

## Structured Board Review 1405 Questions – Hematology 12-16; GI 17-21; Children 52-56; MSK 47-56

### Hematology

12. The addition of rituximab, a monoclonal antibody that can induce antitumor activity, to treatment regimens has improved survival rates among patients with follicular lymphoma and diffuse large B-cell lymphoma. Which one of the following is a major issue with this treatment?
- A. Frequent severe drug reactions.
  - B. High rates of drug resistance.
  - C. Frequent need for retreatment.
  - D. High rates of allergic reaction.
  - E. High rates of serum sickness.
13. Although central nervous system (CNS) involvement at the time of presentation is uncommon in patients with non-Hodgkin lymphoma (NHL), the CNS is the site of first recurrence after complete remission in 50% of patients. Which of the following are indicators for prophylaxis for CNS involvement?
- A. Burkitt NHL or lymphoblastic NHL.
  - B. High-grade lymphoma involving bone marrow.
  - C. Aggressive NHL with presence of 4 of 5 risk factors for CNS involvement.
  - D. All of the above.
  - E. None of the above.
14. Your patient with HIV infection develops an AIDS-related non-Hodgkin lymphoma. Which one of the following should be instituted to improve chemotherapy outcomes?
- A. Highly active antiretroviral therapy (HAART) regardless of the CD4 count.
  - B. HAART if the CD4 count is less than 200 cells/mL.
  - C. HAART if the CD4 count is less than 400 cells/mL.
  - D. Avoidance of HAART because it decreases the effectiveness of chemotherapy.
  - E. Avoidance of HAART because it is contraindicated in patients with lymphoma.
15. A patient returns to your office for a 6-month follow-up after treatment of non-Hodgkin lymphoma. Which one of the following is a significant part of follow-up?

- A. Monitoring for secondary malignancies.
  - B. Counseling for depression.
  - C. Physical examination for coronary artery disease.
  - D. All of the above.
  - E. None of the above.
- 16.** Myelodysplastic syndrome is a family of hematogenous conditions best characterized by which one of the following?
- A. Peripheral blood cytopenias and hypocellular dysplastic-appearing bone marrow.
  - B. Peripheral blood cytopenias and hypercellular dysplastic-appearing bone marrow.
  - C. Peripheral blood cytopenias and clusters of blasts in the bone marrow.
  - D. Peripheral blood lymphocytosis and hypercellular dysplastic-appearing bone marrow.
  - E. Plasma cell malignancies and bone marrow infiltration.

## Gastrointestinal

- 17.** An 82-year-old patient in poor medical condition has gallstones with episodes of biliary colic that occur about once per year. You and your consultants determine that he is not a candidate for surgery. Which one of the following statements best reflects appropriate treatment for this patient?
- A. Bile acid therapy can be used and is successful in nearly all such patients.
  - B. Bile acid therapy can be used, but there is a 50% likelihood the patient will have a symptomatic stone recurrence within the next 5 years.
  - C. He should be given subcutaneous ketorolac for as-needed home use.
  - D. He should undergo endoscopic sphincterotomy with stone extraction.
  - E. He should undergo minimally invasive (small-incision) cholecystectomy.
- 18.** Which one of the following statements is correct regarding administering antibiotics to patients with acute cholecystitis?
- A. They should be given if infection is suspected on the basis of clinical findings.
  - B. They should not be used.
  - C. They should only be given if there are findings of cholangitis.

- D. They should only be given if the patient is hypotensive.
- E. They should not be given prophylactically to patients undergoing cholecystectomy.

19. Which one of the following imaging tests is most accurate for diagnosing common bile duct stones?

- A. Endoscopic cholangiopancreatography.
- B. Endoscopic ultrasound.
- C. Magnetic resonance cholangiopancreatography.
- D. Transabdominal ultrasound.
- E. None of these imaging tests is clearly more accurate than the others.

20. Your patient has cholangitis based on all of the classic findings of Charcot triad, and your consultants agree with the diagnosis. You treat the patient with appropriate antibiotics, but 24 hours later the patient's condition is worse. Which one of the following is the most important intervention at this point?

- A. Biliary decompression.
- B. Change antibiotics.
- C. Obtain blood cultures.
- D. Hepatoiminodiacetic acid scan.
- E. Repeat ultrasound imaging to confirm that the diagnosis is correct.

21. A 40-year-old black man who is obese has experienced heartburn for 2 months. His symptoms occur several times a week, usually within 1 hour of meals and last for 1 hour. He denies regurgitation, vomiting, dysphagia, painful swallowing, hematemesis, melena, abdominal pain, anorexia, diarrhea or constipation, or weight loss. Initially, the pain was relieved with antacids. He smokes one pack of cigarettes daily and drinks two large cups of coffee daily and two to three beers on weekends. Except for a body mass index of 32 kg/m<sup>2</sup>, his physical examination is benign. You should:

- A. Perform esophagogastroduodenoscopy.
- B. Prescribe an empiric trial of a protonpump inhibitor.
- C. Perform esophageal manometry.
- D. Refer for an esophagogram.
- E. Obtain a Bernstein test.

## Children

52. Which one of the following statements is correct about diagnosis of hypertension in children?
- A. Ambulatory blood pressure monitoring should be performed before establishing a diagnosis of hypertension.
  - B. Hypertension is diagnosed when the average systolic or diastolic blood pressure level is higher than the 99th percentile for age, sex, and height on repeated measurement.
  - C. Hypertension is diagnosed when the average systolic or diastolic blood pressure level is higher than the 90th percentile for age, sex, and height on repeated measurement.
  - D. Premature birth is a risk factor for hypertension.
  - E. The most common cause of secondary hypertension is coarctation of the aorta.
53. Which one of the following statements is correct about obesity and overweight in children?
- A. Bariatric surgery is not effective for weight loss in children.
  - B. Endocrine etiologies of obesity are identified in nearly 25% of obese children.
  - C. Normative values for body mass index (BMI) do not exist for children younger than 2 years.
  - D. Obesity in children is defined as a BMI greater than 25 kg/m<sup>2</sup>.
  - E. Obesity in children is defined as a BMI greater than the 90th percentile.
54. Which one of the following statements is correct about hyperlipidemia in children?
- A. Cigarette smoking is not, by itself, an indication for screening unless there is a family history of hyperlipidemia.
  - B. If screening results in a child are normal, testing should be repeated during adolescence.
  - C. Hyperlipidemia in children is defined as a low-density lipoprotein cholesterol level of 130 mg/dL or greater.
  - D. Screening should begin at 1 year in children with a family history of early coronary artery disease.
  - E. Systemic lupus erythematosus is associated with lipoprotein level abnormalities.
55. Which one of the following statements is correct regarding management of hyperlipidemia in children?
- A. Children younger than 10 years should not undergo treatment for hyperlipidemia.
  - B. Some statins have been approved by the Food and Drug Administration for use in children.
  - C. The rate of adverse events from statin therapy in children is higher than the rate with placebo.

- D. The risks of muscle toxicity and hepatotoxicity vary according to Tanner stage.
  - E. Treatment with a statin has not been shown to be associated with regression of intima-media thickness.
56. Which one of the following diets for obesity management in children is recommended by the American Diabetes Association, the North American Association for the Study of Obesity, and the American Society for Clinical Nutrition?
- A. Calorie-restricted, low-fat diet.
  - B. Low-carbohydrate diet.
  - C. Low-glycemic-index diet.
  - D. Protein-sparing, calorie-restricted diet.
  - E. Traffic Light Diet.

## Musculoskeletal

47. Which one of the following describes the Risser sign?
- A. A double thoracic curve in a patient with scoliosis.
  - B. A measure of skeletal maturity determined by assessing the extent of ossification of the iliac crest.
  - C. A measurement of the angle of curvature of thoracic scoliosis.
  - D. Dyspnea on exertion due to thoracic volume restriction from severe scoliosis.
  - E. Progression of scoliosis in excess of 5% per year.
48. Which one of the following describes the Cobb angle?
- A. The angle above which a diagnosis of scoliosis is made.
  - B. The angle at which a patient with scoliosis should be considered for surgery.
  - C. The angle at which bracing should be instituted.
  - D. The angle at which serial x-ray monitoring should begin.
  - E. The angle of curvature of thoracic scoliosis.
49. Which one of the following statements is correct regarding bracing for patients with idiopathic adolescent scoliosis?

- A. Appropriately administered, bracing can correct mild degrees of curvature.
- B. Braces should be worn at night.
- C. Braces should remain in place during sports activities.
- D. Bracing should be started as soon as possible after detection of scoliosis.
- E. It has maximal benefit for patients who have achieved full skeletal maturity.

**50.** You are counseling a 15-year-old girl about surgery for idiopathic adolescent scoliosis. She has many questions about complications from surgery, Harrington rods, and many other issues. She states that she would prefer to delay surgery until after high school or college graduation. In responding to the patient's inquiry about surgery and its complications, which one of the following statements is most correct?

- A. Adults have lower rates of surgical complications.
- B. If surgery is performed, there is no alternative to Harrington rods.
- C. Spinal cord monitoring has lowered the rate of intraoperative neurologic complications.
- D. She should undergo surgery with the goal of achieving the best possible permanent correction of deformity.
- E. The spine is more flexible in young adulthood than in adolescence, so surgery would likely be more effective if she waited until after college.

**51.** You have diagnosed proximal humeral physeal stress injury (Little Leaguer's shoulder) in a 15-year-old high school baseball pitcher. Which one of the following initial treatments should you recommend?

- A. Cessation of all throwing activities until symptoms resolve.
- B. Daily range of motion exercises.
- C. Nonsteroidal anti-inflammatory drugs.
- D. Steroid injection.
- E. Ultrasound examination and physical therapy.

**52.** After proper treatment, which one of the following is the long-term outlook for returning to baseball a teenager with Little Leaguer's shoulder?

- A. Most can never play again.
- B. Most can participate in low-level recreational baseball, but few return to competitive play.
- C. Most can return to competitive baseball.

- D. Most must learn to pitch with the other arm to continue playing baseball.
- E. Only those who undergo surgery can expect to return to play.
53. Which one of the following sports is most often the cause of medial epicondyle apophysitis in adolescents?
- A. Baseball.
- B. Gymnastics.
- C. Swimming.
- D. Tennis.
- E. Volleyball.
54. A teenage basketball player complains of anterior knee pain when jumping. After examining the patient, you diagnose Osgood-Schlatter disease. Which one of the following should you recommend regarding continued participation in basketball?
- A. She may return to play but limit participation to no more than 15 minutes/game for several weeks.
- B. She should be allowed to play basketball as tolerated, but might need to reduce participation if needed to control pain.
- C. She should stop playing basketball and find another sport.
- D. She should stop playing basketball for 3 months, and then gradually return to play.
- E. She should undergo steroid injection into the painful area before resuming basketball.
55. A 14-year-old girl high school gymnast presents with recent-onset back pain that is worse when she bends backward (hyperextension). She has no radicular pain and results of neurologic examination are normal, though she has some pain on single-leg hyperextension. You obtain x-rays of the back and results are normal. Which one of the following is the most likely diagnosis?
- A. Ewing sarcoma.
- B. Herniated lumbar disk.
- C. Lumbar spinal stenosis.
- D. Occult spina bifida.
- E. Spondylolysis.

56. Which one of the following forms of juvenile idiopathic arthritis carries the highest risk of uveitis?

- A. Oligoarticular.
- B. Polyarticular.
- C. Rheumatoid factor-negative.
- D. Rheumatoid factor-positive.
- E. Systemic.