

100 Free MCCQE1 Questions

1. An 80-year-old woman comes to the urgent care clinic with dyspnea on exertion. On physical examination, her blood pressure is 100/70 mm Hg, and her pulse is 75. She has no pulsus paradoxus. Her jugular veins are distended, and she has distant heart sounds. In addition, she has extra third and fourth heart sounds. Her liver is enlarged, and she has pedal edema. She has occasional premature ventricular contractions on her electrocardiogram. A chest x-ray reveals clear lung fields with a dilated cardiac silhouette. Her echocardiogram reveals ventricular walls with a "speckled pattern." Which of the following is the most likely diagnosis?

A. Alcoholic cardiomyopathy

B. Amyloidosis

C. Hemochromatosis

D. Tuberculosis

E. Viral myocarditis

2.

A 92-year-old man with a 45-year history of chronic obstructive pulmonary disease is intubated in the intensive care unit because of a bout of viral pneumonia that fails to improve after 72 hours of antibiotics. Although the inspired fraction of oxygen is 100%, the patient's pO₂ remains at 57 mm Hg. Positive-end expiratory pressure (PEEP) is added to allow the inspired fraction of oxygen. Twelve hours after the introduction of PEEP the patient suddenly becomes hypotensive. At the same time, his oxygen saturation drops from 92% to 61%. On physical examination, his blood pressure is 80/50 mm Hg, and his pulse is 124/min. He had distended neck veins and distant heart sounds. Which of the following would also most likely be seen on this patient's physical examination?

A. Absence of breath sounds in the right hemithorax

B. High amplitude carotid artery upstroke

C. A pleural friction rub

D. Pulsus alternans

E. Splenomegaly

3.

A 46-year-old man with a history of hypertension and hypercholesterolemia visits the physician for a routine followup. The patient's job involves a lot of traveling, and he admits to occasionally forgetting to take his medications with him when he travels. He complains of several episodes of chest pain in the past few months. The pain is sharp in nature, mainly over his lower chest and epigastrium, and tends to come on when walking. He believes these episodes are due to indigestion and has been taking antacids. There is a family history of heart disease, and his father died of a heart attack at age 48. On physical examination, his blood pressure is 150/80 mm Hg and heart rate is 86/min. His lungs are clear to auscultation. Cardiac auscultation reveals normal rate and rhythm, without rubs, gallops, or murmurs. There is no pedal edema. He is sent for an exercise stress test. Five minutes into the test, he develops ST depression of 3 mm in leads V1-V5. The ST segment depression is greater than 0.12 seconds in duration, and the stress test is stopped. Which of the following is the most

appropriate next step in management?

- A. Coronary angiography**
- B. Holter monitor
- C. No further tests are required
- D. Repeat stress test with thallium
- E. Upper gastrointestinal endoscopy

4.

A 74-year-old woman, who has been followed for the past 25 years for chronic obstructive pulmonary disease (COPD) comes to the emergency department complaining of 48 hours of temperatures to 38.6 C (101.4 F) and worsening shortness of breath. She has a chronic productive cough, which has become more copious. On physical examination, she has rhonchi and increased fremitus in the posterior mid-lung field. A Gram's stain reveals many epithelial cells and multiple gram-positive and gram-negative organisms; no neutrophils are seen. Which of the following is the most likely organism causing the symptoms?

- A. *Escherichia coli*
- B. *Haemophilus influenzae***
- C. *Klebsiella pneumoniae*
- D. *Mycobacterium tuberculosis*
- E. *Mycoplasma pneumoniae*

5.

A 62-year-old man is being treated for an acute myocardial infarction. He originally came to the emergency department with substernal chest pain and diaphoresis. Given his risk factors of hypertension, diabetes, tobacco use, and family history, he is considered high-risk. An electrocardiogram in the emergency department reveals a left-bundle branch pattern, and cardiac enzymes are elevated slightly. After a focused evaluation in the emergency department, the patient receives intravenous thrombolytics. Although his bundle branch pattern never resolves, the patient is chest pain-free and hemodynamically stable after thrombolysis. Two days later, however, the patient reports episodes of recurrent chest discomfort and shortness of breath overnight. In evaluating for potential myocardial reinfarction, which of the following is the most appropriate diagnostic test?

- A. Creatinine kinase**
- B. Dynamic EKG changes
- C. Lactate dehydrogenase
- D. Myoglobin levels
- E. Troponin I level

6.

A 41-year-old man comes to the clinic complaining of a chronic cough over the past 4 months, which has now been accompanied by hemoptysis. He denies smoking or any past medical history. On physical examination, his head and neck examination is normal. His lungs have diffuse bilateral rales. Cardiac examination is normal. Laboratory findings reveal a sodium of 142 mEq/L, a potassium of 4.3 mEq/L, a chloride of 110 mEq/L, a bicarbonate of 24 mEq/L, a BUN of 39 mg/dL, and a creatinine of 2.9 mg/dL. Urinalysis reveals microscopic hematuria and 4+ proteinuria. Which of the following serologic blood tests would most help confirm the suspected diagnosis?

- A. Anti-glomerular basement membrane antibodies**
- B. Anti-mitochondrial antibodies

- C. Anti-neutrophilic antibodies
- D. Anti-parietal cell antibodies
- E. Anti-smooth muscle antibodies

7.

The parents of a 9-year-old girl bring their daughter to the emergency department. For the last 12 hours, the child has suffered severe nausea and vomiting, as well as diarrhea and abdominal cramps. Further discussion with the child indicates that she suffers from blurred vision and headache. The parents originally were worried about bringing the child to the emergency department because they feared deportation since the family are illegal immigrants employed to pick strawberries on a nearby farm. On direct questioning, the parents admit that the child was assisting with spraying crops with pesticides the previous day. None of the family members was wearing any protective clothing. Her blood pressure is 88/48 mm Hg, pulse is 90/min, respirations are 33/min, and temperature is 38 C (100.3 F). The child appears sweaty and confused. Auscultation of the lungs reveals a diffuse wheeze bilaterally. Pupils are miotic, and the child has diffuse muscle weakness. Which of the following interventions is the most appropriate treatment for this child's condition?

- A. Atropine
- B. Charcoal
- C. Glucagon
- D. Naloxone
- E. Pralidoxime

8.

A 5-year-old boy suddenly begins coughing while eating peanuts. He is choking and gagging. When he is brought to the emergency department, but he is awake and is able to give his name. On physical examination, his vital signs are stable. On examination of the chest, inspiratory stridor and intercostal and suprasternal retractions are apparent. Which of the following is the most appropriate initial step in management?

- A. Allow patient to clear foreign object by spontaneous coughing
- B. Clear oropharynx with multiple blind sweeps with finger
- C. Position patient and perform back blows
- D. Stand behind patient and perform abdominal thrusts
- E. Perform emergency tracheostomy and take to surgery

9.

A 35-year-old woman arrives on the floor after an uneventful hysteroscopy to evaluate her long history of uterine fibroids. About 30 minutes after her arrival, she begins to complain of nausea and has two episodes of vomiting. The physician administers 0.625 mg of droperidol and 400 mg of acetaminophen by mouth. On follow-up evaluation, the patient's neck is involuntarily flexed to one side. She is alert, oriented, and conversant and has an otherwise normal neurologic examination. Which of the following is the most likely diagnosis?

- A. Cerebral vascular accident
- B. Conversion disorder
- C. Dystonic reaction to droperidol
- D. Munchausen syndrome
- E. Seizure

10.

A 35-year-old woman comes to the emergency department complaining of chest pressure.

She has had such episodes intermittently over the last 5 years, usually when sleeping, but over the last year she has had more frequent severe symptoms that are occasionally associated with severe migraine headaches. The pain is midsternal and is described as pressure that extends as a band around her chest. The emergency department physician is initially dubious that the pain is cardiac in origin, because the woman has no coronary disease risk factors. An electrocardiogram, however, shows 2-mm ST-segment elevation and inverted T-waves in leads V1 through V5 and 1-mm ST-segment depression in leads II, III, and aVF. Before the cardiologist arrives in the emergency department, however, the patient's electrocardiogram has returned to normal. This repeat normal electrocardiogram is obtained after the administration of aspirin, nitroglycerin, morphine, and oxygen. Which of the following is the most likely explanation for these findings?

- A. Diffuse intimal thickening with focal areas of atherosclerotic narrowing
- B. Intermittent thrombus formation and lysis in the left anterior descending artery
- C. Intermittent thrombus formation and lysis in the right coronary artery
- D. Plaque rupture and thrombus formation in the left anterior descending artery
- E. Transiently increased coronary vascular tone in the right coronary artery

11.

A 73-year-old man comes to the emergency department complaining of abdominal pain. He describes a dull, aching, constant pain in his mid-umbilical region. The pain has persisted over the past few days with increasing intensity, and it is not relieved by changes in position or eating. The patient has a past medical history significant for hypertension and coronary artery disease. He had a myocardial infarction 3 years ago. The man has moderate peripheral vascular disease with a prior femoral-popliteal bypass graft on the left. On physical examination, his blood pressure is 180/100 mm Hg, and his pulse is 86/min. He has a loud S4, a pulsatile, midline abdominal mass and venous stasis changes bilaterally on his lower extremities. Which of the following is the most appropriate diagnostic test at this time?

- A. Abdominal ultrasound (U/S)
- B. Lumbosacral (L/S) spine films
- C. CT of the spine
- D. CT of the abdomen
- E. Spinal MRI

12.

A 42-year-old man comes to the physician for his annual physical examination. He was last seen 2 years ago for a periodic health examination and was in good health. He is on no medications. His past medical history is significant for a cholecystectomy 2 years ago and rheumatic fever at age 15. He has been smoking approximately ten cigarettes daily for the past 23 years. On physical examination, his blood pressure is 154/56 mm Hg, pulse is 68/min, and respirations are 14/min. He is afebrile. A head and neck examination is normal. His lungs are clear. He has a regular heart rhythm, with a II/VI blowing decrescendo diastolic murmur heard at the aortic area. His abdominal and rectal examinations are normal. Complete blood count, electrolytes, and thyroid function tests are normal. Which of the following is the most appropriate advice for this man regarding future preventive health maintenance?

- A. Antibiotic prophylaxis before dental work....
- B. Annual chest x-ray film
- C. Annual echocardiogram
- D. Annual flexible sigmoidoscopy

E. Annual prostate specific antigen testing

13.

A 23-year-old man is admitted to the medical services with a severe asthma attack. He is also nauseous and has vomited twice today. The patient has a long history of severe asthma with multiple hospitalizations and one intubation 3 years ago. Two days prior to admission, he was exposed to dust while moving a file cabinet in his basement. Since that time, he has had progressively worsening shortness of breath. He had tried home albuterol and ipratropium nebulizers, as well as his standard cromolyn therapy, but none of these interventions relieved his symptoms. In the hospital, the man's peak flow rates are decreased by nearly 50% from baseline. Which of the following agents should most likely be added to the patient's therapy to alleviate his current symptoms?

A. Beclomethasone

B. Disodium cromoglycate

C. Hydrocortisone////////

D. Prednisone

E. Theophylline

14.

A 16-year-old girl is brought to the emergency department by ambulance after she was extracted from a burning vehicle that had been in an accident on the local highway. She was the only person in her car, which burst into flames after being rear-ended at high speed. She swayed off the road and collided with the side railing. When the ambulance arrived, she was unconscious in the driver's seat. On arrival at the emergency center, the patient is in moderate respiratory distress. Her pulse is 120/min, blood pressure is 80/40 mm Hg, and respirations are 30/min. After securing the airway and administering oxygen and intravenous fluid, the physician evaluates the extent of the sustained burn injury. There is diffuse erythema and edema of her face and most of her scalp hair is scorched, with some blistering of the underlying skin. Both arms show diffuse erythema, edema, and areas of extensive blistering. The rest of her body shows no significant burns. Which of the following is the estimated body surface area of the burn?

A. 9%

B. 18%

C. 27%////////

D. 36%

E. 45%

15.

A previously healthy 27-year-old man comes to the physician complaining of a cough with sputum production for the past 3 days. The cough has been keeping him up at night and it is affecting his job performance. He has no prior history of respiratory disease. His temperature is 37 C (98.6 F), blood pressure is 130/80, pulse is 70/min, and respirations are 18/min. Physical examination is unremarkable. Which of the following is the most appropriate next step in management?

A. Admit to the hospital for medical management

B. Perform a chest x-ray film

C. Perform a sputum culture

D. Send home with antibiotic therapy

E. Send home with no therapy////////

16.

A female infant was born at 31 weeks gestational age following a spontaneous vaginal delivery. The mother had regular prenatal care with negative serologies. Labor lasted 13 hours, and nitrous oxide was used for pain control. Apgar scores were 6 and 7 at 1 and 5 minutes, respectively, because of poor respiratory effort and decreased tone. She is transferred to the neonatal intensive care unit, where vitals are monitored continuously and nasal continuous positive airway pressure (CPAP) is begun. Periodic changes in breathing were noted, with absent respiration of 20 seconds' duration with each episode. Apneic episodes are associated with a heart rate of 95/min and a PaO₂ of 70. Heart rate returns to 140/min, and PaO₂ to 95, between episodes. The patient's temperature is 36.8 C (98.2 F), respiratory rate is 60/min, blood pressure is 90/50 mm Hg, and birth weight is 1680 g. Physical exam and routine laboratory results are otherwise normal. Which of the following is the most appropriate pharmacotherapy for this infant's apnea?

- A. Bicarbonate
- B. Dextrose
- C. Epinephrine
- D. Naloxone
- E. Theophylline////////
- F. Phenobarbital

17.

A term male infant is found to be cyanotic shortly after birth and requires endotracheal intubation. On physical examination, his blood pressure is 68/34 mm Hg (equal in all four extremities), pulse is 180/min, and respirations are 32/min. His precordium is dynamic, has a grade III systolic murmur, and a single S₂. Chest radiography shows a normal heart size and increased pulmonary vascular markings. An arterial blood gas on an FiO₂ of 100% shows pH 7.34; PaCO₂, 47 mm Hg; PaO₂, 46 mm Hg. Which of the following diagnoses is most consistent with these findings?

- A. Atrial septal defect
- B. Hypoplastic left heart syndrome
- C. Patent ductus arteriosus
- D. Tetralogy of Fallot
- E. Total anomalous pulmonary venous return/////

18.

A 63-year-old man is admitted to the hospital for fever and a productive cough. The patient reports that, over the past few days, he has had a worsening cough that has become productive of greenish-crimson sputum. The patient reports temperatures to 39.5 C (103 F) over the past 24 hours. The patient has had nothing to eat or drink for the past 36 hours. On further questioning, the man describes a prodromal period 7 days prior to the onset of the cough that was remarkable for rhinorrhea and general malaise. On physical examination, the patient appears acutely ill. His blood pressure is 130/80 mm Hg, and his pulse is 110/min and regular. Examination is remarkable for diminished breath sounds on the right lung-base with "a to e" egophony and whispered pectoriloquy. Which of the following is required for the diagnosis of pneumonia?

- A. Hypoxemia on pulse oximetry
- B. Infiltrates present on chest radiograph/////
- C. Sputum Gram's stain showing gram-positive diplococci

D. Sputum Gram's stain showing neutrophils

E. Temperature to 38.6 (101.4 F)

19.

A 27-year-old primigravid woman with type 2 diabetes mellitus comes to the emergency department in the thirty-fourth week of gestation because of a rapidly enlarging "stomach" and the sudden onset of contractions. She has not had much prenatal care since the first trimester because of a complicated family situation and lack of medical insurance. She had been feeling well until several days earlier when she noticed that her "stomach" was rapidly growing, and when she started having contractions that morning she decided to go to the hospital. On examination, her abdomen is much distended and the uterus is large by palpation. She is fully dilated and has contractions 2-3 minutes apart. She is admitted to the delivery room and several hours later she delivers a boy who weighs 2500 grams and is 38 centimeters long. His APGAR scores are 6 and 7 at 1 and 5 minutes, respectively. Physical examination of the child reveals a scaphoid abdomen and a palpable fullness of the epigastrium. An abdominal radiograph of the infant shows gaseous distention of the stomach and proximal duodenum. A nasogastric tube is placed and suction produces bilious fluid from the stomach. Which of the following prenatal studies might have revealed this abnormality?

A. Alpha fetoprotein level

B. Antibody screens for common fetal infections

C. Hemoglobin electrophoresis

D. Human choriogonadotropin levels

E. Ultrasonography/////

20.

A 9-month-old girl with Down syndrome is brought to the office for followup of a respiratory tract infection. This is the third time in 3 months that she has been treated for pneumonia. She has difficulty feeding and is not gaining weight. She frequently pauses during eating and has to calm down to be able to continue. She also has difficulty breathing when she cries. The parents have noticed that she started crawling over the past week but gets tired easily and seems to have an aversion to activity of any sort. Her medical history is significant for multiple respiratory tract infections, pneumonia, and poor growth. On physical examination, the patient is below the fifth percentile for weight and height. Her lips are mildly cyanotic. She has a hyperinflated thorax and a bulging precordium. Auscultation of the heart reveals that the second heart sound is widely split with no respiratory variations. There is a systolic ejection murmur at the upper left sternal border and a diastolic rumble at the lower left sternal border. Chest radiography demonstrates a grossly enlarged heart with a prominent pulmonary artery and increased pulmonary vascular markings. Which of the following is the most likely diagnosis?

A. Atrial septal defect

B. Endocardial cushion defect////////

C. Mitral regurgitation

D. Tetralogy of Fallot

E. Ventricular septal defect

21.

A 72-year-old man with a 25-year history of emphysema comes to his physician after he develops the acute onset of fevers, rigors, and a cough productive of green sputum. The symptoms gradually worsen over 36 hours and he comes to the emergency department. He has been taking a beclomethasone inhaler twice daily, an albuterol nebulizer treatment at home four times daily, and has been taking erythromycin for a recent bronchitis. On physical examination he is 183 cm (6 feet) tall and weighs 85 kg. His temperature is 38.3 C (100.9 F), blood pressure is 162/92 mm Hg, pulse is 94/min, and respirations are 32/min. His lung examination reveals diffuse bilateral coarse rhonchi. He uses his sternocleidomastoid muscles with each inspiration. An arterial blood gas reveals a pH of 7.20, a pCO₂ of 60 mm Hg, and a pO₂ of 52 mm Hg. Over the next 2 hours, he becomes increasingly tachypneic, and his pCO₂ rises to 74 mm Hg. The decision is made to intubate him at that point. Which of the following settings would be most appropriate for his tidal volume on the respirator?

- A. 500 mL/breath
- B. 600 mL/breath
- C. 700 mL/breath
- D. 850 mL/breath/////
- E. 1000 mL/breath

22.

A patient with a history of hypertension calls his physician's office for advice. He has had longstanding heartburn and recently consulted with a gastroenterologist. He underwent an endoscopy and was told that "Barrett's mucosa" was found by biopsy. The patient has read in the newspaper that people with this condition will probably develop esophageal cancer. Which of the following is the most appropriate response to this concern?

- A. "Your concerns are ungrounded"
- B. "It is foolish to worry because this type of cancer is unlikely to develop and would occur many years later"
- C. "You should chew food very carefully to prevent the possibility of a mechanical obstruction"
- D. "Only a small minority of patients with Barrett's esophagus will develop cancer, and you should undergo endoscopic surveillance"////////
- E. "You should consult with an oncologist regarding esophageal cancer prevention strategies"

23.

A previously healthy 45-year-old woman has lump in her right breast. She comes to her primary care physician at the clinic for evaluation and undergoes a fine needle aspiration, which shows malignant cells. She is sent for a core biopsy, which shows invasive carcinoma of the breast. She is referred to a surgeon but refuses to go because her religious beliefs prevent her from undergoing surgery, radiation, or chemotherapy or from taking hormonal therapy. Her primary care physician discusses all of the potential outcomes of her disease, including death, and the risks and benefits of her decision. She says that she fully understands her condition and the consequences of her choice. A psychiatrist finds that she is competent. She is married and has a 12-year-old daughter. A meeting with the whole family proves that they all agree that surgery, radiation, chemotherapy, and hormonal therapy are not acceptable treatments. The physician believes that the patient is making a huge mistake. Which of the following is the most appropriate next step in management on the part of the physician?

- A. Call the clinic's attorney to obtain a court order for surgery
- B. Contact the chairman of the surgery department to have her override the patient's

refusal for surgery, radiation, or chemotherapy

C. No further steps are necessary/////

D. Send the patient to another primary care physician because each party's views on this matter differ so dramatically

E. Send the patient to another psychiatrist to confirm that she is indeed competent to make decisions

24.

A 54-year-old man comes to his physician for a consultation. The patient is concerned that he may have gotten some "disease" from blood. He has read in the newspapers and seen on TV that people who get blood transfusions can get "diseases," and he received a transfusion in 1982. The patient has been a patient in this office for a few years, and his only other past medical history is hypercholesterolemia and hypertension, for which he is being treated with pravastatin and hydrochlorothiazide. He has no abdominal pain, fever, night sweats, or jaundice. Which of the following is the most appropriate screening test?

A. Hepatitis B

B. Hepatitis C

C. HIV/////

D. PPD skin testing

E. Rapid plasma reagin testing

25.

A 50-year-old man consults a physician because he has been having transient periods of rapid heart beat accompanied by sweating, flushing, and a sense of impending doom. Physical examination is unrevealing, with no evidence of arrhythmia at the time of the exam. However, the man's wife is a nurse, so the physician asks that she take vital signs the next time one of the episodes occurs. She does, and demonstrates a blood pressure of 195/140 mm Hg with pulse of 160/min during the episode. She promptly takes her husband to the emergency room, but the spell is over by the time that he is seen. Urinary measurement of which of the following would most likely be diagnostic in this case?

A. Dehydroepiandrosterone

B. Human chorionic gonadotropin

C. 17-ketosteroids

D. Vanillylmandelic acid/////

E. Zinc protoporphyrin

26.

A 31-year-old professional bodybuilder comes to the physician complaining of 3 weeks of worsening fatigue, low-grade fevers, and myalgias, as well as the gradual onset of jaundice over the past week. He admits to unprotected anal sex 3 months earlier after a championship bodybuilding event. He denies any other homosexual activities. He has no other medical problems and is on no medications. On physical examination, he appears acutely ill, with a temperature of 39.3 C (102.7 F), a blood pressure of 116/60 mm Hg, and a pulse of 114/min. He is deeply icteric and has multiple excoriations over his entire body. His liver edge is smooth and very tender and measures 14 cm in the midclavicular line. There is no shifting dullness, and a spleen tip is palpable 4 cm below the left costal margin. Stool is brown and negative for occult blood, and there is no peripheral edema. Which of the following laboratory findings would most likely indicate the worst prognosis?

A. Prothrombin time of 19.6 seconds/////

- B. Aspartate aminotransferase (AST) of 983 U/L
- C. Alanine aminotransferase (ALT) of 13,420 U/L
- D. Total bilirubin of 27.4 mg/dL
- E. White blood cell count of 18,400/mm³

27.

A 59-year-old man is seen by a specialist because of chronic, intractable, sinusitis. The decision is made to treat the patient surgically, with evacuation of sinus contents and dilation of the sinus ostia. The material removed is sent routinely for pathologic examination. An unexpected finding is the presence of fungi with broad, nonseptate, irregularly shaped hyphae. Subsequent review of the patient's chart reveals a long history of poorly controlled diabetes mellitus. Which of the following is the most likely causative organism?

- A. *Aspergillus*
- B. *Blastomyces*
- C. *Candida*
- D. *Rhizopus*///////
- E. *Sporothrix*

28.

A 5-day-old boy who was born at home is being evaluated in the urgent care clinic for bruising and gastrointestinal bleeding. Laboratory findings include partial thromboplastin time and prothrombin time, greater than 2 minutes; serum bilirubin, 4.7 mg/dL; alanine aminotransferase, 18 mg/dL; platelet count, 330,000/mm³; and hemoglobin, 16.3 g/dL. His mother has Factor V Leiden deficiency. Which of the following is the most likely cause of the boy's bleeding?

- A. Factor VIII deficiency
- B. Factor IX deficiency
- C. Idiopathic thrombocytopenic purpura
- D. Liver disease
- E. Vitamin K deficiency.....//

29.

A 62-year-old man with hypertension and angina has severe retrosternal chest pain radiating to the left shoulder on awakening, accompanied by diaphoresis and nausea. The pain is not relieved by sublingual nitroglycerin. An electrocardiogram is consistent with an evolving anterior wall myocardial infarction. Two days later, the patient develops severe shortness of breath. His temperature is 36.7 C (98 F), blood pressure is 100/60 mm Hg, pulse is 105/min, and respirations are 29/min. Physical examination reveals bilateral wet crackles in the lungs and a holosystolic murmur heard at the apex radiating to the left axilla. A review of his medical records indicates that no murmur was heard during an examination 4 months earlier. Which of the following complications has most likely occurred?

- A. Aortic dissection
- B. Cardiac rupture
- C. papillary muscles rupture///
- D. Septal perforation
- E. Ventricular aneurysm formation

30.

A 19-year-old college freshman comes to the university health clinic because of recurrent episodes of wheezing during basketball practices. He has been a starting shooting guard for

this team and has usually been hampered by shortness of breath shortly after beginning practice and during games. The symptoms are accompanied by a nonproductive cough and chest tightness. He denies any symptoms at rest. The symptoms occur whether the practices are indoors or outdoors. On physical examination, he is comfortable and denies any symptoms. His physical examination is unremarkable. Which of the following cells are most likely to mediate his symptoms?

- A. Eosinophils
- B. Lymphocytes
- C. Mast cells/////
- D. Monocytes
- E. Neutrophils

31.

A 64-year-old patient with a long history of "heart burn" comes to the emergency department with six episodes of hematemesis. He denies alcohol use, smoking, or drug use. He also denies significant nonsteroidal antiinflammatory drug use. He has no known liver disease. His laboratory results are normal with the exception of a hemoglobin of 7.1 gm/dL. He is taken for an emergent esophageal gastroduodenoscopy, which reveals a gastric ulcer with a bleeding visible vessel. Compared with duodenal ulcers, which of the following statements about gastric ulcers is correct?

- A. Better response to medication
- B. Less commonly associated with significant gastrointestinal bleeding
- C. Lower gastric pH in gastric ulcers
- D. More commonly associated with *H. pylori* than are duodenal ulcers
- E. More commonly associated with malignancy/////

32.

A 9-year-old boy is brought to the pediatric clinic by his mother, who noticed that the left side of his mouth has started to droop over the past several days. In addition, he is unable to close his left eye completely and complains of it burning. Review of systems reveals a cold approximately two weeks ago and recent decreased taste sensation. Physical examination reveals a well nourished male with normal vital signs. There is left eye ptosis and mild erythema of the left conjunctiva. His smile is asymmetrical on the left. Laboratory evaluation, including a complete blood count and chemistry profile, are normal. Which of the following infections is most closely associated with this patient's condition?

- A. Epstein-Barr Virus/////
- B. Group A *Streptococcus*
- C. Human Immunodeficiency Virus
- D. Influenza
- E. Measles

33.

A patient with AIDS and a CD4 cell count of 16/mm³ comes to medical attention because of the recent onset of motor and sensory neurologic deficits and mental status changes. CSF examination reveals mild lymphocytosis. Neuroimaging studies show multiple ill-defined areas of T2 changes, interpreted as evidence of demyelination. These areas are located in the white matter of both cerebral hemispheres and cerebellum. Which of the following is the most likely diagnosis?

- A. AIDS-dementia complex

- B. Cerebral toxoplasmosis**
- C. CMV encephalitis**
- D. Progressive multifocal leukoencephalopathy/////**
- E. Multiple sclerosis**

34.

A 20-year-old college football player is rushed to the emergency department after being knocked unconscious during a training session. The accident occurred when a linebacker accidentally head butted the patient during a pass rush. He was "out of it" for approximately 2 minutes. Although the other player was "shaken-up," he sustained no serious injuries. Currently, he cannot remember any of the events just before the accident or just after the accident. He complains of a severe headache and tingling in his left hand. His temperature is 37.0 C (98.6 F), blood pressure is 110/60 mm Hg, pulse is 73/min, and respirations are 18/min. He is in mild distress. There is a contusion above his right eye but no other signs of trauma. Neurologic examination reveals a slight decrease in strength in his left eye but is otherwise within normal limits. Which of the following is the most appropriate next step in management?

- A. CT scan of the head/////**
- B. Intubation, hyperventilation, and mannitol**
- C. Reassurance, acetaminophen, and observation in hospital overnight**
- D. Reassurance, acetaminophen, and periodic neurologic checks at home**
- E. Skull x-rays**

35.

A 75-year-old man is brought to the physician by his daughter because of "forgetfulness" and "disorientation" that has been gradually worsening over the past 2 years. She is concerned that he may leave the house and get lost. He has been confused and disoriented from time to time, but last week on 2 occasions he left the house and the neighbors found him in the street. He is forgetful, misplaces things, and often gets confused when he tries to dress himself. He often insists that he has taken a bath when in fact he has not. The family has to take care of his bills because he can no longer manage his money. He has not suffered any major illnesses in the past. A complete evaluation rules out thyroid disease, metabolic and endocrine disorders, depression, drug effects, vitamin deficiencies, vascular disease, infectious disease, and normal pressure hydrocephalus. Mental status examination reveals cognitive deficits. Which of the following neurotransmitters' activity is most likely deficient in this patient?

- A. Acetylcholine/////**
- B. Dopamine**
- C. Glutamate**
- D. Norepinephrine**
- E. Serotonin**

36.

A 10-year-old girl is brought to the physician by her parents. She was recently diagnosed with generalized tonic-clonic epilepsy during a clinic visit that her grandmother took her to. The girl is now accompanied by both of her parents who are concerned with the diagnosis and are seeking advice regarding what they should do when the child has a seizure. Which of the following suggestions is appropriate?

- A. Call an ambulance immediately as soon as seizure begins**
- B. Put something in the child's mouth at the onset of seizure**
- C. Try to place the child on her side during the seizure////**

- D. Try to restrain the child during the seizure
- E. Do not allow the child to return to her activities after recovery

37.

A 29-year-old man is brought to the emergency department in a comatose state a few hours after complaining of sudden onset of excruciating headache. His friend does not know if the patient has any underlying medical conditions. Neurologic examination reveals dilated pupils poorly responsive to light. A CT scan of the head without contrast demonstrates hyperdensity within the suprasellar cistern, while MRI is unremarkable. Lumbar puncture shows hemorrhagic cerebrospinal fluid. Which of the following is the most likely diagnosis?

- A. Amyloid angiopathy-related hemorrhage
- B. Cavernous sinus thrombosis
- C. Hemorrhagic infarction
- D. Pituitary apoplexy
- E. Ruptured berry aneurysm////

38.

A 40-year-old man is admitted to the hospital for evaluation and treatment of depression associated with suicidal thoughts. He denies any past psychiatric history. His medical history is significant for hypertension, for which he currently takes hydrochlorothiazide. He also describes a history of once having a painful erection that lasted for eight hours and had to be treated with intracavernous injections in the emergency room. He states that this was thought to be related to an antihypertensive medication that he used to take. During the treatment of this man's psychiatric condition, which of the following medications should be avoided?

- A. Bupropion
- B. Clonazepam
- C. Paroxetine
- D. Trazodone////////
- E. Zolpidem

39.

A 3-year-old girl is being evaluated for developmental delays. Her parents report that the pregnancy was uneventful and that the delivery was without complications. The girl reached all milestones normally during his first year. Length, weight, and head circumference were all well within the normal range during the first year. During her second year, the pediatrician noticed deceleration of head growth, and her parents noticed a gradual decline in her fine motor abilities, frequent hand-wringing movements, and loss of social engagement. Her movements became poorly coordinated. Which of the following is the most likely diagnosis?

- A. Asperger disorder
- B. Attention-deficit/hyperactivity disorder
- C. Autistic disorder
- D. Pervasive developmental disorder, not otherwise specified
- E. Rett syndrome//////

40.

A 27-year-old successful businesswoman has developed a fear of flying after an extremely rough landing. She is paralyzed with fear and unable to travel for business. Her physician tried giving her lorazepam to take during the flight, but it didn't help. She returns to the physician and asks if there is anything else that she can do to reduce her fear because she is not getting a promotion at work because she cannot travel. Which of the following is the most commonly

used treatment for this disorder?

- A. Exposure therapy/////
- B. Hypnosis
- C. Insight-oriented psychotherapy
- D. Medication
- E. Supportive therapy

41.

A 19-year-old man comes to the emergency department after a suicide attempt. He is crying and not entirely coherent, but says that he swallowed most of a bottle of over-the-counter-pain medication about 2 to 4 hours ago. He thinks the medication was a combination of acetaminophen and codeine, but is uncertain. His blood pressure is 130/76 mm Hg, pulse is 74/min, and respirations are 18/min. Physical examination reveals an agitated but well-appearing young man. An initial acetaminophen level is undetectable, although the patient's urine is positive for opioids. A nasogastric tube is placed, and lavage is started. A nurse is attempting to contact family members to have the pill bottle brought to the hospital. Which of the following is the most appropriate next step in the management?

- A. Admit to monitored unit for observation
- B. Begin hemodialysis
- C. Immediately administer *N*-acetylcysteine/////
- D. Recheck acetaminophen level in 2 hours
- E. Start naloxone infusion

42.

A 32-year-old woman, gravida 3, para 2, at 14 weeks' gestation comes to the physician for a prenatal visit. She has some mild nausea, but otherwise no complaints. She has no significant medical problems and has never had surgery. She takes no medications and has no known drug allergies. She is concerned for two reasons. First, the "flu season" is coming, and she seems to get sick every year. Second, a child at her son's daycare center recently broke out with welts and was sent home. Which of the following vaccinations should this patient most likely be given?

- A. Influenza/////
- B. Measles
- C. Mumps
- D. Rubella
- E. Varicella

43.

A 19-year-old primigravid woman at 42 weeks' gestation comes to the labor and delivery ward for induction of labor. Her prenatal course was uncomplicated. Examination shows her cervix to be long, thick, closed, and posterior. The fetal heart rate is in the 140s and reactive. The fetus is vertex on ultrasound. Prostaglandin (PGE₂) gel is placed intravaginally. One hour later, the patient begins having contractions lasting longer than 2 minutes. The fetal heart rate falls to the 70s. Which of the following is the most appropriate next step in management?

- A. Administer general anesthesia
- B. Administer terbutaline///
- C. Perform amnioinfusion
- D. Start oxytocin

44.

A 32-year-old woman comes to the physician because of amenorrhea. She had menarche at age 13 and has had normal periods since then. However, her last menstrual period was 8 months ago. She also complains of an occasional milky nipple discharge. She has no medical problems and takes no medications. She is particularly concerned because she would like to become pregnant as soon as possible. Examination shows a whitish nipple discharge bilaterally, but the rest of the examination is unremarkable. Urine human chorionic gonadotropin (hCG) is negative. Thyroid stimulating hormone (TSH) is normal. Prolactin is elevated. Head MRI scan is unremarkable. Which of the following is the most appropriate pharmacotherapy?

- A. Bromocriptine////./
- B. Dicloxacillin
- C. Magnesium sulfate
- D. Oral contraceptive pill (OCP)

45.

A 20-year-old woman comes to the physician because of left lower quadrant pain for 2 months. She states that she first noticed the pain 2 months ago but now it seems to be growing worse. She has had no changes in bowel or bladder function. She has no fevers or chills and no nausea, vomiting, or diarrhea. The pain is intermittent and sometimes feels like a dull pressure. Pelvic examination is significant for a left adnexal mass that is mildly tender. Urine hCG is negative. Pelvic ultrasound shows a 7 cm complex left adnexal mass with features consistent with a benign cystic teratoma. Which of the following is the most appropriate next step in management?

- A. Repeat pelvic examination in 1 year
- B. Repeat pelvic ultrasound in 6 weeks
- C. Prescribe the oral contraceptive pill
- D. Perform hysteroscopy
- E. Perform laparotomy/////

46.

A 34-year-old woman comes to the clinic for evaluation of chronic constipation. She has one bowel movement every week and often suffers lower abdominal fullness and distension. Over-the-counter bowel remedies help somewhat, but she is concerned that something more serious may be going on. Her constipation has been chronic but has been worse over the last 2 years. Aside from constipation, she reports no other gastrointestinal problems and generally feels quite healthy. In addition to her current problem, she was diagnosed with gestational diabetes while pregnant with her fifth child 2 years ago and also suffers occasional urinary incontinence. Family history is remarkable for a sister with irritable bowel syndrome and an uncle who died of colon cancer at age 65 years. Physical examination, routine chemistries, and a complete blood count are within normal limits. Given this patient's presentation, which of the following is the most likely explanation for this woman's constipation?

- A. Abnormal anorectal sphincter tone/////
- B. Autonomic neuropathy
- C. Functional or idiopathic constipation
- D. Left-sided colonic mass
- E. Right-sided colonic mass

47.

A 17-year-old girl is referred for evaluation because of persistent headaches for the past 3

months and diminished peripheral vision first noticed 2 weeks ago. On physical examination, she is short for her age. She has fully developed breasts but no axillary or pubic hair. She started menstruating 2 years ago but has irregular periods. She has no libido. The absence of axillary and pubic hair in this girl is indicative of which of the following conditions?

- A. Excessive production of androgens
- B. Excessive production of estrogens
- C. High blood levels of prolactin
- D. Insufficient production of androgens/////
- E. Insufficient production of estrogens

48.

A 40-year-old man is brought in for evaluation by the Coast Guard after the small plane he was piloting crashed into the ocean. The man's wife and two friends were also on the plane. The man has survived the crash with cuts and a broken arm, but he claims he has no memory of the crash or how he escaped the plane. He is also unable to explain how he got his life jacket on. His physical examination now is significant only for minor lacerations and a fractured right humerus, and he has no alteration in consciousness. A CT scan is normal. He is very upset that the fate of his wife is unknown, and he has nightmares for the next several nights while trying to sleep. Which of the following is the most likely diagnosis?

- A. Dissociative amnesia/////
- B. Dissociative fugue
- C. Dissociative identity disorder
- D. Factitious disorder
- E. Transient global hypoxia

49.

A 54-year-old woman comes to the physician for an annual examination. She has no complaints. For the past year, she has been taking tamoxifen for the prevention of breast cancer. She was started on this drug after her physician determined her to be at high risk on the basis of her strong family history, nulliparity, and early age at menarche. She takes no other medications. Examination is within normal limits. Before she leaves the exam room she expresses concern about the longterm effects of tamoxifen. Which of the following is this patient most likely to develop while taking tamoxifen?

- A. Breast cancer
- B. Elevated LDL cholesterol
- C. Endometrial changes/////
- D. Myocardial infarction
- E. Osteoporosis

50.

A 14-year-old boy is evaluated for short stature. He has no significant past medical history and is considered otherwise healthy by his parents. He eats a normal diet and has regular meals. His height and weight have been consistently at the 5th percentile since early childhood. His physical examination is normal, with genitalia at Tanner stage 3. Which of the following is the most likely laboratory finding for this boy?

- A. Bone age that is equivalent to chronologic age/////
- B. Decreased complement C3 level
- C. Decreased serum albumin concentration
- D. Decreased thyroid stimulating hormone

E. Increased serum creatinine concentration

51.

A 19-year-old woman comes to the emergency department after a syncopal event. While working in the garden, she accidentally disturbed a wasps' nest and was stung on her right hand. She has never been stung before and does not know if she needs treatment. The woman tried to rest at home but felt extremely ill and called for an ambulance. She currently complains of dizziness and has some swelling in both of her hands and feet. Vital signs are: temperature 37.8 C (100.0 F), blood pressure 83/40 mm Hg, pulse 130/min, and respirations 22/min. Oxygen saturation, obtained with a pulse oximeter, is 97% on room air. Lung auscultation reveals a diffuse mild wheeze. Which of the following is the first priority in caring for this patient?

A. Administer epinephrine/////

B. Bolus patient with 500 cc of half-normal saline

C. Perform endotracheal intubation

D. Prescribe diphenhydramine and cimetidine

E. Start intravenous corticosteroids

52.

The longtime primary care physician of an 85 year-old woman is asked to help mediate care between the family and the hospital's medical service. The patient sustained an anoxic brain injury during an in-hospital cardiac arrest one week ago in which the patient had a pulseless period for at least 5 minutes. On physical examination, her vital signs are normal and stable with the assistance of continuous mechanical ventilation. Pupillary and corneal reflexes are present bilaterally. There is episodic decorticate rigidity, but no purposeful movement present. An electroencephalogram (EEG) suggests severe, diffuse cortical damage. The patient's husband asks the physician if she is brain dead. Which of the following is the most appropriate response?

A. It is too early to predict brain death by the legal definition

B. The diagnosis of brain death can only legally be made by a neurologist

C. The decision on brain death must await the completion of a magnetic resonance image (MRI)

D. The presence of brain stem function and posturing rules out brain death, but the examination findings and supportive data suggest extensive brain damage/////

E. The suggestion of severe cortical damage by the EEG implies brain death

53.

because of an exacerbation of her cough and dyspnea. On physical examination, her blood pressure is 126/64 mm Hg, pulse is 82/min, and respirations are 24/min. On lung examination, there are loud expiratory wheezes and rhonchi. The cardiac examination is normal. An arterial blood gas is performed. Which of the following results would most likely be expected?

A. pH of 7.20, pCO₂ of 60, and pO₂ of 46

B. pH of 7.30, pCO₂ of 50, and pO₂ of 94

C. pH of 7.35, pCO₂ of 45, and pO₂ of 60/////

D. pH of 7.46, pCO₂ of 25, and pO₂ of 76

E. pH of 7.52, pCO₂ of 30, and pO₂ of 82

54.

An AIDS patient undergoes endoscopy for chronic substernal pain that is exacerbated when he swallows. The studies demonstrate inflammation and superficial ulceration of the distal

esophagus. Biopsies taken from the area show inflammation and a few cells, particularly in the endothelium of small blood vessels, with markedly enlarged, smudgy, eosinophilic nuclei. Which of the following is the most likely cause of the patient's esophagitis?

- A. Acid reflux
- B. Candida
- C. Cytomegalovirus/////
- D. Herpes simplex
- E. Herpes zoster

55.

A 40-year-old woman is evaluated by a dermatologist because she has many pigmented lesions on her body. Examination of the skin and scalp demonstrates over 100 individual lesions, most of which vary in size from 5 to 12 mm. They are found all over her body, but most commonly on sun-exposed skin. They are predominately round in shape, but some have subtly notched borders or are slightly asymmetrical. The woman's entire skin surface is photographed, and when the photographs are repeated six months later, no change in appearance of any of the lesions is noted. Which of the following is the most likely diagnosis?

- A. Compound nevi
- B. Dysplastic nevi/////
- C. Halo nevi
- D. Lentigos
- E. Malignant melanomas

56.

A 60-year-old woman consults a physician because of weakness, headaches, dizziness, and tingling in her hands and feet. Physical examination demonstrates multiple areas of bruising on the back of her forearms and shins. On specific questioning, she reports having had five nosebleeds in the past two months, which she had attributed to "dry air". Blood studies are drawn which show a platelet count of 1,200,000 / μ L, a red cell count of 5,100,000/ μ L, and a white count of 10,500/ μ L with a normal differential count. Review of the peripheral smear demonstrates many abnormally large platelets, platelet aggregates, and megakaryocyte fragments. No abnormal red or white blood cells are seen. Philadelphia chromosome studies are negative. Which of the following is the most likely diagnosis?

- A. Chronic myelogenous leukemia
- B. Myelofibrosis
- C. Polycythemia vera
- D. Primary thrombocythemia////
- E. Secondary thrombocythemia

57.

The intern rotating through the newborn nursery becomes concerned when after 30 hours, a newborn infant has not passed meconium. He was full term with a birth weight of 3856 g (8 lb 8 oz). The pregnancy was uncomplicated. The baby appears well with no respiratory distress. Slight abdominal distention is noted. Rectal examination reveals a slightly tight rectum and results in a greenish gush of stool. Which of the following tests will probably confirm the likely diagnosis?

- A. A stool culture
- B. A rectal biopsy/////
- C. A barium enema

- D. An alpha1-antitrypsin level
- E. A serum TSH level

58.

A 72-year-old African American man with a history of renal dysfunction, congestive heart failure, and previous myocardial infarction is currently undergoing dialysis. Until the past few weeks, he has been in good spirits and has a strong family support system that helps him in getting to and from dialysis daily. Over the past few weeks, however, he has been feeling increasingly depressed and has begun to act bizarrely, with persecutory delusions that the government is poisoning the chemicals used on him for dialysis. Also in the last few weeks, due to increased stomach pain, his medications have been adjusted and now include cimetidine for stomach ulcers, digoxin, and a baby aspirin daily. He also takes docusate sodium as needed for stool softening and ibuprofen as needed for mild arthritis pain. Which of the following medications would be most likely to have induced the symptoms the patient is now experiencing?

- A. Aspirin
- B. Cimetidine; ; ; ; ;
- C. Digoxin
- D. Docusate sodium
- E. Ibuprofen

59.

A 22-year-old woman, gravida 2, para 0, at 8 weeks' gestation comes to the physician for a prenatal visit. She has no complaints. Her first pregnancy resulted in a 22-week loss when she presented to her physician with bleeding from the vagina, was found to be fully dilated, and delivered the fetus. Examination of the patient today is unremarkable. She declines to have a cerclage placed. When should this patient begin having regular cervical examinations?

- A. 10 weeks
- B. 16 weeks/////
- C. 22 weeks
- D. 28 weeks

60.

A 64-year-old man smokes one or two cigarettes a day sporadically on weekends and he has been diagnosed with severe emphysema. His pulmonologist, on examining his routine blood work, finds elevated serum transaminases. Hepatitis serologies reveal no evidence of viral hepatitis A, B, or C. A younger brother died of emphysema at age 50 and had no smoking history. Which of the following diseases should most likely be considered to explain this patient's liver abnormalities AND his lung disease?

- A. Alpha-1-antitrypsin deficiency////////
- B. Primary hemochromatosis
- C. Primary sclerosing cholangitis
- D. Secondary hemochromatosis
- E. Wilson disease

61.

A 28-year-old man who recently emigrated from Italy returns to the physician's office for a follow up visit to evaluate his anemia. Four days ago, he presented with fatigue and dyspnea on exertion, and was found to have a hematocrit of 22%.

At that time he was admitted to the local hospital for evaluation. Laboratory analysis shows:

bilateral infiltrates. A Gram's stain of his sputum shows numerous neutrophils, but no organisms. A sputum culture on buffered charcoal yeast extract (BCYE) agar grows gram-negative bacilli. Which of the following is the most likely pathogen?

- A. *Chlamydia trachomatis*
- B. *Legionella pneumophila*/////
- C. *Moraxella catarrhalis*
- D. *Mycoplasma pneumoniae*
- E. *Pneumocystis carinii*

65.

A 63-year-old man with a history of noninsulin-dependent diabetes and hypertension comes to the physician after being awakened from sleep by severe pain in his right first toe. He reports the sudden onset of acute pain in the toe, rapidly followed by erythema, swelling, tenderness, and warmth. His temperature is 37.0 C (98.6 F), blood pressure is 170/60 mm Hg, pulse is 97/min, and respirations are 19/min. Physical examination is normal except for swelling and severe tenderness over his metatarsophalangeal joint on the right foot. Which of the following is the most appropriate first-line treatment for this patient's condition?

- A. Allopurinol
- B. Dietary modifications
- C. Indomethacin/////
- D. Prednisone

66.

An 18-year-old man comes to the physician for a health maintenance examination. He has a family history of Tangier disease, and a number of adults in his family have either hepatosplenomegaly, recurrent polyneuropathy, or both. He has no specific complaints at this time. Which of the following would be the strongest finding on physical examination to suggest the presence of this disease?

- A. Angiokeratomas
- B. Grey-brown pigmentation of the forehead, hands, and pre-tibial region
- C. Irregular black deposits of clumped pigment in the peripheral retina
- D. Orange-yellow tonsillar hyperplasia/////
- E. Pingueculae

67.

A 6-month-old boy is brought in to the emergency department by his mother who states that when she picked him up from the babysitter he was not acting right. The babysitter stated that he was sleeping more and was fussy. On examination the baby is stuporous. His temperature is 37.8 C (99.9 F), pulse is 140/min, and respirations are 36/min. A 4 cm ecchymosis is noted on his right cheek. The remainder of the physical examination is unremarkable. The physician suspects possible physical abuse. He orders a CT scan of the head, skeletal survey, chemistry panel and complete blood count. Which of the following diagnostic tests should also be ordered?

- A. Ammonia level
- B. Coagulation studies/////
- C. Lipid panel
- D. Thyroid studies
- E. Urine electrolytes

68.

A 73-year-old white man with benign prostatic hyperplasia and no past psychiatric history comes to the physician for a routine visit. His physical examination and routine laboratory studies are normal. The patient's wife died approximately 2 months ago after an extended course of colon cancer and since then he has been "sad and lonely." He also indicates that he just recently began to recover weight that he lost in the days and weeks since his wife's passing. His sleep is also recovering and he has been spending more time with his children and grandchildren. He is troubled, however, by the feeling that he can actually hear his wife calling out his name when he is alone in the house that the couple shared for their entire marriage. Which of the following is the most appropriate next step in management?

- A. Obtain an electroencephalogram
- B. Prescribe a short course of antipsychotic medication
- C. Reassure the patient that he is experiencing a normal grief reaction/////
- D. Recommend that the patient have neuropsychologic testing
- E. Send the patient for an immediate psychiatric evaluation

69.

A 34-year-old primigravid woman at 30 weeks' gestation comes to the physician with regular contractions every 6 minutes. Her prenatal course was significant for type 1 diabetes, which she has had for 10 years. Over the course of 1 hour, she continues to contract, and her cervix advances from closed and long to a fingertip of dilation with some effacement. The patient is started on magnesium sulfate, penicillin, and betamethasone. Which of the following is the most likely side effect from the administration of corticosteroids to this patient?

- A. Decreased childhood intelligence
- B. Increased maternal insulin requirement/////
- C. Maternal infection
- D. Neonatal adrenal suppression
- E. Neonatal infection

70.

A 30-year-old woman, G3P3, comes to the maternity unit at 38 weeks' gestation complaining of regular contractions every 3 minutes for the past hour. Her previous births have been vaginal and uncomplicated. She has received excellent prenatal care and reports having gestational diabetes that was difficult to control during her pregnancy. The delivery is prolonged. She eventually delivers a 9.4-lb boy with Apgar scores of 8 and 9 at 1 and 5 minutes, respectively. The woman loses an estimated 600 mL of blood. Intravenous access with a large bore IV is obtained for volume resuscitation. Fundal massage is performed. Despite these interventions, the mother continues to bleed 45 minutes after delivery. Which of the following is the most likely finding on physical examination?

- A. Inversion of the uterine fundus
- B. Mucosal bleeding and bruising
- C. Rupture of the uterus
- D. Spongy, soft uterus/////
- E. Vaginal laceration

71.

A 24-month-old child is seen in the pediatrician's office for a regular health supervision visit. He has no history of developmental delay, however the mother is concerned because her neighbor's son 'seems more advanced' because he is able to perform more motor functions. The patient was born by an uncomplicated normal vaginal delivery at term, and he has not had

any significant illness or injury prior to this visit. Which of the following motor milestones is most consistent with his age?

- A. Building a tower of two cubes
- B. Copying a circle
- C. Scribbling
- D. Throwing a ball overhead////////
- E. Walking backward

72.

A 62-year-old man with a heavy smoking history comes to the emergency department with chest pain. He states that for the past few months, he has been getting chest "pressure" localized to the substernal region, radiating to the left arm on occasion. The pain occurs with mild exertion, but never at rest. He further states that when he gets the pain, it usually last about 5 minutes but goes away with rest. He reports that his exercise tolerance is moderate, and he gets dyspnea on exertion after a few blocks of walking. On physical examination, he has no chest wall tenderness to palpation, but a carotid bruit is heard, and his dorsalis pedis pulses are decreased. He has no history of coronary disease but his family history is significant for his father having a myocardial infarction at age 56. He denies chest pain at this time. In addition to ascertaining his other coronary risk factors, which of the following is the most appropriate diagnostic intervention?

- A. Obtain a resting electrocardiogram
- B. Schedule the patient for a cardiac echocardiogram
- C. Schedule the patient for an exercise treadmill test////////
- D. Schedule the patient for non-urgent coronary angiography

73.

A 73-year-old man with a long smoking history and asbestosis proven by biopsy comes to the physician for his yearly physical exam. At the current time, he has no complaints. He continues to smoke cigarettes but denies any cough or shortness of breath. His most recent chest x-ray showed left lower lobe pleural thickening and calcifications at the level of the diaphragm. Today, he has many questions about his disease, his risk for malignancy, and his long-term prognosis. At this time, which of the following statements is most correct?

- A. Asbestosis itself (without smoking) does not cause lung disease
- B. His risk of cancer is greater than 70 times that of the normal population////
- C. Mesotheliomas are the most common cancer associated with asbestosis and smoking
- D. Small-cell cancer is the most common cancer associated with asbestosis and smoking
- E. Steroids slow progression of his disease

74.

A 51-year-old welder comes to the physician complaining of severe fatigue and the onset of jaundice. He has a known history of hepatitis C, which he acquired after intravenous drug use 20 years earlier. Over the past 6 months, he has developed ascites and has had two admissions to the hospital for esophageal variceal bleeding. On physical examination, he is icteric with bitemporal wasting and multiple stigmata of chronic liver disease. On abdominal examination, his liver is 7 cm in the midclavicular line, and splenomegaly is present. There is near-tense ascites and moderately severe lower extremity edema, which extends to the mid-calf. Laboratory results reveal an albumin of 2.1 g/dL, total bilirubin of 12.1 mg/dL, and a prothrombin time of 19 seconds. Which of the following is the most appropriate therapy for this patient?

- A. Interferon
- B. Ribavirin
- C. Interferon plus ribavirin
- D. Mesocaval shunt
- E. Evaluation for liver transplantation////////

75.

A 7-year-old girl is brought to the office by her parents because of a worsening skin infection that started on her face and is now spreading to other parts of the body. The first lesions occurred when she started school, a couple of months earlier. They tried using an over-the-counter antibiotic cream but it has not helped much because new spots keep popping up. The child is otherwise healthy and has no medical problems. She does not take any medication on a regular basis and is up to date with her immunizations. Her facial lesions are shown. In between these lesions are moist erosions covered with thick, friable, honey-colored crust. On her trunk, especially on the lateral sides and in the axilla, as well as on the extensor extremities, multiple areas with similar skin lesions are seen. Some of them have gyrate and annular patterns due to central clearing. Which of the following is the most likely diagnosis?

- A. Impetigo contagiosa////////
- B. Poison ivy
- C. Scabies
- D. Tinea corporis
- E. Toxic epidermal necrolysis

76.

A 69-year-old retired police officer comes to the emergency department complaining of excruciating right foot pain. The pain began approximately 6 hours ago, immediately on awaking. One night earlier, he had gone out for a steak dinner and drank half of a bottle of wine to celebrate his recent retirement. His past medical history is significant for hypertension, for which he takes hydrochlorothiazide. On physical examination, he is afebrile but appears acutely uncomfortable. There is swelling and tenderness in the right ankle and in the first right toe. Laboratory tests reveal a white blood cell count of 12,400/mm³ and a hematocrit of 39%. Serum electrolytes and liver function tests are normal. Uric acid is 4.1 mg/dL (normal 2.5-5.5 mg/dL). Which of the following will most likely be seen on examination of the joint arthrocentesis?

- A. Gram-negative rods
- B. Gram-positive cocci pairs and chains
- C. Negatively birefringent needle-shaped crystals////////
- D. Negatively birefringent rhomboid crystals
- E. Positively birefringent needle-shaped crystals

77.

A 49-year-old woman comes to the clinic complaining of fatigue and irritability. Over the past year, she reports that she has suffered from mood swings, has had difficulty sleeping, and has gained 5 lb, although she denies a change in appetite or activity. She continues to be social with friends and is active in her career. She denies any lack of interest in her life, although she has been somewhat sad since her son left home 6 months ago. She has had no major medical or psychiatric problems and knows of none that runs in her family. A review of systems reveals occasional constipation and that the timing and flow of her menstrual cycles are more variable than usual. She does not take any medications, aside from calcium supplements. Physical

examination is unremarkable, and laboratory studies are pending. Which of the following is the most likely diagnosis?

- A. Adjustment disorder
- B. Anemia
- C. Cyclothymia
- D. Depression
- E. Perimenopause/////

78.

A 31-year-old man reports 9 months of difficulty swallowing his meals. The symptoms have caused him to lose weight, and he has been waking in the middle of the night with recurrent coughing. He has had difficulty swallowing solids as well as liquids since these symptoms began. An esophagram reveals a dilated esophagus with a smoothly tapered distal esophagus. Which of the following manometric findings would most likely be found in this patient?

Peristalsis in body of esophagus pressure Resting lower esophageal sphincter (LES)

- A. Decreased Normal
- B. Decreased Increased.....
- C. Increased Decreased
- D. Decreased Decreased
- E. Increased Increased

79.

A 3-month old infant is brought to a pediatrician's office because of a seizure after several days of increased lethargy and irritability. The parents state that the child rolled off the couch, fell on the floor, hit his head, and began shaking. The child has been previously healthy and is up to date on his vaccinations. He has been meeting his development milestones. His fontanelles are full. Which of the following is the next appropriate step?

- A. Obtain a head computerized tomography scan
- B. Perform a retinoscopic examination/////
- C. Check serum levels of ammonia
- D. Administer intravenous benzodiazepines
- E. Perform a lumbar puncture

80.

A patient is brought to a psychiatrist after being persuaded by her family to get help. She describes that she thought she was depressed. She feels empty and guilty for not having any feelings for her children. She notices that mornings are the worst. Later in the day, she is able to do some things. In the mornings, however, she stays in bed late and, even though she has never been lazy, she is unable to do anything. She falls asleep quickly at night, but wakes up at 4 AM and is unable to get back to sleep. She is sure there isn't anything that could cheer her up, even for a short time. Which of the following is the most likely diagnosis?

- A. Catatonia
- B. Cotard's syndrome
- C. Dysthymia
- D. Major depression with atypical features
- E. Major depression with melancholic features/////

81.

A 55-year-old man is brought to the emergency department because of increasing

incoherence over the past 24 hours. He has a history of hypertension and diabetes. He is disoriented. On physical examination, he is afebrile. His blood pressure is 230/130 mm Hg, pulse is 120/min, and respirations are 24/min. He has an S4 on cardiac examination. The patient is placed on a cardiac monitor, and IV and intraarterial lines are placed. A head CT scan shows no mass or bleed. Which of the following is the most appropriate next step in management?

- A. Observe in a quiet room
- B. Check chemistry for an anion gap
- C. Administer a beta blocker
- D. Administer sodium nitroprusside/////
- E. Perform a lumbar puncture

82.

A 7-year-old child is brought in for evaluation because he has developed diplopia. Examination shows right-sided unilateral esotropia, as well as right-sided facial weakness, which includes the forehead. An MRI scan shows marked enlargement of the pons, displacing but not occluding the fourth ventricle. Which of the following is the most likely diagnosis?

- A. Brain stem glioma/////
- B. Craniopharyngioma
- C. Ependymoma
- D. Medulloblastoma
- E. Meningioma

83.

A 63-year-old woman is admitted to the hospital after an acute inferior myocardial infarction. She is noted to be oliguric, and has a blood pressure of 80/55 mm Hg. A Swan-Ganz catheter is placed, revealing a diminished pulmonary capillary wedge of 4 mm Hg, normal pulmonary artery pressure of 22/4 mm Hg, and an increased mean right atrial pressure of 11 mm Hg. Which of the following is the most appropriate next step in management?

- A. Balloon angioplasty
- B. Digoxin
- C. Fluids/////
- D. Intraaortic balloon counterpulsation
- E. Vasopressors

84.

A 52-year-old man with a history of emphysema spends a 2-week vacation on a cruise ship. Shortly after returning home, he develops high fevers and becomes lethargic and disoriented. His wife describes that he has been coughing and short of breath since returning home. She also describes that he has vomited several times over the past 48 hours and has had diarrhea. On physical examination, he appears lethargic but arousable. He is disoriented to the current date. He has loud, coarse, rhonchi in both lung fields. His abdominal examination reveals mild tenderness over the liver edge. There is no splenomegaly or ascites present. His neurologic examination is nonfocal. Laboratory results are notable for an aspartate aminotransferase (AST) of 112 U/L and an alanine aminotransferase (ALT) of 157 U/L. Which of the following is the most appropriate treatment for this patient?

- A. IV ceftazidime
- B. IV erythromycin/////
- C. IV gentamicin

- D. IV nafcillin
- E. IV vancomycin

85.

An otherwise healthy 5-year-old boy is brought to the emergency department of a small hospital because of a simple 3-cm laceration in his forehead. The patient is crying and frightened. The practitioner decides to perform conscious sedation before suturing the laceration. Support personnel and equipment are available for monitoring the patient's vital status and carrying out resuscitation measures if needed. Which of the following is the most appropriate pharmacologic agent to achieve a safe level of conscious sedation in this situation?

- A. Oral or rectal midazolam or diazepam/////
- B. Concomitant opioid and benzodiazepine administration
- C. Intravenous propofol
- D. Intravenous ketamine

86.

A 29-year-old woman comes to her new primary care physician requesting medication to help with her recent spells of anxiety and depression. She wishes to be started on a medication that will not cause too much sedation. Examination of the patient's old records reveals two previous suicide attempts by overdose, once with acetaminophen at age 16 and another, with aspirin, during college. She is otherwise healthy and does not smoke cigarettes or drink alcohol. She is not currently taking any medication. Given this history, which of the following antidepressant medications would most likely be contraindicated for this patient?

- A. Buspirone
- B. Fluoxetine
- C. Nortriptyline////////
- D. Paroxetine
- E. Sertraline

87.

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88.

A 35-year-old woman, gravida 3, para 2, at 39 weeks' gestation, comes to the labor and delivery ward with contractions. Past obstetric history is significant for two normal spontaneous vaginal deliveries at term. Examination shows the cervix to be 4 centimeters dilated and 50% effaced. The patient is contracting every 4 minutes. Over the next 2 hours the patient progresses to 5 centimeters dilation. An epidural is placed. Artificial rupture of membranes is

performed, demonstrating copious clear fluid. 2 hours later the patient is still at 5 centimeters dilation and the contractions have spaced out to every 10 minutes. Which of the following is the most appropriate next step in management?

- A. Expectant management
- B. Intravenous oxytocin////
- C. Cesarean delivery
- D. Forceps-assisted vaginal delivery
- E. Vacuum-assisted vaginal delivery

89.

A 57-year-old woman comes to the emergency department because of abdominal pain. She states that the pain is sharp in nature, constant, nonradiating, unchanged with position, and does not improve with acetaminophen. She also complains of a low-grade fever with chills but no vomiting. She has had 2 similar episodes in the past that required hospitalization and intravenous antibiotics. Her temperature is 38.5 C (101.3 F), blood pressure is 121/77 mm Hg, and pulse is 104/min. On physical examination, she is diaphoretic and lying motionless. Her abdomen is nondistended with decreased bowel sounds. There is tenderness with rebound and guarding in the left lower quadrant. Pelvic examination reveals discomfort in the left lower quadrant, and the cervix cannot be palpated. White blood cell count is elevated. Which of the following is the most likely diagnosis in this patient?

- A. Acute appendicitis
- B. Acute diverticulitis/////
- C. Acute pancreatitis
- D. Pelvic inflammatory disease
- E. Renal colic

90.

A 7-year-old boy is brought to the emergency department in acute distress. His parents explain that over the past 3 to 4 days he has become progressively ill with generalized fatigue and mild, mid-abdominal pain that have become steadily worse. On physical examination he has a maculopapular rash on his thighs and feet with some spread of the rash to his buttocks. The rash does not blanch and the some lesions near the ankles look petechial or bruised. His temperature is 39.0 C (102.2 F) and he is drawing his knees to his chest for relief of his stomach pains. He is nauseated and vomited once before coming to the hospital. He has semi-soft dark stool, which is positive for occult blood. The boy has not voided since early morning and is unable to provide a urine sample. The physician determines that the boy is 10% dehydrated and asks the nurse to start intravenous fluids. Which of the following is the most likely diagnosis?

- A. Pancreatitis
- B. Rocky Mountain spotted fever
- C. Nephrotic syndrome
- D. Henoch-Schönlein Purpura/////

91.

A 52-year-old man is discharged from the hospital after an uncomplicated myocardial infarction. Several weeks later, he visits his primary care physician complaining of insomnia, anorexia, and depressed mood. He appears to be clinically depressed. He denies any current chest pain or shortness of breath. Which of the following would be the most appropriate medication to initiate for this patient?

- A. Methylphenidate
 - B. Nortriptyline
 - C. Phenzelzine
 - D. Sertraline/////
 - E. Thioridazine
- 92.

A 34-year-old woman comes the physician because of lower abdominal cramping. The cramping started 2 days ago. Examination is unremarkable except for a pelvic examination that reveals a 10-week sized uterus. Urine hCG is positive, and pelvic ultrasound reveals a 10-week intrauterine pregnancy with a fetal heart rate of 160. The patient states that she is not sure whether to keep the pregnancy. Which of the following is the most appropriate next step in management?

- A. Counsel the patient or refer to an appropriate counselor.....///
- B. Notify the patient's parents
- C. Notify the patient's partner
- D. Schedule a termination of pregnancy
- E. Tell the patient that she is likely to have a miscarriage

93.

A 64-year-old man has been having bloody bowel movements for 2 days. He reports to the emergency department, and while waiting to be seen he has another large evacuation of dark red blood. His blood pressure is 90/70 mm Hg and pulse is 110/min. He has a hemoglobin level of 9 mg/dL. In the initial evaluation a nasogastric tube is inserted and aspiration produces clear, green fluid without blood. Digital rectal examination and anoscopy show that there is blood in the rectal vault, but does not identify a source. Which of the following is the most appropriate diagnostic study at this time?

- A. Colonoscopy
- B. Barium enema
- C. Tagged red-cell study/////
- D. Upper gastrointestinal barium studies
- E. Upper gastrointestinal endoscopy

94.

A 49-year-old man with a history of hypertension comes to the emergency department complaining of severe chest pain. Laboratory studies and an electrocardiogram are consistent with an anterior wall myocardial infarction. He is given thrombolysis with complete resolution of symptoms. Echocardiography shows an ejection fraction of 52%. A pre-discharge stress test shows no symptoms or electrocardiographic evidence of ischemia with maximal effort. Two weeks later he comes to his physician's office to discuss further therapies. Which of the following therapies has been shown to increase survival in this situation?

- A. Angiotensin-converting enzyme inhibitor
- B. Beta blocker/////
- C. Digoxin
- D. Loop diuretic
- E. Warfarin

95.

A 5-year-old boy suffers from a condition characterized by recurrent fungal and viral infections, thymic hypoplasia, tetany, and abnormal facies. Serum levels of immunoglobulins are mildly

depressed, and lymph node biopsy shows lymphocyte depletion of T-dependent areas. Which of the following is the underlying pathogenetic mechanism?

- A. Developmental defect of the third/fourth pharyngeal pouches////////
- B. In utero infection by human immunodeficiency virus (HIV)
- C. Mutations of an autosomal gene encoding adenosine deaminase
- D. Mutations of an X-linked gene coding for a cytokine receptor subunit
- E. Mutations of an X-linked gene coding for a tyrosine kinase

96.

A 4th-year medical student is performing a mental status examination on a 78-year-old man who was brought to the clinic because of a recent cognitive decline. The attending physician believes that the patient's presentation is consistent with Alzheimer disease. The medical student asks the patient what he would do if he found someone else's social security check mixed in with his own mail at home. Which of the following is the student testing in the mental status examination by asking this question?

- A. Abstract thinking
- B. Cognition
- C. Insight
- D. Intelligence
- E. Judgment////////

97.

A 39-year-old woman, gravida 3, para 2, at 18 weeks' gestation, comes to the physician for a prenatal visit and to receive the results from her amniocentesis. She had nausea and vomiting up to 14 weeks' gestation, but her prenatal course has otherwise been uncomplicated. Her obstetric history is significant for term cesarean delivery times two. She has no medical problems. She takes prenatal vitamins and has no known drug allergies. She is informed that her amniocentesis shows that her fetus has trisomy 21 (Down syndrome). Which of the following is the most likely cause of Down syndrome in this case?

- A. Meiotic nondisjunction////////
- B. Mosaicism
- C. Polyploidy
- D. Robertsonian translocation
- E. Turner syndrome

98.

A 45-year-old man with alcoholic cirrhosis is bleeding from a duodenal ulcer. He has required 6 units of blood over the past 8 hours, and all conservative measures to stop the bleeding, including irrigation with cold saline, intravenous vasopressin, and endoscopic use of the laser have failed. He is being considered for surgical intervention. Laboratory studies done at the time of admission, when he had received only one unit of blood, showed a bilirubin of 4.5 mg/dL, a prothrombin time of 22 seconds, and a serum albumin of 1.8 g/dL. He was mentally clear when he came in, but has since then developed encephalopathy and is now in a coma. Which of the following best describes his operative risk?

- A. Acceptable as he now is
- B. Amenable to improvement if he receives vitamin K
- C. Amenable to improvement if he is given albumin
- D. Prohibitive unless he is dialyzed to normalize his bilirubin
- E. Prohibitive regardless of attempts to improve his condition////////

99.

A 22-year-old man comes to the emergency department complaining of weakness. He reports a 3-day history of weakness and tingling in his legs, which has since progressively involved his upper body to the point where he had trouble dialing 911 on his telephone. He is now having trouble taking deep breaths and is worried that he will die. His past medical history is significant for human immunodeficiency virus (HIV), with a last CD4 T-cell count of 750 cell/mm³. There is no past history of opportunistic infections, and the man reports being quite healthy, despite his HIV-positive status. Vital signs are within normal limits, except for a respiratory rate of 30/min. Physical examination is remarkable for profound weakness in his lower extremities and torso, with normal cranial nerves and moderately reduced strength in his upper extremities. Deep tendon reflexes are absent in his lower extremities and reduced in his upper extremities. All findings are symmetrical. A lumbar puncture is performed. Cerebrospinal fluid (CSF) analysis is likely to show which of the following?

- A. Increased opening pressure
- B. Increased total protein////////
- C. Increased white blood cells
- D. Low glucose
- E. Presence of red blood cells

100.

A 9-year-old boy is sent home from school because of sudden development of fever, headache, muscle pain, and malaise. His parents take him home and initiate over-the-counter cold medication that provides minor relief. The next morning the boy complains of pain in his neck, and when the mother realizes he has a large swelling on the right side of his jaw line and neck, she takes him to the emergency department for evaluation. He is in moderate distress and complains of generalized muscle pain and headache. His temperature is 39.0 C (102.2 F) and pulse is 110/min. Physical examination of the oral mucosa shows erythema and edema surrounding the right Stensen canal and no other significant change. On the right mandibular angle there is a tender, firm, nonmobile mass that extends from the lower end of the ear to the midneck area. The mass is identified as an enlarged parotid gland. Which of the following complications would be most likely to develop in this patient?

- A. Arthritis
- B. Dacryoadenitis
- C. Infertility
- D. Meningoencephalomyelitis////////
- E. Orchitis