# Cards

SVT tx if stable: adenosine, vagal maneuvers

SVT tx if unstable: cardioversion

57M, CP after exercise or eating, S4, ST abnormalities in V3-V4 → angina pectoris

AoS, LVEF 45%, DOE → valve replacement

55F, BP 162/99, asymptomatic → repeat in 1 wk

Lipid screening: M >35yr or F >40yr, repeat q3-5yr

MVA, s/p chest tube, acute CP, HR 120, BP 90/50 → MI (ECG)

76M, DOE, JVD increases with inspiration → constrictive pericarditis

Tachycardia w/ wide QRS w/o P waves → VT → tx lidocaine or amiodarone

AF w/ RVR, unstable → cardioversion

62F, acute chest pain, ECG w/ new LBBB → ACS (UA) → AC + DAPT + cath

82F, edema, crackles, holosystolic murmur at apex → DHF 2/2 MVR → ACEi + diuresis

62M, CP, h/o stable angina → ACS (UA) → ECGs, trops, cath

38M, DOE, brisk carotid upstroke, systolic murmur increases w/ Valsalva, LVH → HOCM → tx BB

RVMI, avoid: nitrates, opioids (preload-dependent)

Lipid screening: men >35 yo, women >50 yo

Loud S2 → pulmonary arterial HTN

Congenital SLE → complete AV block

MI RFs: smoking, DM, HTN, HL, obesity, NSAIDs

HTN lifestyle interventions: weight loss, salt restriction

73M, levido reticularis, petechiae, black lesions over toes, abd tenderness, hematuria → multiple cholesterol emboli syndrome

17M, fever, WBC 30k, PLT 928K, splinter hemorrhages → bacterial endocarditis → NBS bcx THEN abx

23M w/ sudden palpitations, tachycardia self resolves → AVNRT (SVT) → tx vagal, adenosine, CCB, BB

Systolic cres-dec murmur at apex louder w/ Valsalva, LVH → HOCM

Valsalva effect on murmurs: ↓LV filling (improves most murmurs, worsens HOCM)

25M, R calf pain, ecchymoses, tender to deep palpation, D-dimer nl → reassure

67F, crackles, S3, edema, JVD, BP 82/46 → cardiogenic shock → tx dopamine, dobutamine, norepi

67M, CP, JVD, edema, crackles → DHF → w/u trops, ECG, CXR, TTE

CP, cough, SOB, HR 110, SpO2 92% → PE → NBS CT-PE (spiral CT)

7 mo, fussy, HR 220, ECG w/ narrow complex tachycardia → SVT → tx adenosine

3M, BP 140/78, nl BMI, nl labs → RAS → NBS renal U/S

37M, FHx MI, HTN x1 → NBS lipids

25M wants to start exercising, BI 34, FHx MI, nl ECG → no testing needed

1 d old, neonatal lupus, Mobitz II → tx pacemaker

67M, PAD, 80 P-Y, NBS screening: AAA

Carotid artery stenosis screening only in: h/o ischemic stroke or TIA

Screening in Marfan patients: annual echo

MVA, CP, ↑CK-MB, ↑trops, ECG w/ TWI → myocardial contusion → NBS serial ECG

52M, dehydrated, AF, HDS → IVF + observation

47F, exercise intolerance, OA of knees → NBS nuclear stress test

Decrescendo murmur after S2 → AR

HFrEF tx: 1. Diuretic, 2. ACEi, 3. BB, 4. ARB (order matters)

Diet to decrease MI risk: Mediterranean diet

DVT on heparin and warfarin, acute limb ischemia → NBS TEE

55M, intermittent CP, nl ECG → NBS exercise stress test

Antihypertensives that worsen edema: CCB (nifedipine, amlodipine)

S/p URI, JVD, crackles, S3, edema → dilated cardiomyopathy (Coxsackie, Parvo B19, HHV 6, adenovirus)

57M, claudication, erectile dysfunction, ↓ pulses → aortoiliac occlusion (Leriche syndrome, iliac occlusive disease)

47F, HF, harsh systolic murmur, ↓S2 → AS

URI, fever, ECG w/ cardiomegaly, ↓pulses, EF 18% → acute myocarditis

URI, fever, ECG w/ STE and ↓PR, nl EF → acute pericarditis

URI, fever, pleuritic CP, ↓BP and ↑JVD during inspiration → constrictive pericarditis (pulsus paradoxus and Kussmaul sign)

Endocarditis, new murmur → NBS echo

BP goal: < 140/90 (if DM-2 or CKD <130/80)

SOB, cool skin, BP 92/58, HR 116, crackles, lactic acidosis → cardiogenic shock → NBS echo

Start statin when: 10 year probability of CAD > 10% or LDL > 190

Pleuritic CP, recent URI, harsh diastole sound, STE and PR depression, ↑CK-MB → pericarditis c/b myocarditis → NBS TTE

TLE pain, varicose veins → venous insufficiency (clinical diagnosis, imaging not needed)

Prosthetic valve, dental procedure, ppx: amoxicillin x1 30 min prior to procedure

HFrEF tx: BB, ACEi, ARB, aldosterone (NOT CCB, sotalol)

19F, palpitations, lightheaded → WPW → NBS electrophysiology study

Cardiac tamponade vs pericardial effusion: tamponade is hemodynamically unstable

72M, BP improved after ACEi, AKI → bilateral renal artery stenosis (NOT unilateral)

67M, R arm 160/110, L arm 105/65 → subclavian artery stenosis (NOT aorta coarctation b/c not BLE)

CP, ST depression in V3 to V5, ↑troponin → ACS → tx DAPT + heparin + thrombolysis/CABG

ACS vs pericarditis: ACS has ↑troponin

Decs diastolic murmur, splinter hemorrhages → aortic insufficiency

MI, BP 84/56, LVEF 10% → cardiogenic shock → NBS dobutamine

STE in II, III, and aVF → RIGHT STEMI → NBS IVF (NOT BB)

Widely split S2 → ASD

ASD increases risk of: pulmonary HTN

32M, DOE, holosystolic murmur, diastolic rumble, RVH, AF → MR (rheumatic heart disease)

42F, DOE, AF, LVH, BP 170/90 → HF → NBS echo

Split S2 → pulmonary hypertension

LVEDP in pulmonary hypertension: ↓

Loss of R pedal pulse, R ABI 0.8, not painful → PAD (NOT acute limb ischemia b/c asymptomatic) → tx ASA + statin (NOT artiography)

Absent pedal pulses, femoral bruit → PAD → NBS lipid levels (NOT peripheral artery cath)

37M, BP 138/87, BMI 33 → NBS DASH diet, weight loss

Exercise stress test w/ ST depression, no CP → coronary artery disease

HTN RF: AUD (NOT tobacco)

AUD, SOB, S3, edema → dilated cardiomyopathy

30M, BMI 29, FHx MI → NBS lipid levels

SLE, pleuritic chest pain → pericarditis → tx NSAID

35M, BP 155/95, FHx HTN → primary hypertension → tx thiazide

LDL < 190, ASCVD < 5% → NBS exercise

LDL < 190, ASCVD > 10% → NBS statin

AAA screening: U/S in men 65-75yo ever smoker

HOCM tx: BB, CCB

# Pulm

57F w/ MCTD, DOE, non-productive cough, dry crackles → ILD (dx PFTs)

34F, 2 yr nasal congestion, pale edematous nasal mucosa → allergic rhinitis → tx fluticasone, remove allergen (eg. pillow and mattress covers)

23F, intermittent productive cough x3 yr, end expiratory wheezes → bronchiectasis

68M, DOE, crackles, bilateral subpleural densities → asbestosis

18F w/ asthma, fever, cough, accessory muscles, WBC 18k, CXR w/ hyperinflation → bronchospasm (asthma exacerbation) (NOT PNA b/c no consolidation) → tx O2, SABA, steroids

47M, nonproductive cough at work → asthma

CT w/ honeycombing → interstitial pneumonitis (IPF)

CT w/ peribronchial fibrosis, reticular opacities, subpleural thickening → asbestosis

CT w/ bronchial wall thickening, patchy hypoattenuation → bronchiolitis obliterans

CTG w/ multiple cysts and nodules → pulmonary langherans cell histiocytosis

Thoracentesis w/ pH 6.8, LDH 850, glucose 80 → empyema → tx IV abx + chest tube

Best way to prevent aspiration in stroke patients → add thickening agent

PNA w/ small pleural effusion → abx only

DOE, cough x 1yr, ↓breath sounds, h/o cigarettes → COPD → NBS PFTs

Fever, CXR w/ linear atelectasis and thickened airways → bronchiectasis → IV abx

Mechanical ventilation > 14d → tracheostomy tube

42F, chronic cough, BMI 45, ↓TLC → obesity hypoventilation syndrome (restrictive lung disease)

COPD, SpO2 92% → ipratropium (antimuscarinic) (NOT O2 b/c SpO2 >88%)

COPD tx that reduces readmission: pulmonary rehab

Syncope, ↑HR, ↑pH, ↓PaCO2, ↓PaO2 → PE

Cough, CXR w/ fine linear opacities in bilateral lower lungs, ↓FVC, ↓DLCO → ILD → NBS lung biopsy

S/p extubating, BMI 40, desatting to 86% when lying down → respiratory muscle atrophy → sit up

Best mortality benefit in COPD from: supplemental O2, smoking cessation

Environmental changes to prevent asthma exacerbation: mattress and pillow covers

Found unconscious in vomit, T 102F, crackles, CXR w/ infiltrates, PaO2 48 → ARDS → intubate

78M on comfort measures, ICU, labored breathing and secretions → tx scopolamine, reduce IVF, suction

DOE, clubbing, ↓DLCO, nl FEV1 → ILD

COPD prognosis #1 factor: progressive DOE

Hemoptysis, h/o PNA, crackles → bronchiectasis (irreversible narrow airways) → tx abx, chest PT, bronchodilators

Drowning victims at risk of developing: ARDS  
Asthma poorly controlled on albuterol → NBS add fluticasone (NOT salmeterol)

Coughing and wheezing after cleaning → chemical induced bronchospasm → tx albuterol

Reticulonodular pattern in bilateral upper lung, mixed obstructive and restrictive → hypersensitivity pneumonitis

Cough, upper lung nodularity → silicosis

Frequent cough, sputum, recurrent PNA → bronchiectasis (assoc w/ tobacco, CF, kartagener, ABPA)

↓DLCO, reticulogranular bases, BAL w/ neutrophils no organisms → IPF → tx pred

57F, hemoptysis, CXR w/ loss of L hemithorax volume → bronchogenic carcinoma

V/Q scan c/w high probability of PE → NBS no additional studies (NOT CT)

Scleroderma, DOE, cough, atrial tachycardia, S3 → cor pulmonale

14 mo, isolated cough, h/o eczema → asthma

BLE edema, JVD, ↓FEV1, ↓PaO2, CXR w/ apical bullae → PAH 2/2 COPD → tx home O2

# GI

MALT lymphoma tx: abx only

GERD unresponsive to PPI → 24 hr esophageal pH monitoring, consider Nissen fundoplication

Diarrhea, chews gum → sorbitol

SBP dx: diagnostic para w/ cell count

26F, 3 mo abd cramps, bloody diarrhea, ↑CRP, ulceration of rectum → UC → mesalamine

Colonoscopy screen: 50 yr then q10yr (if first degree relative, at 10 yr younger than their cancer)

72F, BRBPR, LLQ pain, LVEF 15% → ischemic colitis

52F, s/p CCY, fever, jaundice, RUQ pain, ↑ALP → ERCP

Bilateral periorbital subcutaneous nodules → xanthelasma palpebrarum (↑cholesterol)

28M, fever, diarrhea, perianal fissures, ↑ESR → Crohn disease (dx colonoscopy)

27F w/ CD, HA, n/v, fever, distended abdomen, ↑amylase → SBO

PNA, ↑indirect bili → Gilbert syndrome (↓glucuronyltransferase)

65F, calcifications and pancreatic duct obstruction → chronic pancreatitis → tx enzyme supplementation

UC tx initiation, screen for: TB (infliximab)

77M, bloody diarrhea, LLQ pain → ischemic colitis

77M, fever, LLQ pain → diverticulitis

37M w/ CD, SBO w/ high pitched bowel sounds → small bowel stricture

4F, diarrhea x3mo, DM-1, microcytic anemia, ↑RDW → IDA 2/2 celiac disease (anti-TTG)

49M, foul diarrhea, joint pain, memory loss PAS macrophages in lamina propria → Whipple disease → tx CTX then Bactrim

47F food stuck in chest, regurgitates partially digested food, weight loss → achalasia (NOT esophageal cancer or Zenker b/c young)→ tx dilation or botox to LES

35M, pruritis, AMA+ → PBC → tx ursodeoxycholic acid (improves bile excretion)

Epigastric pain, ↑ALP, ↑amylase, ↑lipase → gallstone pancreatitis → tx CCY or ERCP

Best way to minimize progression to liver disease in HCV: alcohol cessation

HCV tx: ledipasvir-sofosbuvir, glecaprevir-pibrentasvir

S/p Nissen fundoplication, food sticking in esophagus, no burping → gas bloat syndrome → NBS smaller meals, avoid red meat / bread/ dry food

Alcoholic cirrhosis BMP: ↓Na, ↓K (d/t SIADH, vomiting, diarrhea)

27F, diarrhea associated w/ caffeine and stress → IBS → tx loperamide, dicyclomine, diphenoxylate

Screening test in alcoholic cirrhosis: EGD (for varices)

23F, bloody diarrhea x 1wk, colo w/ raise mucosa in rectum and sigmoid, crypt brancing and abscesses → UC → tx hydrocortisone → maintenance tx mesalamine, sulfasalazine, anti-TNF, anti-JAK (tofacitinib)

Refeeding syndrome: ↓K, ↓Mg, ↓Phos → heart failure, respiratory failure, seizures

Celiac disease, arm aching, ↓Ca, ↓Phos, ↑PTH → osteomalacia

77M, jaundice, weight loss, nl exam → pancreatic cancer

Colo w/ tubular adenoma → colo q5-10yr

Colo w/ >2 polyps, atypical polyps, serrated polyps → colo q3yr

15F, icterus, ↑ conjugated bili, nl LFTs, asymptomatic → Dubin Johnson

15F, icterus, ↑ unconjugated bili, nl LFTs, asymptomatic → Gilbert

Intermittent substernal CP worsened w/ swallowing, IVDU, cervical LAD → esophagitis (HIV → HSV, CMV, candida) → NBS EGD

Infliximab s/e: anemia, TB infxn

Azathioprine s/e: pancytopenia

62M, h/o epigastric pain, acute vomiting, fever, rigid abdomen → perforated peptic ulcer → NBS XR

Epigastric pain x2 mo, nausea, bloating, weight loss, abdominal distension w/ ↓bowel sounds, h/o DM-2 → diabetic gastroparesis → NBS gastric emptying study → tx erythromycin

Constipation, posterior anal wound w/ internal sphincter muscle exposure, skin tag → anal fissure → surgery

Air and fecal matter w/ urination, enlarged prostate → colovesical fistula 2/2 diverticulosis

67F, yellow rectal discharge, posterior perineal wall w/ draining sinus tract, +FOBT → Crohn disease c/b fistula

Colo w/ one polyp w/ dysplastic cells → repeat colo in 3 yr

Colo w/ six polyps → repeat colo in 3 yr

Colo w/ 11 poylps → repeat colo in 1 yr

BRBPR, painless, nl DRE → internal hemorrhoids

Chronic cough, coughing up undigested food → Zenker diverticulum

Intermittent dysphagia to solid foods → Schatzki ring

Coughing, choking, regurgitation during swallowing → transfer dysphagia

Crohn disease, defect in rectal mucosa communicating with vagina → rectovaginal fistula

Intermittent dysphagia, undigested food, PPI did not help → Zenker diverticulum (NOT achalasia, esophageal cancer, hiatal hernia b/c no weight loss and no response to PPI)

Watery diarrhea, epigastric pain worse after eating → PUD or gastritis → NBS EGD

Crohn disease RF: smoking

18M, RLQ pain, ↑WBC, fever, diarrhea x2 mo → crohn disease → NBS CT (for abscess, fistula)

70F, intermittent BRBPR, nl exam → diverticulosis

Untreated HAV consequence: complete resolution

28F, abdominal pain relieved w/ defecation, diarrhea → IBS-D → tx loperamide

67M, epigastric pain, weight loss, early satiety → gastric cancer → NBS EGD (NOT upper GI series)

62F, incidental 1.5cm adrenal mass w/ smooth border → adrenal adenoma

Rectal pain w/ defecation, no masses on exam → anal fissure

A1AT diagnosis is made by: genetic testing

72F, BRBPR, small external hemorrhoids → NBS colo (c/f GIB)

Annular pancreas clinical course: benign (rarely vomiting, peptic ulcer, pancreatitis)

52M, bloody diarrhea, colo w/ continuously friable erythematous rectal mucosa → UC → tx mesalamine

On Bactrim, ↑AST/ALT, rash → bactrim hepatotoxicity

37M, difficulty swallowing solids and liquids, stuck in chest → esophageal spasm

Appendiceal abscess, HDS → tx abx + percutaneous drainage

Appendiceal abscess, unstable → laparoscopic appendectomy

H/o gallstones, ↑amylase, ↑lipase, epigastric pain → acute pancreatitis → NBS CT abdomen → tx ERCP

29M, ulcer in stomach → H pylori → tx clarithromycin + amoxicillin

# Renal

77F, ↑JVD, crackles, edema, ↑K, Cr 3.5 → HD

37F, HTN x 3 wk, aldosterone:renin 42, ↑urine aldosterone → tx spironolactone

37M w/ HIV, edema, proteinuria → FSGS (bx to confirm)

57M w/ flank pain, hematuria, proteinuria, CKD → nephrolithiasis (CT > renal US)

UA w/ WBC, AKI → acute interstitial nephritis (NSAIDs, diuretics, sulfa, rifampin, PPI, abx)

NSAIDs s/e: AIN (AKI)

2.5 cm enhancing cystic mass w/ internal necrosis on L kidney → RCC → L nephrectomy (NOT bx)

16F, taking laxatives, muscle weakness, ↓DTRs → hypokalemia

Paranesthesia, laryngospasm, prolonged QTc → hypocalcemia

If HDS, avoid IVF in: HF, cirrhosis, ESRD

DM-2 on metformin, Cr 0.9, proteinuria → dx diabetic nephropathy

Renal bx w/ Kimmelstiel Wilson nodules, eosinophilic nodular glomerulosclerosis → diabetic nephropathy

Best test for risk of diabetic nephropathy: urine microalbumin

Tx to prevent development of diabetic nephropathy: ACEi

Metabolic alkalosis, ↓K, ↓Cl, ↓UCl, ↓UNa → vomiting

NAGMA → diarrhea (bicarb loss in stool)

Septic, AKI → ATN → UA w/ pigment granular (muddy brown) casts + renal tubular epithelial cells (Tamm-Horsfall)

57F w/ diabetic nephropathy, edema, proteinuria → NBS CBC (for anemia 2/2 ↓Epo b/c CKD)

Prior to giving contrast in CKD, give: IVF

3 mo, premature, h/o umbilical artery catheter, respiratory distress, HTN → renal artery thrombosis → RAAS activation → tx AC + IVF

Weakness, urinary frequency, BP 174/102, fundoscopy w/ arteriovenous nicking, ↓K, FHx → familial hyperaldosteronism

HTN, ↓K, metabolic alkalosis, ↓aldosterone → Liddle syndrome (ENaC GOF)

1 yr M, UTI → vesicoureteral reflux / congenital urinary tract abnormalities → NBS renal U/S then voiding cystourethrography

Nephrolithiasis, ↑Ca → primary hyperPTH (phos may be nl)

57F, dysuria, hematuria, afebrile → UTI (NOT nephrolithiasis b/c no flank pain)

MVA, UOP, ↑Na, ↓Uosm → central DI → tx desmopressin

Anaphylaxis to ibuprofen, avoid: NSAIDs (eg. ASA)

72F, polydipsia, polyuria, ↓Na, gluc 700 → HHS → tx NS + insulin

Ways to reduce risk of complications from renal failure: minimize fluids, K, phos

S/p nafcillin, AKI, UA w/ RBC and WBC → AIN

Hyperkalemia, widened QRS → tx calcium chloride, calcium gluconate

Child w/ recurrent UTI → NBS voiding cystourethrography

Anorexia BMP: ↓K, ↓Cl, ↑HCO3

Excess free water consumption, Na 128, K 3.8 → observe (NOT IVF)

5F w/ RAS, HTN → tx CCB > angioplasty

AGMA, UA w/ ketones, nl glucose, ↑pH, ↓PaCO2 → salicylate toxicity → sodium bicarbonate

AGMA, ↑Sosm → ethylene glycol or methanol toxicity

AUD electrolytes: ↓Mg, ↓K, ↓Na

Started HCTZ, ↓Na → stop HCTZ

PNA on abx, UA w/ eos and RBCs → AIN → stop CTX

Acid-base in DKA: metabolic acidosis

Acid-base in salicylate toxicity: metabolic acidosis + respiratory alkalosis

Acid-base in vomiting: respiratory acidosis + metabolic alkalosis

Alopecia, perioral rash, decreased sense of taste → Zn deficiency

Neutropenia, peripheral neuropathy, myelopathy → Cu deficiency

Eye dryness, night blindness, immune dysfunction → Vit A deficiency

Glossitis, impaired gait, oral ulcers, angular cheilitis → Vit B12 cyanocobalamin deficiency

Unilateral renal agenesis, hydronephrosis → NBS percutaneous nephrostomy tube

HD patient, tingling of pinky → ulnar nerve compression

White, proteinuria → membranous nephropathy → tx ACEi

Laxative use ABG: ↓K, ↓pH, ↓PaCO2, nl PaO2, ↓HCO3 (loss of bicarb in stool, aldosterone ON)

Edema of lips x5 hr, on lisinopril → hereditary angioedema → NBS d/c ACEi (NOT allergen test)

Glomerulonephritis, rising BP → tx increase ACEi

Flank pain, hydronephrosis → ureteral stone → NBS CT

Rhabdo consequence: AKI (NOT arrhythmia)

Seizure, Na 122 → NBS HTS (NOT NS)

24F, muscle weakness, ↓K, ↓Na, ↑bicarb, ↑urine K → surreptitious diuretic use

24F, muscle weakness, ↓K, ↓Na, ↓bicarb → surreptitious laxative use

# Heme/Onc

MM is a proliferation of monoclonal B cells

Cancers the metastasize to bone: lung, breast, thyroid, kidney, prostate

92F, 3 cm mass at left mandible for 2 mo→ FNA

8M, brother w/ bleeding disorder, nl PT, ↑PTT, nl PLT → Factor VIII deficiency

Most prognostic factor for breast cancer: tumor stage (LN involvement > tumor grade)

Sickle cell crisis tx: IVF + opioids + O2

18F, supraclavicular LAD, splenomegaly → HL (↑LDH, ↑ESR, Reed Sternberg)

Na 127, Cl 98, HCO3 22, Gluc 890, pH 7.35, PaCO2 37 → hyperosmolar hyperglycemic state

S/p doxorubicin, DOE → CHF

IgA deficiency, s/p PRBC, fatigue, malaise → anaphylaxis → tx epinephrine

67M, recurrent nosebleeds, erythematous spots on tongue → hereditary hemorrhagic telangiectasia

77M, firm irregular nontender mass on R mandible → FNA (BEFORE sx)

Lump on thigh for 4 mo after trauma, soft tissue w/ inhomogeneous signal

42F, nontender lump on neck that moves when swallowing → thyroid nodule (dx FNA)

RUL nodule, ↑PTHrP → SCC

SCLC paraneoplastic syndromes: Cushing, SIADH, Lambert-Eaton

SCD pain crisis tx: IVF + pain control + O2

Dyspnea 30 min after PRBC → transfusion-associated cardiac overload

62M, metastatic PDAC, AAA 7mm → NBS do not repair

AMS, fever, ↓PLT, ↑indirect bili → TTP → tx plasmapheresis

Hematuria, pathologic fx of radius w/ lytic lesion → metastatic RCC

Colo w/ poorly differentiated adenocarcinoma → NBS CT abdomen (NOT PET)

Factor VIII deficiency inheritance: X linked (testing only indicated if male)

MM increases susceptibility to infxn with: encapsulated organisms (S pneumo, H flu, E coli, N meningitidis, Salmonella, Klebsiella, GBS)

SCD tx → folic acid

67F w/ metastatic breast cancer, seizure, ↓PLT → brain met

Lab to follow for medullary thyroid cancer: calcitonin

Lab to follow for papillary or follicular thyroid cancer: thyroglobulin

Lab to follow for pancreatic cancer: CA 19-9

Lab to follow for carcinoid syndrome or pancreatic neuroendocrine tumor: chromogranin A

27M, ↓factor VIII, nl PTT → VWD → tx desmopressin or vWF

7M, ↓↓factor VIII, ↑↑↑ PTT → Hemophilia A

Lung mass, ↑Ca → SCC (PTHrP)

55F, Hgb 12, PLT 34k → ITP

Meds that cause neutropenia: chemo, TMP-SMX, methimazole, clozapine, antiarrhythmic

46M w/ 1cm prostate nodule, asymptomatic → bx (NOT reassurance)

bMRI w/ vascular tumor in posterior fossa → hemangioblastoma (VHL) → r/o retinal hemangioblastoma, skin angiomatosis, renal clear cell carcinoma, pancreatic masses, pheo

Microcytic anemia, ↓HbA, ↑HbA2, ↑HbF → thalassemia intermedia

Microcytic anemia, frontal bossing → thalassemia major (extramedullary hematopoiesis)

Lung cancer, ptosis, weakness, arises from chair after repeated attempts → Lambert-Eaton (NBS repetitive nerve stimulation)

S/p chemotherapy, fever, rash, LAD, night sweats, ↓Hct, WBC 30k, ↓PLT, blood smear w/ immature myeloblasts → AML d/t chemo → tx ATRA

42W, weakness, double vision, upper anterior mediastinal mass → thymoma (myasthenia gravis)

Breast cancer screening: 40-74 yo q1yr, and after 75 yo if expected to live 10 yrs

Enlarging painless mass on parotid gland → salivary gland tumor → FNA or excision

Moderate grade fibrosarcoma → NBS CT chest and abdomen (for mets)

42M, chronic nosebleeds, brother w/ bleeding, ↑PTT, nl PT, nl PLT → VWD

Anemia, jaundice, ↑MCHC → HS → tx splenectomy

15F, heavy vaginal bleeding, PLT 15k → ITP

Pancreatic cancer predictive of poor prognosis: encasement of mesenteric vessels, tail, stage, mets

PRBC, fever 1 hr after transfusion, VSS → febrile nonhemolytic transfusion rxn → tx APAP

PRBC, fever 4 hr after transfusion, crackles, SpO2 88%, bilateral infiltrates → TRALI

Hypercalcemia 2/2 PTHrP tx: IV NS

62M, ↑WBC, ↑Hct, ↑PLT, ↓LAP → CML → tx imatinib, dasatinib

62M, ↑WBC, ↑LAP → agnogenic myeloid metaplasia

SCD, cough, fever → ddx acute chest vs PNA → tx bx then abx + opioids + O2 + IVF

67F, hoarseness, 45P-Y → laryngeal carcinoma → NBS laryngoscopy

ALL tx: chemotherapy + allopurinol

52F, epigastric pain, burning sensation when eating, weight loss → gastric cancer → NBS EGD

81F, bruising at site of bandage removal → NBS reassurance (NOT coagulation studies)

S/p PRBC, fever, cyanosis, bilateral pulmonary infiltrates → TRALI

Crohn disease, ↓↓WBC → sulfasalazine induced neutropenia

Breast cancer RF: age > estrogen, FHx, obesity

PV labs: ↑erythrocyte mass

HS, splenomegaly → tx splenectomy + CCY

82F, cauliflower like lesion between vagina and rectum → vulvar carcinoma (SCC) → NBS pap smear, CT → tx surgery, chemoRT

S/p chemo, Hct 32, WBC 300, PLT 34k → NBS GCSF

PLT transfusion threshold: <50k for surgery, <10k if stable

67F, fatigue, ↓Hct, WBC 104k, PLT 93k → CML

AML vs CML: AML has blasts (Auer rods), pulmonary or neurologic complications

Facial flushing, LUL mass → carcinoid tumor (serotonin, histamine, bradykinin, prostaglandin, substance P)

22F weight lifter, LUE edema, superficial veins over chest, bluish forearm → DVT

PE NBS: spiral CT (NOT D-dimer)

Reed-Sternberg cell → HL → NBS PET

Itchy, epigastric pain → pancreatic cancer → NBS CT abdomen

Lung mass, ↑Ca → SCC

Epithelioid sarcoma in wrist → tx amputation (NOT radiation)

Metastatic breast cancer, pain unresponsive to codeine → switch to morphine ER

SCD management: daily penicillin ppx (NOT iron supplementation)

Hgb 9.8, MCV 72, nl ferritin → thalassemia → NBS Hgb electrophoresis

Gastric cancer RF: pernicious anemia > H pylori, chronic gastritis, FHx, salt, obesity, smoking

On warfarin, patches of black skin → warfarin skin necrosis (Prot C deficiency) → Vit K, FFP, stop warfarin, start LMWH

MM UA: 4+ protein, oval fat bodies

H/o tobacco, white discoloration of buccal mucosa → leukoplakia → NBS bx (NOT swab)

Hemophilia A, hemarthrosis → tx factor VIII concentrate (NOT FFP)

CIVD tx: monthly IVIG

56F, ↑↑WBC (metamyelocytes, myelocytes, neutrophils) → CML

56F, ↑↑WBC (myeloblasts) → AML

4M, bruises, hemarthroses → hemophilia A (factor VIII deficiency)

Hemophilia A labs: nl PLT, nl PT, ↑PTT

s/p splenectomy, ↑↑↑↑PLT → reactive thrombocytosis → tx ASA

IDA labs: ↓Fe, ↓transferrin sat, ↓ferritin

Chemotherapy that causes peripheral neuropathy: vincristine

SCD hemoglobin electrophoresis: ↓HgbA

Cancer patient, pain unresponsive to hydrocodone-acetaminophen → NBS IV morphine (NOT increase dose)

NHL, cyanotic, distended veins on chest, mediastinal LAD → SVC syndrome → NBS radiation

Pancreatic cancer pain tx: celiac plexus blockade

CLL patients are at increased risk of: infection (NOT blast crisis)

Hemolytic anemia, spherocytes, abdominal pain → biliary colic 2/2 HS (NOT splenomegaly)

27F, rash, bruising, PLT 9000, nl PT, nl PTT → ITP → NBS pred (NOT platelet transfusion)

68M, back pain, ↓Hgb, ↑BUN → MM

62M, microcytic anemia → NBS colo

AML tx: hydration and urine alkalinization, THEN chemotherapy

20M, bruising, nl PLT, ↑PT, nl PTT → Factor VII deficiency

# ID

HIV pneumococcal vaccine: PCV13 then PPSV23 x2 (for children and >65 yr)

PPD 12mm, from China → rifamycin + INH

32F, 1 mo non-bloody diarrhea, bloating, weight loss, travel to Mexico → Giardia

67M, cough w/ green sputum, AUD, smoker, ↑WBC, dense consolidation, fever → aspiration PNA (bcx)

32F, vomiting, fever, septic shock, rash on hands and feet and trunk → TSS

57M, back pain, ↓T1 signal in vertebral bodies → osteomyelitis

44F, 2 wk cough worse at night, coughs so hard she vomits → Bordetella pertussis

27M, testicle pain with urination, UA w/ WBC → chlamydia

Fundoscopy w/ bilateral white infiltrates → candidal ophthalmitis

8F, unilateral purple cervical LAD, granulomas → mycobacterium

HIV, PPD 6 mm, nl CXR → latent TB → tx INH x4 mo

27M w/ UC on infliximab, bloody diarrhea, colonoscopy w/ superficial ulcers, bx w/ intracellular inclusion bodies → CMV colitis → tx ganciclovir

HCV on MMF and pred, left foot cut at beach w/ hemorrhagic bullae, fever, ↑WBC → dx vibrio vulnificus → I&D + doxycycline + CTX

I&D if: fever, severe pain, crepitus, bullous lesion (c/f necrotizing fasciitis)

84F, fever, L parotid gland w/ purulent discharge, cervical LAD → suppurative parotitis (S aureus)

HSV diagnostic test: PCR of open vesicle

Insect bit in Southwest Asia, small pimples enlarge to open sore w/ crust → Leishmaniasis

AIDS, dysphagia, white plaques in pharynx → oral candidiasis → tx fluconazole

Asplenic patient undergoing dental procedure ppx: none

Pt w/ MVP undergoing dental procedure ppx: none

S/p viral URI, cheeks TTP x 1 mo→ acute bacterial sinusitis → tx amoxicillin

Tick bite x3 hr, asymptomatic → reassurance and f/u in 2 wk

Fever, LLE erythematous below knee w/ sharp demarcation → cellulitis (GAS)

TB drug that causes decreased central visual acuity → ethambutol

TB drug that causes peripheral neuropathy → INH

TB drug that causes sideroblastic anemia → INH

TB drug that causes hepatoxicity, hyperuricemia, arthralgia → pyrazinamide

TB drug that causes orange bodily fluids → rifampin

PPD 15mm, from Thailand, nl CXR → tx INH

21F, fever, sore throat, HA, cervical LAD, splenomegaly → ddx EBV, CMV, HIV

EBV contact precautions: none

S/p botulism antitoxin, abdominal cramps, joint pain, fever, nodules over trunk and extremities, fever → serum sickness

From Kenya, fever, ↓Hct, ↑LDH → plasmodium falciparum

S/p bioterrorism attack 14d ago, vesicular lesions of same stage → Smallpox (vaccinia vaccination)

Diabetic foot ulcer NBS: XR

17 mo, SCD, fever, cough, ↑WBC, splenomegaly → tx IV CTX

Neonatal septic arthritis → S aureus > H flu, gonorrhea

52M, jaundice resolved after 2 wk, IVDU, ↑bili, AST 250, ALT 300 → acute HBV (anti-HBc IgM)

HA, fever, diarrhea, nl CTH, LP w/ WBC 50 (100% monocytes) → viral (aseptic) meningitis

Bloody diarrhea, fever, ↓Hgb, ↓PLT, ↑LDH → EHEC

Splenectomy vaccines: meningococcus, PCV, Hflu, quadrivalent flu

55M, scoliosis, cough x 6 mo, now hemoptysis, night sweats, weight loss → MAC

24F, recurrent sinus infections → CVID

Dental procedure w/ artificial aortic valve, penicillin allergy, ppx: macrolides

Dental procedure w/ artificial aortic valve, ppx: amoxicillin

DOE, IVDU, fever, O2sat 83%, WBC 4.8k, CXR w/ bilateral infiltrates → PJP

PNA, CXR w/ multifocal infiltrates → mycoplasma

Diabetic foot ulcer pathogens: mixed aerobic and anerobic organisms

Pyelonephritis tx: CTX, FQ, bactrim, beta-lactam (NOT nitrofurantoin)

Ate eel at restaurant, cold water feels hot, n/v → ciguatera poisoning

Joint pain, arthrocentesis w/ WBC 50k and no organisms → gonococcus

Abdominal pain, Mexico, jaundice, RUQ pain → HAV (HepA IgM)

Impetigo tx: topical mupirocin

Dental procedure abx ppx needed if: prosthetic valve, h/o endocarditis, congenital heart disease, cardiac transplant, (NOT MVP)

Bloody diarrhea, abdominal tenderness, ↑WBC → EHEC

HAV vaccine recommended in: MSM, HIV, homeless, IVDU

82F, facial swelling, edema at angle of mandible → acute suppurative parotitis (S aureus)

13F, pressure in face, cobblestone conjunctivae, edematous nasal turbinates, injected TM, mucous in pharynx → allergic rhinitis (NOT sinusitis b/c no fever or purulent drainage) → tx loratadine

Asthma, fever, cough, ↑eos, ↑IgE, upper lobe infiltrates → ABPA

Splenectomy ppx: PCV vaccine + meningococcus vaccine + H flu vaccine + penicillin ppx

Long term complications of bacterial meningitis in infants: hearing loss (H flu)

32M, HIV, received appropriate vaccines 7 yrs ago → PPSV23 vaccine (5 yr after PCV13)

Entamoeba histolytica tx: MNZ ONLY

Regurgitation, constipation, esophagus w/ air fluid level → trypanosomiasis

Cough, ↑eos, ↑IgE, bilateral upper lobe infiltrates → ABPA

20M, dysuria, UA 2/ WBCs → G/C urethritis → tx CTZ + azithromycin

UC, bx w/ giant cells w/ inclusion bodies → CMV → tx ganciclovir

Bloody diarrhea, weight loss, Caribbean, RLQ tenderness, ↑eos → entamoeba histolytica → NBS stool O&P

22M, cough, afebrile, CXR w/ bilateral interstitial infiltrates → mycoplasma

HIV, recently treated for PJP but no f/u → NBS bactrim ppx + ART (NOT AZT monotherapy)

Genital ulcer, nontender, ddx: syphilis, LGV (chlamydia), klebsiella

Genital ulcer, painful, ddx: HSV, H ducreyi

Painless superficial ulcer on left labium, nontender LAD → syphilis

C diff toxic megacolon can be caused by: loperamide

HIV, CD4 250, vaccines needed: PCV13, flu, HBV (NOT CMV)

Asplenia vaccines: S pneumo, H flu, N meningitidis

Vaginal discharge w/ epithelial cells w/ granular appearance and coccobacilli → gadnerella vaginalais

2M, fever, LLE pain, ↑WBC, MRI w/ marrow edema → osteomyelitis

Erythema migrans, knee swelling → NBS serum Borrelia antibodies (NOT joint aspiration)

Oral candidiasis tx: fluconazole, nystatin, miconazole, clotrimazole (BEFORE itraconazole)

Bactrim s/e: agranulocytosis, hypersensitivity, hyperkalemia, increases warfarin effects

Axillary and epitrochlear LAD → cat scratch disease

Dental procedure, abx ppx if: prosthetic valve, h/o endocarditis (NOT MR)

Bell’s palsy, LP w/ nl glucose ↑protein and 70% lymphocytes → lyme

Fever, fatigue, sore throat, ↓WBC → HIV

15M, fever, LAD, tonsillopharyngitis, RUQ pain → cholestatic hepatitis 2/2 EBV

70F, LLE w/ shiny skin w/ fluid filled bulla → necrotizing fasciitis → tx I&D + abx

PJP PNA hypoxemia is d/t: ↓DLCO

3M, foul smelling diarrhea x3wk → giardia

23F, IVDU, nl Hgb, WBC 700 (60% neutrophils) → HIV

Croup tx: O2, humidified air, nebulized racemic epinephrine, systemic steroids (NOT subcutaneous epinephrine)

7M, bloody diarrhea, ↓Hgb, ↓PLT, ↑Cr → HUS 2/2 EHEC

27M, chronic cough, diarrhea, allergies, recurrent PNA → CVID

New HIV diagnosis, crying → NBS discuss fears surrounding diagnosis (NOT ART)

Peritonsillar abscess, allergic to penicillin → tx clindamycin

HIV patients should avoid: cleaning cat litter

Cachectic, LAD, white exudates in buccal mucosa, nl CXR, ↓PaO2 → PJP PNA

Sexual partner diagnosed w/ gonorrhea, cultures sent for patient → NBS tx w/ CTX + doxy

# Endo

Best way to prevent complications from diabetic neuropathy: wearing shoes

Diabetic neuropathy is irreversible

32F, spasms, hallucinations, muscle cramps, + Chvostek → hypoPTH (↓Ca, ↑Phos)

Glucose 900, pH 7.38 → nonketotic hyperosmolar state → IVF w/ NS

32F, weight gain, AUB, dark facial hair, fat pad, bruising → Cushing syndrome (dx 24 hr urine cortisol)

Adrenal insufficient dx: AM serum cortisol

H/o pheochromocytoma, thyroid nodule → MEN2A or MEN2B → medullary thyroid carcinoma → ↑calcitonin

DKA tx → IVF

32F, dry eyes, weight loss, diplopia, wider on downward game → Graves

Schirmer test: measure lacrimal fluid production (Sjogren syndrome)

42F w/ SLE on pred, recent URI, recent AUD, fever, HR110, SBP 80, unresponsive → adrenal crisis → tx corticosteroid

Graves tx → prednisone, propylthiouracil, radioactive iodine ablation

Nephrolithiasis, hypercalcemia → hyperPTH (parathyroid adenoma, parathyroid carcinoma)

DM-1 patients should be screened for: lipid studies yearly

S/p penicillin for STD, rigors, fever → Jarish-Herxheimer reaction

Weight gain, new HTN, purple striae, ↓K, RUL nodule → Cushing syndrome (SCLC → ACTH) → NBS 24 hr urine cortisol

16F, ↑TSH, +anti-TPO → Hashimoto

32F, ↑Ca, ↓Phos, ↑PTH, ↑prolactin → MEN1 (pituitary and parathyroid tumor) → parathyroidectomy

DM-1, poorly adherent to insulin, HbA1c 10% → NBS urine microalbumin

27F, thyroid nodule, nl TSH, asymptomatic → NBS FNA (c/f malignancy b/c young, NOT RAIU or reassure)

DM-2 is comorbid with: coronary artery disease

Thyroid nodule, ↓TSH, ↑T4 → NBS RAIU

DM-1 DKA hormones: ↓insulin, ↑glucagon, ↑catecholamines

32F, BMI 19, UTIs, gluc 800, UA w/ glucose → DM-1

S/p thyroidectomy, facial spasms when tapping jaw → hypocalcemia (hypoPTH)

Levothyroxine monitoring: FT4 (NOT T3)

62M, weight loss, ↑glucose → DM-2 (NOT glucagonoma b/c no diarrhea)

25F, fatigue, ↓TSH, ↑T4, ↓RAIU → Subacute de Quervain thyroiditis → tx NSAIDs

25F, fatigue, ↓TSH, ↑T4, ↑RAIU → Graves disease → tx methimazole, PTU, radioiodne, thyroidectomy

H/o PCKD, ↑Ca, ↑PTH → tertiary hyperPTH (PTH resistance → parathyroid hyperplasia)

27M, glucose 39 → insulinoma → NBS 72hr fasting insulin and glucose, C-peptide, CT → tx diazoxide, surgery

57F, ↑cholesterol, ↑TG, weight gain → primary hypothyroidism

Peripheral neuropathy, on calcium carbonate → Vit B12 deficiency

Polyuria, polydipsia, BMI 19 → DM-1 → tx insulin

Tender anterior neck, sore throat, ↑HR, fever → subacute thyroiditis

Enlarged thyroid, weight los, widened palpebral fissures, thickened skin → thyrotoxicosis

Thyroid nodule → NBS TSH + U/S (NOT RAIU)

↑Ca, ↑PTH, urine Ca 50 (low) → familial hypocalciuric hypercalcemia

32F, ↓TSH, ↑T4, ↓RAIU, no antibodies → subacute thyroiditis

DM-2, ↑PTH, calcium labs: ↓Ca, ↓calcitriol, ↑phos

# Neuro

S/p transplant, brain mass → post transplant lymphoproliferative disorder (EBV)

Nystagmus, vertigo, ataxia, AF → vestibulocerebellar (vertebral) stroke → warfarin ppx

Vertigo, horizontal-rotary nystagmus, normal hearing → vestibular neuronitis

Migraine ppx: BB, TCA, SNRI, topiramate, valproate

Migraine acute tx: ergotamine, sumatriptan

25F, room spinning, ear ringing, SNHL on R → Meniere dz → tx meclizine or promethazine

S/p Roux-en-Y, n/v, confusion, falling → Wernicke encephalopathy (Vit B1/thiamine deficiency)

S/p Roux-en-Y, peripheral neuropathy → dry beriberi (Vit B1/thiamine deficiency)

S/p Roux-en-Y, high output heart failure → wet beriberi (Vit B1/thiamine deficiency)

52M, GTC seizure, large ring enhancing lesion w/ mass effect → GBM (brain bx if too large for sx)

RF for AD/dementia: age >> FHx, HTN, HL, CVD, DM-2

Metoclopramide s/e: EPS (dystonia, akathisia, parkinsonism, tardive dyskinesia)

NF2 s/s: acoustic schwannoma, cataracts, meningioma, ependymoma, schwannomas, neurofibroma

MS pt have symptom exacerbation at high temperatures

16M, seizure, diaphoretic, nystagmus → PCP intoxication

HSV encephalitis w/u: CSF PCR → tx acyclovir

Woke up w/ CVA, MCA infarct → tx ASA (NOT other AC)

Bell palsy → dx is clinical → tx prednisone

32F, s/p gastric bypass, nystagmus, ataxia, confusion → dx thiamine deficiency

Psychosis, amnesia, confabulation → Wernicke-Korsakoff (thiamine deficiency)

DM-2, foot ulcer, fever, spine tenderness → NBS MRI spine → dx vertebral osteomyelitis

Ataxic gait, muscle weakness, paresthesia, ↑DTR, loss of proprioception/vibration → subacute combined degeneration (Vit B12 deficiency)

R deafness, R face paresthesia, tuning fork better on L → acoustic neuroma (vestibular schwannoma)

MS flare, now resolved → tx IFN-beta or monoclonal

Cerebral infarction RF: HTN > age > smoking, diabetes, carotid atherosclerosis, AF

43F nurse, witness tonic-clonic movements, no incontinence or tongue biting → PNES

27F, afternoon HA of entire head w/ photophobia daily, takes caffeine and APAP → medication overuse headaches

↓DTR in L knee, ↓sensation to light touch on medial distal LLE and L foot → L4 radiculopathy

Impaired ankle dorsiflexion, foot eversion, ↓sensation on dorsum of foot → common peroneal neuropathy

Weak hip flexion, ↓DTR in L knee, ↓sensation on anterior thigh → femoral neuropathy

Impaired hip adduction, ↓sensation of medial proximal thigh → obturator neuropathy

Weak ankle plantarflexion, ↓sensation buttock and posterior leg → S1 radiculopathy

Spinning sensation when looking up and turning head, poster neck muscles TTP → vertebral artery stenosis → NBS CTA

Pain shooting down leg, hyperesthesia to light touch, unresponsive to oxycodone and APAP → neuropathic pain → tx TCA (nortriptyline), SNRI

Confused, bilateral nystagmus, broad gait, cirrhosis → Vit B1 (thiamine) deficiency (Wernicke encephalopathy)

Pituitary adenoma tx → bromocriptine (NOT surgery)

72M, forgetful x3 mo, seizure, jerking moving of legs, fasciculations → CJD

72M, forgetful x3 yr, difficult forming words → AD

72M, forgetful x3 yr, personality changes → FTD

72M, forgetful x3 yr, hallucinations, REM sleep behavior disorder → LBD

57M, obtunded, ↓RR, pupils 1 mm → opioid intoxication

Kicking legs in sleep → REM sleep behavior disorder → ↑r/o of PD

Secondary stroke prevention: statin, ASA, smoking cessation, diet, exercise, anti-HTN, glucose control

Wernicke encephalopathy prevention: Vitamin B1 (thiamine)

Acute sever occipital HA, nl CTH → SAH → NBS LP

Wide based gait, ataxia, urinary incontinence, nystagmus, dementia, nl B12, nl folate → Wernicke-Korsakoff (Vit B1 thiamine deficiency)

PD, vertical gaze palsy → progressive supranuclear palsy

32M, personality change, slow saccadic eye movements, rapid jerking movements of trunk → HD

Buttock pain radiating to knee, +straight leg raise → sciatica 2/2 lumbar disc herniation (NO imaging needed) → physical therapy

Half of face drooping, cannot close eye → Bell palsy → tx corticosteroids

AD dementia treatment: cholinesterase inhibitor (donepezil)

Muscle atrophy, ↑DTRs → ALS

PD on carbidopa-levodopa and donepezil, not eating, sleeping more, tearful → PD depression → tx SSRI, mirtazapine (NOT MAOI)

AUD, R hand weakness, ↓sensation on dorsum → radial nerve injury (NOT brachial plexus, C spine) → NBS EMG and nerve conduction studies (NOT imaging)

No corneal reflex, no gag response → NBS apnea test (for brain death) → NBS withdraw w/o family permission

TIA, carotid stenosis 50% → NBS ASA (NOT CEA b/c <50% stenosis)

Confusion, ataxia, inability to abduct eyes → Wernicke encephalopathy (Vit B1 thiamine deficiency)

SIADH, GTC, Na 110 → tx IV 3% saline (NOT NS)

BLE pain, spinal stenosis w/ degenerative change → NBS lumbar laminectomy

Jaw pain, HA, L sided weakness → carotid artery dissection → tPA, DAPT, thrombectomy

Conversion disorder prognosis: resolution (NOT dementia)

Migraine prophylactic tx: BB, TCA, SNRI, topiramate, valproate

Migraine acute tx: triptan, NSAID

Heat stroke, decorticate posturing → NBS evaporative cooling

↓RLE extensor hallucis longus strength, steppage gait → peroneal mononeuropathy (DM)

Determinants of hearing loss prognosis: FHx

87F, fall, pronator drift → SDH → NBS CTH

80F, new HA, transient monocular vision loss, carotid artery 50% stenosis → temporal arteritis → tx pred

PD, postural instability tx: physical therapy

Back pain radiating to legs, worse when standing → spinal stenosis

L arm weakness, CT w/ increased signal in putamen → ischemic stroke aka lacunar infarct (small vessel disease)

70M, falls, difficulty looking down → progressive supranuclear palsy

77M, falls, confusion, lethargic → SDH

Stroke prevention: smoking cessation, exercise, reduce BP, reduce cholesterol

Tinnitus, altered taste, Bell palsy → Ramsey Hunt syndrome (zoster oticus → auricular vesicles)

Inability to abduct L eye → mononeuropathy

R buttock pain radiating to knee, + straight leg raise → sciatica (lumbar radiculopathy, disc herniation) → NBS physical therapy, normal activity

Action tremor exacerbated by stress → essential tremor → tx BB PRN

POD4, AUD, lateral gaze palsy, confusion → Wernicke encephalopathy (NOT withdrawal) → tx Vit B1 thiamine

Bell palsy course if untreated: gradual improvement over months

42F, ringing in ears x3 yr, bilateral loss of high frequency → tinnitus (no further testing needed after audiology)

# Rheum

47F w/ RA on NSAID + pred, worsening dz, anemia → ACD → tx MTX

72F, knee pain walking up stairs, XR w/ osteophytosis → dx OA → tx APAP

Arthrocentesis w/ WBC 17k, 90% PMN, calcium pyrophosphate crystals → pseudogout → tx NSAIDs

RA, fever, pericarditis, ↓WBC → Felty syndrome → ↑risk of NHL → tx rituximab

SLE, CP, friction rub over R chest → lupus pleuritis → tx NSAID

58F, fatigue, HL, pain when proximal arms or legs grasped → statin induced myopathy (NBS CK)

62F, right thumb pain, nl sensation → osteoarthritis (degenerative joint disease)

47F, joint pain, CXR w/ LUL mass and perihilar LAD, tib/fbi w/ periostosis → hypertrophic pulmonary osteoarthropathy

SLE on pred, UTI, septic shock → tx abx + hydrocortisone (secondary adrenal insufficiency)

Reynauds tx: CCB (amlodipine, nifedipine)

SLE, UA w/ protein and blood → NBS renal biopsy

Arthrocentesis w/ rhomboid crystals → CPPD → tx NSAID + colchicine

Gout tx: ↓alcohol, ↓purine BEFORE allopurinol (for acute, NSAID, colchicine, steroids)

32F, morning stiffness of bilateral ankles, warmth, effusion, nl XR → RA → NBS anti-CCP

Sjogren syndrome tx: pilocarpine

R knee swelling, uric acid crystals → gout → tx indomethacin (NOT allopurinol)

27F, bilateral ankle pain, morning stiffness → RA

# Derm

H/o DVT s/p warfarin, brown hyperpigmentation and edema of RLE → postphlebitic syndrome

Systemic sclerosis, osteomyelitis of toe → amputation

Red streaks from forearm to elbow, fever → lymphangitis (GAS, Staph, Pasteurella)

H/o kidney transplant, hyperkeratotic erythematous crusted plaque w/ ulceration → SCC

Tinea capitis pathogen: dermatophytes (microsporum, trichophyton, Epidermophyton) → tx oral griseofulvin or terbinafine (monitor LFTs)

Erythematous rash around nose and eyebrows, dandruff → seborrheic dermatitis (Malassezia)

Itching of upper back, hypopigmented macules → tinea versicolor (Malassezia) → topical ketoconazole or selenium sulfide

Tine versicolor tx: topical ketoconazole, selenium sulfide

Alopecia, scattered papules w/ scaly areas → tinea capitis → oral griseofulvin

Ulcerated lesion w/ raised margin and waxy border on temple → BCC → r/o local spread

7M, pink oval rash on chest that progressed to arms and legs → pityriasis rosea (HHV-6) → self resolves

S/p Bactrim, rash, ↓neutrophils → drug induced neutropenia → self resolves

Hidradenitis suppurativa tx: clindamycin, doxycycline, adalimumab (will likely recur)

Circular blanched raised urticarial lesions on face hands and feet, HDS → urticaria to food allergen → antihistamine (diphenhydramine)

Spider bite leads to: eschar at center

Vacationing in Florida, superficial clear vesicles → miliaria crystallina → avoid heat

# Peds

7M, urinary incontinence, hard stools → constipation → tx laxative

14M, stays up until 10PM → normal adolescence

17M, slurred speech, ataxia, ↓glucose, pH 7.3 → alcohol intoxication

Botulism dx: repetitive nerve stimulation study (should improve w/ stimulation)

Diaper rash tx: topical nystatin

3F, chronic knee pain, ↑ANA, nl RF → JIA → slit-lamp exam (c/f uveitis), tx MTX

5M, idiopathic osteonecrosis → Legg-Calve-Perthes

13M, obese → involve parents and schedule regular follow up

Newborn, s/p chest tube, milky drainage → chylothorax

Adolescent infatuated with romantic partner → normal

3M no antibodies → X linked agammaglobulinemia → tx IVIG

6M, hair loss, lesion on scalp, LAD → tinea capitis (Trichophyton tonsurans) → tx griseofulvin

15M, post-traumatic lump on R thigh, XR w/ defects and new bone formation → osteosarcoma (bone bx)

5M, umbilical hernia, if untreated it will: progressively enlarge

Developmental dysplasia of the hip w/u: U/S to dx → closed reduction or immobilization

Neonate, regurgitates after first feed, drools, intercostal retractions → tracheoesophageal fistula

Nursemaid elbow tx → supination reduction

3F, fever, sore throat, vesicles on hands, fever, oral ulcers → hand foot and mouth disease (coxsackie) → observation only

7M w/ destruction of humerus → osteosarcoma → MRI

18F, tightness in chest when exercising, bronchitis each winter → asthma → albuterol

Marfan increases risk of: aortic aneurysm, AoD, ectopia lentis, myopia, retinal detachment

4M, recent infxn, hip pain, limited PROM → transient synovitis of hip (ESR, CRP)

Newborn, labored breathing, grunting, intercostal retractions, loud S2, lung infiltrates → pHTN

2F, wheezing and stridor after drinking cow milk → food allergy → epinephrine

Anorexia nervosa increases risk of: bradycardia, hypotension, hypothermia, osteoporosis, amenorrhea

3F, leg pain when running, 3+ BUE pulses, 2+ BLE pulses → coarctation of the aorta

22 mo difficulty sleeping, stands in crib with open eyes for 10 min before sleeping → sleep terror → reassurance

14M, sickle cell trait, BMI 32, L thigh pain → SCFE (dx XR)

11F w/ unilateral breast tenderness → reassure (thelarche)

7M, recurrent infections, eczema, ↓PLT, ↓Ig → WAS (cytoskeleton mutation)

11M, hypotonia, ↓DTRs, progressive weakness, CK → juvenile SMA (Kugelberg-Welander)

2M, ↓DTRs, difficulty feeding, respiratory failure → infantile SMA (Werdnig-Hoffman)

L tonsillar edema, uvular deviation → peritonsillar abscess → tx needle aspiration + abx

12M, acute watery diarrhea, fever, MMM, nl BMP, VSS → dx rotavirus → NBS oral rehydration

17M, intellectual disability, bilateral gynecomastia, testes Tanner 1 → Klinefelter (XXY)

Drain cleaner ingestion → NBS EGD

Inguinal hernia, elongated face, droopy eyelids, scoliosis → Marfan

Annual screening in Marfan pts: echo (AoD), eye exam (ectopia lentis, myopia, cataracts, retinal detachment)

12M, bone age 10.5 yr → constitutional growth delay

16 d old, jaundice, ↑d-bili → biliary atresia → NBS RUQUS → tx hepatoportoenterostomy

18M, proteinuria on routine dipstick, transient → reassurance

3F, fever x7d, cervical LAD, sclerae injection, hand and foot rash → KD → tx IVIG + ASA → NBS ECG, echo (coronary artery aneurysms)

2 mo, recurrent infections, ↓CD4, ↓Ig, nl WBC → SCID

Recurrent bacterial infections, albinism, peripheral neuropathy → Chediak-Higashi syndrome (lysosomal trafficking mutation)

T cell deficiency, hypocalcemia → DiGeorge syndrome (22q11, thymic parathyroid dysplasia)

Anencephaly ppx: folic acid, avoid antiepileptics

5F w/ CP, rib cage impinges right iliac crest → scoliosis → NBS spine XR

16 mo, acute dyspnea, decreased breath sounds, nl CXR → foreign body → NBS bronchoscopy

3 d old, bilious emesis, abdominal pain, HDS → midgut volvulus (NBS upper GI barium series)

4 mo boy, UTI → vesicoureteral reflux → ppx daily abx

6 mo, recurrent infections, eczema, LAD, HSM, ↓PLT → Wiskott Aldrich syndrome

Recurrent infections, unsteady gate, telangiectasia, nystagmus → ataxia telangiectasia → assoc w/ hematologic malignancy

Recurrent infections, craniofacial defects, hypocalcemia → DiGeorge (22q11)

4M holding arm w/ elbow flexed and forearm pronated → radial head subluxation → tx hyperpronation or supination with elbow in flexion

Breastfeeding supplements <6 mo: Vit D, iron, fluoride

12M, episodic polyuria → psychogenic polydipsia

14M, 3% height since 2 yo, normal height parents → constitutional growth delay (↓bone age)

14M, 3% height since 2 yo, short parents → familial short stature (nl bone age)

6 mo, firm stool q4d, recently started cow’s milk, no vomiting, abdominal distension, no stool in rectum → Hirschsprung disease → NBS rectal manometry, rectal suction bx

4 mo, cough x7d, perioral cyanosis during coughing → pertussis

4M, ear pain, bulging TM, ear displaced, tenderness behind ear → mastoiditis (Staph, Strep) → NBS CT of temporal bone

7 mo, fussy, mild intercostal retractions, wheezes → bronchiolitis (RSV) → reassure

7 mo, fussy, mild intercostal retractions, barking cough → laryngotracheobronchitis (RSV) → steroids, epinephrine

17F, dieting, BMI 23 to 20 in 1yr → advise to stop dieting

4 mo, vomits after feeds x1 mo, arches back → GERD

6F, hypopigmented macules, seizures → TSC (also angiofibroma of face and nails, fibrous forehead plaque)

8M, facial swelling, FHx → hereditary angioedema (C1 esterase inhibitor mutation)

2F, 2 min of shaking and unresponsive, T 104F → febrile seizure → abx

How to prevent future bee allergy: venom immunotherapy

Premature GA12 newborn, no spontaneous respiration → no resuscitation efforts

13 mo, recurrent viral infxn, WBC 1,500, CD4 225 → combined immunodeficiency

5M, recurrent PNA and sinusitis, nl labs → primary ciliary dyskinesia

Child w/ nephrolithiasis, 3 mm stone → tx IVF + morphine

Most common causes of death in teenagers: MVA > homicide, suicide, malignancy, CVD

2M w/ IgA deficiency → no intervention

4F w/ vaginal itching, erythema, no sexual abuse → vulvovaginitis d/t poor hygiene, clothing, irritants

2F, crossing eyes, truncal ataxia, firm mass in RUQ, myoclonus → opsoclonus myoclonus 2/2 neuroblastoma in adrenal gland

3 mo, head > weight percentile, large tongue → congenital hypothyroidism

9F w/ breast development → reassure (normal puberty)

Cleft lip / cleft palette pt are at increased risk for: velopharyngeal insufficiency (whistling speech)

2 mo, sweating during breastfeeding, failure to thrive, hepatomegaly, systolic murmur → VSD

Cardiomegaly, hepatomegaly, hypotonia → Pompe (glycogen storage II) disease

Cataracts, LVH, retinal vascular tortuosity → Fabry disease

15M, polyuria, ↑BMI, UA w/ glucose, hyperpigmented macular rash → DM-2 (acanthosis nigricans)

3M, crying in hospital → fear of separation (NOT fear of pain)

Ingestion of cleaning product, oropharyngeal lesions → caustic alkali ingestion → NBS EGD (c/f visceral injury b/c oropharyngeal lesions) (NOT NGT) → tx steroids

12 d old, seizure, hypertelorism, low set ears, narrow mediastinum → DiGeorge syndrome (thymic-parathyroid dysplasia) c/b hypocalcemia

Vesicoureteral reflux tx: oral abx ppx > surgery

Newborn fed cow’s milk is at risk of developing: IDA

Diarrhea, dementia, dermatitis → pellagra (Vit B3 niacin deficiency)

15F asks not to tell mom sexual hx → will only share if her safety is at risk (NOT empathize)

4M, acute cough, dyspnea, wheezing → foreign body aspiration → tx bronchoscopy

2F, blood on pillow, h/o URI, seropurulent fluid in R external auditory canal → TM perforation 2/2 AOM

Cephalohematoma management: trend bilirubin

Precocious puberty cutoff: <8 yr in girls, <9 yr in boys

4M, recent infxn, limp, ↑ESR → transient synovitis → tx NSAIDs

Umbilical hernia management: self resolves by 3 yr

2M, constipation, normal growth → functional constipation → tx laxative

1 d old, ↑muscle tone, ↓DTRs, FHx → myotonic dystrophy (NOT congenital dystrophy)

Dysfunctional muscle relaxation = myotonic dystrophy

Newborn, feeding difficulty, scoliosis, joint deformity, weakness → nemaline myopathy

Oligohydramnios, 2 lb newborn, flat facies, ↓breath sounds → pulmonary hypoplasia (Potter sequence)

3F, new mutism → regression → NBS investigate for child abuse

Epiglottitis NBS: intubation in OR (NOT XR)

16 mo, recurrent ear infxn and PNA → X linked agammaglobulinemia (BTK)

17F, primary amenorrhea, 46XY → androgen insensitivity → NBS gonadectomy

4F, cough, fever, inspiratory stridor, CXR w/ shaggy tracheal air column and peribronchial cuffing → bacterial tracheitis (Strep pneumo, H flu, S aureus)

4F, cough, rapid breathing, wheezing → bronchiolitis (RSV)

4F, cough, fever, stridor, responds to racemic epinephrine → croup

14M, tender firm mobile mass below L areola → normal puberty

OD, slurred speech, ↓muscle strength, nystagmus, neg Utox → inhalant intoxication

12 mo, FTT, bulky light colored stool, thin hair → CF

7M, misbehaves in spelling class → dyslexia

2F, harsh cough → croup (parainfluenza virus) → tx nebulized epinephrine

6M, unable to read, normal IQ → learning disorder

Expect female puberty to start by: 13yo

5 d, Hb FS → SCD → NBS penicillin ppx

Clef palate, VSD, recurrent infections → DiGeorge (lymphopenia)

1 wk old, ↑TSH, ↓T4 → primary hypothyroidism (thyroid dysgenesis) → tx levothyroxine

18 mo M, recurrent fx, blue sclera → osteogenesis imperfecta → r/o SNHL

12 mo F, UTI → NBS renal U/S (NOT voiding cystourethrography)

Tell child they are adopted: ASAP

Myelomeningocele increases risk of: neurogenic bladder, hydrocephalus

Teenager, new group of friends, trespassing on abandoned property → normal (NOT conduct disorder)

7M, joint effusion w/ clear fluid, ↑ESR, ↑CRP → transient synovitis (no long term complications)

12M, acute testicular pain, enlarged → testicular torsion → tx emergency orchidopexy

Diaphragmatic hernia complication: pulmonary hypoplasia

12 mo, ate ice cream, itchy rash and drooling → anaphylaxis → tx epi → NBS radioallergosorbent testing

1 yr, ↓BP, ↑HR, recent viral illness, cardiomegaly → myocarditis

Breast milk lacks: Vitamin D

15 mo, recurrent PNA, Staph infections → CGD

12F, unilateral mobile mass below areola → NBS reassure (puberty)

Fine motor skill development: circle by 3yo, square/cross by 4yo

Social development milestones: sharing by 4yo

Gross motor skill development: ascending stairs by 3yo, hopping on one foot by 4yo

5M, progressive muscle weakness, fish mouth, high palate → myotonic dystrophy

13F, irritable, disrupted academics and friendships, negative thoughts → MDD

KD tx: IVIG + high dose ASA

Newborn, cyanotic, systolic murmur, displaced aorta → ToF (VSD + RVOT)

13M, long downy pubic hair, penis 3cm → normal

Short, narrow palpebral fissures, low ears, broad nasal bridge, micrognathia → DiGeorge

4M, decreased L breath sounds, R diaphragm elevation → foreign body aspiration → bronchoscopy

1 yr M, brown macules over trunk → NF1 → NBS ophthalmologic exam

2F, itchy rash after PIV placement, ↓BP, ↑HR → anaphylaxis to latex

2 wk, rash spreading from scalp electrode → HSV

# Psych

S/p haldol, torticollis → acute dystonic reaction → tx diphenhydramine or benztropine

Dysthymia: 2+ SIGECAPS for >2 yrs

55F w/ MDD on fluoxetine, decreased libido, vaginal atrophy → switch fluoxetine to bupropion

32F, palpitations, sweating, SOB, fourth visit, HR 88 → panic disorder (NOT thyrotoxicosis)

Medication induced depressive disorder tx: SSRI

AUD deficiencies: thiamine, folate, B12, Vit A, Vit B6, Mg, Fe, Zn

Reaction formation: unacceptable feeling converted to opposite

9F, unwanted anxious thoughts, taps foot to soothe → OCD → tx SSRI

Oppositional defiant disorder vs conduct disorder: physically aggressive, violates others’ rights

14M, irritable, disrespectful, uncooperative → oppositional defiant disorder

Childhood antisocial personality disorder = conduct disorder

On benztropine + Haldol, dry mucous membranes, AMS → anticholinergic delirium → tx benzo or physostigmine

Normal bereavement lasts: 6 mo

Delirium, dry skin, dilated pupils, hypotension → anticholinergic toxicity

Believes loved ones are imposters → Capgras syndrome

GAD requires 6 mo of symptoms

Confusion, fever, diaphoretic, HTN → alcohol withdrawal

Irritable, depression, insomnia, decreased appetite → cannabis withdrawal

Confusion, hypotension, arrhythmia, dry mucous membranes → TCA overdose

Panic attacks, worried about heart → panic disorder (NOT GAD)

MDD, decreased appetite, wants to avoid sexual dysfxn → tx mirtazapine

Hallucinations, depersonalization, paranoia, ↑HR, ↑BP → LSD intoxication

S/p haldol, rigidity, eyes superiorly → acute dystonia → tx diphenhydramine, benztropine

Feeling of bugs crawling under skin → methamphetamine

Conversion disorder vs malingering: malingering benefits from diagnosis

MDD, chills, myalgia, fatigue, HA, n/d, irritability, dizziness → SSRI discontinuation syndrome

Valproate s/e: sedation, tremor, weight gain, leukopenia, thrombocytopenia, hepatotoxicity

Bupropion s/e: dizziness, insomnia, seizure

77M, weight loss, cough, more sleeping, no longer enjoys cigarettes, nl exam, sad → MDD → tx ECT

Confused, agitated, BP 215/105, HR 163, diaphoresis, dilated pupils → cocaine intoxication

Daytime sleepiness, no snoring → narcolepsy → NBS multiple sleep latency tests, LP for orexin-A (NB: if cataplexy is present can make diagnosis clinically)

Schizophrenic pt only agrees to tx while inpatient → long acting injectable (NOT keep inpatient)

Panic disorder tx: SSRI

On SGA, drooling, masked facies → drug induced parkinsonism → decrease dose

On SGA, dystonia, akathisia, torticollis → extrapyramidal → decrease dose + diphenhydramine

22M, hearing voice of God, social withdrawal → schizophrenia

Unconscious, HR 110, BP 85/60, mydriasis, ↓bowel sounds, ↑DTRs → TCA OD

Postpartum blues course: self-resolve in 2 wks

S/p MI 4 wk ago, tired, irritable, not interested in poker, weight gain → adjustment disorder (NOT MDD)

N/v, improves w/ hot shower, illicit drug use → cannabis hyperemesis syndrome

Valproate s/e: pancreatitis, hepatotoxicity, BM toxicity, alopecia

ADHD is associated with: substance use disorder

AUD tx for pt on opioids → acamprosate (NOT naltrexone)

OD, seizures, vomiting, diarrhea, dry skin, hyperreflexia → serotonin syndrome → tx benzo, IVF, cyproheptadine

Serotonin syndrome drugs: SSRI, MAOI, TCA, lithium, ecstasy, LSD, ondansetron, triptan, dextromethorphan, opioids

11M, worried that mother will die, checks enough insulin → OCD

80F, torn labia minora, bruises → elder abuse → NBS hospital admission w/ protective hold

Hydromorphone half-life: 2-3 hr

Valproate congenital effects: NTD (NOT cleft lip)

Panic disorder tx: SSRI

FTD, agitated → tx SGA

Lithium monitoring labs: glucose, TSH, Cr

Gingivitis, ↑HR, heart failure → methamphetamine

77F, multiple bruises, dementia → elder abuse

PNES tx: CBT

84F, missing appointments, worsening diabetes control → elder neglect

REM sleep behavior disorder increases risk of: PD

Panic attacks on dates and when driving → agoraphobia (NOT social anxiety)

Post-MI MDD increases risk of: death

Bipolar, seizure, dry mucous membranes, AV block → lithium toxicity

Social anxiety tx: CBT + SSRI

Episodic SOB, palpitations, HR 110, BP 155/89 → panic disorder → tx SSRI, benzo short term

Panic disorder vs pheo: pheo has HA

Sad about wife’s death 1 mo ago, not eating → uncomplicated grief → NBS reassure (NOT nutritional supplementation)

Short REM latency, multiple awakenings → narcolepsy

Bipolar med that decreases suicide risk: lithium

Transgender patient at greatest risk for: MDD (NOT body dysmorphic disorder)

ADHD course on methylphenidate → same dose in childhood and adulthood

S/p Haldol, eyes turned up → acute dystonia → tx benztropine, diphenhydramine

Bipolar vs pathologic gambling: pathologic gambling not associated w/ increased energy or lack of sleep

# OBGYN

GA22, abd pain, fever, R>L tenderness, WBC 16k → appendicitis (exlap)

27F, infertile, dyspareunia, R adnexal mass w/ internal echoes → endometriosis

37F, pap semar with atypical glandular cells → colposcopy with endocervical curettage

Fetal hydronephrosis → term delivery only

Preconception visit tests: rubella and varicella serology, STI screening

Postpartum, fever, tender uterus → endometritis → IV abx

29F, migraines, vaginal contraceptive ring → remove VCR and place coper IUD (avoid E2 d/t stroke risk)

32F, amenorrhea, lethargy, nipple discharge, nipple discharge → hypothyroidism → ↑prolactin

18F, vaginal bleeding, ↑bHCG, no gestational sac → ectopic pregnancy

GA27, in labor, +GBS → preterm labor → betamethasone, tocolytics, magnesium, penicillin

GA18, microcephaly, clubbed foot, traveled to South Africa → Zika virus

GA12, first prenatal visit, BMI 35, father w/ DM-2 → GTT (normal at GA24)

Attempting to breastfeed, R nipple erythematous w/o discharge → poor latching

GA16, vaginal bleeding, BP 150/100, HA, cystic uterus, bilateral adnexal masses → hydatidiform mole → D&C → trend bHCG

57F, AUB, 18mm endometrium → endometrial bx

GA40, cervix dilated, vertex -1, no change after 4 hr → C section (second stage arrest)

GA40, cervix dilated, vertex 0, exhausted → vacuum or forceps

Placenta previa increases risk of placenta accreta (abnormal placenta attachment to myometrium)

32F, vaginal odor, gray vaginal discharge → BV (dx wet mount BEFORE tx)

GA8, friable cervix w/ mucopurulent discharge, partner w/ nongonococcal urethritis → chlamydia → tx azithromycin

27F, mobile nontender breast mass in upper inner quadrant → fibroadenoma (dx U/S)

24F, acute abdominal pain after exercise, tender ovary → ovarian torsion → TVUS

13F, first period, 10d of bleeding → reassure (first bleeding is anovulatory)

GA14, prior IUFD at GA32 → weekly nonstress test after GA32

25F, recurrent dysuria, no UCx growth, friable cervix → chlamydia

bHCG increasing after D&C → gestational trophoblastic neoplasia (hydatidiform mole, choriocarcinoma)

GA7, bell palsy, AV block, visited farm → Lyme → tx CTX

Urinary incontinence, bulging of anterior vaginal wall → stress incontinence (urethral hypermobility)

HIV+ mother, vaginal birth, avoid: fetal scalp electrode

BRCA testing indications: breast CA <45yr, FHx ovarian CA, male breast CA

S/p C-section, fever, uterus tender → endometritis → tx abx

Ovarian CA protective factors: OCP, late menarche, breastfeeding, multiparity, early menopause, FHx

GA14, closed cervix, uterus size 6 wk, US w/ gestational sac w/ no cardiac activity → blighted ovum

27F, recurrent UTIs → tx postcoital Bactrim, nitrofurantoin, or cephalexin

Postpartum bleeding, hypotensive, h/o shoulder dystocia w/ forceps delivery → genital tract laceration

Postpartum 2 mo, anxiety, thyroid slightly TTP, tremor, ↓TSH, ↑T4, anti-TPO neg, ↓RAIU → postpartum thyroiditis → tx metoprolol

42F, irregular mass in upper outer quadrant → mammography + biopsy

GA35 vaginal bleeding, h/o C-section → placenta previa → NBS pelvic US

Vaccines in pregnancy: inactivated influenza, Tdap

Mother w/ positive serum anti-D → Rh isoimmunization

S/p transfusion, anti-Duffy antibodies → Duffy sensitization

Amniocentesis increases risk of: PROM, fetal demise, infection

Amniocentesis occurs between GA 15-18

49F, irregular menses, enlarged uterus → NBS endometrial biopsy (c/f endometrial cancer)

27F, decreases menstrual bleeding, on OCP → reassurance

Postpartum 6 mo, breastfeeding, best contraceptive: levonorgestrel IUD

42F, menstrual cramps, heavy flow, diffuse uterine enlargement → adenomyosis

77F, anterior vaginal segment halfway past hymenal ring → cystocele

32F, GA27, painless vaginal bleeding, friable 2 cm ulcer on cervix → cervical cancer

26F, tender mass in upper outer quadrant of breast → NBS U/S

37F, infertile, monophasic body temp, weight gain, no hirsutism → hypothyroidism

GA20, shaking hands, ↓TSH → hyperthyroidism → tx BB, PTU, methimazole

Nontender mass of left posterior vulva exterior to hymenal ring → Bartholin duct cyst

GA28, contractions, cervix partially effaced → tx magnesium sulfate, tocolytic (nifedipine, terbutaline), corticosteroids, abx

Intrapartum therapy is given for: HIV (NOT HBV, HSV)

15M, primary amenorrhea, Tanner stage 1, ↓BP, ↑FSH/LH → Turner syndrome (NBS karyotype)

PUS w/ 9 week gestation w/o heart motion, subchorionic hemorrhage → spontaneous abortion → tx D&C (if poor access to healthcare) or mifepristone AND misoprostol

S/p C-section, fever, ↑WBC → endometritis

6 mo postpartum, rubella non immune → rubella vaccine now

13F, primary amenorrhea, Tanner stage 2 → reexamine in 1 yr

21F, secondary amenorrhea, nl TSH, nl prolactin, +progestin withdrawal → anovulation

21F, secondary amenorrhea, nl TSH, nl prolactin, -progestin withdrawal → primary ovarian failure, outflow tract obstruction, HPA dysfxn

GA10, ↓Hgb, ↓MCV → IDA

GA10, ↓Hgb, nl MCV → physiologic anemia of pregnancy

67F, pelvic mass, ↑CA-125 → ovarian cancer → tx surgery + chemotherapy

OCP contraindications: smoker, HTN, prior VTE or stroke, migraine, breast cancer, cirrhosis

62F, urinary incontinence, DM-2, PVR 500 mL → overflow incontinence

52F, on estradiol + medroxyprogesterone, vaginal spotting → NBS endometrial biopsy

GA16, on lithium → continue lithium (b/c after first trimester)

GA10, BMI 30, h/o PCOS → limit weight gain

7F, vaginal bleeding, pubic hair, L ovarian mass → NBS oophorectomy (NOT FNA)

Mom w/ anti-D, FHR w/ sinusoidal wave form → Rh isoimmunization

FHR w/ sinusoidal wave form → fetal anemia

Breastfeeding, mobile cystic tender mass in upper outer quadrant of breast → galactocele → NBS FNA (more breastfeeding does NOT improve)

Pregnant CF patient will require: nutritional supplementation

8 wk postpartum, no menses, low libido, cries, flat affect, weight gain → postpartum depression

Preeclampsia complications: fetal growth restriction, abruptio placentae, eclampsia

PPROM complications: preterm delivery

16F, irregular menses, acne, facial hair → PCOS (↑LH, ↓FSH, ↑androgen) → tx weight loss, OCP, spironolactone

Hyperprolactinemia ddx: anterior pituitary microadenoma, hypothyroidism, anti-dopamine

29F, incidental hemorrhagic cyst in R adnexa → corpus luteum cyst → repeat TVUS in 6 wk

19F, abdominal guarding, R >L adnexal tenderness, ↓Hct, ↑bhCG → ectopic pregnancy → exlap

14F, acute abdominal pain, small amount of fluid in pelvis → Mittelschmerz

GA22, n/v, fever, ↑WBC, abdominal pain → appendicitis → NBS MRI, U/S → tx laparoscopy

62F, immobile mass in upper outer quadrant, nl mammography, nl FNA → NBS excisional biopsy (b/c suspicious)

Bicornuate uterus increases risk of: infertility, preterm delivery, fetal growth restriction, malpresentation

Postpartum 1 day, fever, tender uterus, ↑WBC → endometritis

Endometritis pathogens: polymicrobial, E coli, enterobacter, enterococcus, bacteroides, clostridium

26F, shock, ↑bhCG, no intrauterine pregnancy → ectopic pregnancy → NBS laparoscopy

16F, LMP 10 wk ago, BMI 18 → NBS pregnancy test (NOT progestin challenge)

↓AFP → DS

DS prenatal labs: ↓AFP, ↑bhCG, ↑inhibin A, ↓estriol, nuchal translucency

GA18, sick contact w/ parvoB19 → NBS serum IgG and IgM

Congenital parvoB19: (2 or 3 trimester) anemia → hydrops fetalis, HOHF

49F, LMP 9 mo, IUD strings missing → NBS urine pregnancy test (NOT CT)

GA18, BP 150/100 → essential hypertension

24F, tender fluctuant mass in lower outer quadrant of R breast → NBS U/S (most likely breast cyst) → tx FNA +/- core needle bx

Partially cystic mass in right ovary w/ single echogenic nodule and decreased blood flow → teratoma c/b torsion → NBS ovariancystectomy

17F, painful periods → tx NSAIDs, OCP, IUD

77F, decubitus ulcer, fleshy lesion of labium → vulvar cancer → NBS bx

27F, left adnexal cyst w/ free fluid in pelvis → ruptured ovarian cyst → observation

Pleomorphic microcalcifications in breast → DCIS

Nonpleomorphic calcifications in breast → sclerosing adenosis

GA28, vaginal bleeding, Rh-negative → NBS Rh(D) immunoglobulin

GA36, vaginal bleeding after sex → placenta previa → NBS U/S

GA12, h/o GDM → NBS GTT

42F, hot flashes, palpitations, amenorrhea → NBS FSH (NOT LH)

27F, breastfeeding, fever, wedge shaped erythema of breast → acute mastitis → tx dicloxacillin, cephalexin

Pelvic surgery postop infection RF: BV (NOT HSV, obesity, shaving)

GA12, recurrent UTIs → tx postcoital nitrofurantoin

GA11, vaginal spotting, BP 90/50, HR 110, gestational sac extending into myometrium → cornual (ectopic) pregnancy

GA17, fetus w/ fused thighs → caudal regression (d/t hyperglycemia) → stillbirth

16F, irregular menses, ↑T → PCOS → tx weight loss, OCPs, spironolactone

34F, irregular vaginal bleeding, obese → PCOS → NBS endometrial biopsy

57F, tender round mass in axilla, nl mammogram → NBS U/S (c/f breast cancer)

GA8, test for fetal malformation: A1c

67F, vaginal pain, itching, pruritic white plaques → lichen sclerosus → NBS bx → tx steroids

ACEi in pregnancy causes: oligohydramnios, fetal hypotension

19F, positive home pregnancy test → NBS TVUS (NOT urine pregnancy test)

Infertile, h/o D&C → uterine synechiae (Asherman syndrome) → NBS hysteroscopy

OCP contraindicated: smokers >35 yo, ↑HTN, CVD, valvular disease, DM-2 w/ end organ damage, h/o stroke, h/o VTE, cirrhosis, migraine, breast cancer

On OCP, HTN → NBS switch to progesterone OCP

GA18, ↑T4 → gestational hyperthyroidism → tx PTU > methimazole

POD7 C-section, fever, not responsive to abx → septic pelvic thrombophlebitis

47F, hot flashes, irregular periods → NBS hormone therapy (NOT E2 level)

GA34, late decels x1 hr → NBS C-section

8F, vaginal itching, thin white discharge, erythematous perineum → nonspecific vulvovaginitis (NOT candida b/c thin)

17F, primary amenorrhea, no uterus, no ovaries → androgen insensitivity syndrome → NBS Karyotype

Di-di twins increase risk of: preterm labor

42F, complex multiseptated right ovarian mass → NBS operative exploration (NOT CEA, PET, BRCA)

16F, primary amenorrhea, ↑FSH → Turner syndrome → NBS karyotype

16F, green discharge from R nipple → ductal ectasia

14F, no menses, pubic hair → NBS reassure

# Surgery

87M, difficulty starting stream, enlarged prostate → BPH → tx finasteride

25F dyspnea, flushing, BP 90/50, circumoral cyanosis → anaphylactic shock → epinephrine

MVA, hemorrhagic shock, L rib fx → splenic lac → exlap

Back pain s/p ↑↑↑APAP ingestion → N-acetylcysteine

Prevention of future anaphylactic rxn to bee venom → venom immunotherapy

19M agitated, fever, HR 130, diaphoretic, tremulous → ecstasy OD

MVA, LLL fluid, LUL fluid density, NGT deviated to R, sudden ↓BP → aortic transection

Best indicator of positive prognosis in intubated patient: purposeful movements

52F, overwhelming urge to void, when stepping out of car, nocturia → overactive bladder

52M, fever, bullae over scrotum, perineum crepitus → perineal abscess (Fournier gangrene) → I&D

POD2, AUD, auditory hallucinations → DTs

RA on pred, TKR, abx ppx: IV cefazolin

Best way to prevent CVC infection: wash hands before handling

Anaphylaxis tx → epinephrine + IVF

Diffuse abdominal pain, tympanic, high-pitched bowel sounds → dx sigmoid volvulus (XR w/ sigmoid dilation) (NOT perf b/c no fever, tachycardia, or rebound tenderness)

Air embolism during CVC placement → Trendelenburg + left lateral decubitus, IVF, O2

GSW to RLE, no pedal pulses, ABI 0.5 → intraoperative angiography

Syncope, running, obese, T 102F, HR 140, BP 105/70, clammy cool skin → heat exhaustion

MVC, supraclavicular fossa distension w/ inspiration → PTX → needle decompression + tube thoracostomy

BAT, ↑amylase, lipase → traumatic pancreatitis

CAP s/p azithromycin, pleural fluid w/ WBC 16k, glucose 50, pH 7.12 → empyema → chest tube

CTS tx: wrist splint, wrist pad, surgery (NOT physical therapy)

PE mortality RF: obstructive shock, age

S/p fistula surgery, on TPN, fever, ↑WBC → bacteremia / fungemia

Slurred speech, HR 124, RR 10, orthostasis, nystagmus on lateral gaze → inhalant intoxication

Twins w/ single placenta and no membrane → monochorionic/monoamniotic twins → r/o cord entanglement → C section

GA9, n/v, HR105, ↓TSH → hyperemesis gravidarum → tx IVF, VitB6, antiemetics

Thyroid changes in pregnancy: ↑thyroxine binding globulin and HCG stimulation of TSHR → ↓TSH

Abdominal stab wound, HR 130, BP 110/70 → laparotomy (NOT CT)

72M, ED, take nitroglycerin, drinks 2x daily → NBS alcohol abstinence

POD7, n/v, colonic dilation from cecum to anus w/ stool and air fluid levels → colonic pseudo-obstruction (Ogilivie syndrome)

POD3, 3+ edema from foot to hip → DVT (nl superficial veins) → tx SQ LMWH (enoxaparin)

Glass shard through RUE, no pulses → wound exploration

MVA, blood at urethral meatus, pubic rami fracture → retrograde urethrography

ICU pt, shock, fever, fluid around NGT → nosocomial sinusitis (NBS CT sinus)

MVA, s/p PRBC + FFP, ↑PT, ↑PTT → DIC

Necrotic toe, +pulses, pulsatile mass in inguinal region → PAD c/b femoral artery aneurysm

S/p thyroidectomy, stridor, decreased breath sounds → laryngeal nerve paralysis (airway obstruction)

S/p amputation 1 yr ago, opening in scar w/ erythema and purulent drainage → chronic osteomyelitis → NBS bone bx

S/p bowel resection, on TPN, jaundice, ↑D-bili, ↑ALP, nl AST/ALT → cholestatic hepatic disease

Strangulated hernia, on call surgeon refuses to come → tell them to come (NOT more imaging)

20F, MVA, confused, facial contusions → NBS CTH

S/p amputation, ulcer with viable soft tissue → decubitus ulcer → avoid pressure (NOT abx)

GSW, succus entericus, best closure method to reduce infection risk: delayed primary closure

6 hr postop, BP 180/110, pain, TBB 4L → NBS IV narcotic

Football tackle, hematuria → NBS CT abdomen

C diff toxic megacolon, gas in bowel wall → NBS exlap

Frostbite prognosis: will take days to assess

MVA, left pleural effusion → NBS tube thoracostomy (NOT thoracentesis)

BAT, epigastric pain → pancreatitis

Urosepsis, hypotension unresponsive to IVF and abx and norepi → adrenal insufficiency → NBS IV hydrocortisone

OD, HA, CP, BP 220/125, ↑DTR → phentermine toxicity → tx IV nitroprusside

Bilious emesis, high pitched bowel sounds, tender groin mass → incarcerated inguinal hernia → NBS surgery (NOT CT)

97F, dry mucous membranes, Na 154 → tx IV NS

57F, hematemesis → NBS EGD

POD4, hemoptysis, triangular density in LLL, no DVT → PE

Chest stab wound, JVD, BP 80/40 → tamponade → NBS pericardiocentesis

S/p exlap, ↓UOP → bladdery injury → NBS bladder U/S

Cerumen filling bilateral auditory canals, hearing good → reassure

4 mo, s/p VSD repair, cold extremities, ↓UOP → tamponade → NBS echo

RLE edema, cellulitis, hemorrhagic bullae, pain out of proportion → necrotizing fasciitis → tx debridement + abx

Diver, HA, UMN signs, back pain → decompression sickness → tx hyperbaric O2

Femoral hernia management: elective repair in 1 wk

MVA, absent bilateral breath sounds, JVD → NBS bilateral needle decompression + tube thoracostomy + negative pressure (NOT CXR)

POD10 vagotomy, fever, LUQ pain, raised L diaphragm → subphrenic abscess

Dexamethasone administered during surgery can cause: hyperglycemia

Acute limb ischemia → tx vascular surgery + heparin gtt

# MSK

Septic arthritis most common bug: S aureus

AUD, lytic and sclerotic lesions of femoral head → AVN

62F, BMI 46, L knee giving away while walking, patella TTP → chondromalacia patella

MCP joints tender to squeezing, 1 hr morning joint pain, swollen R knee → NBS arthrocentesis (r/o septic arthritis)

Swelling in front of ankle, XR w/ periosteal reaction → dx osteosarcoma → NBS MRI

72M, back pain improves w/ shopping cart → spinal stenosis

Back pain improves with standing/walking → lumbar disc herniation

25M, impaired muscle relaxation w/ handshake, weakness, cataracts → myotonic dystrophy type 2

Proximal muscle pain and weakness → polymyositis

DM-2, ESRD, R knee swelling, limited ROM, fever → septic arthritis 2/2 hematogenous spread

Unable to raise arm, drop arm test positive → rotator cuff tear

Severe shoulder pain then progressive loss of motion → adhesive capsulitis

Arm, weakness, numbness, paresthesia in dermatomal pattern → cervical nerve impingement

66M, R knee pain x2 mo for 10-15 min in AM, medial joint line tenderness, mild effusion, decreased knee extension → OA → tx NSAID, PT

RA, imaging needed before surgery: XR C-spine (r/o atlantoaxial instability)

12F, masses on knees, XR w/ well corticated bony extensions → osteochondroma

Army recruit, dorsal 5th toe TTP, nl XR → stress fracture → tx cast immobilization

Talofibular and calcaneofibular ligaments TTP, able to walk → ankle sprain → physical therapy (NOT immobilization)

78F, h/o GERD, OA tx: APAP (NOT NSAID b/c GERD)

Swelling and tenderness proximal to Achilles tendon, - Thompson test → achillles tendinopathy → RICE + NSAID + PT

Swelling and tenderness proximal to Achilles tendon, - Thompson test → achillles tendon rupture → RICE + NSAID + PT +/- surgery

47M w/ UC on pred, fall, XR w/ loss of joint space and osteopenia → c/f fx → NBS MRI (NOT surgery)

R shoulder pain, inability to resist downward pressure with thumb pointing down → rotator cuff injury → NBS MRI

6M w/ RLE pain, XR w/ lytic lesion in proximal tibial metadiaphysis w/ periosteal reaction → Ewing sarcoma

R knee pain, fever, joint effusion → septic arthritis (S aureus)

S/p TKR, leg swelling, ↑↑↑CK, ↑K, ↑phos → rhabdo → tx IV NS

17F, L knee pain x 2mo, warm, tender → osteosarcoma → NBS MRI

Distal transverse humerus fx w/ posterior displacement, risk of: brachial artery and median nerve injury

47F, low back pain, L4-L5 TTP → NBS XR

Scaphoid fx = risk of nonunion, necrosis

52F, loss of arch when standing, eversion of heels, swelling over lateral ankle → pes planus (flatfoot) → clinical diagnosis (NO imaging)

Ankle injury, distal fibula TTP, restricted movement → XR (Ottawa Ankle rules)

EXT1 mutation, XR w/ bone polyps → hereditary multiple exostoses → NBS reassure

Lupus nephritis, heel pain → renal osteodystrophy (secondary hypoPTH)

Knee trauma, +McMurray test, nl Lachman → meniscal tear → tx arthroscopy + surgery

DM-2, foot ulcer → NBS XR, MRI

# Urology

Urinary incontinence with laughing → stress incontinence (urethral incompetence) → tx pelvic floor exercise, pessary, surgery

87F, urinary incontinence → diapers (NOT catheter)

69F, hematuria, UA w/ RBCs, bladder mass → transitional cell carcinoma (urothelial cell carcinoma)

Painless hematuria → bladder cancer

Blood at urethral meatus → NBS retrograde urethrography

Urinary incontinence at day and night, DM-2 → neurogenic bladder

16M, R scrotal pain, less severe w/ elevation, UA w/ WBCs → epididymitis (clinical diagnosis, no imaging) → abx (chlamydia, gonorrhea)

57F, urinary urgency, UA w/ RBC → NBS cystoscopy (NOT nitrofurantoin)

Urge incontinence NBS: UA (NOT oxybutynin)

Painful ejaculation, tender prostate → prostatitis → NBS UCx before and after prostate massage → tx FQ

Blunt scrotal injury → testicular rupture → NBS Doppler U/S

Oligospermia → NBS assess alcohol, smoking, stress (NOT IVF)

72M, post void dribbling, urgent need to urinate → BPH (bladder outlet obstruction)

42M, urine dipstick w/ blood → NBS urine sediment (NOT cystoscopy)

17M, tender mass posterior to testes → acute epididymitis (G/C)

80F, DM-2, low volume urinary incontinence → overflow incontinence (neurogenic bladder)

# Optho

Subconjunctival hemorrhage → reassurance

67M, loss of peripheral vision, bilateral optic cupping → open angle glaucoma (dx tonometry)

Pterygia NBS → recommend sunglasses, surgical excision

Eye trauma, periorbital edema, blood in anterior chamber → hyphema

Blood between conjunctiva and sclera → subconjunctival hemorrhage

Eye pain, fever, proptosis, painful eye movements → orbital cellulitis

Eye pain, fever, periocular pain → preseptal (periorbital) cellulitis

Retinal arteriolar narrowing → HTN

87M, crossword lines look curved → AMD → NBS fundoscopy (macular drusen – yellow subretinal lipoproteinaceous deposits)

HA, progressive blurriness in both eyes → hypertensive retinopathy

Blood in anterior chamber, ↑risk of complications if: SCD (ocular hypertension)

Schoolteacher, crusting of eyelashes, itchiness → viral conjunctivitis → cool compress

Amaurosis fugax NBS: carotid duplex U/S

Orbital headache, ↑cup-disc ratio, ↓acuity → acute glaucoma → tx BB, alpha agonist, acetazolamide

# Epi

Attributable risk = risk in group A – risk in group B

Length bias: selection bias overestimates effectiveness of cancer screen d/t slow growing cancers

Case control study metric: OR

Cohort study metric: RR

Survival analysis study metric: HR

Hospice expected lifespan: < 6 mo

Study that uses discussion groups and moderators → qualitative

Primary prevention for obesity: bike lanes and walking trails

OR vs RR: OR is (a/b)/(c/d), RR is (a/ a+b)/(c / c+d)

60F, greatest risk of mortality: cardiovascular disease

Best way to maximize healthcare delivery: quality improvement action plan that is multidisciplinary and uniform

Adverse event → NBS root cause analysis

Cervical cancer screening: pap starting at 21yo q3yr, after 30 yo pap+HPV q5yr

Breast cancer screening starts at: mammogram starting at 50 yo, q1yr

A1c screening: 35-70 yo who are overweight, HTN, or HL

DEXA screening: >65 yo or low body weight or chronic steroids

Colonoscopy starts at: 45 yo

Accepting a diagnosis before it is verified → premature closure

System based problems that lead to errors → latent error

Decrease CVC days → NBS RCA (identify barriers)

Quality improvement to improve adherence = automated systems

Bias of systematic reviews: publication bias (positive results more likely to be published)

How to maintain common mental model on team: team briefings and huddles

Repeated interim analyses increase risk of: type I error

Best way to prevent wrong site error: preoperative marking by surgeon with patient’s assistance

Patient charts mislabeled → NBS report to quality assurance committee (systems based approach)

Case control vs historical cohort: cohort groups patients by exposure (not outcome)

When writing orders, avoid: ”mu”, mcg

# Ethics

Patients w/ capacity can supersede DNR

Incapacitated patient w/ DNR found later → follow DNR

Colleague is drunk: stop them from seeing patients BEFORE reporting to authorities

AD dementia, understands risks and benefits of procedure → has capacity

Pt asking physician to lie on disability form → offer to help find job (NOT reassure)

Romantic relationships with patients are always inappropriate

Patient on parole, uses cocaine → do not tell police

Patient requesting brand name drug instead of generic → NBS prescribe

16F asking for prenatal genetic testing → does not require parental consent

15F, STI treatment → do not tell parents

Radiologist missed lung nodule → apologize to patient

DNR, asystole → death (NOT give epi)

Patient previously said no intubation, no DNR → do not intubate

Power of attorney cannot override decision of competent patient

Organ donation does not require an advanced directive

Colleague is drunk: report to admin and see patients without him (NOT confront physician b/c might not comply)

Next of kin: spouse > children > parents > siblings (NOT long term partners)

Patient requesting tetanus shot, not medically indicated: NBS do NOT give

Mandatory reporting to NNDSS: HIV, syphilis, gonorrhea, chlamydia, chancroid

Anesthesiologist falls asleep → NBS report to chief

Does not want to treat esophageal varices, brother says he is committing suicide → NBS don’t treat (NOT neurocogntivie testing)

Legally require to report to police: nonaccidental injuries (firearms, knives, burns, domestic violence)