



CME4LIFE

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Take Home Primary Care Challenge

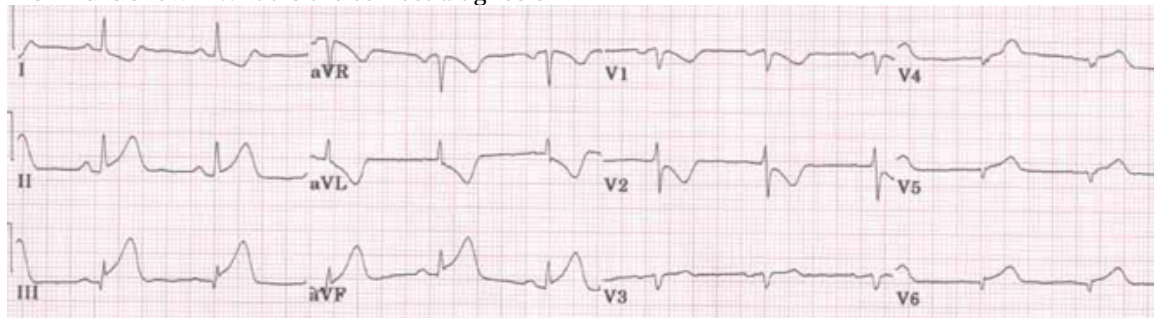
“BLUEprint Exam”

SECTION 1

1. A 43 year-old man presents for evaluation of a skin lesion on his forearm. He indicates he has seen it there for a couple of years, but recently has developed a scab formation that bleeds when he picks at it, and has not healed despite repeated scab formations. On examination you note a 7mm round lesion with raised borders and center ulceration. It is pearly-clear in color and has telangiectasias over the borders. What is the most likely diagnosis?

- a. Actinic keratosis
- b. Basal cell carcinoma
- c. Hemangioma
- d. Melanoma
- e. Squamous cell carcinoma

2. A 56 year-old man presents with chest pain that started 30 minutes ago. He rates the pain as an 8 out of 10 scale, and states it is radiating from his left chest into the neck and arm. He also feels nauseated and has been sweating. His past medical problems include HTN and hyperlipidemia for which he takes HCTZ and atorvastatin (Lipitor). His EKG is shown. What is the correct diagnosis?



- a. Anterior wall MI
- b. Dressler syndrome
- c. Inferior wall MI
- d. Pericarditis
- e. Septal MI

3. A three year-old girl is brought in for evaluation of pharyngitis, fever of 103.7° F, anorexia, restlessness, and drooling. She appears acutely ill, and does not want to answer any of your questions. When she does answer, her voice sounds muffled. Additionally you note inspiratory stridor. These examination findings are most suggestive of which condition?

- a. Croup
- b. Epiglottitis
- c. Peritonsillar abscess
- d. Pertussis
- e. Tonsillitis

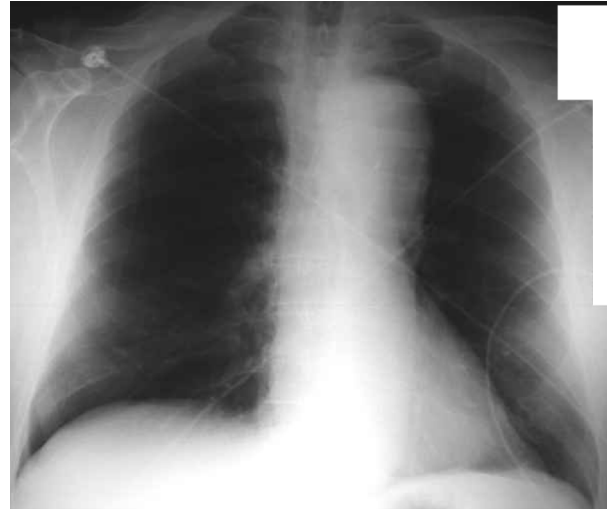
4. Which of the following is an indication for the administration of 300 micrograms of RhoGAM (Rh immunoglobulin)?

- a. Rh positive mother and Rh negative father
- b. Rh negative mother and Rh negative father
- c. Rh positive mother and Rh status of the father unknown
- d. Rh negative mother and Rh status of the father unknown
- e. Rh positive mother and Rh positive father

5. A 23 year-old female presents for evaluation of vision problems that are described as difficulty seeing things that are close to her. She has no problems with distant vision. On examination you note that her pupils that are 3mm in size, constrict when focusing on your finger as you move it towards her nose. They fail to constrict when stimulated with the penlight. This is consistent with which of the following?

- a. Glaucoma
- b. Hydrocephalus
- c. Neurofibromatosis
- d. Neurosyphilis
- e. Normal physiology

6. A 67 year-old man presents with sudden onset paralysis of the lower extremities that started with acute onset of severe chest pain. He became nauseated and light headed about the same time. EKG appears normal. Chest radiograph is shown. He has smoked 1 pack/day since age 25. What is the most appropriate diagnosis?



- a. Acute mesenteric ischemia
- b. Compartment syndrome
- c. Dissecting aortic aneurysm
- d. Herniated nucleus pulposus

7. A 43 year-old woman presents for evaluation of fatigue, malaise, pharyngitis and fever of 100.7°F that started eight days ago after she underwent abscess drainage from her gums. She thought it would get better, however it is persistent and now she has noticed the painless lesions shown on her hands and feet. During examination you also notice subungual hemorrhages of her fingers. Chest radiograph shows pulmonary infiltrates. During cardiac auscultation, you hear a murmur suggestive of tricuspid regurgitation that the patient denies having previously been knowledgeable of. What is the most appropriate diagnosis?

- a. Endocarditis
- b. Idiopathic thrombocytopenia purpura
- c. Peripheral arterial vascular disease
- d. Systemic lupus erythematosus
- e. Toxoplasmosis



8. A 28 year-old woman presents for evaluation of difficulty in getting pregnant. She has been unsuccessful despite trying for the past two years, using various fertility techniques to include menstrual calendar. She is G0P0 and experienced menarche at age 12. She admits to recurrent pelvic pain throughout the menstrual cycle with occasional spotting. Additionally she indicates she has pain with deep thrust intercourse. Which of the following is the most likely diagnosis?

- a. Adenomyosis
- b. Endometriosis
- c. Polycystic ovary syndrome
- d. Sheehan syndrome
- e. Unruptured follicle syndrome

9. A 67 year-old woman presents for evaluation of multiple skin lesions on her face. They have been there for many years, and seem to be increasing in number. You see multiple thick, 2-5mm scaly tan lesions that have a "stuck-on" waxy appearance that are dispersed over the cheeks, forehead, ears and neck. What is the most appropriate diagnosis?

- a. Seborrheic keratitis
- b. Basal cell carcinoma
- c. Malignant melanoma
- d. Solar lentigo
- e. Squamous cell carcinoma

10. A 47 year-old woman presents for evaluation of new onset chest pressure that started two days ago. She denies nausea or diaphoresis. She has a history of COPD for which she is on tiotropium bromide (Spiriva). An EKG is obtained and it shows a ventricular rate of 115, with an atrial rate of 345. R to R intervals are consistent and the QRS duration is .08. The most appropriate diagnosis based on her EKG?

- a. Atrial fibrillation
- b. Atrial flutter
- c. Sinus arrhythmia
- d. Sinus tachycardia
- e. Ventricular tachycardia

11. 24 year-old woman presents with complaints of intermittent vertigo. She has had seven days of symptoms within the past two months and the episodes last between 30-45 minutes. She indicates that she has a sensation of the room spinning and usually has a ringing sensation in her ears. The audiometry readings obtained at your visit indicate a low frequency sensory hearing loss. What is the most appropriate diagnosis?

- a. Acoustic neuroma
- b. Cerumen impaction
- c. Meniere disease
- d. Migraine headache
- e. Transient ischemic attack

12. A 23 year-old woman presents to your clinic with fever, cough, muscle aches and chills that started at 1 p.m. yesterday. She indicates she was feeling well in the morning, went to lunch and ate with some coworkers and then upon returning to work started feeling the chills and fever. The cough has been non-productive yet disrupted her sleep throughout the night. She indicates her body aches are fairly intense. She has a history of asthma, but has not had any wheezing. What is the most appropriate treatment?

- a. Azithromycin
- b. Ceftriaxone
- c. Guaifenesin
- d. Oseltamivir (Tamiflu)
- e. Prednisone

13. A 56 year-old man being seen in the emergency room for upper respiratory symptoms of fever, cough, nasal congestion and drainage, develops chest pain. He is hooked up to the EKG machine and is found to have ST elevation in leads V2, V3, V4, and I. His pain lasts about seven minutes, and when modalities arrive to treat his pain, he spontaneously becomes pain free. A repeat EKG shows resolution of the ST elevation although T- wave inversion is then seen which also then shortly resolves. This is most consistent with which of the following?

- a. Anterior wall MI
- b. Inferior wall MI
- c. Ludwig's angina
- d. Myocardial stunning
- e. Prinzmetal angina

14. A 57 year-old man presents with paresthesia in his arms and legs for the past two months. His visit today stems secondary to intermittent attacks of hand locking and stiffness as well as spasms in his calf. He coincides the onset of his symptoms with starting a proton pump inhibitor that is being used to treat gastroesophageal reflux disease. While obtaining his blood pressure, you notice his hands go into spasm. His blood work demonstrates low levels of calcium, elevated levels of phosphate, and normal alkaline phosphatase level. What is the most appropriate diagnosis?

- a. Addison's disease
- b. Hyperthyroidism
- c. Hypoparathyroidism
- d. Multiple myeloma
- e. Pituitary adenoma

15. An 18-month old boy is brought in for evaluation of episodes of crying and abdominal pain that started three hours ago. His mother describes the episodes as suddenly drawing his knees up, and intense crying for 15-20 minutes. Thereafter he seems lethargic with a glassy-eyed appearance before he has repeated symptoms. With the most recent episode he had bilious vomiting. On examination a sausage shaped mass is palpable in the right upper quadrant. Which is the most likely diagnosis?

- a. Gastroenteritis
- b. Intussusception
- c. Meckel's diverticulum
- d. Pyloric stenosis
- e. Rectal prolapse

16. An 8 year-old boy is evaluated because of reported problems with inattentiveness in multiple settings. He has achieved all normal growth and development milestones. Mom reports he has periods of not paying attention and seeming like he is "lost in space". Within the past two months, he has also started wetting his pants when these episodes occur. The teacher has tried to talk to him during these episodes and seems unable to capture his attention. Which of the following is the most likely diagnosis?

- a. Attention Deficit Disorder
- b. Childhood Disintegrative Disorder
- c. Myoclonic seizure disorder
- d. Petit mal seizure disorder
- e. Transient ischemic attacks

17. A 76 year-old woman presents with acute onset of periumbilical abdominal pain three hours ago. Her past medical history is significant for hypertension and peripheral artery disease. An echocardiogram performed three months ago showed left ventricular ejection fraction of 38%. She states she is severely nauseated and has vomited four times, as well as having three bowel movements since onset. Her physical examination of her abdomen is non-revealing. She has no rebound tenderness, no specific point tenderness, no palpable splenomegaly or hepatomegaly. She does have heme positive stool in the vault. What is the most appropriate diagnosis?

- a. Acute kidney injury
- b. Acute mesenteric ischemia
- c. Congestion heart failure
- d. Crohn disease
- e. Diverticulitis

18. A 63 year-old woman presents for evaluation of flank pain and headache that started four days ago. She was seen a week prior to the onset of symptoms for treatment of newly diagnosed hypertension. Her vital signs indicate today's blood pressure is 173/103 mmHg. Exam reveals normal fundoscopic exam, tenderness of the left flank region, and an audible bruit a few centimeters above the umbilicus along the lateral edge of the left rectus muscle. Her medication includes Atorvastatin (Lipitor), Beclomethasone Dipropionate (Qvar), and Lisinopril (Zestril). What is the most appropriate diagnosis?

- a. Abdominal aortic aneurysm
- b. Acute kidney injury
- c. Pheochromocytoma
- d. Renal artery stenosis
- e. Renal calculi

19. A 73 year-old hospitalized woman is evaluated for fever with temperature of 102.5°F and productive cough with purulent sputum. Her white blood cell count on laboratory testing is 23,000/mm³. Her hospital chart reveals this is a nosocomial infection. She is in the hospital for elective hip replacement. Which of the following is consistent with her condition?

- a. Symptoms were present when she arrived from assisted living facility
- b. Exposed at community activity center three days before admission
- c. Has a history of chronic obstructive lung disease with recurrent infection
- d. Infection started within 36 hours of surgical procedure
- e. Previously healthy and developed symptoms 48 hours after admission

20. A 63 year-old man was hospitalized 24-hours ago for acute myocardial infarction. He is found obtunded in his bed by the nursing staff. His blood pressure is 82/56 mmHg and heart rate is 126 BPM. He is clutching his chest and appears dyspneic. Auscultation of his lungs reveals new onset rales. What is the most appropriate diagnosis?

- a. Cardiogenic shock
- b. Dressler syndrome
- c. Endocarditis
- d. Expansive infarction
- e. Pneumonia

21. A 28 year-old woman presents with for evaluation of chronic vulvar burning and pruritis. She describes insertional dyspareunia with a profuse vaginal discharge. On physical examination there is a bright red desquamative lesion of the vagina. Biopsy shows an absence of atypia. The wet prep shows a large number of white blood cells. Which of the following is the most appropriate diagnosis?

- a. Lichen Planus
- b. Lichen Simplex Chronicus
- c. Psoriasis Seborrheic Dermatitis
- d. Vestibulitis

22. A 23 year-old black man presents after experiencing weakness, dizziness, and palpitations when trying to run. He has never had similar problems in the past and is an avid runner with normal ability to run up to 20 miles per week. On physical exam you note that he has skin and scleral jaundice. Abdominal exam reveals splenomegaly. He denies any health problems and states he was recently prescribed Primaquine for an upcoming trip to the Congo jungle. Which of the following is the most appropriate diagnosis for this condition?

- a. Alpha thalassemia
- b. G6PD deficiency
- c. Hemolytic anemia
- d. Sick cell disease
- e. Viral hepatitis

23. A 19 year-old man presents with purulent and profuse urethral discharge with dysuria. Gram - negative intracellular diplococci are seen on the peripheral smear of the discharge. What is the most appropriate diagnosis?

- a. Chlamydia
- b. Gonorrhea
- c. Herpes simplex
- d. Syphilis
- e. Trichomonas

24. A 32 year-old man presents to the emergency department with worsening abdominal pain, temp of 103.5°F, and vomiting for the past 24 hours. He feels light headed and dizzy when he stands up. Additional vital signs demonstrate a blood pressure of 98/56 mmHg and heart rate of 112 BPM. His past medical history is significant for ulcerative colitis, which has recently been flaring. Abdominal radiographs show the large intestines to be 8 cm in size in the ascending and proximal transverse colon with some air-fluid levels in the small intestine. Which of the following is the most appropriate diagnosis?

- a. Diverticulitis
- b. Small bowel obstruction
- c. Ruptured appendix
- d. Toxic megacolon
- e. Ulcerative colitis exacerbation

25. A 34 year-old man presents to the emergency room during the night after being awakened two hours ago with acute onset of left periorbital pain. On physical examination the conjunctiva is injected, there is meiosis, and nasal congestion of the left nostril. He indicates he has had repeated episodes similar to this that are short in duration (15 minutes). Which of the following is the most likely diagnosis?

- a. Anterior uveitis
- b. Cluster headache
- c. CN III nerve damage
- d. Cocaine abuse
- e. Pontine hemorrhage

26. A 56-year-old woman comes to the clinic with a six months history of pain and stiffness of her right shoulder. Patient denies trauma. Past medical history is significant for hypothyroidism for which she takes levothyroxine and chronic right supraspinatus tendonitis. Physical examination reveals generalized tenderness to palpation over the right shoulder with decreased active and passive range of motion. Loss of external rotation with the arm at the patient's side is noted. Which of the following is the most likely diagnosis?

- a. Adhesive capsulitis
- b. Impingement syndrome
- c. Osteoarthritis
- d. Polymyalgia rheumatic
- e. Polymyositis

27. A 43 year-old man presents at the encouragement of his wife secondary to feeling sad for the past five years. They are being seen for marriage counseling and she states initially it was simply a mood issue, however for the past two years, he has shown a loss of interest to be a part of the families activities and simply stays home either sleeping or watching television when he is not working his job. He relates other feelings of dysphoria. Which of the following is the most appropriate diagnosis.

- a. Adjustment disorder
- b. Akathisia
- c. Dysthymia
- d. Major depressive disorder
- e. Somatoform disorder

28. A 15 year-old girl is evaluated for shortness of breath and wheezing that started three days ago. These symptoms had been preceded by three days of low grade, cough and nasal congestion with drainage. She denies smoking, and does not recall having similar symptoms in the past. The spirometry obtained shows a FVC of 90% predicted, FEV₁ of 61.2% predicted, and FEV₁/FVC ratio of 68%. Post bronchodilator results show FVC of 94% predicted and FEV₁ of 75% predicted. She indicates she does seem to breath somewhat easier after the medication. What is the most appropriate diagnosis?

- a. Asthma
- b. Bronchiolitis
- c. Bronchitis
- d. Cystic fibrosis
- e. Pneumonia

29. A four month-old black male baby is brought in for a well-child check. His sclera are jaundiced and abdominal exam reveals an enlarged spleen. Mom indicates there is some family history in her parents for some “blood problems” but doesn’t know exactly what it was. Which of the following laboratory test will confirm the diagnosis?

- a. Blood count manual differential
- b. Hemoglobin electrophoresis
- c. Hepatitis panel
- d. Tissue trans glutaminase
- e. Total iron binding capacity

30. A 68 year-old woman presents with a fluttering sensation in her chest that started two weeks ago. After an EKG is obtained, it is determined she has developed atrial fibrillation. She is taking digoxin for treatment of congestive heart failure. Which of the following medications is an appropriate choice for the management of the dysrhythmia?

- a. Amiloride
- b. Doxazosin
- c. Furosemide
- d. Lisinopril
- e. Propranolol

31. A 72-year-old woman comes to clinic with a seven months history of low back and lower extremity pain made worse by prolonged standing or walking. Patient denies trauma. Physical examination reveals aggravation of symptoms with hyperextension of the lumbar spine and 1+ deep tendon reflexes at the knees and ankles bilaterally. The patient’s lumbar spine radiograph is shown.



Which of the following is the most likely diagnosis?

- a. Cauda equina syndrome
- b. Functional lumbar strain
- c. Herniated nucleus pulposus
- d. Lumbar spinal stenosis
- e. Peripheral vascular disease

32. A 22 year-old woman presents with acute onset dyspnea, palpitations, and paresthesia around her lips. She is a college student and states she has had no previous medical problems. She admits to difficulty in concentration despite having four final exams in the upcoming week. Her pulse oximetry is 94%, and heart rate is 110 beats per minute. Otherwise vital signs and exam is normal. These signs and symptoms are most consistent with which medical condition?

- a. Hypocalcemia
- b. Dissociative disorder
- c. Obsessive-compulsive disorder
- d. Panic disorder
- e. Reactive airway disease

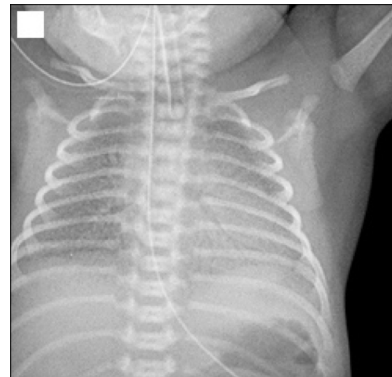
33. A 67 year-old woman is evaluated for chronic cough that is productive to white sputum that she has experienced for the past seven years. Over the past six months, she has become hypoxic even at rest with oxygen saturations in the mid 80%. On examination, you hear audible rhonchi near the tracheal bifurcation, with diminished breath sounds in the bases. You also note prolonged expiration during the respiratory cycle. Spirometry shows a FEV1 of 54% predicted. Which of the following can extend survival for this patient?

- a. Anticholinergics
- b. Beta-adrenergic agonist
- c. Corticosteroids
- d. Oxygen
- e. Phosphodiesterase inhibitors

34. A three year-old boy is brought in for evaluation of a rash that started three days ago. Initially the lesions started on the trunk, and then appeared on the scalp and face. On physical exam there are multiple lesions in various stages of development with some as only small red papules, while others are nonumbilicated, oval, teardrop shaped vesicles overlying an erythematous base. Mom indicates the child has been scratching them since onset. What is the most likely diagnosis?

- a. Diphtheria
- b. Measles
- c. Mumps
- d. Rubella
- e. Varicella

35. Shortly after delivery of a 32-week gestation newborn girl, she develops tachypnea and her oxygen saturations drop progressively by 15%. Chest radiograph is obtained and results are as illustrated. Arterial blood gases are obtained and are consistent with hypoxemia, although PCO2 is normal.



What is the most appropriate diagnosis?

- a. Bacterial pneumonia
- b. Cyanotic congenital heart disease
- c. Hyaline membrane disease
- d. Pneumothorax
- e. Transient tachypnea of newborn

36. A 16 year-old boy presents for evaluation of pruritis in his genitalia, which he states is worse at night. He admits to having sexual intercourse three weeks ago, and the symptoms have slowly developed since then. On examination you find small, erythematous nondescript papule with excoriation and hemorrhagic crusting at the base of the penis. Additionally there is a thin, red line that is 7mm in length along the shaft. This is most appropriately treated with which medication?

- a. Clobetasol propionate (Temovate)
- b. Fluorouracil (Efudex)
- c. Hydrocortisone
- d. Mineral oil
- e. Permethrin (Nix)

37. A five-month-old girl is brought to the emergency department for witnessed episodes of 15-second apnea spells. She has had a recent upper respiratory infection with cough, coryza, and clear to white rhinorrhea. Mom states she has had intermittent wheezing earlier in the day, but decided to bring her in when she stopped breathing after she fell asleep. On examination there appears to be prolongation of the expiratory phase of breathing, intercostal and suprasternal retractions. Radiograph shows evidence of hyper expansion of the lungs. There have been no respiratory problems before this. What is the most appropriate diagnosis?

- a. Asthma
- b. Bronchiolitis
- c. Central sleep apnea
- d. Cystic fibrosis
- e. Gastroesophageal reflux

38. A 25 year-old man is seen for a routine physical examination. He and his male partner have been together for the past five years, although state they have had intercourse with other men as well in the past year. Which of the following should be included in the examination?

- a. Hepatitis panel
- b. Lipid profile
- c. Pharyngeal swab
- d. Prostate specific antigen
- e. GC/C swab

39. A 64-year old woman presents for routine evaluation in your internal medicine clinic. She states overall she feels okay, but has had a recurrent cough that does not seem to want to resolve. She can recall coughing up phlegm on a consistent daily basis for at least the past three months. She expresses concern as she had a prolonged cough like this last year as well. Symptoms are worse in the morning, and she also admits to some nocturnal wheezing. Past history is significant for smoking one pack of cigarettes per day for 45 years and successfully quitting four years ago. What is the most appropriate diagnosis?

- a. Allergic rhinitis with post-nasal drainage
- b. Bronchiectasis
- c. Chronic obstructive pulmonary disease
- d. Gastro-esophageal reflux disease
- e. Hyper-reactive airway disease

40. A 58 year-old woman presents for routine physical examination. On auscultation of her heart, you hear a blowing holosystolic murmur that is heard best at the apex and radiates into the axilla. It can also be heard posteriorly along the inferior edge of the scapula. These findings are most consistent with which abnormality?

- a. Aortic regurgitation
- b. Mitral regurgitation
- c. Pulmonic insufficiency
- d. Tricuspid regurgitation
- e. Ventricular septal defect

41. A two-year old boy is brought in for paroxysms of cough during expiration resulting in loss of breath. These episodes are followed by a forceful inspiration. He has experienced a couple episodes of post-tussive emesis. Symptoms started 7-10 days ago and have gotten worse since onset. Blood count shows an abnormally high absolute number and relative percentage of lymphocytes in the peripheral blood, with a WBC count of 30,000 cells/mm³. What is the most appropriate diagnosis?

- a. Bronchiectasis
- b. Croup
- c. Epiglottitis
- d. Pertussis
- e. Pneumonia

42. A 56 year-old woman presents for evaluation of worsening fatigue. She was diagnosed with diabetes 20 years-ago, and was recently started on insulin with a hemoglobin A1C of 10.6. The complete blood count shows a hemoglobin level of 7.8g/dL and hematocrit of 24%. Her blood urea nitrogen and creatinine have doubled since last year. What is the most likely source of her anemia?

- a. Gastrointestinal loss
- b. Hemolysis
- c. Hypoinsulinemia
- d. Malnutrition
- e. Renal failure

43. A 24 year-old woman presents with symptoms of unquenchable thirst after being prescribed 60 mg prednisone for seven days in the treatment of contact dermatitis. Dipstick of her urinalysis reveals a specific gravity of 1.004 and was negative for nitrates, leukocytes, blood or glucose. She does not care for the taste of tap water therefore drinks bottled water, which allows her to confidently say she drinks ten or more liters per day. Uric acid levels are found to be 420 $\mu\text{mol/L}$. Glycosylated Hemoglobin is 5.4%. Which of the following is the most appropriate diagnosis?

- a. Cushing syndrome
- b. Diabetes insipidus
- c. Diabetes mellitus
- d. Parkinson disease
- e. Psychogenic polydipsia

44. A 54 year-old woman presents with history of cough for three months. She started having hemoptysis two days ago and is concerned because the cough is not getting better. She also indicates she has lost her appetite and consequently lost about 12 pounds since onset of the cough. She smokes two packs-per-day and has for the past 30 years. What is the most common cause of these symptoms?

- a. Non-small cell carcinoma
- b. Tuberculosis
- c. Pneumonia
- d. Small cell carcinoma
- e. Lung abscess

45. An eight month-old boy is brought in by his mother after feeling an right upper quadrant abdominal mass while bathing him. The child does not seem to be bothered by the mass, which is confirmed on examination in the office. His mom states he is eating normally, and has no history of vomiting or diarrhea. He plots normally on the growth charts. What is the most likely diagnosis?

- a. Biliary atresia
- b. Intussusception
- c. Meckel diverticulum
- d. Wilms tumor

46. A 34 year-old woman presents with a four-day history of muscle weakness that started with symptoms in her legs bilaterally. Over the past day she has started experiencing symptoms involving both arms as well. On physical exam she has paresthesia of both feet, while her arms have normal sensation. Spirometry appears to have decreased Forced Vital Capacity despite lack of pulmonary symptoms. Which of the following is the most appropriate therapy?

- a. Intubation
- b. Dialysis
- c. Immunoglobulin
- d. Prednisone
- e. Reassurance

47. A 15 year-old girl is brought in for evaluation of muscle aches, weakness, cramping and palpitations. Symptoms started about four months ago and continue to progress. Her mother inquires if these symptoms could be related to the girl's diet, indicating she rarely eats on days of cheerleading practice or cross-country running, but "makes up for it" with consumption of unusually large amounts of food the other three days per week. Family history is significant only for mother with hypertension controlled with diuretics. History elicits regular menstrual history. Calculated BMI is 18%. Which of the following is the most likely diagnosis?

- a. Bulimia Nervosa
- b. Central diabetes insipidus
- c. Chronic kidney disease
- d. Diabetic ketoacidosis
- e. Primary aldosteronism

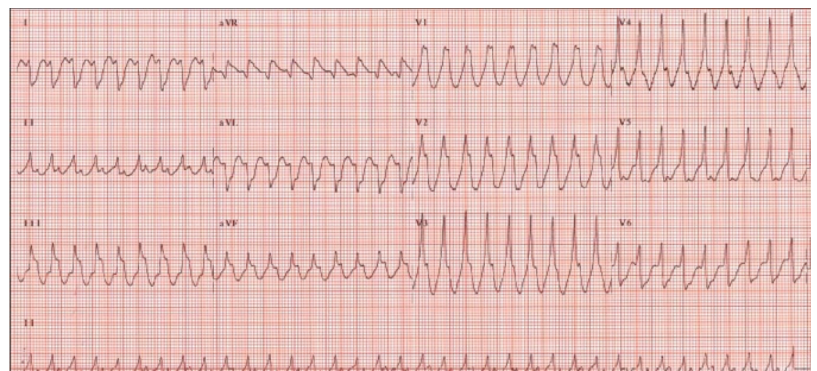
48. A 63 year-old woman is admitted to the hospital for acute dyspnea on exertion, fatigue, lethargy, and exertional angina. She felt like she was going to pass out with even the slightest amount of physical exertion. Physical examination reveals an increased intensity of the pulmonic component of the second heart sound, and a holosystolic murmur at the left lower sternal border. The PA view of a chest radiograph shows enlargement of the central pulmonary arteries, and the EKG reveals a S1Q3 pattern and t-wave inversion in lead III. What is the definitive test to evaluate for the condition that is suggested by these findings?

- a. Abdominal Doppler ultrasound
- b. Brachial-Radial index
- c. Magnetic resonance imaging
- d. Pulmonary function testing
- e. Right heart catheterization

49. A 26 year-old man undergoes screening colonoscopy secondary to family history of colon cancer in his father at age 35. The procedure results in the findings of 25 polyps, which on biopsy are demonstrated to be adenomatous. What is the most appropriate treatment for this patient?

- a. Gluten free diet
- b. Polypectomies during procedure
- c. Prophylactic colectomy
- d. Radiation therapy
- e. Repeat colonoscopy in five years

50. A 46 year-old woman presents to the emergency department with



chest pain, nausea, and feeling light headed that started 30 minutes ago. Her blood pressure is 78/43 mmHg. Her heart rate is very rapid to palpation. She is hooked up to the monitor, and the rhythm obtained is displayed. What is the most appropriate next step?

- a. Adenosine
- b. Cardiac defibrillation
- c. Coronary angiography
- d. Lidocaine
- e. Synchronized cardioversion

51. A 48-year-old man comes to the clinic with a two day history of left knee pain. He denies trauma. Physical examination reveals: temperature: 101.5 F; an erythematous, edematous, warm left knee that is extremely tender to palpation. Which of the following is the best diagnostic test to confirm the suspected diagnosis?

- a. Bone scan
- b. CT scan
- c. Knee joint aspirate analysis
- d. MRI
- e. Plain radiographs

52. A 34 year-old female presents in her 17th week of gestation with progressive exertional dyspnea. She now is experiencing symptoms with routine activities of daily living. On auscultation of her heart, you hear an opening snap following A₂. She only recently started getting health care as she has never had health insurance in the past and frequently in her life has let illness run its course rather than seek evaluation. Which of the following is most appropriate in the ongoing care of this patient?

- a. 12-lead EKG
- b. CT scan of her heart
- c. Echocardiography
- d. No diagnostic testing is needed
- e. Tilt table testing

53. A 47 year-old man presents with worsening fatigue, fluctuating fevers, night sweats, productive cough and hemoptysis that started 3 months ago while he was incarcerated. Over that time, he has also unintentionally lost 20-pounds of body weight. Laboratory evaluation of his sputum shows acid-fast bacilli. What radiographic findings are associated with primary disease?

- a. Dense nodules in the pulmonary hila, with calcification in the upper lobe and fibronodular scarring.
- b. Fibrocavitary apical lesion with pneumonic infiltrates
- c. No radiographic abnormalities on posterior-anterior or lateral chest images.
- d. Hilar and paratracheal LN enlargement, with small unilateral infiltrates and segmental atelectasis.
- e. Triangular sail appearing consolidation on towards the right of the mediastinum

54. A 24-year-old man is brought to the clinic by a co-worker with a one hour history of crush injury to the left lower extremity. The patient's lower left leg was pinned under a tree for over 30 minutes.

Physical examination reveals significant pain with any attempt to palpate or move the left lower leg. The patient admits to sensory deficit to soft touch over the left calf and distal pulses are present but weak compared to the right leg. The calf is firm with palpation and measures 34 mm Hg with intracompartmental pressure monitoring. Which of the following is the best next step in management?

- a. Admit to hospital for observation
- b. Emergent fasciotomy
- c. Hydrocodone and rest, ice and elevation
- d. Reassurance and recheck in 24 hours
- e. Physical therapy referral

55. A 43 year-old man is brought to the emergency department after vomiting blood. He states he has been nauseas for the past two days, and was finally able to throw up when what came out looked like frank blood. He admits to having an alcohol abuse problem, drinking a fifth of whiskey on four of the seven days per week. His past medical history is significant for advanced liver disease. When he is scoped, bleeding esophageal varices are seen. Which of the following is most appropriate to control variceal bleeding?

- a. Botulinum toxin
- b. Dexlansoprazole
- c. Octreotide
- d. Omeprazole
- e. Ranitidine

56. A 48-year-old woman comes to the clinic with an eight months history of multiple joint aches and pains. She denies history of trauma. The presence of which of the following history or physical examination findings most strongly suggests a diagnosis of osteoarthritis rather than rheumatoid arthritis?

- a. Distal and proximal interphalangeal joint enlargement
- b. Metacarpophalangeal joint tenderness and swelling
- c. Morning stiffness resolving after 60-90 minutes
- d. Subcutaneous nodules over the extensor surface of the elbows
- e. Volar subluxation of digits at metacarpophalangeal joints

57. A 52 year-old woman is hospitalized for acute onset of fatigue and myalgias. Her blood work done in the clinic showed a 1.5-fold elevation of blood urea nitrogen and threefold increase of serum creatinine compared to blood work done for routine physical one month ago. She indicates she has been working outside in the hot sun the past couple days trying to get her yard in order. Her vital signs are significant for a blood pressure of 90/50 mmHg and heart rate of 120 beats per minute. Which of the following is most important in the treatment of this patient?

- a. Compression stockings
- b. Encourage ambulation
- c. Fluid hydration
- d. Nothing by mouth diet
- e. Start ACE inhibitor

58. A 24 year-old woman presents for evaluation of chronic fatigue. She denies any medical problems, however, after her menstrual cycle seems to feel worse for 7-10 days. She describes her menstrual cycle as being heavy and lasting 5-7 days each month. Her complete blood count shows a hemoglobin level of 8.3g/dL and hematocrit of 31.7%. Peripheral smear shows a presence of reticulocytes. Which of the following should this patient be prescribed?

- a. Darbepoetin alfa (Aranesp)
- b. Epoetin alfa (Procrit)
- c. Ferrous sulfate
- d. Folic acid
- e. Vitamin B12

59. A 23 year-old woman presents for evaluation of acne. She has had problems with the condition since menarche, which occurred at age 11. Her history is significant for chronic antibiotic use to control acne and progressively longer periods of amenorrhea. On physical examination, abnormalities noted are a body mass index of 32, and a fairly significant amount of hair on her chest, back, and abdomen. What recommendation should be made for this patient to decrease the risk of the long-term complication?

- a. Consider total hysterectomy
- b. Encourage waxing for hair removal
- c. Sustained oral contraceptive use
- d. Refer to geneticist for counseling
- e. Start Clomid (Clomiphene)

60. A 63 year-old woman presents to your clinic with acute onset of unilateral hearing loss in left ear. She reports that she woke up with mild dizziness and decrease hearing. She denies any recent upper respiratory infection. Weber test is performed and lateralizes to the right ear. Which of the conditions listed are not a cause of sensorineural hearing loss?

- a. Ototoxic drugs
- b. Acoustic neuroma
- c. Multiple sclerosis
- d. Cerumen impaction
- e. Thyrotoxicosis

61. A 58 year-old woman presents for evaluation of worsening shortness of breath. She indicates she has gained 20 pounds in the past month, and has noticed excessive swelling of her feet, ankles and calves. On examination she has +2 pitting pretibial edema. In addition to a diuretic medication, which of the following should also be started as initial therapy?

- a. Digoxin
- b. Diltiazem
- c. Doxazosin
- d. Lisinopril
- e. Propanolol

62. A four year-old girl is brought in for upper respiratory symptoms of cough, coryza, and conjunctivitis. Examination reveals a transverse line of inflammation along the eyelid margin. Within the mouth, you notice gray-white, sand grain-sized dots on the lower mucosa opposite the lower molars. These oral lesions are descriptive of which pathognomonic finding?

- a. Forchheimer spots
- b. Koplik spots
- c. Roth spots
- d. Stimson line
- e. Warthin-Finkeldey cells

63. A 34 year-old woman is referred by her dentist for finding of sialolithiasis of the submandibular gland. They were noted on panoramic dental radiograph. The patient denies pain but does note increased swelling when she eats or smells food. She smokes three cigarettes per day. Which of the following is the most appropriate to treat this condition?

- a. Encourage smoking cessation
- b. No treatment needed as self limiting
- c. Start daily prophylactic antibiotics
- d. Suck on lemon drops throughout the day
- e. Take diphenhydramine (Benadryl) daily

64. A 17 year-old man is brought in via ambulance after a motorcycle collision. He was wearing a helmet. Now he has altered level of consciousness. On computed tomography scan, there is a crescent shaped extra-axial collection crossing the suture lines with increased attenuation causing effacement of the sulci and midline shift. This finding is most suggestive of which of the following:

- a. Cerebral infarct
- b. Dilated ventricles
- c. Epidural hematoma
- d. Subdural hematoma
- e. Ventricular herniation

65. A 44 year-old man presents with hoarseness of his voice that started six weeks ago. He works as an auctioneer and the symptoms are hindering his ability to work. He denies history of upper respiratory infection or sinus drainage. He has a history of smoking one pack per day for the past 28 years. Which of the following is indicated for further evaluation?

- a. AP and lateral soft tissue views of neck
- b. Bacterial throat swab
- c. Barium swallow
- d. Laryngoscopy
- e. CT scan

66. A 43-year-old female has a history of epigastric pain that is worse with food. She has had multiple ulcers in the past that took longer than 8 weeks to heal. She also complains of intermittent diarrhea that is not relieved with fasting. A secretin test is done and there is no inhibition of gastrin levels. Which of the following is the most likely diagnosis?

- a. H. pylori gastritis
- b. Proton pump induced hypergastrinemia
- c. Atrophic gastritis
- d. Zollinger Ellison syndrome
- e. Meckel's diverticulum

67. Which of the following is the most common associated cardiac abnormality seen in patients with coarctation of the aorta?

- a. Bicuspid aortic valve
- b. Ventricular septal defect
- c. Atrial septal defect
- d. Mitral stenosis
- e. Thickened septal wall

68. A 3-year-old is brought into the pediatric clinic by his mother for the sudden onset of spontaneous grunts, blinking, and shoulder shrugging, blurting out of repetitive phrases as well as repeating intermittent obscene words. He does not have a recent history of sore throat, skin or gastrointestinal infections. Which of the following is the most likely diagnoses?

- a. Sydenhams chorea
- b. Tourette's syndrome
- c. Huntington's syndrome
- d. Guillain-Barre syndrome
- e. Parkinsonism

69. A 32-year old male wants to make an appointment to see a psychiatrist because he is very concerned about how his habits are affecting his relationship. He states he is a perfectionist who feels he must have complete order and control or else things don't go right. He states that he is a "complete stickler for the rules" and finds it very frustrating to complete a project if the rules are not strictly adhered to. He states he does not feel anxious or depressed at this time. Which of the following is the first line management of this condition?

- a. Propranolol
- b. Sertraline
- c. Nortriptyline
- d. Lithium
- e. Psychotherapy

70. A 36-year old male is complaining of left thumb pain after falling onto his left thumb, causing forced hyperabduction of his thumb. On physical examination, there is increased laxity with valgus stress testing of the left thumb. There following radiographs are obtained. Which of the following is the most likely diagnosis?

- a. Rolando Fracture
- b. Boxer's fracture
- c. Bennett's fracture
- d. Skier's thumb
- e. Thumb dislocation

71. A 62-year-old male with a history of type I diabetes mellitus and longstanding hypertension presents with abnormal gait, right sided weakness more pronounced in the right leg than in the right arm, abulia and urinary incontinence. The patient is able to raise both eyebrows and his speech is relatively preserved. Which of the following is the most likely diagnosis?

- a. Bell's palsy
- b. Left middle cerebral artery occlusion
- c. Left posterior cerebral artery occlusion
- d. Left anterior cerebral artery occlusion

72. A 37-year-old male is being evaluated for psychotherapy. During the interview, he is found to have a very constricted, cold affect. He states he has a lack of emotional response to praise or criticism by his bosses or peers. He tends to prefer to be alone and states his family calls him a "hermit" because he stays home all the time. He seems to have problems sustaining long-term relationships because his partners feel he has no enjoyment in their relationships and he states he has difficulty "seeing the point of wasting my time interacting with other people". Which of the following is the most likely diagnosis?

- a. Social phobia
- b. Schizoid personality disorder
- c. Schizotypal personality disorder
- d. Schizophrenia

73. A 42-year-old male with a history of HIV infection presents to the emergency room with headache and neck stiffness. A head CT shows no evidence of acute intracranial bleed, brain masses or mass effect. A lumbar puncture is performed and shows the following:

Opening Pressure:	Mildly increased
Protein:	Increased
Glucose:	Decreased
WBC count:	Increased with predominantly lymphocytes

Based on the findings which of the following would be ordered to determine the most likely diagnosis?

- a. Tzanck smear
- b. Lactate dehydrogenase levels
- c. India ink preparation
- d. Antistreptolysin titers
- e. Cold agglutinin test

74. A 48-year-old male with no past medical history presents to the emergency room with an acute onset of painless vision loss. He describes the vision loss as a "curtain being lowered over his left eye." He states the visual loss began five hours ago and that floaters and flashing lights preceded it. On fundoscopic examination, there is a positive Schaffer's sign. Which of the following is the most likely diagnosis?

- a. Amaurosis fugax
- b. Central retinal artery occlusion
- c. Central retinal vein occlusion
- d. Papilledema
- e. Retinal detachment

75. A 40-year-old male with a history of refractory hypertension despite dieting, lifestyle changes and compliance with two antihypertensive medications comes to the clinic for intermittent episodes of severe headache, sweating and palpitations. His vitals signs are: pulse rate of 130 BPM, respiratory rate of 20 breaths/min, blood pressure 189/112 mm Hg, temperature 38.5° C, and 98% oxygen saturation on room air. Renal angiogram is negative for renal artery stenosis or fibromuscular dysplasia. Which of the following is the most appropriate next step in the evaluation of this patient?

- a. Check plasma renin levels
- b. Echocardiography
- c. Overnight dexamethasone suppression test
- d. 24-hour urine vanillylmandelic acid levels
- e. ACTH stimulation test

76. A 65-year-old male is being treated for a recent diagnosis of small cell (oat cell) carcinoma. A few weeks into the treatment, he develops sharp pain worse with inspiration, shortness of breath, hemoptysis, fever and chills. A chest radiograph shows an upper lobe consolidation. He is placed on isolation and the first acid-fast bacilli smear is positive. Which of the following is the treatment of choice?

- a. Isoniazid + vitamin B6 for 12 months
- b. Place a PPD and look for positivity
- c. Isoniazid + vitamin B6 for 9 months
- d. Isoniazid, rifampin, pyrazinamide and ethambutol for 6 months
- e. CT scan without IV contrast

77. A 33-year-old left-handed dominant tennis player complains of left elbow pain. Which of the following would most likely be seen if the patient is suffering from tennis elbow?

- a. Pain and tenderness of the pronator teres
- b. Pain and tenderness of the flexor carpi radialis
- c. Lateral elbow pain with tenderness at the lateral epicondyle
- d. Pain with wrist flexion against resistance
- e. Pain worse with pulling activities

78. On cardiac examination, a high-pitched early diastolic murmur is best heard at the left sternal border that is accentuated with deep inspiration, consistent with a Graham Steell murmur. Which of the following valvular abnormalities are most commonly associated with the Graham Steell murmur?

- a. Tricuspid regurgitation
- b. Pulmonary regurgitation
- c. Aortic regurgitation
- d. Aortic stenosis
- e. Pulmonary stenosis

79. A 32-year-old male with a history of poorly controlled hypertension despite being on combination hypertension medications presents with headache, proximal muscle weakness, fatigue and polyuria. His vital signs show a blood pressure of 140/110. On physical examination, there are decreased deep tendon reflexes and facial flushing. There is no presence of edema. An electrocardiogram shows prominent U waves. An aldosterone to renin ratio test is > 20 . Which of the following is the most likely diagnosis?

- a. Secondary hyperaldosteronism
- b. Congestive heart failure
- c. Renal artery stenosis
- d. Primary hyperaldosteronism
- e. Hypoaldosteronism

80. A 52-year-old post menopausal woman status post hysterectomy one year ago presents to the office complaining of hot flashes and painful sexual intercourse due to vaginal dryness. Which of the following is the most effective management of her symptoms?

- a. Tamoxifen
- b. Estradiol
- c. Clomiphene
- d. Raloxifene
- e. Progesterone

81. A 43-year-old diabetic male being medically managed for peptic ulcer disease has his routine lab work. A complete blood count (CBC) shows decreased hemoglobin with a mean corpuscular volume (MCV) of 105/f (normal 80-100/f). Vitamin B12, folate and liver function tests are within normal limits. The patient denies any alcohol abuse. Which of the following is the most likely causative agent responsible for the CBC findings?

- a. Chlorpropamide
- b. Sitagliptin
- c. Glyburide
- d. Rosiglitazone
- e. Metformin

82. Which of the following patients would most likely present with the following ABG?

pH: 7.56	Normal 7.34-7.45
PCO ₂ : 23 mm HG	Normal 35-45
PO ₂ : 70 mm HG	Normal 75-100
HCO ₃ : 21 mEq/L	Normal 22-28

- a. A patient with a morphine overdose.
- b. A patient with prolonged, retracted vomiting from chemotherapy
- c. A patient with a history of anxiety disorder with prolonged hyperventilation
- d. An uncontrolled type I diabetic
- e. A patient with vibrio cholera with profound diarrhea

83. A 32-year-old male is complaining of a sore throat, runny nose and cough. On physical examination, his thyroid gland is tender to palpation. DeQuervain's thyroiditis is suspected. Which of the following is most commonly associated with DeQuervain's (subacute) thyroiditis?

- a. Increased diffuse uptake on radioactive uptake scan
- b. Positive thyroid stimulating antibodies
- c. Positive thyroid peroxidase antibodies
- d. Positive thyroglobulin antibodies
- e. Increase erythrocyte sedimentation rate

84. Which of the following is the most appropriate next step in the management of a 40-year-old woman with Pap smear cytology showing atypical squamous cells of undetermined significance and a positive acetic acid test?

- a. Repeat the Pap smear in 6 weeks and test for HPV
- b. Retest for HPV in 6 months after cryotherapy
- c. Colposcopy with biopsy
- d. Repeat cytology in 1 year
- e. Perform genotype of the HPV to see if HPV 16 or 18 is present

85. Which of the following is associated with international travel and fecal - oral transmission and high, spiking fevers?

- a. Hepatitis A
- b. Hepatitis B
- c. Hepatitis C
- d. Hepatitis D
- e. Hepatitis E

86. A 29-year-old janitor presents to the emergency room with left eye pain and redness after a bleach solution splashed into his eye. Which of the following is the next appropriate step in the management?

- a. Check the visual activity then irrigate the eye with hypotonic saline
- b. Check the pH of the eye and then irrigate the eye
- c. Irrigate the eye with lactated ringers and then check the pH of the eye
- d. Initiate antibiotic eye drops and then irrigate the eye
- e. Perform a funduscope exam and then irrigate the eye if there are any signs of abrasions or ulcerations

87. Which of the following liver function tests is most consistent with Dubin-Johnson syndrome?

- a. Increased alkaline phosphate with increased GGT
- b. Increased AST:ALT 2:1 with AST <500
- c. Isolated increased direct bilirubin
- d. Isolated increased indirect bilirubin
- e. Increased prothrombin time and decreased albumin

88. A 43-year-old woman is complaining of left proximal forearm pain. She states she occasionally gets weakness and tingling sensations to the left first three and a half fingers. The pain is not increased at night and is not reproducible if both of her wrists are flexed for 60 seconds. Which of the following is the most likely diagnosis?

- a. Cubital tunnel syndrome
- b. Carpal tunnel syndrome
- c. Pronator syndrome
- d. Tarsal tunnel syndrome
- e. Charcot's joint

89. A 32-year-old female with pelvic pain is found to have a 3-mm ovarian cyst with no evidence of ovarian torsion on ultrasound. CA-125 levels are normal. Which of the following is the most appropriate management at this time?

- a. Rest, NSAID's and repeat ultrasound in 6 weeks
- b. Rest, NSAID's and schedule for biopsy
- c. Laparoscopy
- d. Total abdominal hysterectomy/ salpingo-oophorectomy
- e. Oophorectomy

90. Which of the following physical exam findings are most consistent with acute anterolateral myocardial infarction?

- a. Increased jugular venous pressure
- b. Sinus bradycardia
- c. A fourth heart sound (S4)
- d. Peripheral edema
- e. Anterior wall chest tenderness

91. A 27-year-old woman comes into the fertility clinic because she has not menstruated in the last 2 years. On physical examination, the patient is obese with physical evidence of hirsutism. Further testing shows evidence of insulin resistance. Which of the following is the most likely diagnosis?

- a. Metabolic syndrome
- b. Polycystic ovarian syndrome
- c. Hydatidiform mole
- d. Adrenocortical insufficiency
- e. Endometrial adenocarcinoma

92. A 28-year-old female is diagnosed with bacterial vaginosis. Which of the following is most consistent with bacterial vaginosis?

- a. A "fishy" smell with potassium hydroxide preparation and the presence of clue cells
- b. The presence of a strawberry cervix and yellow-green frothy discharge
- c. White "curd-like" vaginal discharge
- d. Whitening of the lesion with acetic acid application
- e. Grouped vesicles on an erythematous base

93. A 68-year-old Asian woman presents to the clinic after slipping and falling on black ice with her hands outstretched while her wrist was extended. Radiographs of the wrist are obtained. Which of the following is the most likely diagnosis?

- a. Barton's fracture
- b. Smith's fracture
- c. Collic's fracture
- d. Rolando fracture
- e. Scapholunate dislocation



94. A 54-year-old male with chronic diarrhea has evidence of colitis on colonoscopy. A CT scan is done and shows multiple liver abscesses. Stool ova and parasites testing is positive. Which of the following is the most likely etiologic agent?

- a. Acanthamoeba lenticula
- b. Entamoeba histolytica
- c. Babesia microti
- d. Plasmodium falciparum
- e. Toxoplasma gondii

95. A 12-year-old boy presents to the pediatric clinic with facial swelling. He was treated three weeks ago for sinusitis and those symptoms have resolved. He is now complaining of unilateral eye edema with ocular discharge and decreased vision. There is pain with eye movement during the extra ocular exam. There are no cells or flare seen nor is there any fluorescein uptake. Which of the following is the most likely diagnosis?

- a. Bacterial conjunctivitis
- b. Anterior uveitis
- c. Orbital cellulitis
- d. Dacryocystitis
- e. Preseptal cellulitis

96. A 53-year-old male has had chronic, intermittent, non-bloody diarrhea for the last 2 months associated with intermittent fevers and intermittent joint pains and describes a weird occurrence of twitching of his eye when he is chewing. Trans glutaminase antibodies are negative. A small bowel duodenal biopsy is periodic acid-Schiff (PAS) stain positive and is positive for the presence of dilated lacteals. Which of the following is the most likely diagnosis?

- a. Seronegative spondyloarthropathies
- b. Whipple's disease
- c. Crohn's disease
- d. Ulcerative colitis
- e. Infectious diarrhea

97. A 29-year-old male falls directly onto the left hip while ice-skating. He is complaining of sudden onset of left hip pain and is unable to bear weight. On physical examination, the left leg is foreshortened and externally rotated. The following X rays are obtained:

Which of the following is the most likely diagnosis?

- a. Hip dislocation
- b. Intertrochanteric fracture
- c. Legg-Calve Perthes disease
- d. Sub trochanteric hip fracture
- e. Osteonecrosis of the hip



98. A 34-year-old male is brought into the clinic because his family is concerned. The family states they noticed for the last few months he has had some behavioral and cognitive changes. They began to worry because he developed rapid involuntary arrhythmic movements of his hands and face with facial grimacing. A CT scan is performed and shows cerebral and caudate nucleus atrophy. Which of the following is the most likely diagnosis?

- a. Parkinson's disease
- b. Tourette's syndrome
- c. Sydenham's chorea
- d. Tardive dyskinesia
- e. Huntington's disease

99. A 10-year-old child presents to the pediatric clinic with fever, malaise and decreased appetite. His mother noticed that his gums became red and swollen. His gums bleed easily when he brushes his teeth. There were no rashes associated with these symptoms. On physical examination, there are yellow/gray vesicles on the oral mucosa, tongue and lips. There is also associated cervical lymphadenopathy. There are no exudates on the posterior pharynx or rashes seen. Which of the following is the most likely diagnosis?

- a. Hand and foot and mouth disease
- b. Reactivation herpes simplex I
- c. Acute herpetic gingivostomatitis
- d. Acute herpetic tonsillopharyngitis
- e. Coxsackie virus

100. A 45-year-old male presents with non-bloody diarrhea and crampy abdominal pain (especially in the right lower quadrant). Rovsing, Obturator and Psoas signs are negative. He undergoes an upper GI series with small bowel follow through and a "string sign" is seen in the terminal ileum. The patient is *saccharomyces cerevisiae* antibody positive. Which of the following lab findings would most likely be seen in this patient?

- a. Increased alpha fetoprotein
- b. Increased perinuclear anti-neutrophil cytoplasmic antibodies
- c. Increased smooth muscle antibodies
- d. Increased mean corpuscular volume of the red blood cells
- e. Increased endomysial antibodies