism of hypoglycemics
22. hemophilia pedigree
23. case about glycogen storage disease
24. PCR
25. mechanism of antiviral
26. anuerysm location in cadevar Px
27. case about annular pancreas
28. pyloric hypertropy case
29. change of sensitivity,specificity -> subsequent change in fale(+),(-)
- 30.subdural hematoma case->damaged vessel
- 31.cause of heart sound in the old age w/o any underlying disease... S4
- 32.tx of absence seizure
- 33.mechanism of steroid&thyroid ho : intracellular
- 34.mechanisms of G proteins
35. role of Th vs Tc vs Macrophage
36. nerve from upperlimb
- 37.subclavian steal syndrome
- 38.hydrocele

- 39.SVS syndrome
- 40.Drainage of Gonadal Vein
- 41.Mechanism of metastasis of colon cancer to liver
- 42.compensated hypertrophied muscle without gastrocnemius muscle.
- 43.structures derived from each of ectoderm,neural crest
- 44.desmin(+) cancer... skeletal muscle,nonvascular smooth muscle.. rhabdomyosarcoma
- 45.androstenedione,testosterone.GH changes in adolescent
- 46.oligohydromios->renal agenesis
- 47.hyphochondriasis vs somatization
- 48.mechanism of finasteride
- 49.calculation of PCWP.. swan ganz catheter into the pul artery or left atria
- 50.case on Acromegaly

- 1.celicoxib - cox2 inhibitor - TXA2 not change
- 2.celiac sprue - IgA dermatitis(with a picture)
- 3.N.meningitis carrier - rifampin
- 4.Litium toxicity - thiazide
- 5.strongioides - larvae penetrate skin
- 6.L-dopa - acute dystonia
- 7.drug for SLE - What induce Mania? corticosteroids
- 8.When stop the therapy for endocarditis? When 3 consecutive cultures are -ve
- 9.Risk for osteoporosis(smoking? caffeine?)
- 10.Hepatic encephalopathy - what decrease?(?ketoglutarate?)
- 11.Risk for CAD - smoking?obesity? smoking
- 12.lucid interval -epidural hematoma(with picture)
- 13.contraindication for hepatic transplantation(age? alcohol?) .. alcohol
- 14.thalassemia - Hydroxy urea - HbF(?Achain)
- 15.Malaria(P.vivax) - Duffy antigen of RBC
- 16.What mechanism keep the level of potassium in Chronic renal failure?
- 17.Where is JG cell(with picture)
- 18.IRDS - steroid - surfactant increase
- 19.surfactant - T decrease
- 20.homostin urea - metionin increase
- 21.stress incontinence - What muscle is related?
- 22.type \ddagger Terror -p<0.05
- 23.Vitamin B12 - ileum(with X-P)
- 24.ectopic pregnancy -uterine tube =fallopion tube
- 25.Where is the most popular place for VSD
- 26.SSS with ECG
- 27.Grawitz tumor(micro)... another name of renal cell carcinoma
- 28.Bladder distention - obstruction of urethra
- 29.viconvute uterus -Mullerian tube
- 30.Malaria - mefloquine
- 31.testicular torsion – operation
- 32.PSS -with picture and EM micro

- 33.HIV - pol mutation
- 34.Where is the mutation of VRE? D-ala to D-lactate
- 35.adverse effect kinin,breomaicin(X-P).morphin withdrawl. aspirin. cycrophosphamid
acetoaminophen(Liver) ?Ablocker Daunorubicin
- 36.right pulmonary cancer -SVC ,Horner
- 37.drug action site or second messenger - botulins toxin,
guanetidine,cocain,allopurinorol,tetracyclin.chorera toxin.D2agonist,
Sildenafil,nucleotideanalogue.Finasteroide,aspirin.CCK/secretin,nicotin. diuretics
misoprosterol, SU ,paclitaxel AMPH-B
- 38.MR,MS.ASD etc - auscultation,catheter
- 39.atropin + physostigmin How BP change
- 40.Cross torelance - BZT alchol barbital
- 41.esophageal atresia - TEF
- 42.NEC -megacolon - Hirschsprung's disease - migration
- 43.apoptosis - micro(cytoplasmic bleb)
- 44.TNF- α ?| cause fatigue
- 45.Down syn - Alzheimer dimentia
- 46.TOF-What are tetralogy?
- 47.auscultation for pneunothrax
- 48.When S2 is heard?(with cardiac cycle scheme)
- 49.von Gierke G-6-P
- 50.AT \ddagger U - IP3 ,DG ,Ca increse
- 51.Hasimoto's disease - lymphocyte infiltrate
- 52.What shift O2 curve to left
- 53.Down syn-duodenal atresia
- 54.infertility - Klinfelter , turner
- 55.What is living will?
- 56.PE with V/Q scan
- 57.calculation : 2SD, GFR. calory ,incidence,prevalence
- 58.nasal decongestants
- 59.terbutalin cAMP -pregnancy
- 60.O2 decrease - pulmonary vasoconstruction
- 61.transplantation - risk for CMV
- 62.midle meningeal A - subdural hematoma
- 63.SAH-aneurysms-ADPKD
- 64.inactive DNA -metyration
- 65.cardiac amyroidrosis-with picture
- 66.renal stone - MAP -struvite
- 67.AIP -abdominal pain -What
- 68.MEN2-calcionin
- 69.RLD-spirometry
- 70.PTHrP increase Ca
- 71.TB - macrophage
- 72.cimetidine -gynecomastia
- 73.female - stop at first meiotic prophase
- 74.Which is essential protein?

- 75.Lyme disease - TC
- 76.spleen - mesoderm
- 77.OCD - SSRI
- 78.IG-Fc portion complement
- 79.anal fissure - (+)pain
- 80.suprachiasmic N - circadian rhythm.
- 81.cephalic phase - vagus nerve
- 82.IL-4/5 effect
- 83.zona occludens
- 84.NA locus coeruleus
- 85.woven bone – healing
- 86.about twin
- 87.moter vehicle accident - DI?
- 88.DM neuropathy - glove&stocking
- 89.Laron dwarfism - GHr(-) IGH(-)
- 90.Risk for breast cancer - atypical. Proliferative
- 91.craniopharyngioma - calcification
- 92.Bruton- XR, tyrosine kinase
- 93.AIDS - toxoplasmosis
- 94.C1 inhibitor – HANA
- 95.G(-) outer membrane
- 96.CGMD:oxidase(-)
- 97.EBV receptor CD21
- 98.Vitamin C collagen ,scurvy
- 99.ascites - ovarian tumor
- 100.Indometacine(NSAD) - ATN
- 101.neonatal PKU - mother metabolize PK
- 102.Steroid - PNMT -AD
- 103.ITP with micro
- 104.Prolactinoma-bromocriptine
- 105.acromegaly-octreotide
- 106.Hyper TG - gemfibrozil
- 107.infectious mononucleosis - with micro
- 108.ARDS - compliance decrease
- 109.BPH-with MRI
- 110.partial agonist curve
- 111,adult erection change
- 112.lead poison .CO poison
- 113.sperm –fructose
- 114.eclampsia - Mg
- 115.PKD -with low echo
- 116.VitaminBi- beriberi(CO increase)
- 117.pudanal nerve block
- 118.absence -3HZ-Ethosuximide

long sentence complement fixation test

gene counseling
smoking cessation carcinogen
bacterial transduction
anorexia
seborrheic keratosis
schizophrenia.
passive-aggressive disorder
pyloric stenosis
pseudomembranous enterocolitis.
DiGeorge syn
CD40L(-)
G6PD(-)
narcolepsy, sleep apnea
stranger/separate anxiety, social phobia,
rotator cuff syndrome.
cerebellar injury
Body dysmorphic disorder, malingering,
pneumonia,
papilloma V infection.
prion disease
asplenic
acute HAV infection
carpal tunnel syndrome.
major depression,
Pick disease. Parkinsonism
Temporal arteritis, cluster headache, migraine headache.
endometriosis,
Paget's disease
Berger disease,
PPH,
Erb-Duchenne
VUR
proximal fracture of fibula-drop foot,
scalene syndrome,
portal hypertension: left gastric vein - esophageal veins,
patient with Parkinson where is the lesion in MRI, patient with Huntington idem
Renal cell carcinoma
hypertrophy of right ventricle,
changes after a week in a MI,
images of CVA, herniation of temporal lobe with cranial nerve is first affected,
x-rays with osteosarcoma, rhabdomyosarcoma,
Barrett's esophagus
squamous metaplasia in a smoker,
squamous carcinoma of the penis
CT scan of acoustic schwannoma

. FEMALE WITH ALL THE CLASSIC SIGNS OF ECTOPIC PREGNANCY, BUT IN THE HISTOLOGY IS ENDOMETRIUM STROMA, THEY ARE TESTING HISTOLOGY INDIRECTLY.

. MAN FROM BRAZIL WITH DISPNEA AND CONSTIPATION AND BLOATING (CHAGAS DISEASE- INSECT BITE),

. CHILD WITH RHABDOMIOMA IN THE HEART, WHERE ELSE DOES HE HAVE TUMORS- BRAIN)

spinal cord lesions in polio, lesion of burdach tract, internuclear ophthalmoplegia.

mechanism of action and side effects of penicillin, vancomycin, aminoglycosids, quinolones, rifampicin, cis-platin, ketoconazole, quinidine, propranolol, acetaminophen, aspirin, analyze curves of steady state and clinical studies..

internal and external genital development

1-thyroid gland development

2-epididymis developmen

3-head of radius fracture during pronation which ligament effected? annular ligament

4 amyotrophic lateral sclerosis

5-middle meningeal artery effect in epidural haematoma

6- one mri gave me a arrow(that is substantia nigra) and told if 80% lost which part of brain effected i picked striatum...don't know right or wrong

7- oculomotor nerve lesion

8-questions from ear gave the weber test result and say which part of ear effect...

9 herpes virus, measles, lyme disease,..endotoxin shock gave a pic and told which part cause shock

10 a pic of dna and told where helicase work

11 one pic of trna and told where amino acid attach

12 blot testing, VNTR ,restriction fragment

13 they gave a X drug that cause asthma and increased blood pressure what is Y drug that only decreased blood pressure.

14 acetaminophan overdose what would be happened if u don't give any

15 heroine withdrawal. side effect of haloperidol. what dantrolene does?

16 gastrin. CCK..

17 where hypoxia cause vasoconstriction

18 idiopathic hypertrophic subaortic stenosis, question was a pt with all symptoms of this, what u thing gave me 5 choice, like congenital, idiopathic, immune and genetic

19 like BPH, then you had to figure out which structure on a labelled pelvic CT

20 a case would be about meningitis, but would show you a histo slide and then ask what is the component in the vaccination for that disease.

21 couple of Hardy Weinberg equations

22 actions of inhibin and that an athlete was taking anabolic steroids etc.

23 anti neoplastic drug side effects ,(bleomycin being Pulmonary Fibrosis etc)

24 Urea cycle, label the place where in urea was formed!

25 What should you do if you have a pt (72) that became hospitalized repeatedly and in deed need nursing home care? But the family does not want that. Should you keep the pt admitted again, ask court to pick one who will handle this, refuse or make a family meeting with patient. The question also mentioned that the patient does not speak English

26 A patient (49) with 1A colon cancer does not want resection- says that he will eventually die. Will you prescribe anxiolytic and then discuss for consent or honor patients wish, D him.

27 Old Patient with diffuse metastatic lesion, when the report came should you tell him directly or ask him if it is better to sit with the wife together and discuss about the results.

the correct answer is to say "I need to talk to you, do you mind if your family waits outside" and NOT "I need to talk to you, would you like your wife present?" This way if he is ok with having his wife present, he will override you and say its ok.If you say the second phrase, it will pressure him to have his wife present if he does not want here there when he hears the news

28 There was a photomicrograph of one patient died young due to coronary atherosclerosis and in subsequent questions, another pt died young - in field due to hypertrophic cardiomyopathy

29 one was about sudden death, obviously due to rupture aneurysm

30 Famous optic pathway block picture was there- question was about the pat who had craniopharyngioma! Sudden loss of vision question came with embolism hint of the central ret. artery.

31 got a Herpes Zoster slide- it did not ask what caused it rather asked the mechanism for the blister formation

32 knee joint view arrow at med. collateral ligament.

33 Enzyme Kinetics- how substrate value change affect competitive inhibition, they used G6PD deficiency question

34 a long sequence for point mutation detection

35 Foscarnet, Rifampicin

36 Humerus fracture shaft was the gross anat. question

37 CT of the Knee joint pointing at ACL, coronal section of abdomen with pointer at pancreas were there.

1. maple syrup urine disease
2. cherry-red spot- enzyme deficiency
3. ct of the thorax- identification of mediastinal structures
4. gross brain specimens- LOTS of them- sections at different levels
5. brachial plexus questions- muscular deficit given- identify lesion on a diagram of the plexus
6. drug induced sle
7. prostatic ca
8. lyme disease
9. vibrio parahaemolyticus
10. parkinsons disease
11. chest x ray- showing aspirated object- identify which lobe of lung it has lodged in
12. genetics- transposons... jumping genes! move readily from one site to another, within

a DNA or between DNAs in bacteria, plasmids, bacteriophages... code for drug resistance enzymes, toxins, or a variety of metabolic enzymes

13. CT of abdomen-at the level of pancreas
14. VITAMIN D/ calcium/ phosphate metabolism-rickets
15. mediastinal anatomy-
16. stroke localization
17. ethics questions- regarding elderly patient with dementia- and who would make the decision about whether or not to continue ICU care-
18. atrophic gastritis
19. vitamin B12 def...
20. thiamine def in alcoholics
21. syringomyelia
22. Hardy-Weinberg calculations....
23. alcohol metabolism. DISULFIRAM blocks the second step: acetaldehyde dehydrogenase
24. drugs for osteoporosis
25. HRT
26. GBS-Guillain Barre syndrome
27. cimetidine.....effect on p450 and drug metabolism
28. sensitivity/specificity calculation
29. study design identification- clinical trial and case control is what I remember
30. pulmonary embolism- 2 questions
31. Duchenne's muscular dystrophy
32. autism
33. effect of p53 deletion
34. benzodiazepines- mechanism of action/metabolism/changes in dosage for elderly
35. PCO- history given- had to know gross
36. sensitivity and odds ratio
37. Marfan's syndrome
38. MEN1 and MEN2 syndrome 2 questions

39. congenital diaphragmatic hernia in a baby who died. origin of the respiratory difficulty: pulmonary hypoplasia
40. polycystic kidney and asked what other thing to look for (Berry aneurysms).
41. One guy who looks up all the info about the disease he has on the internet. What do you say when he confronts your medical treatment with what he read.
42. The other one about the family that doesn't want you to tell the patient if his test result comes out cancer+, because they are afraid he'll get depressed.
43. one about a 70-year-old man who tried to kill himself, brought in by his wife. After you treat him, he doesn't want to be admitted to Psychiatry. What do you do? must admit because he is a threat to himself
44. They ask for prevalence from a 2x2 table, which is fairly easy (all you have to do is count the ones with the disease!), and they ask about the positive predictive value "what is the likelihood that this person is really sick".

- 45 what grade of Tanner has a girl in her growth spurt?
- 46 one where a girl had a neurotoxicity after INH for TBC prophylaxis. What drug could've prevented that? B6
- 47 antineoplastic for testicular cancer causes pulmonary dysfunction.. bleomycin
- 48 A woman with a clear case of SLE, and a list of drugs, with Procainamide included
- 49 The mechanism of resistance to Acyclovir (T-kynase)
- 50 and what drug do you add to AZT and another transcriptase inhibitor in a triple drug therapy? The protease inhibitor (only one on the list of alternatives)
- 51 What AB to use in a urethritis after ceftriaxone, if you suspect Chlamydia? doxy.
- 52 arachidonic pathway
- 53 Where does sumatriptan act (which receptor).
- 54 At least a dozen questions on second messengers, where do drugs work
- 55 a lot of median nerve-brachial plexus-lumbar plexus, like it was expectable. What trunk do you damage when you pull someone hard by the arm; the case of a kid with a leg cast, and after a while, loss of sensation on the dorsum of foot and foot drop: they didn't ask the nerve, but they asked where is the nerve likely compressed: it's the fibular neck. which tendons does the median nerve go between on its way to the hand? Ans: in forearm between the humeral&ulnar heads of pronator teres muscle, then between flexor digitorum superficialis&flexor digitorum profundus.
- What is the carpal bone that you fracture when you fall with outstretched hand
- 56 a Brown Sequard, point the zone on the medulla where the damage is
- 57 A 2 yr old boy with a lesion on his cerebellum: CLEARLY a tumor, and they ask what it is: only 2 primary brain tumors in the alternatives, one GBM and one medulloblastoma.
- 58 A CT scan of the brain, showing the basal ganglia: where is the lesion in Huntington?
- 59 A cut of the spinal cord: where is the lesion in a loss of proprioception of your left leg? Gracilis.
- 60 urea cycle
- 61 enzyme deficiency in Krabbe's disease
- 62 which bonds change when you go from alpha helix to beta pleated sheet..
INTRACHAIN hydrogen bonds convert to INTERCHAIN hydrogen bonds
which are covalent, which are disulfide, a lot of secondary and tertiary structure questions about different proteins
- 63 action of lysyl oxidase in the making of collagen.. cross linking of tropocollagen molecules
- 64 Asked about food poisoning with seafood
- 65 how to differentiate between S.aureus and other staphs
- 66 asked about the virulence mechanisms of some bugs
- 67 One malaria question
- 68 a CT scan of an HIV man with toxoplasmosis. Clearly toxoplasmosis.
- 69 sporotrichosis
- 70 The story of a 3 year old kid with meningitis: they show you the CSF with four CLEAR G(-) rods... what vaccine could've prevented this? The polysaccharide with a protein carrier.
- 71 MEMORIZE THE VIRUSES IN TERMS OF are they DNA, RNA, enveloped or not, positive sense or not, ss or ds.

- 72 the lactose (+) and (-), the motile ones, etc.
- 73 Which cytokines help do damage in a sepsis by E.coli? IL-1 and TNF-alpha.
- 74 A kid with the classic triad: eczema, bleeding and resp infections: Wiskott Aldrich.
- 75 kid with clear meningitis: they showed you the CSF with a lot of PMN and diplococcus and tell you that the brother had a similar case two years ago. What is wrong with the family? Meningococcus, complement deficiency (mb attack complex).
- 76 PAH in which the transporters were saturated (it reached the flat line) and asked what is decreased at the flat line compared to the secretion line? it was the clearance, that decreased until it becomes the same as inulin clearance
- 77 MRI of the rectus muscles.
- 78 Horner's syndrome from CXR
- 79 pelvic CT
- 80 skull xray for maxillary sinus
- 81 hiatal hernia
- 82 thoracodorsal nerve
- 83 identify trigeminal on BW gross brainstem
- 84 pulm hypoplasia
- 85 duodenal atresia
- 86 ASD
- 87 biochem reg enzymes (show you the pathway and point where it is
- 88 pinworms and strongyloides
- 89 blood smears w/ anemia Q
- 90 treatment of gout, asthms, cardia drugs, INH on p450, ethosuximide for absence seizures, mechanisms of action of ABx, colchicine, griseosulvin, ampho B. 2 ques on arrow tracing in animal expt (give drug X, then y, then x again). Also AUC, efficacy
- 91 pupillary dilation reflex
- 92 the corneal blink reflex
- 93 Someone could not evert or dorsiflex the foot, what nerve is damaged? peroneal n.
- 94 the cardiac cycle and where the valves close and open.
- 95 few aortic pressure curves. know your heart murmurs.
- 96 drugs that increase or decrease P450 metabolism
- 97 hormonal control of metabolism
- 98 INH and hepatotoxicity
- 99 Pseudomonas and CF
- 100 one horizontal CT and you had to locate thalamus vs. internal capsule
- 101==one arteriogram showing circle of willis
- 102=leg innervation, abdominal blood supply
- 103 which cranial nerves are belonging to which region (midbrain, pons, medulla, etc....)
- 104==sporothrix ,aspergillus ,trichophyton
- 105=-ventral midbrain or weber's syndrome [image - and point to the site of lesion
- 106=-radial nerve [basically they gave the clinical signs of radial nerve injury and asked for the fracture that could cause it - shaft of humerus #] ,common peroneal nerve injury ...
- 107=hypertensive patient given a drug that causes hyperglycemia and hyperuricemia [thiazides] ,drug contraindicated in hypertensive with asthma [beta blockers] ,mechanism of action of vancomycin , cisplatin ,calcium channel blockers ,enzyme blocked by aspirin , side effects of acetaminophen ---

- 108==main risk factor for ovarian carcinoma, main risk factor for Renal cell carcinoma
. ovarian cancer:age>45yr,BRCA1 gene,FH+,number of lifetime ovulations,caucasian or asian,nulliparity,infertility or late menopause,industrial society,perineal talc use
. RCC:cigarette smoking,obesity,acquired renal cyst in ESRD,gene deletion in chromosome 3 that's associated with VHL
- 109==competitive inhibition , pka , lesch nyhan syndrome
- 110==questions on MHC class 1 and MHC class 2 --- whether in lysosomes or ER etc - interleukin that stimulates CD8+ lymphocytes [IL 2] ,Di george syndrome , SCID ...
- 111==history of a person with one sided headache plus rhinorrhoea plus lacrimation --- and past history of a similar attack which didnt last long --- answer :cluster headach
- 112==Vitamin K deficiency
- 113==hamiballismus, where is the lesion,wallenburg's, where in the medulla is the lesion
- 114==usual mi enzyme ?-old man found dead,2 weeks,what'll u look for
- 115==couple of graphs-one on transport maximums,couple of a/v curves,heart block,kawasakis,asthma-zafirlukast,paraneoplastic syn,wilm's,cns tumor in kids-whether infratentorial and commonest,pckd and berry aneurysms
- 116==warfarin/ anticonvulsants/ antipsychotics/
erythromycin/vancomycin/atropine/epinephrine reversal graphically/ ccs and nccs tumor drugs/their routes of action/ interferon/ anitiarrythmics
- 117==.fungi/ hot tub folliculitis (P.aeruginosa)/ diabetic external otitis/ gardener's hand inf/ deer hunter's hand inf-tularemia/ wood cutter with vague respiratory s/o-blasto/ ohio guy with routine xray showing stuff-coccidio-will i treat-no i wont cos he is asymptomatic/ leptospirosis/human bite and usual impetigo/ meningococci/trichomonas/ pneumococcal vaccine/ klebsiella
- 118==q on michaelis mentin eq, two q's on fructose2,6 biphosphate and its allosteric regulation of glycolytic pathway. another q was like, glutamine dehydrogenase catalyzes the reaction for the synth of ,... urea, purine and pyramidine nucleotides. ans is purine
- 119==common carotid artery develops from which aortic arch (3rd) , neural crest cells give rise to which part of the heart.....aortico-pulm septum.
- 120==bilateral renal agenesis was diag in utero. if the baby is born alive, whats the complication with which it would die. choices that were close were anuria and pulmonary immaturity. answer was pulm immaturity.
- 121 erythropiesis occurs in what part in first trimester... yolk sac
- 122==raa system. b12 def. calcium metabolism
- 123=mlf lesion, ct showing epidural hematoma, asked which vessel was damaged. another brain ct asking me to point substantia nigra.
- 124==xr with ant shoulder dislocation, asking for the nerve damaged. another q on fracture of shaft of humerus, and its effect. (extensor m paralysis due to radial n palsy) brachial plexus, asking ulnar n to be identified. blow on lat aspect of knee joint and which action would be lost (dorsiflexion) woman could not raise extended leg against resistance, what n injured?
- 125==source of bleeding in a cirrhotic pt with hematemesis.
- 126==second messenger for glucagon
- 127==site of action for all diuretics. another q on haart therapy.
- 128==Be familiar with vaccinations (i.e. live-attenuated vs. killed), and understand the molecular basis of the four different types of hypersensitivity reactions. Know MHC

Class I & Class II (locations of peptide loading), CD4 helper, CD8 cytotoxic, and the Th1/Th2 profiles.

129==Knowing where all of the NTs (Ach, Dopamine, 5-HT) are located in the brain
NE:locus coeruleus/serotonin:raphe nuclei/Ach:through the brain,highly concentrated in
substantia innominata/dopamine:substantia nigra,midbrain,hypothalamus

133===Cardiac cycle question (like in Qbank), PAH excretion diagram, one very weird
question of acid-base balance in a person who is mountain, experimental question with
cardiac muscle (simple to work out), arachidonic acid cascade

134===change MAP if change systolic or diastolic pressure with diagrams to point out as
an answer. One Cardiac output calculation. One tumor marker q (erb-2).

135 p from china with 5-month history of nose bleeding and cervical lymphadenopathy,
the biopsy of lymph – EBV found, what is diagnosis ... nasopharyngeal

136==Lithium poisoning, Indometacin and Aspirin

137== woman who took anticholesteremic therapy and now have muscle cramp, which
couple of drugs is used. statins,gemfibrosil,clofibrate

139==rifampin mechanism

140==where renal loop system is given and the question is where does aminoglycoside
have their nephrotoxic effect(proximal loop)

141==one q with an image of parasite with clearly ingested erythrocytes

143 Parathyroid vascularization

144 antibody against myosin of striated muscles is elaborated that disrupt myosin
connection from cell membrane. Indicate on image where this disrupted myosin is ?

145 identify endo reticulum, which follicle has the antrum (graafian follicle)

146 one CT of the abdomen that wanted you to locate the spleen

147==radiograph of the skull to locate where the pituitary gland would be.

148==thyroid tissue with arrow , which arrow shows c cell? Adrenal tissue showing Zona
glomerulosa

149==mediastinum cross section with ascending aorta.

150==Know Meigs' syndrome (woman with fibroma,ascites,pleural effusion except they
didn't mention pleural effusion!

151===.what codes for the amino acid sequence in a polypeptide chain.?

152.what does homeobox genes code for? in fetus development,substitution of one body
part for another is called homeotic mutation,the,these genes contain a 180-base pair
sequence:that called HOMEBOX:it encodes a 60 amino acid long
region:homedomain,homedomain binds to DNA segments

153.mechanism of action of streptomycin?

154.str of tyrosine?

155.infection in total parental nutrition? candida

156.woman with AIDS IS at a risk of developing....cns lymphoma by EB virus

157.what increases in the marrow following
hemorrhage...bilirubin,ferritin,erythropoietin,aminolevulinatate?

158.mech action of cmyc oncogene?

159.mech of action of insulin receptor?

160 man having an old MI,anterior wall and what would you find pathologically

161.bladder ca ,what defines the malignant potential...papillary,superficial
spreading,adeno...

162.complication of BPH?

163.14 yr old and mother come for physical exam before the kid goes to summer camp and mother insists on staying in the exam room with the daughter,what will you say next?

164. whom can you involve in a research study....scizophrenic on treatment or an elderly person with alzheimer's or a person with picks dis...?

165.identification of pineal gland in ct scan

166.identification of caudate nucleus in ct...given a question abt clinical features of huntingtons chorea

167.brachial plexus injury....erb's palsy,radial nerve injury

1. Farmer comes in with increased salivation, muscle spasms, and bradycardia-Treatment(Tx)?

2.Patient treated for hernia by surgery, develops muscle pain-why?

3. Smoker has wrinkles/pigmentation below eyes-Tx?

4. What drug is used to treat spastic component of MS? baclofen,GABA(B)agonist

5. Mechanism of Bromocriptine in migraine ? ergotamine with vasoconstrictor action

6. Mechanism of resistance of Acyclovir? altered or deficient thymidine kinase&DNA polymerase... CMV resistant coz it lacks a specific viral thymidine kinase

7. Pt. on warfarin has decreased PTT at home but not at hospital? pt. is taking something else that increases the metabolism of warfarin i.e cyt.450 inducer perhaps alcohol.

8. Main Se of TCA drugs?

9. Sx of aspirin toxicity?

10. 17 yo girl, bulimia nervosa, takes excessive laxative- SE? Melanosis coli

1. WHAT TYPE OF BOND IS INVOLVED IN SICKLE CELL ANEMIA?

2. CLINICAL HISTORY OF PATIENT WITH PORPHYRIA. WHAT PROTIEN INVOLVED? heme

3. CLINICAL HISTORY OF PATIENT WIHT LACTASE DEFICIENCY, WHAT TYPE OF DIARRHEA? osmotic

4. SOURCE OF AMINA ACIDS FOR GLUCONEO? Alanine and all essential AAs except lysine&leucine

5. COMPOUNDS ALL HAVE SAME NUMBER OF CARBON ATOMS, WHICH HAS THE HIGHEST ENERGY-O₂, H₂, N₂, SULPHUR

6. WHY INFANTS WITH BROWN FAT HAVE MORE HEAT? Brown fat is thermogenic, and has more mitochondria

7. PATHWAY OF LDL, WHERE IS CHOLESTOROL RELEASED?

8. 40 YEAR OLD PAT WITH BP 128/80, DECR. LDL, DECR CHOL, DECR. HDL. WHAT IS HE AT RISK FOR?

in familial alpha-lipoprotein defecency:Tangier's disease:absence of apoA:AR,serum cholestrol,HDL low, not LDL, TG normal or elevated

clinical presentation: enlarged, yellow-orange tonsils, hepatomegaly,splenomegaly,neurologic defecit

patients are unable to eliminate cholesterol from cells, leading to its buildup in the tonsils and other organs, they r at risk of coronary artery disease

9. PANCREATIC DAMAGE. WHAT ENZYMES ARE MOST AFFECTED?

LIPASE, AMYLASE

10. WHAT IS THE FORM OF CO₂ MAINLY CARRIED BY BLOOD? HCO₃

11. HUMANS HAVE 30,000 GENES, AND ONLY 300 AA ? rearrangement of AA

12. PCR FUNCTIONS AT WHAT ORGANELLE?

13. MECH OF ACTION OF C-MYC ONCOGENE? helix-loop-helix protein

14. MECH OF ACTION OF CARCINOGENESIS OF ROUS SARCOMA VIRUS?

oncogene:src, protein tyrosine kinase

1. A patient can't stand up while sitting, damage to what muscle and nerve? g

maximus..inf gluteal n

2. Origin of cauda equina of spinal cord?

3. CT. of brain, show defect which gives loss of sensation to the abdomen?

4. CT of spinal cord, show lesion which causes loss of sensation to upper arm?

5. History of patient with horizontal nystagmus, what cranial nerve is involved?

6. Diagram of kidney, with dilated ureter, where is the stone?

7. Male with ambiguous genitalia, what is the embryological abnormality?

8. What supplies blood to the proximal ureter?

9. Siamese twins have mono chorion or monoamnion? both

10. if an object is swallowed it will enter right lobe, but what part of right lobe?

11. carpal tunnel case, what nerves affected other than median?

12. what is the watershed area of circle of willis?

13. what is the best way to palpate the spleen? 2nd best way?

14. Lungs grow embryologically into what space?

1- what is the most important risk factor for suicide? Previous attempt

2. what is the most important risk factor for depression?

3. which drug has the worst effect when give with alcohol: cocaine, heroin, LSA, barbituates? barbiturates: excessive sedative effect

4. Newborn with excessive salivation, lacrimation. what drug is involved: cocaine, heroin, alcohol? heroin, newborn in withdrawal phase now!

5. patient with history of panic disorder, treatment?

6. Patient with hospital history of 10 admissions for pain but no pathology, what should you do: refer to psych, decr. visits, incr. visits, admit again? should make visits (regularly

7 Odds ratio calculated for what type of study: case control, cohort, cross sectional?

10 Kid, out of school, doing fine, starts school, starts hallucinating? separation anxiety

11. Child with problems reading but no problems with math or social studies? angular gyrus

1. What side effect will procarbazine cause 3 years after discontinuation of use? AML

2. MOA of cascara? laxative, contains emodin which stimulates colonic activity

3. stool softener drugs? docusate sodium, mineral oil, glycerin suppositories

8. Digoxin effect on K? HYPERkalemia (HYPOkalemia is a P.F for toxicity)

9. How prostaglandins vasodilate?

10. Drug of choice for hyperthyroidism?

11. Primaquine is used in liver stages of Malaria bc?

12. What drugs cause avascular necrosis. corticosteroids

1. What is the common cause of diarrheal illness in children during the January month.
rota virus

2. What happens if you eat a diet deficient in phenylalanine; (Ans:negative nitrogen balance, TYROSINE BECOMES AN ESSENTIAL AMINOACID)

3. translocation in AML (t15:17); In one test item there was this karyotype and I was asked the result of this translocation. Another question: peripheral blood smear with a lot of Auer rods and was asked, what is the mutation.

4. Mechanism of action of hormones and neurotransmitters ,What happens to the if cAMP is depleted; what happens if a step is blocked or if there is a genetic defect in the receptor ie defect in the pathway of the mechanism of action.

5. normal anatomy in CTs and MRIs

6. identify the cranial nerve in the given photograph of the brain stem.

7. starry sky appearance (Burkitt's lymphoma.)

8. clinical presentation of right parietal lobe infarction.

9. gross image of a single large parieto-frontal defect and was asked as to what is the likely organism that can cause this in AIDS.

10. slide from male genital system and asked to identify the androgen secreting cell.

13. a polypeptide is cleaved to result in so and so fragments and attachment of these with so and so (palindrome and sticky ends)

14. Which structure is affected if an ulcer on the posterior aspect of the descending part of the duodenum is perforated . {Pancreas , Lesser sac and panc duod vessels }

15. If you stand with one leg on the ground and with the other leg off the ground and bent at knee which muscle you are stretching. quadriceps

16. Which drug stops translation at the polypeptide stage.

17. Where exactly do the aminoglycosides act to cause nephrotoxicity ie the part of the nephron that gets damaged.

18. Alpha and beta agonists , antagonists. Epinephrine reversal

19. All of autonomic system is high-yield.

20. Types of bladders are important ie neurogenic, automatic;where the lesion in each.

21. Chemical mediators of inflammation is another area of GOLD MINE ...,mediators in asthmatic response

22. Large tongue, lethargy, poor feeding --Hypothyroidism or Down's ? Hypothyroidism

23. Patient is on warfarin and is given metronidazole and what happens to PT ; How does metronidazole act here; MICROSOMAL ENZYME SYSTEM INDUCERS AND INHIBITORS AND VARIOUS DRUG INTERACTIONS ARE GOLD.

24. Mechanism of action of thipentone and side effects and what happened at the cellular level and treatment of malignant hyperthermia is also GOLD.

25.Gross pathology changes in Parkinson's, Huntington's ,Wilson's, ALS, B12 deficiency.

26. What happens in a patient on a pure vegetarian diet ...

27. A fall backwards in an old patient caused a countrecoup injury ; gross appearance changes of brain with aging; Normal and abnormal aging changes.

28 What happens on administration of epinephrine if cAMP is blocked.

29. Cardiac cycle and the aortic curve and the atrial changes; When does each valve closes and opens is important.
30. Frank-Starling graph is GOLD.
31. What happens if cranial nerve IX or the X is sectioned at the carotid body.
32. Hardy-Weinberg law.
33. Memory pathways; Role of hippocampus in indexing; role of temporal lobe ,frontal lobe;
34. "Alpha fetoprotein elevated in" where type of question was there.
35. VSD and transposition of great vessels embryogenesis is important.
36. Common cause of subdural hematoma in an elderly patient.
37. Lateral wall MI ---Which is the vessel involved; which leads show up; which lead looks at which best; what does abnormality in each lead mean;
38. Von Hippel, Li Fraumeni syndrome.
39. Oxygen radicals and defects in NADPH oxidase; The pathway here ie H₂O₂ genesis to O₂ minus (superoxide) to HOCL minus is important.
40. Hydatiform mole and choriocarcinoma --differences, gross appearances and genetic make up of each is important.
41. Parathyroid hormone--mechanism of action .
42. Water shed area of brain and colon.

1. know your mediators (IL-2, IL-4, IL-6, IL-10, TNF, TGF, IFN)
2. know cd 16 and 56 are killer cells
3. where both clotting pathways meet
4. acute MI what the gross and histo look like at all stages,
5. brachial plexus
6. know 2nd messengers-oxycocin, alpha 1
7. herpes pneumonitis, with giant cells
8. splenic infarct, from where?
9. cardiac tamponade
10. go over jamie's sheets- 10 icm type q's
11. know the arachadonic acid pathway and enzymes and inhibitors
12. t(9;22) cml
13. lat rectus on mri
14. wilsons- they showed the kleiser fleicher ring
15. cystic hygroma- turners syn
16. mitochondrial inheritance -2 q's
17. know everything about digoxin 4 q's
18. pku
19. b-cell def- no germinal centers in LN
20. know the cyto p450 inducers and inhibitors - 6 q's
21. scleroderma- ab against?
23. bph and prostate cancer- drugs, receptors, - 3q's
24. ebv in Aids cancer- lymphoma
25. know your endocrine physio- hormones up and down
26. know the resp. curves in first aid, where would fibrosis be?
27. know histo of the hepatocyte- fxn of organelle- I had mitochondria

28. histo of kidney- pct, dct, loh- where glucose is reabsorbed, where vit d is activated
29. restrictive cardiomyopathy
30. p. carinii -know what it looks like
31. marasmus
32. carcinogens in bladder cancer
33. schistosomes in bladder cancer
34. ASCVD-2 q's
35. Prinzmetal angina- drugs, receptors, -2 q's
36. endocarditis-viral, bacterial
37. India ink-crypto
38. IDA, anemia of chronic dz
39. vwb dz- whats up?
40. Henoch-Schönlein purpura on the leg-vasculitis
41. pathogenesis of TB
42. alzheimers
43. hand foot mouth dz- coxsackie
44. cherry red macula and European-hexosaminidase A2
45. Gaucher's
46. tuberous sclerosis, know it is assoc. w embryonal rhabdomyosarcoma and calcifications in brain
47. cancer met. to colon
48. Crohn's dz
49. Hirschsprung's dz- failure of neural crest cells
50. know your GI physio- 5 q's
51. MOA of omeprazole
52. MOA of vancomycin
53. MOA of neostigmine
54. causes of malign. Hyperthermia
55. pathogenesis of spider angioma
56. malign. Htn- pic
57. min. change dz- vignette was classic
58. PID-chlamydia
59. carnitine def-s/s
60. transformation- DNase
61. fracture to fibula- loss of deep peroneal nerve- loss of dorsiflexion- 2q's
62. damage to base of penis-blood flow is lost in which part of urethra (weird q)
63. hypertonic bladder-where is lesion?
64. where does seminoma drain?
65. know your fractures- what muscles pull them where- 3 q's
66. fracture to lt. 9-11 ribs- spleen
67. cavernous sinus thrombosis- fxn's lost
68. AV nicking, banking- learn it well, 2q's
69. myasthenia gravis- 2 q's
70. Hashimoto's= 2 q's
71. dermatomes
72. 6-8-10, 8-10-12, lung -pleura relationship

73. rt. Atrial hypertrophy on cxr
74. paradoxical emboli
75. brca met. via axillary nodes
76. soft tissue sarcoma
77. hemoglobin c
78. hla b27- reiters syn
79. proteus- uti stones
80. pathogenesis of gall stone-supersat. Of cholesterol
81. acute pancreatitis vignette-inc. amylase
82. nodular glomerulosclerosis in D.M.
83. know your vaccines, and active and passive immunizations
84. cohort study, case series
85. epidem. (ppv, spec, sens)
86. pid
87. endometriosis
88. 2 bitemp. Hemianopsia's
89. know your goiters- toxic, hot, cold, non toxic, multotoxic
90. brached hyphi- dermatophyte
91. hyper -PTHism
92. cushings syn
93. addisons dz
94. duchenne's musc. Dystrophy- pedigree
95. osteo sarcoma
96. comparing osteomyelitis and osteo chondritis- weird q
97. pseudo gout
98. neuro syph- arguile robinson pupil
99. vitamins- b12, pyridoxine, and vit c
100. desmopressin in diabetes insipidus
101. know your murmurs. How thy look normally and on a wiggers
103. salmonella
104. mhc 1- tap protein
105. cavernous hemangioma, is it bad?
106. lot of angio tension -renin stuff- 4 q's
107. ipratropium in copd
108. colchicine in acute gout
109. filtration fraction up and down..why?
110. acid-base stuff ...alcoholic that vomits and had diarrhea
111. know your lesions in the CNS- whats ipsi whats contra

Captopril side/eff: Cough

Ifosfamide side/eff: Hgic Cystitis

Contra-ind for Metformin

Mech. of action: Acyclovir, tetracycline

Picture of HSV: what is Drug of choice

Prolactinoma/Pit adenoma (3 quest): diagnose, drug of choice

Organophosph poisoning treatment

Infliximab (new monoclonal antibody): mech.of action
3 ques on ACh-NO-cGMP system
CT scan abdomen - identify the mesodermal derivative.
Osteo Imperfecta defect of? Collagen
Marfan's defect of? Fibrillin
Calculate probability of having disease.
DNA/RNA questions. tRNA mischarging, codon/anticodon, mutations
Sensitivity, Specificity, Odds Ratio, Relative Risk, Confidence Interval calculations
CO poisoning, Amitryptaline Overdose, Aspirin OD and mixed acid/base disturbance
Propylthiouracil
5 questions on Aldosterone- synthesis, effects, disturbances
Broca's Aphasia
Visual field defects
Growth hormone vs IGF-1 2nd messengers
Nephrogenic Diabetes Insipidus
Achalasia by esophageal manometry
Phenoxybenzamine alpha-blocking
Methyldopa and Clonidine as alpha-2 agonists
Glioblastoma multiforme
Most common malignancy in children? Leukemia
Diagnose Transitional cell Ca on histopath
Slide showing Spherocytes --> Autoimmune hemolysis.
Picture of hypersegmented neutrophil --> Vit B12 def.
Vit A deficiency
Vitamin-dependent coenzymes
Regulatory mechanisms for Beta-oxidation, Glycolysis, Fatty acid synthesis
Picture of liver lobule. Fibrosis will cause what? Portal Hypertension
Ulnar, radial, common peroneal, median nerve injuries.
Ant. Cruciate ligament injury
Some simple micro stuff - lobar pneumonia etc.
Beta-hemolysis - Strep pyogenes toxins
C Difficile colitis
Strep viridans (optochin resistant)
Drug-induced Lupus
A couple of CVS graphs - where is the first heart sound, second heart sound etc.
Chest wall/lung compliance
Renal handling of K in a high-K diet
Volume depletion/ pre-renal azotemia.
Patient with SBP gets hypotensive - why? Endotoxemia
Poison Ivy rash... what cell will be found?
Parkinsonism. what will be histopathology findings? Lewy bodies
C. botulinum and S. aureus food poisoning
Alcoholic with cirrhosis has displacement of stomach and colon. why? Splenomegaly
Tourniquet application leads to edema. why?
NSAIDs cause renal failure in which patients? Volume depleted
Coractation of Aorta

Acute Rheumatic fever findings

Picture of chest - which murmur will be heard where?

Warfarin poisoning

Ventilation/perfusion in lung areas

Which zone of lung affected most by TB?

India ink stain of Cryptococcal meningitis

Pictures of Basal cell carcinoma, Actinic keratosis

Bruton's agammaglobulinemia

Polycythemia vera

Preganglionic vs Postganglionic neurons. Also Sympathetic vs Parasympathetic

Pharmacology:

1. antipsychotic absolutely contraindicated for a person with a heart condition?
thioridazine
2. best medication for a newly Dx Type II diabetic? (metformin or troglitazone?)
3. Woman with vasospastic angina by history. Most appropriate med?
4. Experiment. asked order for Dobutamine in terms of receptor activation and efficacy.
5. Mechanism of rifampicin.
6. Mechanism of griseofulvin
7. Girl has allergy to dog, immediate relief by (Zafirlukast or Corticosteroids ?) steroids.
8. Patient on griseofulvin is now sterile. Problem with sperm? (motility, griseofulvine disrupts microtubules)
9. antifungal has mech which inhibits fungal wall synthesis.. (ketoconazole.)
10. Mech's of antivirals.
11. Case where farmworker comes into ER with lethargy, nausea, and HALLUCINATING. Typical is salivating, lacrimating, etc., associated with insecticide poisoning. This presentation was different because actually was insecticide with anti-nicotinic activity. Answer, though, is the same- Atropine.
12. man previously on maintenance meds for antihypertension, DM, something else. Had a UTI, or something, treated with aminoglycosides. The most likely complication? If he was taking Furosemid before then the most likely complication - hearing loss
13. Mech of alprazolam.
14. ID Teratogenic effect of tetracycline.
16. Drug of choice for DM complaining of neuralgia of one leg. since neuropathic pain, they can use gabapentin /tricyclic antidepressants
17. Mech of action of opioids in cough suppression... respiratory center depression
18. Woman walks into ER with swelling of upper lip, dyspnea with cyanosis. (angioedema) What is her antihypertensive med? (Captopril)
19. Kid with ALL has renal failure with findings of urate on biopsy after treatment

Behavioral science:

Knowing your biostats and epidemiology pays. Know grief, depression, and suicide really well.

1. Know formulas for PPV, NPV. They can give you a case where they gave you PPV and

NPV or some value like that and asked for RR.

2. difference between kidney fxn in elderly vs young; decreases GFR and creatinine cl

3. Given a test in which 95% of the time results are normal, what is the formula to compute the chance of getting one ABNORMAL value on eight consecutive tests?

4. Distribution curve. Given SD, what percentage is likely to be above? (68% pop in one s.d., so, 32% outside, $32/2=16\%$)

5. Identify the study and give the appropriate stat given an experimental procedure.

6. Identify Lung CA for women on epidemiology graph. (only one increasing)

7. Exceptions for given culture. Indian girl sees recently departed dead grandpa. Is she schizo? Communication with deceased relatives is a part of native American cultures

8. Suicide attempt, past medical treatment (post hemoD), denies problem, family denies problem. Do you ask for consult, take a psych history, or kick em out?

Take a psych history! He is a danger to himself! It does not matter what he says or wants

9. Migraine patient exhausts Butorphanol meds in very short period of time, calls you up asking for refill. Do you: a) tell them to consult ER b) deny, stating it is a regulated med c) fill their prescription?

B... He used it up too quickly, so he abused the drug.. Refilling will add to his addiction, telling to consult ER is like telling the patient to go away, and not taking responsibility.

10. Post hip replacement surgery patient in 4th month of rehab and is uncooperative, cries, doesn't sleep well, doesn't eat. Do you medicate? ("...adjustment disorder is relatively normal...", but...)

11. 2 months Post MI patient suffering from low mood. Consequences of not treating? Do you treat them at all?

12. Narcolepsy (no doubt). What do you give him? (stimulant)

13. Husband lost for days, remembers children, doesn't remember wife, couldn't remember his own name. with history of accident. Is it fugue or is it subdural?

14. Couple schizophrenic questions. ID problem based on hx.

15. Ego defenses. For sure these will always show up.

1. general patho , most important is apoptosis and know which genes do what ? ie Bcl-2 ? Bax, etc., metastatic calcification, examples of hypertrophy, hyperplasia
2. Arnold chiary malformation, clinical picture was given .
3. Know the tumor markers, when is vimentin, desmin used? In which tumors?
4. Important difference in carcinoma from benign condition, one most important difference is metastasis....eg, if bowel ca then metastatic cells in serosa is the most important differentiation then anaploidy or even rapid turn over.
5. Know where are carcinoma in situ located, eg Cervix, what is Bechet's disease, and it predispose to what? In male and female both.
6. histopathology of tumors like neuroblastoma, ewing tumor, medulloblastoma.
7. factors associated with coagulation and one's which prevent it, eg thrombomodulin , Fibrin does what? Alteplase acts on what, streptokinase acts on what?
8. Schwannoma and what will u see in histopath, shawaan cell or oligodendrosites.
9. Clinical picture of hypothyroidism and was asked the diagnosis, in the answer was given choices with TSH, t3,t4, and other tings with aroows going up and own
10. Selectins and integrins are very very important. Know what play what role

11. complement deficiency and how it is manifested in clinical scenarios.
12. complication of ASD , paradoxical emboli, I was given a clinical scenario of that.
13. Commonest complication of VSD, it's associations with other diseases. Is in Down's .
14. heart's morphology of Fallot's tetralogy was given and was asked the diagnosis.
15. Know cyanotic and non cyanotic heart diseases.
16. PDA, continuous murmur and what is given to keep it patent or close it + MOA.
17. Cystic fibrosis, why fat malabsorption is given? Lipase/amylase deficiency?
18. Severe combined immune deficiency, cell markers of immature and mature b cell.
19. tumors of lungs well and it's syndromes (hypercalcemia, ACTH, serotonin)
20. Know pancoast syndrome, horner's syndrome? And what level of sympathetic denervation will lead to horner's syndrome in sympathetic trunk.
21. Cavernous sinus thrombosis? And what will be the first to be affected? Sympathetic trunk, then abducent nerve and internal carotid artery.
22. Asbestosis, where will u find the pathology in lungs first and what does it predispose to?
23. exposure of Ccl4 leads to what?
24. Patient comes to u with thyroid cancer? What will be the most likely cancer? And what relevant history would u take from him/her? (exposure of radiation)
25. know what are the mature immunoglobulins out of IGg, Igm, IgE, IgD.
26. know the perineal pouches and what happens to the urethra in different situations? Eg, after RTA, no urine but blood present on urethra and scrotum is ecchymosed...where is the damage, ? ie which part of urethra?
27. Gap junctions, tight junctions and all the filaments used in order to anchor them...ie where is actin filament used to adhere? When is desmosomes used and where? How a cell can acquire the residence from cell to cell (gap junction) which one is the most tight and do not allow any leak what so ever? They are very very important.
28. function of sertoli cell and leydig cell and how they are inhibited and activated.
29. Know well the cardiac cycle and cardiac function curve....very very important.
30. Where are S3 and S4?
31. know Actions of aspirin, Bradykinins, ziferlukast, ziluton,flumazenil,flutemide.
32. Know the Barriers, Blood brain, blood testis, Blood lung?
33. Know the mode of actions od AntiDm drugs and it's important side effects.
34. Know the graph of female hormonal changes of FSH,LH,progesterone, estrogen.