# Cards

Decreased pulses with inspiration → pulsus paradoxus (tamponade)

Monomorphic VT tx: amiodarone, procainamide, lidocaine, sotalol

PMVT tx: magnesium

AVNRT/SVT tx: adenosine, vagal maneuver

AF/Aflutter tx: BB, CCB

Thin hairless skin, ulcer → PAD (NBS: ABI)

34M, DOE, crackles, s/p URI → HF d/t dilated cardiomyopathy 2/2 viral myocarditis

Late systolic murmur at apex that prolongs with valsalva → MVP

Ppx abx for dental procedures required for: prosthetic valves and grafts (NOT MVP)

S/p MI, step up in SpO2 b/w RA and RV → VSD

Mitral stenosis murmur: mid-diastolic murmur at the cardiac apex

Hemothorax → ↓LV preload

Nitrate MOA: systemic venous dilation → ↓preload → ↓myocardial oxygen demand

Decrescendo diastolic murmur → aortic regurgitation

Seizures, ↑CK, ↑K, AV block, BP 92/62, HR 40 → hyperkalemic emergency → tx IV calcium

DHF mortality reduction tx: BB (metoprolol, carvedilol), ACEi/ARB, MRA (spironolactone), SGLT2i (empagliflozin)

Diltiazem is contraindicated in HFrEF b/c ↓myocardial contractility

Syncope at rest → arrhythmia

Torsades tx → IV magnesium sulfate

Cough, fevers, chills, pleuritic CP, ↑WBC, ↑eos, h/o asthma exacerbations, RLL infiltrate w/ bilateral central bronchiectasis → ABPA

Mechanical mitral valve, ↓Hgb, ↓PLT, crackles → prosthetic valve thrombosis

RLE pain and painless, 2 mo s/p MI, holosystolic murmur, ECG w/ persistent STE w/ Q waves → thromboembolism 2/2 LV aneurysm

POD3 cardiac cath, R inguinal pain, pulsatile mass w/ systolic bruit → femoral artery pseudoaneurysm

POD3 cardiac cath, R inguinal pain, pulsatile mass w/ continuous bruit → AV fistula

Delayed femoral pulses, HTN → aortic coarctation → NBS TTE

23M, loud holosystolic murmur w/ thrill → VSD

PE hemodynamic changes: ↑PVR, ↑RV preload, ↓CO

Prosthetic mitral valve, ↓PLT, ↓Hgb, ↑LDH, holosystolic murmur → paravalvular regurgitation

S/p hospitalization for DHF, ECG w/ long QT → hypokalemia (d/t furosemide)

39F, acute substernal chest pain, ↑troponin, nl ECG → ACS (spontaneous coronary artery dissection)

35M, immigrant, recent lung infxn, weight loss, enlarged cardiac silhouette → TB pericardial effusion

38M w/ bicuspid aortic valve, acute CP → thoracic aortic aneurysm (NBS CTA)

74M, DOE, CTS, echo w/ biatrial enlargement and thickened ventricular walls, LVEF 65% → transthyretin amyloidosis (restrictive cardiomyopathy)

28M, CP x 7d, DOE, ↑troponin, ventricular hypokinesia, LVEF 45%→ acute myocarditis → tx diuresis, ACEi, BB (NOT NSAIDs)

38F, CP, nl ECG, ↑trop → ACS

Bilateral foot pain, pulsatile epigastric mass, cyanotic toes → AAA c/b cholesterol embolization syndrome

# Pulm

Yellow pleural fluid, protein 4.9 g, 1200 WBCs (90% lymph) → TB

PTX → ↑intrapleural pressure, ↓SVC return

22M w/ CF, edema, JVD → cor pulmonale (type 2 pulmonary hypertension)

28M, chronic cough w/ blood, weight loss, recurrent PNA → bronchiectasis (permanent destruction and dilation of airways)

67M, DOE x1yr, h/o CAD, cough, no CP, S4, 40 P-Y → COPD

COPD, BMI 17 → pulmonary cachexia → MOA systemic inflammation, accessory muscle use, infxn

Pleuritic CP, recent URI, nl CXR, shallow breaths → viral pleuritis → tx NSAIDs

7M, chronic cough → asthma → NBS spirometry

Asthma RF: FHx, eczema, allergic rhinitis > environmental exposures

Syncope, QTc 500, ↓LV wall thickness, ↓chamber volumes, pericardial effusion → anorexia nervosa

# GI

TPN risks: CLABSI, cholelithiasis if >2wk

Pancreatic calcifications, normal lipase → chronic pancreatitis

RUQ pain s/p Roux-en-Y → cholecystitis (weight loss → ↓CCK)

Cirrhosis, ascites w/ >250 PMNs → SBP → tx CTX (NOT therapeutic para)

Jaundice, ↑ALKP, decreased appetite → pancreatic cancer

42F, epigastric pain radiating to back, fever. ↑WBC → cholecystitis

31M, NBNB diarrhea, wrist fx, microcytic anemia → CD (IDA, Vit ADEK def)

Epigastric pain, milky blood samples, yellow streaks on palms → hypertriglyceridemia → pancreatitis → tx fenofibrate (↑VLDL catabolism)

Acute liver failure criteria: ↑↑AST/ALT, hepatic encephalopathy, AND INR > 1.5

Fatigue, erectile dysfunction, MCP swelling, hepatomegaly → hereditary hemochromatosis

Epigastric pain, ↓Ca, fever, ↑WBC → acute pancreatitis → IVF

33F, solitary liver lesion, CT w/ contrast enhancement and central stellate scar → focal nodular hyperplasia (benign)

44M, fatigue, ↑ALP, ↑bili, ↑AST/ALT, MRCP w/ biliary duct strictures → PSC

62F, watery diarrhea x6 mo, no lactose → microscopic colitis

Abdominal distension, XR w/ distended bowel loop w/o haustra in inverted U shape and dilated small bowel loops and no air in rectum → sigmoid volvulus

78M, watery to bloody diarrhea, fever, ↑WBC, LLQ tenderness → Shigella (NOT diverituliits b/c bloody diarrhea) → NBS stool micro studies

IBS tx: antispasmodic, TCA

NAFLD tx: weight loss, diet modification, exercise

How to prevent complications in diverticular disease: exercise

12M, food stuck in chest, eczema → eosinophilic esophagitis → NBS endoscopy + bx

GERD, microcytic anemia, neg FOBT → UGIB → NBS EGD

S/p fundoplication, bloating, inability to belch → gas-bloat syndrome → tx simethicone

65F, epigastric discomfort, bloating, early satiety, dysphagia → dyspepsia → NBS EGD

30F, weight loss, epigastric tenderness, vomiting undigested food, stomach distension, delayed stomach emptying → gastroparesis → tx frequent small meals

14M, DS, aggressive, abdominal distension → constipation → NBS XR

# Renal

Ethylene glycol poisoning: AGMA + ↑Sosm

POTS mechanism: baroreceptor disruption → peripheral vasodilation

Persistent HTN and cramps after starting chlorthalidone → primary hyperaldosteronism → tx spironolactone

Symptomatic hypercalcemia → PTHrP (malignancy)

Brown hematuria → glomerular hematuria (glomerulonephritis) → NBS urine protein, kidney bx

Pink hematuria → non-glomerular hematuria (nephrolithiasis, cancer, PKD, cystitis) → NBS CT

35F w/ ESRD, morning stiffness, ↓Ca, ↑Phos → secondary hyper PTH → renal osteodystrophy

Obese, 24hr urine protein 5g → nephrotic syndrome (FSGS)O → NBS kidney bx

DM-2, UA w/ 4+ protein, WBC, RBCs and RBC casts → mixed nephrotic-nephritic syndrome → NBS bx

Chemotherapy induced cardiotoxicity pathophys: cardiomyocyte replacement w/ fibrous tissue

SIADH labs: ↓Sosm, ↑Uosm, ↑UNa

Uric acid kidney stone RF: diarrhea (low urine pH), DM-2, gout, MDS, hot climate, dehydration

AMS, AGMA, mydriasis, hyperemia of optic disc → methanol poisoning → tx fomepizole, HD

26F, AKI, ↓UOP, HSM, bilateral hydronephrosis → obstructive uropathy → tx percutaneous nephrostomy tubes

77M, RLL opacity, diaphoresis, h/o stroke, ↑Na, ↑Uosm → excess free water loss

Anxiety, tachycardia, diaphoresis, desquamating rash, catecholamines → mercury toxicity

Dementia, muscle weakness, bone fx, CKD on HD → aluminum toxicity

Vomiting, diarrhea, skin hyperpigmentation → iron toxicity

ESRD on peritoneal dialysis, abdominal tenderness, fever, ↑WBC → peritonitis → NBS gram stain and cx of peritoneal fluid

Kidney bx w/ IgG and C3 → membranous nephropathy (nephrotic syndrome) → NBS PCV vaccine, AC, statin, loop diuretic, ACEi

Hepatorenal syndrome tx: albumin + splanchnic vasoconstrictors (norepi, midodrine)

12F, dark urine, recent URI → IgA nephropathy

IgA nephropathy labs: nl complement, 1+ protein, RBC casts

# Heme/Onc

Pigmentation in palms, mediastinal mass, weakness, ↓K, HTN → Cushing syndrome (SCLC → ACTH)

67M, LAD, lymphocytic leukocytosis → CLL → tx anti-CD20

Pancreatic cancer, ↑bili, pruritis tx → endoscopic stent placement

63M, weight loss, ↑Ca, AKI → MM (renal tubular damage)

R neck pain, third finger tingling, CXR w/ R diaphragm elevation → Pancoast tumor (phrenic nerve)

Ovalomacrocytosis, neutrophils with reduced segmentation, pancytopenia → MDS (NBS: BM bx)

Edema, AMS, ecchymoses, anemia → malnutrition (hypoalbuminemia, coagulopathy, IDA)

55F on chemotherapy (10 days ago), fever, neutropenia → bacterial infection

55F on chemotherapy (3 days ago), fever, ↓Ca, ↓P, vomiting → TLS

68M, anemia, WBC 38k (92% lymph) → CLL

CLL smear → smudge cells

Hereditary spherocytosis → hemolysis → pigment gallstones

Recent PNA, ↑PLT, h/o laparotomy for MVA → splenectomy + reactive thrombocytosis

Lung mass, Na 131, Ca 14 → hypercalcemia 2/2 PTHrP → IVF w/ NS

On warfarin, recently started vitamins, INR 1.5 → Vit K reduces warfarin efficacy

Proximal muscle weakness, 40 P-Y → SCLC (Lambert-Eaton)

Levido reticularis, recurrent miscarriages → APLS

APLS labs: ↑PTT (nl PT)

Fatigue, abdominal discomfort, falls, microcytic anemia → lead poisoning

Basophilic stippling → lead poisoning

Ulcer on penile frenulum w/ superficial slough and hard indurated base for months, LAD → cancer

77F, h/o chemoRT, Hgb 7.2, MCV 108, retic 1%, PLT 60k, WBC 3k, neutrophils w/ decreased granulation → MDS

Pseudo Pelger Huet cells → MDS (dysplastic granulocytes)

Hypersegmented neutrophils → folate deficiency

Pancytopenia, no HSM → MDS

Pancytopenia, HSM → myelofibrosis

72F, HA, blurry vision, HSM, ↑WBC, ↑↑IgM→ Waldenstrom macroglobulinemia → tx plasma exchange

62M, weight loss, cough, 45 P-Y, RUL cavitary lesion → squamous cell carcinoma

62M, weight loss, cough, 45 P-Y, CXR w/ hilar mass and mediastinal LAD → SCLC

TLS, AKI → calcium phosphate or uric acid stones (↑K, ↑phos, ↑purines)

60M, CKD, IDA, neg SOBT → tx iron (NOT colo)

21M, enlarged L testicle, no nodules, “dragging” → testicular cancer → NBS U/S

# ID

HIV, which flu vaccine: inactivated, regardless of CD4

39M, bilateral retinal hemorrhages, stroke, h/o HCV, fever → endocarditis

Fever, HA, myalgia, bilateral facial weakness → Lyme

19F, DOE, CXR w/ reticulonodular opacities → mycoplasma → azithromycin

Bloody and mucus diarrhea, Philippines, RLQ and LUQ TTP → entamoeba histolytica

Malaria, still has fever s/p chloroquine → P vivax → tx primaquine

Most effective way to prevent genital herpes transmission: condoms

Cough, HA, watery diarrhea, fever → legionella → tx FQ

13M, lethargy, confusion, diffuse pustules and vesicles → VZV

Tender firm mass on left neck w/ overlying erythema, cats → bartonella c/b cervical lymphadenitis → tx azithromycin

Vomiting, diarrhea, Salmonella → nontyphoidal Salmonella → self-limited (NO abx unless <1 yo, SCD, immunocompromised, CVD, severe dehydration)

Scaly rash on extremities and chest, HA, dizziness, tinnitus, ↓visual acuity, posterior uveitis, whitish patches on oral mucosa, neck stiffness → syphilis

32F, fever and sore throat x3wk, cervical LAD, buccal ulcers, ↓WBC → acute HIV

UA w/ yeast and no LE and no WBC, asymptomatic → candiduria → reassure (colonization)

Suspected C diff: initiate contact precautions before stool studies result

Rifampin s/e: induces CYP3A4 → ↓warfarin, AED, antiarrhythmics, methadone, OCPs

Neurocysticercosis tx: albendazole + steroids (to limit brain inflammation as parasite destroyed)

Scabies vs VZV: VZV has fever, malaise, and resolves in 1-2 wk

19F, asymptomatic, + gonorrhea NAAT, - chlamydia NAAT → tx CTX

Culture negative endocarditis: Coxiella, brucella, bartonella, mycobacteria, aspergillus

Blood from HIV patient in contact with intact skin → reassurance (no PEP)

48F, RA on infliximab, muscle weakness, pancytopenia, HSM, ↓WBC, ↓cortisol, bilateral reticulonodular infiltrates, mediastinal LAD, enlarged adrenal glands → disseminated histo

15 mo, neutropenia, + flu → postinfectious neutropenia → self resolves

Kidney transplant, watery diarrhea x3 wk → cryptosporidiosis

# Endo

69M, weight loss, BP 170/90, HR 142 → hyperthyroidism

39F, weakness, HTN, BMI 37, acne → Cushing syndrome (ACTH dependent hypercortisolism)

39F, irregular menses, BMI 37, acne → PCOS

Vomiting, AGMA w/ glucose 382 → DKA (↓insulin → peripheral lipolysis → breakdown in liver → ketones)

DKA tx: 1. IVF, 2. Insulin w/ potassium

45F, weight loss, separation of nail from bed, sclera seen above iris → Grave disease → hyperthyroidism

Amenorrhea, galactorrhea, fatigue, weight gain → hypothyroidism

DM-2 w/ AKI → tx SGLT2i, ACEi/ARB (but NOT both)

POD10 thyroidectomy, ↓Ca, ↑Phos, bilateral calcification in basal ganglia → hypoPTH

Costa Rican immigrant, DM-2, weight gain → NBS low calorie alternatives to staples (NOT Spanish hand out w/ meal plans)

HypoPTH tx: calcium and calcitriol or IV calcium gluconate

S/p laryngectomy, fatigue, tingling, sleepy, depressed, ↑DTRs → hypoPTH

65F, slow speech, ↓DTRs, bradycardia, muscle weakness → hypothyroidism

CF, polyuria, ↑A1c, ↓C-peptide → CF related DM → tx insulin

40M, DM → tx statin (regardless of lipids)

# Neuro

Back pain improves when walking uphill → spinal stenosis (NBS: MRI)

Stroke ppx in pt w/ AF → DOAC

Brain lesions at grey-white junction → metastases

Gait instability, UMN signs, muscle atrophy → ALS (NOT MS)

Empiric meningitis tx: CTX + vanco + ampicillin

PD plus vs PD: postural instability (test w/ pull test)

GBS LP: ↑protein, nl WBC

Acute BLE, prison → epidural abscess (IVDU)

Migraine, seizure, HTN → hypertensive encephalopathy d/t triptan ergotamine

32F, R eye vision blurry, R face tingling → MS

67F, R eye dim, R carotid bruit → retinal embolism

R pupil dilated, LUE and LLE extensor posturing, ↑DTRs in L → basal ganglia hemorrhage w/ uncal herniation

Daytime sleepiness, vivid dreams while falling asleep, cataplexy → narcolepsy (decreased REM latency)

72F, frequent falls, lost in neighborhood, good days and bad days, agitation and disorientation, slow speech → Lewy body dementia (postural instability, REM sleep behavior disorder, orthostatic hypotension)

72M, syncope, ataxia, double vision, nystagmus, BLE numbness → vertebrobasilar insufficiency → NBS CTA head

Meningioma tx → surgery

GCA on steroids, insomnia and HA → NBS taper steroids

R sided weakness, aphasia, L carotid bruit, L radial pulse decreased → aortic dissection

65F, aggressive sexual behavior, impulsive, neglecting bills → FTD

HA when bending forward, afebrile, frontal sinus TTP, crusted blood in nose → sinus barotrauma → tx pseudoephedrine

Vertigo, fullness in R ear, worse when stays up late → Meniere disease → tx diet and lifestyle modification

S/p R carotid artery stent, L sided weakness → carotid in-stent thrombosis

# Rheum

Proximal muscle weakness, ↑CK, ↑LFTs, ↑LDH → polymyositis

Cough, swollen knee, AKI, enlarged cardiac silhouette w/ pleural effusion → SLE (w/ pericardial effusion)

Knee pain, feels like it is catching → meniscal tear (NBS: MRI)

63F h/o RA, fever, swelling of R second MCP → septic arthritis

Gout RF: alcohol cessation, urate lowering

Leg ulcer, hearing loss, proteinuria, hematuria → GPA (necrotizing vasculitis, ANCA)

74F w/ OA, L knee with warmth and effusion → CPP arthropathy (NBS: arthrocentesis)

CTS tx: wrist splinting, steroid injection, surgery

Systemic sclerosis, HTN → scleroderma renal crisis (↑↑RAAS, nl UA)

# Derm

Erythematous lesion that quickly necroses → ecthyma gangrenosum (PSA)

69F, pruritis, blistering disease (tense blisters) → BP (NBS: skin bx)

45F, painful blisters (flaccid blisters) and erosions, oral lesions → PV

Recent URI, raised red rash on BLE, knee pain with PROM → HSP (IgA vasculitis) → hematuria

Pruritic rash under breasts → candida intertrigo (pseudohyphae w/ budding yeast forms)

Gout acute tx: NSAID

Gout acute tx, pt on ASA + clopidogrel + apixaban: colchicine

Gout chronic tx: allopurinol, febuxostat > probenecid

Gritty eyes, pustules on cheeks and nose → ocular rosacea

35M, dusky gangrene in two toes, smoker, nl ESR, nl pulses → thromboangiitis obliterans

Smal rought papules at hair follicles w/ surround hemorrhage → scurvy (Vitamin C deficiency)

Started allopurinol, facial edema, morbilliform rash, LAD, ↑eos, ↑LFTs → DRESS

Onycholysis, erythematous plaques → psoriasis

GA22, pedunculated flesh colored growths on labia → condylomata acuminata (HPV) → tx topical trichloroacetic acid

# Peds

17F, coffee-ground emesis, green diarrhea → iron poisoning

7F w/ SCD, fever, fatigue, petechiae → Strep pneumo sepsis and DIC

14M, systolic murmur at LUSB, fixed S2 split → ASD

6M, poor social skills, temper tantrums, trouble transitioning → ASD

Prominent forehead, large ears, ASD, hand biting → FXS (CGG repeat in FMR1)

ASD, microcephaly, inappropriate laughter → Angelman syndrome (loss of maternal allele)

ASD, obesity, short stature → Prader-Willi (loss of paternal allele)

ASD, developmental regression, abnormal gait → Rett (MECP2 mutation)

18mo F, painless bloody stools → Meckel diverticulum (ectopic gastric mucosa, persistent vitelline duct) → dx technetium 99m pertechnetate scan → tx surgery

Child w/ nephrotic syndrome → MCD → tx pred (no bx needed b/c >90% MCD in children)

15M, limb jerking, GTC seizure → juvenile myoclonic epilepsy

KUB w/ corkscrew duodenum → malrotation

3M, erythematous papules w/ yellow crust on chin → impetigo (S aureus, GAS) → PSGN

4F, fever, conjunctival erythema, strawberry tongue, rash on trunk and palms, LAD → KD → tx IVIG

6wk old, cyanotic but warm extremities → congenital heart disease (low arterial oxygen sat)

13mo, fever resolution, chest rash → HHV-8 (roseola infantum) → supportive

Newborn, hemangioma → observe (benign), BB if periorbital

14 mo F, loss of communication skills, periodic clapping of hands, lack of eye contact → Rett syndrome (MECP2)

Newborn, musty odor, seizure, microcephaly → phenylketonuria (phenylalanine)

Newborn w/ rash, jaundice, HSM, microcephaly → congenital CMV

14 d M, cleft palette, holosystolic murmur, low set ears, micrognathia → DiGeorge (22q11)

15 mo, recent rhinorrhea, septic arthritis → GAS hematogenous spread

Empathy develops at: 4-5 yo

3M, inability to retract foreskin → phimosis → emergent reduction

4F, recent URI, ataxia, tremor, nystagmus → acute cerebellar ataxia

Newborn, cyanotic, ↓PaO2 on 100% O2 → congenital heart defect → NBS echo

Turner syndrome tx: GH + estrogen + progestin

3 mo, BP 120/80, holosystolic murmur, born at 26 wk → bronchopulmonary dysplasia (HTN will self resolve)

Counseling teenager that uses cannabis: peer pressure?

6M, picking at skin, feeding difficulty, overweight, almond eyes → Prader-Willi

7 d old, continuous murmur, diastolic rumble, S3, bounding pulses → PDA

Well child visit, obese: lipids, A1c, ALT, BP

3M, recurrent RLL PNA → foreign body aspiration

Exceptions to informed consent in minors: emergency care, emancipated minor, STI, substance use, pregnancy, contraception

11F, DM-1, hair loss → autoimmune thyroiditis

69F, waking up at 4AM → NBS reassurance (normal aging)

Newborn, does not cry, no spontaneous movements → NBS tactile stimulation

Premature, rapid weight gain at 8 mo → catch up growth (normal)

4M, sore throat, difficulty eating, h/o cough, stiff neck, difficulty opening mouth → retropharyngeal abscess → NBS CT scan

# Psych

S/p Haldol, neck muscle contraction → torticollis / acute dystonia → tx benztropine, diphenhydramine

S/p Haldol, restlessness → akathisia → tx BB, benzo, benztropine

S/p Haldol, tremor, bradykinesia → parkinsonism → benztropine, amantadine

S/p Haldol, dyskinesia of mouth → tardive dyskinesia → tx valbenazine, deutetrabenazine

S/p Haldol, fevers, rigidity, AMS → NMS → tx dantrolene

69M, increased sleep, stiff muscles, constipated, cold, paranoid, depressed mood → hypothyroidism

Cocaine addiction tx: individual and group psychotherapy

Seizure, AMS, ↓BP, ↑HR, ↑QRS → TCA OD

GA35, ROM, cervix 1 cm, contractions q2-3min → tx penicillin

Good prognostic factors in schizophrenia: late onset, female, positive symptoms, no FHx

Psychosis, 1 d – 1 mo → brief psychotic disorder

Psychosis, 1 mo – 6 mo → schizophreniform disorder

Psychosis, >6 mo → schizophrenia

52F, decreased libido, nl labs and exam → female sexual interest disorder

Antiemetics that cause akathisia: prochlorperazine, promethazine, metoclopramide

Panic disorder tx: SSRI + CBT, benzo

DS, irritable, sleepy → OSA

S/p Haldol, rigidity, eyes deviated upward → dystonia (NOT NMS b/c not generalized)→ NBS tx diphenhydramine (NOT CK)

Cannabis withdrawal s/s: irritable, anxiety, weight loss, poor appetite, abdominal pain

Temper tantrum tx: withdraw attention

Behavioral therapy for smoking cessation in pt that travels: proactive telephone counseling

MDD, HA, nausea, fatigue, myalgia, chills, vivid dreams → SSRI discontinuation

# OBGYN

NST w/ >2 FHR → normal

Labor progression: once 6 cm, should progress by 1 cm every 2 hr → if not tx w/ oxytocin

Prenatal supplements: prenatal vitamins, add additional folic acid if NTD previously or AED

GDM complications: fetal macrosomia, polycythemia, hypoglycemia, respiratory distress syndrome

56F, urinary urgency, adnexal fullness, CXR w/ pleural effusion → ovarian cancer

PCOS and infertile → tx weight loss

Breast cancer screening: mammogram q2yr from 50-74yo

29F, malodorous vaginal discharge w/ gas, fever, diarrhea → CD (enterovaginal fistula)

Urge incontinence tx → bladder training

GA32, bleeding, reactive FHT → placenta previa (NBS: transabdominal U/S)

Fluctuant mass on labium majus → Bartholin gland cyst → I&D

Untreated chlamydia → infertility

Tocolytic that causes HA, nausea, flushing → nifedipine (CCB)

Stopped breastfeeding, soft mobile nontender subareolar mass → galactocele

24M, amenorrhea, copper IUD, ↓FSH, no bleeding w/ progesterone challenge → functional hypothalamic amenorrhea

GA9, vaginal spotting, closed cervix, normal FHR → threatened abortion → reassure

53F, urinary incontinence, urinating every hr, no PVR → urgency incontinence (involuntary detrusor contractions)

Fetus w/ neural tissue bulging into amniotic cavity → myelomeningocele (spina bifida) → folate deficiency

GA31, right flank pain, fever, FHR 180, crackles, SpO2 90% → pyelonephritis c/b ARDS

Lower back pain, HIV, hydronephrosis, vaginal bleeding → cervical cancer

S/p delivery of stillborn fetus GA26, no placenta, 90 min later profuse bleeding → retained placenta

GA8, 12 wk uterus, ↓K, ↓Cl, ↓gluc, ketonuria → hyperemesis gravidarum d/t multiparity

POD3 C-section, BMI 40, sanguineous discharge from incision, incisional pain → incisional hematoma

GDM complications in newborn: HCM, shoulder dystocia, hypoglycemia, organomegaly, PCV

Vaccines in ALL pregnancies: Tdap, flu, RhoD (if Rh neg)

39F, AUB, symmetrically enlarged uterus, vascular nodule in posterior vagina → choriocarcinoma w/ vaginal met

Child, non-friable nodules protruding from vagina → sarcoma botryoides (embryonal rhabdomyosarcoma)

Menstruation resumes after birth in: 8-14 wks

Thyroid changes in pregnancy: E2 → ↑TBG →↑T4, hCG →TSH-R→↑T4→↓TSH

Monochorionic diamniotic twins complications: discordant fetal growth, polyhydramnios, HOHF, hydrops fetalis, intrauterine fetal demise

33F, amenorrhea after removing IUD, nl FSH, prolactin → NBS progestin withdrawal test

GDM monitoring: BG fasting AND postprandial

31F, infertile, nl periods → poor ovarian reserve → NBS AMH level

GA12, nausea, vomiting, RUQ discomfort → cholelithiasis → NBS RUQUS

GA13, spontaneous abortion, Rh negative → NBS anti-D immune globulin

Monochorionic twins complication: twin-twin transfusion syndrome

Monamniotic twins complications: cord entanglement, fetal demise (C-section)

# Surgery

DM w/ overflow incontinence → neurogenic bladder → tx self cath

Urge incontinence → detrusor overactivity or obstruction → tx beta agonist, muscarinic antagonist

Stress incontinence → ↓urethral tone → pelvic floor exercises, midurethral sling

Mid humerus fx → radial nerve

Supracondylar humerus fx → median nerve

Septic shock, MAP 50 s/p IVF → norepi to goal MAP >60

High riding testes, absent cremasteric reflex → testicular torsion

Bag of worms → varicocele

Urinary frequency, swelling epididymis, pyuria → epididymitis

Septic shock: ↓SVR, ↓CVP, ↓PCWP, ↑CI, ↑MvO2 sat

POD3, shock, WBC 21k → CRBSI

Car accident, widened mediastinum → blunt thoracic aortic injury (NBS: CTA)

POD4 CCY, RUQ pain, fever, ↑WBC, ↑ALP, ↑AST/ALT, nl biliary ducts on RUQUS → biliary leakage

26M, firm nontender nodule on testes → germ cell tumor

Prevent post-op PNA in COPD and OSA patient → preoperative physical therapy (NOT CPAP)

Blood at urethral meatus, BP 80/52, HR 130 → PRBC BEFORE RUG

POD10, n/v, abdominal distension, CT w/ dilated colon and contrast throughout, empty rectal vault → colonic pseudo-obstruction

Testicular torsion is due to: inadequate fixation of testis to tunica vaginalis

SBO, adnexal mass, omental caking, fever, ↑WBC → exlap (NOT NGT)

66M, peritoneal sac above inguinal ligament and medial to inferior epigastric → direct inguinal hernia (weakened inguinal canal floor)

66M, peritoneal sac above inguinal ligament and lateral to inferior epigastric → indirect inguinal hernia (laxity of deep inguinal ring, patent processus vaginalis)

70M, groin pain, vomiting, fever, ↑WBC → strangulated hernia → emergent surgery (NOT imaging)

R foot w/ no sensation, no pulses, no Doppler, rigid → nonviable limb → tx amputation

ESRD, K 5.8, strangulated hernia, nl ECG → proceed with surgery w/ intraop monitoring

ESRD, K 5.8, strangulated hernia, ECG w/ wide QRS → preop HD for 1hr if available

Bowel perforation, ECG w/ ST abnormalities → proceed w/ surgery

R groin pain, Crohn disease, pain improves w/ hip flexion → psoas abscess → NBS CT abdomen

21M, groin pain w/ Valsalva, pubic symphysis TTP, no bulge → sports related groin pain (repetitive stress to external oblique aponeurosis) → tx NSAIDs, ice

47M, anorexia, BMI 14, stomach distension, narrowed SMA angle → SMA syndrome → slow nutritional rehab

# MSK

52M, R knee pain w/ weigh bearing, crepitus w/ flexion/extension → OA → tx weight loss, exercise

15M, XR w/ periosteal elevation adjacent to osteolytic lesion in distal femur metaphysis → osteosarcoma (sunburst)

15M, XR w/ lytic lesion and lamellated periosteal reaction → Ewing Sarcoma (moth-eaten, onion skinning)

Stress fx of lateral subtrochanteric region of R femur → alendronate a/e

Avulsion fx of anterolateral tibial plateau → ACL tear

66F, R hip pain, recent femoral neck fx, painful PROM, not TTP → AVN

Hand pain, morning stiffness 10 min, relieved by rest, no joint swelling → OA

OA vs PsA: PsA is bilateral, dactylitis, onycholysis, pitting, swelling, prolonged morning stiffness

Anorectal abscess tx: I&D + abx

Swollen fit after twisting foot, DM-1, ↓sensation, nl WBC → neuropathic charcot arthropathy → tx foot cast and avoid weight bearing

Ankle sprain, can bear weight, limited ROM → tx ankle brace (NOT XR b/c no malleolus TTP)

# Ophtho

Halos around headlights, difficulty driving in sunlight → cataracts → loss of red reflex

Solitary painless rubbery nodular lesion on eyelid → chalazion (blocked meibomian gland) → tx warm compress

Solitary painful nodule on eyelid → hordeolum / stye (bacterial infection of eyelash follicle)

Loss of peripheral vision, nl visual acuity → open angle glaucoma (optic disc cupping)

Arteriovenous nicking, cotton-wool spots → hypertensive retinopathy

Brightly refractile yellow plaque on fundoscopy → cholesterol embolization

Macular cherry red spot → CRAO

Retinal neovascularization → diabetic retinopathy

DM-1 x3 mo, ↓visual acuity, nl fundoscopy → lens edema d/t hyperglycemia → tx glucose control

Acute painless monocular vision loss, afferent pupillary defect → CRAO → NBS fundoscopy

# Epi

Failure modes and effects analysis: human factors engineering (checklist, flow chart)

Ascertainment bias: extrapolating results from atypical population to entire population

Hawthorne effect: study subjects change behavior when being observed

Failure to diagnose endometriosis can be due to: anchoring bias, confirmation bias

# Ethics

Son asks not to tell mother (pt) diagnosis → confirm desires w/ mother

Asking wife of pt to be healthy control in trial → violation of voluntariness

Surgeon does not provide beneficial procedure d/t comorbidity → malpractice

Brain dead, family indecisive about withdrawing care → NBS time limited trial

How to fire patient: continue for finite time (NOT identify another physician)

DNR = withhold all life-sustaining interventions during cardiac arrest

Drug seeking behavior → ask about why needs opioids (NOT addiction referral)