Case 1
A 23 yo gentleman presents for evaluation of intermittent dysphagia for solid foods. He denies heartburn. He has not lost weight. He reports that one year ago he underwent an upper endoscopy for removal of pieces of steak. He has taken 40mg of omeprazole twice daily for the last month but his symptoms have persisted. His past medical history is notable for mild asthma for which he uses an albuterol inhaler as needed. His physical examination was unremarkable. An upper endoscopy revealed circular rings in the mid esophagus. A biopsy showed a dense eosinophilic infiltrate. Which of the following is the most appropriate first line therapy?

A. Increase the omeprazole to 80mg twice daily
B. Esophageal Dilation
C. Topical swallowed fluticasone
D. Oral nifedipine
E. Botulinum toxin injection into the esophageal mucosa

Case 2
A 22 year old woman sustained a compound tibial fracture during a motor vehicle accident requiring surgery. Her hospital course was complicated by a lower extremity deep venous thrombosis. She has no family history of PE/DVT and hypercoaguable work up is negative. She is started on low molecular weight heparin followed by warfarin and achieves a target INR of 2.5. How long should she be anticoagulated?

A. 1-2 months
B. 3-6 months
C. 12 months
D. Lifelong anticoagulation

Case 3
A 64 year old woman presents for new primary care visit with complaints of increasing dyspnea on exertion and fatigue. On physical examination, the patient appears pale. She has no jugular venous distention or heart murmurs. Her lungs are clear. Liver and spleen are not palpable and she has no lower extremity edema. Laboratories include White blood cell count 10,000, Hematocrit 23, MCV 55, RDW 10,000, LDH 158, ESR 24 What is the most likely cause of the thrombocytosis?

A. Iron deficiency
B. Subacute bacterial endocarditis
C. Acute myocardial infarction
D. Autoimmune hemolytic anemia
E. Essential thrombocythemia

Case 4
A 42 y.o. man with AIDS (CD4 188) presents with new headaches. CT scan of the head reveals two ring enhancing lesions with mass effect. Which of the following is LEAST likely to be the etiologic agent?

A. Toxoplasmosis
B. Primary central nervous system lymphoma
C. Progressive multifocal leukoencephalopathy
D. Tuberculosis
E. Staphylococcus
A 55 yo gentleman with a history of hepatitis C cirrhosis presents for follow up after an upper endoscopy revealed medium sized esophageal varices. He has no history of GI bleeding. On examination, his blood pressure is 110/55 with a pulse rate of 85 beats/minute. His abdominal examination reveals splenomegaly. No shifting dullness or fluid wave is present.

Which of the following is indicated for primary prophylaxis for this patient?
A. Norfloxacin
B. Nadolol
C. Transjugular intrahepatic portosystemic shunt
D. Nadolol and variceal banding
E. Isosorbide mononitrate

A 50 y.o. woman with Marfan’s syndrome presents with substernal CP radiating to her back. A new, soft, II/VI early diastolic murmur is heard on physical examination. The following ECG is obtained.

What diagnostic study would you obtain first?
A. Transthoracic echocardiogram
B. Computed tomography angiography of the aorta
C. Cardiac catheterization
D. Chest radiography
E. Persantine Positron Emission Tomography

A 58 y.o. woman with a history of HTN taking hydrochlorothiazide and atenolol undergoes an abdominal CT for RLQ abdominal pain. A low attenuation, 2.7cm homogenous adrenal mass is seen. Her abdominal pain resolves and she has no further complaints. What should be your first step in evaluation?
A. Fine needle biopsy
B. Magnetic resonance imaging
C. Repeat CT scan
D. Plasma and urine hormone evaluation
E. Surgical exploration and resection

A 55 year-old male comes for his first primary care office visit. His is without complaints but presents because his father had an MI recently at age 75, and his mother is healthy at 74. He doesn’t smoke; his blood pressure is 130/70 on HCTZ; and his total cholesterol is 258, LDL 185, HDL 25. His Framingham Risk Score is 21%.

Which of the following is the most appropriate management?
A. Recommend lifestyle change, follow-up in 6 mos
B. Start statin for goal LDL < 130 mg/dl
C. Start statin to lower LDL <100 mg/dl
D. Refer for cardiac stress test
E. Refer for cardiac catheterization

A 54 year-old woman with a remote history of migraines (but none in years) presents to her primary care physician with a new-onset headache. The pain is retro-orbital on the R side only and has been progressive x 3 weeks with intermittent responsiveness to acetaminophen. She denies visual changes, fevers, chills, jaw claudication, or weakness. Her exam is normal, including thorough neurological exam.

What is the most appropriate next step in management?
A. Oxycodone
B. Head MRI/MRA
C. Amitriptyline at bedtime
D. Sumatriptan
E. Refer to physical therapy
Case 10
A 25 year-old monogamous woman with no past medical history undergoes her annual pap smear. The cytological result is atypical squamous cells of undetermined significance (ASC-US). Reflex DNA testing for high-risk human papillomavirus (HPV) is performed and is negative.

What is the next step in management?
A. Refer for colposcopy
B. Repeat cytology in six months
C. Repeat cytology in one year
D. Repeat cytology in 3 years
E. Refer for an endometrial biopsy

Case 11
A 56 year-old male from Western Massachusetts presents to his primary care physician with a fever and rash x 2 weeks. He has no other symptoms. His Lyme ELISA and Western Blot tests are positive.

What is your next BEST step in management?
A. Doxycycline 200 mg x 1
B. Perform an LP
C. Amoxicillin 500mg TID x 2wks
D. Doxycycline 100 mg bid x 2 wks
E. Ceftriaxone 2 g IV qd x 3 wks

Case 12
A 68 year old woman presents to her primary care doctor with parasthesias in her right foot, progressive right-sided foot drop, and erythematous rash over both lower extremities. 5 months ago had cough, sputum production, and chest x-ray with patchy infiltrates, prompting treatment with antibiotics. She was diagnosed with asthma 2 years earlier.

Laboratories: Wbc count 9,600, hematocrit 36.2, platelets 271, with 58% neutrophils, 9% lymphocytes, and 31% eosinophils.

What of the following diseases is most likely to be the cause of the patient’s presentation?
A. Granulomatosis with Polyangiitis (formerly Wegener’s granulomatosis)
B. Temporal arteritis
C. Schistosomiasis
D. Churg-Strauss syndrome
E. Hodgkin’s disease

Case 13
19 year old woman presents with 3 days of increasing vaginal discharge. She is sexually active with one partner. Her LMP was 4 days ago. Exam shows temp 99, BP 100/60 and HR 90. Her pelvic exam shows copious mucopurulent discharge from a red, inflamed cervix. She has tenderness on palpation of cervix but no adnexal or uterine tenderness. A pregnancy test is negative and you send a GC/chlamydia probe. A wet prep shows white cells, KOH is negative.

What is the next management step?
A. Ceftriaxone 125mg IM x1
B. Ceftriaxone 250mg IM x1
C. Ceftriaxone 125mg IM x1 + Azithromycin 1gram PO x1
D. Ceftriaxone 250mg IM x1 + Azithromycin 1gram PO x1
E. Doxycycline 100mg PO BID x 7 days

Case 14
A 34 year old woman is seen in the ED with confusion, malaise and lower extremity rash. Past medical history is notable for allergic rhinitis. Medications include loratidine and flonase.

The patient is alert and oriented to self only. Exam is notable for jaundice and bilateral lower extremity petechiae.

Labs are notable for a hemoglobin of 7, reticulocyte count of 15% and platelets of 45,000. LDH is 1,500. Coagulation studies are normal. Her creatinine is 3.6.

Peripheral smear shows:

Which of the following is the BEST next step?
A. Intravenous immune globulin
B. ANA test
C. Plasma Exchange
D. Transthoracic Echocardiogram
E. Direct antiglobulin (Coomb’s) test
**Case 15**
A 45 year old man with history of dyspepsia presents to the office with new complaint of dysphagia. He initially developed dyspepsia with occasional heartburn several years ago and these symptoms responded to a once per day proton pump inhibitor (PPI). Two years ago, symptoms recurred while taking the PPI, and the patient’s PPI dose was doubled. Now, the patient complains of difficulty swallowing solid foods which feel as if they get “stuck” in his throat.

Which of the following is the next best step?

A. Change the proton pump inhibitor to twice per day
B. Add a night-time dose of a H2 blocker
C. Refer for a barium swallow study
D. Refer for an upper endoscopy
E. Treat the patient for Helicobacter pylori infection

**Case 16**
A 24 y.o. man presents for an annual physical. A II/VI crescendo decrescendo murmur without radiation and increased with valsalva is heard at the LLSB as well as an extra heart sound preceding S1. What is the most likely underlying etiology?

A. Congenital aortic stenosis
B. Marfan’s Syndrome
C. Hypertrophic Cardiomyopathy
D. Early onset hypertension
E. Rheumatic Heart Disease

**Case 17**
A 22 y.o. male college football player without PMH presents to the emergency room with a small abscess on his neck. The collection is drained and gram stain demonstrates gram positive cocci in clusters. What treatment would you prescribe?

A. Oral vancomycin
B. Dicloxacillin
C. Oral trimethoprim-sulfamethoxazole
D. Oral penicillin
E. Intravenous nafcillin

**Case 18**
A 56 y.o. man with congestive heart failure with a reduced ejection fraction is admitted with cough, fever, and a RLL infiltrate on CXR. Levofloxacin is prescribed for community acquired pneumonia. On hospital day 2, the following rhythm is seen on telemetry and the patient is unresponsive.

What is the next best step in management?

A. Nonsyncronized cardioversion
B. Sycronized cardioversion
C. Intravenous magnesium
D. Procainamide
E. Isoproterenol

**Case 19**
A 42 y.o. alcoholic man without other medical history is admitted with nausea and vomiting after a recent drinking binge. Lab studies reveal a metabolic acidosis and ketones in the urine. Blood glucose is 100 mg/dl. What is the appropriate first step in management?

A. Intravenous insulin
B. Intravenous steroids
C. Intravenous dextrose
D. Intravenous normal saline
E. Intravenous folate
Case 20
A 32 year-old male reports to an urgent care clinic after a life insurance evaluation. He has no past medical history, does not smoke, and has no history of chemical exposure. He has a report showing 2+ blood on two urinalyses. You confirm this finding and examine his urine under a microscope. He has 6 normal-appearing RBCs per high-powered field.

What is the next most appropriate step?
A. Refer to nephrology for a renal biopsy
B. Refer to urology for cystoscopy
C. Order a CT urogram
D. Order a CPK
E. Order an IgA level

Case 21
A 50 year-old woman presents to the emergency room complaining of a sore throat and concern that a fish bone is stuck in her throat. She had a URI three weeks prior but is now feeling well. Her vitals signs are stable with a heart rate of 80. Her anterior neck is tender on exam. Direct laryngoscopy is normal. A TSH is 0.03; ESR is 80.

What is the next best treatment?
A. Propylthiouracil 150 mg bid
B. Atenolol 50 mg qd
C. No treatment, recheck TSH in a few weeks
D. 131I ablative therapy
E. Methimazole 10 mg tid

Case 22
A 35 year-old female presents to clinic with her husband due to difficulty becoming pregnant. The couple has been trying to become pregnant for the last 6 months without success despite having intercourse 3 times per week consistently. Her periods are usually regular on a 26 day cycle. Her partner had semen analysis which was normal. Her physical exam is unremarkable.

What is the most appropriate next step in management?
A. Reassurance and work up in 6 months if still no pregnant
B. Day 20 serum progesterone
C. Hysterosalpingogram
D. Referral for In Vitro Fertilization
E. Day 20 LH and FSH

Case 23
A 30 year-old female presents to clinic complaining of bilateral breast pain. She states that the pain is worse toward the end of her cycles and also in the evening. She has had the pain for approximately 3 months and describes it as an aching, diffuse pain. Her exam is notable for a BMI of 28, pendulous breasts without erythema, masses or discharge. She has no lymphadenopathy or skin changes. She is concerned she may have cancer and tells you that her maternal grandmother had cancer at age 76.

What is the best next step in management?
A. Bilateral mammography
B. Bilateral breast MRI
C. Bilateral breast ultrasound
D. BRCA testing
E. Reassurance and a more supportive bra

Case 24
A 31 year-old male with a family history of Hashimoto’s thyroiditis presents to clinic for evaluation of hair loss. He states that he noticed a small bald spot on his occiput several months ago. Hair did regrow in that area but was white instead of black. He now presents to clinic because he has three well circumscribed round areas of complete hair loss on his scalp as well as one in his beard. He otherwise denies any complaints. A TSH was within normal range.

What is the best next step in management?
A. Intradermal injection of triamcinolone
B. Minoxidil 2% solution applied BID
C. Biopsy of the bald area
D. Ketaconazole shampoo

Case 25
A 35 yo gentleman presents to his PCP for a routine physical exam. His only medical history includes seasonal allergies for which he uses intranasal fluticasone. He does not smoke cigarettes or drink alcohol. His mother was diagnosed with colorectal cancer at age 55.

When should he undergo his first screening colonoscopy?
A. Now
B. Age 45 years
C. Age 50 years
D. Age 55 years