

Structured Board Review 1407 Questions –Adults 1-10; Cardio 1-5; Child.1-5; Psycogenic 27-31; Special Sensory 1-6

Adults

1. A patient's serum creatinine level has increased twofold from baseline in 48 hours. Urinary output has been less than 0.5 mL/kg per hour for more than 6 hours. Which one of the following accurately classifies this patient's renal status?
 - A. RIFLE (Risk, Injury, Failure, Loss, End-stage renal disease) Risk stage.
 - B. Acute Kidney Injury Network (AKIN) stage 1.
 - C. RIFLE Injury stage.
 - D. AKIN stage 3.
 - E. RIFLE Failure stage.

2. Which one of the following patients in an intensive care unit is at greatest risk of developing acute kidney injury?
 - A. A patient with persistent hypovolemia.
 - B. A patient with poorly controlled diabetes.
 - C. A patient with cardiogenic shock.
 - D. A patient with septic shock.
 - E. A patient with persistent hypertension with blood pressure level greater than 140/90 mm Hg.

3. Which one of the following is the most common etiology of intrinsic acute kidney injury?
 - A. Acute tubular necrosis.
 - B. Autoimmune nephritis.
 - C. Renal vasculitis.
 - D. Hypertension.
 - E. Thromboemboli.

4. Which one of the following statements about fluid therapy in acute kidney injury (AKI) is accurate?
 - A. Patients with oliguric AKI typically have worse prognoses than patients with nonoliguric AKI.

- B. Half-normal saline is the fluid of choice for patients with hypovolemia.
- C. There is strong evidence for effectiveness of mannitol in treatment of AKI.
- D. Use of low-dose dopamine is indicated in children with AKI.
- E. Studies have consistently shown benefits of diuretic therapy in treatment of AKI.

5. Which one of the following statements about hyperkalemia in acute kidney injury is accurate?

- A. In the presence of changes on electrocardiogram, a potassium level greater than 4.5 mmol/L indicates the need for dialysis.
- B. Initial therapy to stabilize cardiomyocytes requires administration of intravenous normal saline.
- C. Insulin therapy should be administered to remove potassium from the body.
- D. Beta₂-adrenergic drugs should be administered to remove potassium from the body.
- E. Ion exchange resins should be administered to remove potassium from the body.

6. Patients with which one of the following should be screened annually for chronic kidney disease (CKD)?

- A. Chronic hypertension.
- B. Family history of CKD.
- C. Type 2 diabetes.
- D. History of acute kidney injury.
- E. Active autoimmune disease.

7. Which one of the following is the most common etiology of end-stage renal disease?

- A. Diabetes.
- B. Hypertension.
- C. Drugs (iatrogenic).
- D. Chronic urinary tract infection.
- E. Renal artery stenosis.

8. Which one of the following statements accurately reflects the current recommendations for management of hypertension in patients with chronic kidney disease (CKD)?
- A. Angiotensin-converting enzyme (ACE) inhibitors or angiotensin receptor blockers (ARBs) should only be used in patients with CKD with blood pressure levels of 130/85 mm Hg or higher.
 - B. Significant elevation of serum creatinine (SCr) level (greater than 30% over baseline) during ACE inhibitor or ARB therapy should prompt consideration of renal artery stenosis.
 - C. ACE inhibitor or ARB therapy can be continued up to SCr levels of 10% over baseline.
 - D. ACE inhibitor or ARB therapy can be continued up to a serum potassium level of 6 mEq/L.
 - E. Thiazides are more effective than loop diuretics if the SCr level is elevated.
9. Which one of the following outcomes can be expected when statins are used in patients with chronic kidney disease?
- A. Increased glomerular filtration rates.
 - B. Decreased blood urea nitrogen levels.
 - C. Decreased proteinuria levels.
 - D. Increased low-density lipoprotein cholesterol levels.
 - E. Increased hepatic enzyme levels.
10. A patient with chronic kidney disease (CKD) is found to be anemic. Which one of the following statements is accurate regarding the care of this patient?
- A. Microscopic blood loss in the urine is the most common etiology of anemia in patients with CKD.
 - B. Diagnostic evaluation is not indicated until the hemoglobin level is 11 mg/dL or less.
 - C. Hemoglobin levels between 9.5 and 11.5 g/dL have been associated with better outcomes.
 - D. Hemoglobin levels greater than 13 mg/dL have been associated with better outcomes.
 - E. Erythropoietin-stimulating agents should be used as therapy for anemia in all patients with CKD.

Cardio

1. Your 55-year-old patient with colon cancer presents to the emergency department with dyspnea, but chest x-ray results are normal. There are no other clinical findings suggestive of pulmonary embolism (PE). Using the Wells Clinical Prediction Rule, you determine he has a low probability of PE. Which one of the following is true in ruling out PE in this patient?
- A. He should undergo computed tomography pulmonary angiography.

- B. He should undergo Doppler ultrasound of the lower extremities.
 - C. He should undergo ventilation-perfusion scan.
 - D. He should be allowed to return home if D-dimer test results are negative.
 - E. He should be allowed to return home without further testing.
2. The Wells Clinical Prediction Rule is a tool to help predict the probability of pulmonary embolism (PE). Which one of the following is true when using this tool?
- A. Treatment decisions can be made based on the score.
 - B. Patients with deep venous thrombosis may still have a low probability score.
 - C. A score of less than 2 points indicates a low probability of PE.
 - D. A score of more than 2 points indicates a high probability of PE.
 - E. None of the above.
3. A young, previously healthy woman presents to the emergency department with sudden onset of dyspnea and right calf swelling. She is currently taking oral contraceptive pills. You have a high clinical suspicion that she has a pulmonary embolism (PE). According to the American College of Chest Physicians, which one of the following is the best approach?
- A. Treat with anticoagulants; no further evaluation is necessary.
 - B. Treat with anticoagulants while imaging studies are performed.
 - C. Confirm PE with chest computed tomography scan and treat if results are positive.
 - D. Confirm PE with D-dimer test and treat if results are positive.
 - E. Confirm deep venous thrombosis with Doppler imaging and treat if results are positive.
4. Low-molecular-weight heparin (LMWH) is currently preferred for anticoagulation in acute pulmonary embolism. Which one of the following justifies use of LMWH?
- A. Doses are based on weight.
 - B. Therapeutic levels are reached quickly.
 - C. No routine laboratory monitoring is required.
 - D. The incidence of heparin-induced thrombocytopenia is lower than that with unfractionated heparin.

E. All of the above.

5. A 60-year-old woman presents to your office for follow-up after inpatient treatment for an idiopathic pulmonary embolism. The current dose of warfarin places her in the therapeutic range for preventing deep venous thrombosis and pulmonary embolism based on the international normalized ratio. Which one of the following should you recommend for the duration of anticoagulation?

A. Therapy with a vitamin K antagonist (VKA) for 3 months.

B. Therapy with a VKA for 3 months and consideration of long-term VKA anticoagulation.

C. Therapy with a VKA for 6 months.

D. Therapy with a VKA for 6 months and consideration of long-term VKA treatment.

E. Therapy with a VKA for 9 months.

Children

1. You are aware that your community has a significant prevalence of intermediate *Streptococcus pneumoniae* resistance. Which of the following doses is most appropriate in treating a child with acute sinusitis?

A. Amoxicillin 30 mg/kg per day in two divided doses.

B. Amoxicillin 45 mg/kg per day in two divided doses.

C. Amoxicillin 60 mg/kg per day in two divided doses.

D. Amoxicillin 90 mg/kg per day in two divided doses.

E. Amoxicillin 120 mg/kg per day in two divided doses.

2. You diagnose otitis media in a 4-year-old child. In deciding whether to initiate antibiotics or manage by watchful waiting, which of the following statements is true?

A. Parents have higher satisfaction if their children are given antibiotics.

B. There are fewer treatment failures if children are given antibiotics.

C. Children use more analgesia if they are given antibiotics.

D. Children have fewer adverse effects if they are given antibiotics.

E. The likelihood of treatment failure is greater for children with a strategy of watchful waiting.

3. A 7-year-old child complains of a full feeling in her ears. On examination, the child is afebrile and not toxic-appearing. The tympanic membrane

is cloudy, has poor mobility, and an air bubble is visualized behind the tympanic membrane. Hearing is not affected. You should:

- A. Treat with antibiotics.
- B. Treat with a tapered dose of steroids.
- C. Treat with antibiotics and a tapered dose of steroids.
- D. Treat with antihistamines.
- E. Observe without any treatment for 3 months.

4. A 3-month-old with cough and tachypnea has a low-grade fever but does not appear toxic. A complete blood count demonstrates peripheral eosinophilia and the chest x-ray reveals bilateral diffuse infiltrates that are disproportional to how well the infant looks. You should:

- A. Order human immunodeficiency virus testing.
- B. Admit to the hospital for administration of intravenous ceftriaxone.
- C. Treat with oral erythromycin estolate for 2 weeks as an outpatient.
- D. Treat with amoxicillin 90 mg/kg in two divided doses for 14 days.
- E. Admit to the hospital for administration of intravenous clindamycin.

5. For several days, a 16-year-old had a sore throat, hoarseness, and fever. As these symptoms resolved, a cough and lower respiratory tract infection symptoms developed. Which of the following is indicated?

- A. Cefdinir.
- B. Amoxicillin-clavulanate potassium.
- C. Tetracycline.
- D. Amoxicillin 90 mg/kg per day.
- E. Trimethoprim-sulfamethoxazole.

Psychogenic

27. When you enter the examination room, the patient expresses anger because of the long time he has waited. Which one of the following approaches is recommended?

- A. Ignore the anger, sit down, and continue with the history and physical examination.
- B. Tell the patient, "I apologize for your long wait."

- C. Tell the patient, "I understand how you feel; I also hate to be kept waiting."
- D. Tell the patient, "Would you like to talk more about how you are feeling about this situation?"
- 28.** In response to discovering that you have prescribed oral contraceptive pills for his adolescent daughter, a man strikes a wall and indicates he knows how to "settle" this situation with you. Which one of the following should you do first?
- A. Leave the room.
- B. Command the man to calm down.
- C. Respond in an aggressive tone of voice.
- D. Cross your arms and indicate you will call the police or security if the man does not desist.
- E. Indicate firmly that you will not violate the confidentiality you have with his daughter.
- 29.** You decide to dismiss from your practice a consistently nonadherent patient who is frequently abusive to your staff members and who has failed to respond to your documented requests that he change his behavior. You must:
- A. Refund all payments for the past year of treatment.
- B. Inform him clearly of the reason for dismissal and provide the opportunity to ask questions.
- C. Stop providing medical services effective immediately.
- D. Report the patient to the local medical association or society so other physicians will be forewarned.
- 30.** Which one of the following is the central feature of the dimensional classification scheme of personality disorders (PDs)?
- A. PDs are treated most effectively with psychotherapy.
- B. PDs are exaggerations of typical traits that overlap as a spectrum.
- C. PDs often coexist with substance use and psychiatric disorders.
- D. Clusters are useful diagnostic divisions for PDs.
- E. Patients with PDs experience difficulties in many areas of life.
- 31.** Which one of the following is a typical trait of Cluster A personality disorders?
- A. Excessive fearfulness.

- B. Distrust and misinterpretation of the actions of others.
- C. Impulsiveness.
- D. Emotional lability.
- E. Perfectionism.

Skin

21. Upon examining a 14-year-old patient, you note the presence of 25 comedones, 20 papules, and a few cysts. There are approximately 50 lesions on the face. This patient's acne can be classified as which one of the following?
- A. Mild.
 - B. Moderate.
 - C. Severe.
 - D. None of the above; unable to characterize based on the information provided.
22. Which one of the following should be prescribed first for a 16-year-old patient with comedonal acne?
- A. Benzoyl peroxide.
 - B. Azelaic acid.
 - C. Topical clindamycin.
 - D. Oral tetracycline.
 - E. Oral doxycycline.
23. You are managing a patient with acne who has a dark skin tone. She is concerned about the risk of hypopigmentation. Hypopigmentation is most likely to be a side effect of which one of the following agents?
- A. Azelaic acid.
 - B. Adapalene
 - C. Tazarotene.
 - D. Benzoyl peroxide.
 - E. Topical tretinoin.

24. A 14-year-old patient has moderate to severe acne that has been refractory to topical therapy. You elect to start him on oral erythromycin, and after 2 months of treatment there is a satisfactory response. You should recommend:
- A. Continuing use of the antibiotic indefinitely.
 - B. Continuing use of the antibiotic for 1 year.
 - C. Decreasing the dose or discontinuing the antibiotic.
 - D. Discontinuing the antibiotic now.
 - E. Changing to every other day dosing.

Special Sensory

1. A child who experienced onset of deafness before developing speech is brought to your office. He has one iris with different coloration than the other and a white forelock. Which of the following statements is true regarding the child's diagnosis?
- A. This is an autosomal recessive disorder.
 - B. This is characterized by cochlear deafness.
 - C. This is associated with medial displacement of the lateral angles of the eyes.
 - D. This affects 30% of individuals who develop onset of deafness before developing speech.
2. You are caring for an infant in the nursery who has an abnormal hearing screening test result using otoacoustic emission testing. You should:
- A. Repeat the test immediately in a quieter environment.
 - B. Obtain an auditory brainstem response test immediately.
 - C. Refer to a pediatric audiologist immediately.
 - D. Arrange a repeat hearing test in 1 to 3 weeks.
 - E. Tell the parents to speak louder and clap their hands when they want the infant's attention.
3. A 5-year-old child has abnormal hearing demonstrated on conventional audiometry. On physical examination, otitis media with effusion is not present. You should:
- A. Repeat the test in 2 to 4 weeks following treatment with antibiotics and decongestants.
 - B. Refer to an otorhinolaryngologist for consideration of tympanostomy tube placement.

- C. Repeat the test with a handheld audiometer.
 - D. Refer to a pediatric audiologist for a comprehensive hearing evaluation.
4. The Canadian Task Force on Preventive Health Care recommends screening elderly patients for hearing loss with:
- A. The Hearing Handicap Inventory for the Elderly-Screening Version.
 - B. The question, 'Do you have a hearing problem now?'
 - C. Handheld audiometer.
 - D. Whispered voice test.
 - E. Pneumatic otoscopy.
5. A patient with impaired hearing is resistant to wearing hearing aids. One of the patient's favorite leisure activities is attending movies at the local theater. You can suggest use of:
- A. Wireless headphones.
 - B. A handheld amplifier.
 - C. A personal frequency modulator.
 - D. Rear Window Captioning.
6. You are treating a child who has meningitis. To decrease the incidence of meningitis-related hearing loss, which of the following should be administered immediately before or simultaneously with the first dose of antibiotics?
- A. Corticosteroids.
 - B. Rifampin.
 - C. Racemic epinephrine.
 - D. Supplemental oxygen.