

Structured Board Review 1401 Questions: Adult 61-70; Cardio 30-32; Children 31-36; MSK 14-20; Skin 6-10.

Adults

61. Which one of the following statements about illness in international travelers is true?
- A. Approximately 75% develop some health condition during travel.
 - B. An estimated 25% seek medical help during or after travel.
 - C. Approximately 15% are incapacitated by a travel-related condition.
 - D. The most common cause of illness in travelers is exacerbation of a preexisting health condition.
 - E. Pretravel consultation with a family physician can significantly reduce the incidence of travel-related health conditions.
62. Which one of the following can be associated with scuba diving in certain locations?
- A. Coral injury.
 - B. *Leptospira interrogans*.
 - C. *Giardia*.
 - D. *Schistosoma*.
 - E. *Naegleria*.
63. Which one of the following statements about insect repellants is most accurate?
- A. Citronella oil is effective for at least 2 hours.
 - B. Lemon eucalyptus oil is recommended for infants and children younger than 3 years.
 - C. *N*-butyl-*N*-acetyl-aminopropionate (IR3535) has comparable effectiveness to *N,N*-diethyl-3-methylbenzamide (DEET).
 - D. Picaridin has comparable effectiveness to DEET
 - E. Permethrin can be used safely on skin as an alternative to DEET
64. Which one of the following statements about travel-related vaccines is most accurate?
- A. Polio vaccine can be administered to US travelers either orally or intramuscularly.

- B. Hepatitis A immunization requires a booster every 5 years.
 - C. Influenza vaccine has the greatest potential to prevent travel-related infections.
 - D. Oral typhoid vaccine is not affected by concomitant use of antibiotics.
 - E. Hepatitis A vaccine provides protection for travel within 5 days.
- 65.** Which one of the following drugs for malaria prophylaxis is most advisable for a traveler intending to visit the Angkor Wat temples in Cambodia?
- A. Chloroquine.
 - B. Mefloquine.
 - C. Atovaquone-proguanil.
 - D. Quinine.
 - E. Pyrimethamine-sulfadoxine.
- 66.** Which one of the following statements about prophylaxis of travel-related diarrhea is most accurate?
- A. The Centers for Disease Control and Prevention recommends routine antibiotic prophylaxis for travelers to specified areas because of the high incidence of traveler's diarrhea (TD).
 - B. Bismuth subsalicylate should not be used when doxycycline is taken for malaria chemoprophylaxis.
 - C. Oral cholera vaccine does not provide protection against enterotoxigenic *Escherichia coli*.
 - D. The efficacy rate for antibiotics ranges from 15% to 40%
 - E. Ciprofloxacin is recommended for TD prophylaxis in individuals traveling to Southeast Asia.
- 67.** Which one of the following antimalarial drugs is considered safe for pregnant women?
- A. Chloroquine.
 - B. Mefloquine.
 - C. Atovaquone-proguanil.
 - D. Doxycycline.
 - E. Primaquine.

68. Which one of the following is appropriate advice for a patient with diabetes who will be traveling overseas?
- A. Arrangements should be made with the airline to refrigerate insulin during flights longer than 6 hours.
 - B. Insulin that is not required during the flight should be packed in checked luggage.
 - C. Travel across up to five time zones usually does not require insulin adjustment.
 - D. Hypoglycemic drugs should be taken regularly in the departure time zone (home time) because of circadian fluctuations in blood glucose.
 - E. Hyperglycemia is the most common travel-related condition experienced by individuals with diabetes.

69. Which one of the following statements about travel for individuals with cardiopulmonary conditions is most accurate?
- A. Approximately 30% of deaths during air travel are caused by cardiac events.
 - B. Automated external defibrillators are only carried on US flights lasting longer than 4 hours.
 - C. Patients may fly 10 days after an uncomplicated myocardial infarction.
 - D. In-flight oxygen is recommended for individuals with resting PaO₂ of less than 70 mm Hg.
 - E. Walking 27 m (30 yd) at a normal pace without severe dyspnea usually indicates a patient is physically fit enough to fly.

70. Which one of the following statements about air travel for individuals with medical conditions is most accurate?
- A. No special medical arrangements are necessary for patients with homozygous sickle cell anemia flying in pressurized aircraft.
 - B. In-flight medical oxygen does not require a prescription.
 - C. Benzodiazepines can be used to manage jet lag during retroviral therapy.
 - D. Modern ostomy devices do not require any adjustments for flights in pressurized aircraft.
 - E. Freshly applied casts should be bivalved before long flights.

Cardio

30. Your patient has experienced an acute coronary syndrome. He will undergo coronary angiography with possible stent placement for which he will require dual antiplatelet therapy with aspirin and clopidogrel. He has a long history of gastroesophageal reflux and takes a proton-pump inhibitor (PPI). Which one of the following statements about PPIs and stents applies to your patient?
- A. The interaction between PPIs and clopidogrel is insignificant if PPIs are taken in low doses or at separate times of day from clopidogrel.
 - B. The rate of stent occlusion is higher among patients taking both a PPI and clopidogrel.

- C. The suspected interaction between PPIs and clopidogrel has been found to be clinically insignificant.
- D. There is an interaction between PPIs and all thienopyridine drugs, so substitution of prasugrel for clopidogrel offers no advantage.
31. Which one of the following conditions represents a high-risk clinical presentation of non-ST-segment elevation myocardial infarction (MI), thus requiring urgent revascularization?
- A. Chronic kidney disease.
- B. Clinical heart failure or cardiogenic shock.
- C. Severe hypertension.
- D. Age older than 34 years.
- E. Second MI.
32. You are asked to consult on a case in which the patient is being admitted to the hospital with non-ST-segment elevation myocardial infarction. The patient is being considered for percutaneous coronary intervention (PCI) (ie, angiography, stent placement), but the patient has diabetic nephropathy with a mildly elevated creatinine level. You are asked about the advantages and disadvantages of going ahead with the procedure. Which one of the following statements about management of this patient is most accurate?
- A. Angiography is contraindicated for this patient.
- B. Contrast nephropathy is unavoidable, even with preprocedure hydration and administration of *N*-acetylcysteine.
- C. Despite the risk of contrast nephropathy, PCI in patients with chronic kidney disease (CKD) is beneficial and results in a decreased number of hospitalizations.
- D. Patients with CKD who undergo angiography are more likely to die.
- E. Regardless of whether PCI is performed, patients with an acute coronary syndrome (ACS) and CKD have the same rate of mortality as patients with ACS and no CKD.

Children

31. Which one of the following statements about chronic constipation is most accurate?
- A. Chronic constipation is more common in young girls than boys.
- B. Fecal incontinence occurs with equal frequency in girls and boys.
- C. In children younger than 4 years, symptoms of functional constipation must be present for 1 month to meet diagnostic criteria.
- D. Encopresis typically is voluntary.
- E. Constipation usually manifests in infants as straining and crying with normal bowel movements.

32. Which one of the following features is a red flag sign/symptom in the evaluation of a 5-year-old child reporting constipation?
- A. Fecal soiling.
 - B. Fever.
 - C. Straining with defecation.
 - D. Painful defecation.
 - E. Abdominal pain.
33. In the absence of red flag signs and symptoms on history and physical examination, the assessment of all children with functional constipation should include which one of the following?
- A. Assessment of anal wink.
 - B. Anorectal manometry studies.
 - C. Abdominal x-ray.
 - D. Serum calcium levels.
 - E. Thyroid-stimulating hormone and studies of thyroid function.
34. Recommended lifestyle changes for children with functional constipation include which one of the following?
- A. Reduction in total calorie intake.
 - B. Daily fiber intake equivalent to age + 2 g.
 - C. Change to low-iron formula.
 - D. Consumption of pear juice.
 - E. Restriction of fluids after 4 pm.
35. Which one of the following statements about maintenance therapy for constipation in children is correct?
- A. Maintenance therapy with regular laxatives should continue for up to 2 months following disimpaction for chronic constipation.
 - B. Lactulose may cause increased abdominal discomfort due to fermentation by intestinal bacteria.
 - C. Community-based studies show that stimulant laxatives (eg, senna) are more effective than osmotic agents.
 - D. Children tolerate lactulose well because of the absence of taste or smell.

36. Which one of the following features most strongly suggests a diagnosis of irritable bowel syndrome in a child with recurrent abdominal pain?

- A. Severe cramping pain at least once per week.
- B. Symptoms lasting for at least 2 months.
- C. Symptoms that interfere with daily activities.
- D. Pain that is decreased with defecation.

Musculoskeletal

14. Which one of the following drugs is typically preferred for induction and maintenance treatment of lupus nephritis?

- A. Cyclophosphamide.
- B. Cyclosporine.
- C. Methotrexate.
- D. Mycophenolate mofetil.

15. Tumor necrosis factor (TNF) inhibitors are effective treatments for many connective tissue diseases, and they are widely used to treat rheumatoid arthritis. Which one of the following explains reluctance to use them to treat systemic lupus erythematosus (SLE)?

- A. Not all patients with SLE have arthritis.
- B. TNF inhibitors block the action of glucocorticoids.
- C. TNF inhibitors increase autoantibody production and may cause lupus-like syndromes.
- D. TNF inhibitors often cause nephritis.

16. Which one of the following is measured with a durometer in patients with scleroderma?

- A. Fingertip capillary dilation/constriction.
- B. Pulmonary fibrosis at the lung base.
- C. Skin elasticity.
- D. Skin thickness.

17. A 30-year-old woman has symptoms consistent with Raynaud phenomenon. You use an ophthalmoscope to examine the fingers and the capillaries in the nail folds. You find a single engorged capillary. Which one of the following is the most appropriate response to this finding?
- A. Ignore it; a single engorged capillary is of no significance.
 - B. Obtain testing for anti-double-stranded DNA antibodies.
 - C. Proceed with further testing for scleroderma.
 - D. Treat the symptoms of Raynaud phenomenon and repeat the capillary examination in 6 months.
18. Which one of the following is the most common cause of mortality among patients with scleroderma?
- A. Infected cutaneous ulcers.
 - B. Pulmonary disease.
 - C. Renal failure.
 - D. Sepsis.
19. In patients with scleroderma, which one of the following is the risk associated with short-term steroid therapy for inflammatory joint symptoms?
- A. Acute worsening of lung function.
 - B. Increase in symptoms of Raynaud phenomenon.
 - C. Increased risk of renal crisis.
 - D. Ineffective treatment with progression of joint pathology.
20. Which one of the following is the first-line drug therapy for Raynaud phenomenon in patients with scleroderma?
- A. Angiotensin-converting enzyme inhibitor.
 - B. Calcium channel blocker.
 - C. Hydralazine.
 - D. Iloprost.

Skin

6. A patient with diabetes and an uninfected plantar left foot ulcer returns to your office for follow-up. Despite appropriate dressings, the ulcer shows no improvement. You are concerned the patient might have peripheral artery disease (PAD), causing delayed healing. In addition to

assessing pulses, which one of the following should you perform next to rule out PAD?

- A. Magnetic resonance angiography.
- B. Ankle or toe-brachial index measurement.
- C. Transcutaneous oxygen measurement.
- D. Referral for assessment by a vascular surgeon.
- E. Angiography.

7. By combining grade and stage of diabetes-related foot ulcers, the University of Texas classification system has greater predictive ability than the Wagner classification system. Grade refers to depth of penetration (no open lesion versus penetrating to tendon or capsule versus bone and joint). Stage addresses which one of the following?

- A. Presence or absence of gangrene.
- B. Infection and ischemia.
- C. Ischemia and duration of wound.
- D. Presence of infection and gangrene.
- E. Ulcer size.

8. A patient with a diabetes-related forefoot ulcer continues to experience slow healing despite use of rocker outsoles to try to reduce forefoot peak pressure. Which one of the following has the strongest evidence supporting its effectiveness in offloading ulcers?

- A. Total contact casting.
- B. Half shoes.
- C. Splinting.
- D. Felted-foam dressing.
- E. Custom insoles with metatarsal pads and arch support.

9. In addition to local drug-resistance patterns, patient allergies, renal status, and hepatic function, which one of the following should be considered in choosing outpatient antibiotic therapy for an infected diabetes-related ulcer?

- A. Swab culture testing of the wound.
- B. An oral fluoroquinolone.
- C. Deep tissue culture test results from the base of the debrided wound.

D. Oral amoxicillin-clavulanic acid.

E. Oral cephalexin.

10. A 62-year-old woman with a chronic diabetes-related right foot ulcer presents to your office with increased pain in the right foot. You are concerned she might have osteomyelitis. Which of the following should be performed for osteomyelitis assessment?

A. X-rays and magnetic resonance imaging study.

B. Computed tomography scan.

C. Technetium 99m 3-phase bone scan.

D. Indium-111-labelled white blood cell scan.

E. Nuclear imaging.