

Structured Board Review 1311 Adults 42-51; Cardio 20-24; Child. 21-25; Skin 16-20; Inf. Dis. 11-12; Endo 16-19

Adults

42. A 62-year-old patient with pneumonia has been bedridden for 6 days. There is unilateral calf swelling 4 cm below the tibial tuberosity and unilateral pitting edema. There is localized tenderness along the distribution of deep veins. Which of the following tests is indicated first?
- A. D-dimer assay.
  - B. Doppler compression ultrasound of affected extremity.
  - C. Venogram of affected extremity.
  - D. Magnetic resonance imaging study of affected extremity.
  - E. Immediate anticoagulation without additional diagnostic testing.
43. A 26-year-old patient develops an idiopathic deep venous thrombosis (DVT) during pregnancy. After the course of anticoagulation, you should obtain measurements of which of the following:
- A. Homocysteine level.
  - B. Factor VIII activity.
  - C. Antithrombin III level.
  - D. None of the above; a thrombophilic state is unlikely when DVT is caused by trauma, surgery, immobilization, or pregnancy.
44. A patient has hypertension and insulin-dependent diabetes. Serum creatinine is 2.2 mg/dL. Before surgery for repair of an abdominal aortic aneurysm, he undergoes pharmacologic stress testing, which is interpreted as negative for cardiac ischemia. According to the American College of Cardiology/American Heart Association guidelines, at least 2 weeks before his operation the patient should start taking:
- A. Aspirin.
  - B. A beta blocker.
  - C. An angiotensin-converting enzyme inhibitor.
  - D. A diuretic.
  - E. Low-molecular-weight heparin.
45. Which of the following has been demonstrated to improve perioperative outcomes?
- A. Maintaining glucose levels between 70 to 110 mg/dL after major cardiovascular surgery.

- B. Screening pulmonary status in all patients with a preoperative arterial blood gas evaluation.
  - C. Restricting lung expansion in patients with risk factors for postoperative pulmonary complications.
  - D. Ordering routine decompression after abdominal surgery.
46. Because of the risk of hypoglycemia and bleeding, which of the following herbs should be discontinued 7 days before surgery?
- A. *Echinacea angustifolia* (echinacea).
  - B. *Valeriana* (valerian root).
  - C. *Allium sativum* (garlic).
  - D. *Panax* (ginseng).
  - E. *Piper methysticum* (kava).
47. A patient with severe sepsis is admitted to the intensive care unit with the diagnosis of community-acquired pneumonia (CAP). You are aware he lives alone and has frequent contact with a local visiting nurse. Which of the following is the best choice for empiric treatment of CAP?
- A. Cefotaxime plus azithromycin plus gentamicin.
  - B. Ceftazidime plus levofloxacin plus vancomycin.
  - C. Imipenem-cilastatin plus levofloxacin.
  - D. Vancomycin plus ceftazidime.
  - E. Vancomycin plus ciprofloxacin.
48. You perform a cosyntropin stimulation test on a patient with septic shock. An hour after the administration of 250 mcg of cosyntropin, the serum cortisol level increases by 8 mcg/dL above baseline. You should administer:
- A. Hydrocortisone 200 mg/day plus fludrocortisone 50 mcg/day.
  - B. Hydrocortisone 800 mg/day.
  - C. Prednisone 80 mg/day.
  - D. None of the above; this is a normal result and no additional steroid therapy is indicated.
49. A patient with skin and soft tissue infection has methicillin-resistant *Staphylococcus aureus* demonstrated on blood culture. Which of the following should be considered?

- A. Soft tissue x-ray.
- B. Transesophageal echocardiogram.
- C. Spiral chest computed tomography scan.
- D. Abdominal ultrasound.
- E. Bone scan.

50. A patient with unstable angina has continued ischemia. Primary coronary intervention is not available. You should administer:

- A. Urokinase.
- B. Recombinant tissue plasminogen activator.
- C. Eptifibatide.
- D. Vitamin E.
- E. Low-dose statin.

51. A patient experiences acute weakness of the right arm and leg. He notes gradual numbness with increasing weakness. He goes to the emergency department and within 70 minutes of symptom onset a head computed tomography scan is obtained, revealing no evidence of hemorrhage. The recommended intravenous treatment is:

- A. Recombinant tissue plasminogen activator.
- B. Streptokinase.
- C. Heparin.
- D. Nitroglycerin.
- E. Tirofiban.

## Cardio

20. Your patient with a history of pulmonary embolism develops increasing dyspnea without hypoxia and bilateral pedal edema. You are concerned about chronic thromboembolic pulmonary hypertension. Which one of the following would you obtain?

- A. A helical computed tomography scan.
- B. A ventilation-perfusion scan.

- C. An echocardiogram.
- D. A chest x-ray.
- E. No further diagnostic test is indicated.

21. If a patient with coronary artery disease develops rupture of an atherosclerotic plaque with subsequent formation of a nonocclusive clot, which one of the following conditions is most likely to occur?

- A. Chronic stable angina.
- B. Non-ST-segment elevation myocardial infarction (MI).
- C. ST-segment elevation MI.
- D. Type 4 MI.
- E. Vasospasm-induced angina.

22. Which one of the following conditions can produce a coronary artery embolus that results in myocardial infarction?

- A. Cardiomyopathy.
- B. Cocaine use.
- C. Disruption of a soft, cholesterol-rich plaque.
- D. Persistent rapid tachycardia.
- E. Stent thrombosis.

23. Which one of the following statements is correct about the initial dose of aspirin for patients with ST-segment elevation myocardial infarction?

- A. A single low-dose aspirin (81 mg) is the appropriate dose.
- B. Adding a nonsteroidal anti-inflammatory drug further increases benefit.
- C. Aspirin is not necessary if the patient already took aspirin earlier in the day.
- D. It should be chewed before swallowing.
- E. It should not be given to patients who will receive fibrinolytic therapy.

24. When treating a patient with an acute coronary syndrome, in which one of the following situations should you administer beta blockers

intravenously instead of orally?

- A. Patients with an acute coronary syndrome should always receive beta blockers intravenously.
- B. When a patient has acute heart failure.
- C. When a patient has bronchospasm.
- D. When a patient has ongoing ischemia and significant hypertension.
- E. When the PR interval is prolonged, using a short-acting intravenous drug.

## Children

21. Which one of the following features is most helpful in distinguishing gastroesophageal reflux, or infant regurgitation, from gastroesophageal reflux disease in young children?
- A. Symptom onset before 3 months of age.
  - B. Two to three episodes of regurgitation (spitting up) daily for 2 weeks.
  - C. Demonstrated passage of gastric contents into the oropharynx on esophageal pH monitoring.
  - D. Increased reflux with supine position and/or increased intra-abdominal pressure.
  - E. Food refusal and/or inadequate weight gain.
22. Which one of the following statements about investigation of childhood gastroesophageal reflux disease (GERD) is most accurate?
- A. History and physical examination typically are sufficient for diagnosis.
  - B. An upper gastrointestinal (GI) tract x-ray series is an effective diagnostic tool for GERD.
  - C. In children younger than 1 year, reflux indices of up to 20% can be normal.
  - D. Upper GI tract endoscopy is an effective diagnostic tool for GERD.
  - E. Scintigraphy cannot detect nonacidic refluxate.
23. Which one of the following has the most evidence of effectiveness as a component of conservative therapy for gastroesophageal reflux disease?
- A. Thickening feedings with dry rice cereal.
  - B. Positional therapy.

- C. Supine sleeping position.
- D. Sleeping on the right side.

24. Which one of the following statements about pharmacotherapy for gastroesophageal reflux disease is true?

- A. Even in high doses, antacids are less effective than cimetidine.
- B. Both proton pump inhibitors (PPIs) and histamine<sub>2</sub>-receptor antagonists (H<sub>2</sub>RAs) require multiple daily dosing.
- C. Prokinetic agents reduce lower esophageal sphincter pressure.
- D. PPIs are more effective in relieving symptoms and healing esophagitis than H<sub>2</sub>RAs.
- E. Antacids are appropriate for long-term therapy in children.

25. Common adverse effects of omeprazole therapy for children with gastroesophageal reflux disease include which one of the following?

- A. Bradycardia.
- B. Headache.
- C. Rash.
- D. Wheezing (asthma).
- E. Constipation.

## Skin

16. Which one of the following types of burns is associated with delayed pain onset and increased depth due to cell dehydration after injury?

- A. Low-voltage electrical burn.
- B. Acid chemical burn.
- C. Alkali chemical burn.
- D. Thermal burn.
- E. High-voltage electrical wound.

17. A patient presents to the emergency department with a painful burn covering most of the palm of the left hand. The skin is pink with brisk capillary refill. There are several areas of blistering but no eschar. This burn depth and total body surface area (TBSA) would be classified as

which one of the following?

- A. First-degree burn, TBSA approximately 1%.
- B. Second-degree burn (superficial partial thickness), TBSA approximately 1%.
- C. Second-degree burn (deep partial thickness), TBSA approximately 1%.
- D. Second-degree burn (superficial partial thickness), TBSA approximately 9%.
- E. Third-degree burn, TBSA approximately 1%.

**18.** According to American Burn Association guidelines, which one of the following factors is an indication for referral to a burn center?

- A. Any chemical or electrical burn.
- B. Third-degree burn.
- C. Inhalation injury.
- D. Partial-thickness burn of greater than 10% of the total body surface area.
- E. All of the above.

**19.** A 5-year-old child presents to your office for a 2-week follow-up after experiencing a deep partial-thickness scald burn on the arm. The wound shows little evidence of healing. Which one of the following should be the next step in management?

- A. Nonbiologic topical dressing.
- B. Skin substitute.
- C. Pressure garment.
- D. Referral for surgical evaluation.
- E. Debridement and 1-week follow-up.

**20.** Hypertrophic scars are common in patients with deep and slow-healing burns and can be disfiguring and disabling. Which one of the following factors is critical in minimizing scarring?

- A. Preventing infection.
- B. Surgical referral if nonhealing in 4 to 6 weeks.
- C. Pressure garments.

- D. Splinting.
- E. All of the above.

## Infectious Disease

11. Which one of the following is the primary goal of highly active antiretroviral therapy?
- A. Decrease the number of hospitalizations per patient.
  - B. Suppress viral load to the lowest level possible.
  - C. Eliminate human immunodeficiency virus from the body.
  - D. Prevent development of resistant viral strains.
  - E. Decrease the risk of protease inhibitor-associated hyperlipidemia.
12. According to current guidelines, which one of the following constitutes a typical drug regimen for the treatment-naive patient starting highly active antiretroviral therapy?
- A. Three drugs from the same class.
  - B. Four drugs, at least two of which are from the same class.
  - C. Three drugs from two different classes.
  - D. Three drugs, each from a different class.
  - E. One drug from one class and one drug from another class.

## Endo

16. A hospitalized patient with diabetes and chronic lung disease who is taking metformin is most at risk of:
- A. Prolongation of the QT interval.
  - B. Congestive heart failure.
  - C. Lactic acidosis.
  - D. Hypoglycemia.
  - E. Constipation.

17. Which one of the following is the drug of choice to treat hypertension in a 52-year-old patient with diabetes and a blood pressure level of 152/94 mm Hg?
- A. Propranolol.
  - B. Nifedipine.
  - C. Amlodipine.
  - D. Hydrochlorothiazide.
  - E. Lisinopril.
18. Despite treatment with the first antihypertensive choice, the blood pressure level of a 52-year-old patient with type 2 diabetes is 140/86 mm Hg. You estimate a glomerular filtration rate of greater than 50 mL/min. You should prescribe which one of the following?
- A. Propranolol.
  - B. Nifedipine.
  - C. Amlodipine.
  - D. Hydrochlorothiazide.
19. You diagnose type 2 diabetes in a 38-year-old patient. When should the patient be referred for a dilated comprehensive eye examination?
- A. When he reaches age 40 years.
  - B. In 1 year.
  - C. In 3 years.
  - D. In 5 years.
  - E. As soon as possible.