AAFP
AMERICAN ACADEMY OF FAMILY PHYSICIANS

Questions and Answers from the 14th Edition Board Review

These board review questions help our family physician members prepare for the certification exam. The full QBank features more than 1,300 questions and answers (along with explanations and supporting references) and serve as an excellent way for AAFP medical student members to test their skills.

1. In asymptomatic patients with sarcoidosis, which one of the following organ systems should be examined yearly to detect extrapulmonary manifestations of the disease?

A. Cardiac
B. Neurologic
C. Ocular
D. Integumentary

ANSWER (C): Sarcoidosis has numerous extrapulmonary manifestations. Because inflammation of the eye can result in permanent impairment and is often asymptomatic, patients require yearly eye examinations as well as additional monitoring with disease flares. Although skin involvement is common it is usually readily apparent and rarely has serious sequelae. Cardiac sarcoidosis can potentially lead to progressive heart failure and sudden death, but evaluation is needed only in patients who are symptomatic. Similarly, evaluation for neurologic involvement is needed only in patients who are symptomatic.

2. A 43-year-old male who works as a school custodian presents with left shoulder pain. He reports the pain is interfering with his work responsibilities and interfering with sleep. He appears overall healthy and reports taking no regular medications. On examination he has pain and relative weakness when pushing toward the midline against resistance while the shoulder is adducted and the elbow is bent to 90°. With the elbow still at 90° he is unable to keep his left hand away from his body when you position his hand behind his back. This presentation is most consistent with an injury of which one of the following tendons?

A. Deltoid
B. Infraspinatus
C. Subscapularis
D. Supraspinatus
E. Teres minor

Answer (C): This patient's pain and weakness while pushing against resistance reveals weakness on internal rotation of the shoulder, which suggests a possible tear of the subscapularis tendon. The inability to keep his hand away from his body when it is placed behind his back describes a positive internal lag test, also suggesting involvement of the subscapularis tendon. The infraspinatus and teres minor are involved in external rotation rather than internal rotation. The supraspinatus and deltoid are involved in abduction of the shoulder.

3. A 63-year-old male with stage 3 chronic kidney disease and an estimated glomerular filtration rate of 37 mL/min/1.73 m2 is found to have a mildly low ionized calcium level. Which one of the following would you expect to see if his hypocalcemia is secondary to his chronic kidney disease?

A. Elevated parathyroid hormone (PTH) and elevated phosphorus
B. Elevated PTH and low phosphorus
C. Low PTH and elevated phosphorus
D. Low PTH and low phosphorus

ANSWER (A): Chronic kidney disease–mineral and bone disorder (CKD-MBD) is found in many patients with CKD and is associated with an increased risk of bone fractures and cardiovascular events due to vascular calcification. In patients with CKD, phosphate is not appropriately excreted and the subsequent hyperphosphatemia leads to secondary hyperparathyroidism and binding of calcium. Decreased production of calcitriol in patients with CKD also leads to hypocalcemic hyperparathyroidism. Patients with CKD stages 3a–5 should have phosphorus, calcium, parathyroid hormone, and 25-hydroxyvitamin D levels checked regularly, and consultation with a nephrologist or endocrinologist should be obtained if CKD-MBD is suspected.

4. A 30-year-old white male presents to the emergency department with a 4-day history of fever to 101°F, a sore throat, rhinorrhea, and cough. An examination reveals rhinorrhea and a boggy nasal mucosa, but is otherwise unremarkable. A chest radiograph shows a questionable infiltrate. Which one of the following would help determine if antibiotic treatment would be appropriate?

A. A C-reactive protein level
B. A procalcitonin level
C. A WBC count with differential
D. An erythrocyte sedimentation rate
E. CT of the chest

ANSWER (B): Using a procalcitonin-guided therapy algorithm reduces antibiotic use by 3.47 days without increasing either morbidity or mortality in adults with acute respiratory infections. If the procalcitonin level is <0.10 mg/dL, a bacterial infection is highly unlikely and it is strongly recommended that antibiotics not be prescribed. If the procalcitonin level is 0.10–0.24 mg/dL, a bacterial infection is still unlikely and it is recommended that antibiotics not be used. If the level is 0.25–0.50 mg/dL, a bacterial infection is likely and antibiotics are recommended. It is strongly recommended that antibiotics be given if the level is >0.50 mg/dL because a bacterial infection is very likely.

5. An 80-year-old female sees you for the first time. She is asymptomatic except for some fatigue. Her pulse rate is 50 beats/min. An EKG shows a prolonged PR interval. Which one of the following medications in her current regimen is the most likely explanation for these findings?

A. Donepezil (Aricept)
B. Escitalopram (Lexapro)
C. Lisinopril (Prinivil, Zestril)
D. Memantine (Namenda)
E. Zolpidem (Ambien)

ANSWER (A): The 2015 American Geriatrics Society Beers Criteria for potentially inappropriate medication use in older adults >65 years of age states that donepezil use should be avoided in patients with syncope due to an increased risk of bradycardia (Moderate Evidence Level; Strong Strength of Recommendation). Donepezil is a cholinesterase inhibitor. Due to their cholinergic effect, these medications have a vagotonic effect on the sinoatrial and atrioventricular nodes. This can cause bradycardia or heart block in patients with or without underlying cardiac conduction abnormalities. Syncope has been reported with these medications. Memantine is an N-methyl-D-aspartate receptor antagonist and is not associated with bradycardia. Escitalopram, lisinopril, and zolpidem are also not associated with bradycardia.

6. Additional workup or referral to an endocrinologist for evaluation of precocious puberty would be indicated in which one of the following patients?

A. A 7-year-old female with some pubic hair
B. An 8-year-old female with breast buds
C. An 8-year-old male with some pubic hair and axillary odor
D. An 8-year-old male with penile enlargement
E. A 10-year-old female who has recently begun having menses

ANSWER (D): Penile enlargement in an 8-year-old male is a sign of precocious puberty. Isolated sparse pubic and axillary hair growth and axillary odor is referred to as premature adrenarche and represents high levels of dehydroepiandrosterone rather than activation of the hypothalamic-pituitary-gonadal axis that leads to puberty. The isolated findings of premature adrenarche are generally considered benign. An 8-year-old with breast buds and a 10-year-old with menarche are within the normal range of expected pubertal development. Penile enlargement typically represents full activation of the hypothalamic-pituitary-gonadal axis and warrants endocrinologic evaluation in boys younger than 9 years of age.

7. A 44-year-old female is troubled by her lack of interest in sex. She feels the issue started about 24 months ago. She is generally healthy, takes no medications, except for a daily multivitamin, and has regular menstrual periods. She is content with the emotional intimacy of her marriage and has had satisfying sexual interactions in the past. She does not have any religious or cultural barriers regarding her sexuality and asks for ideas on how to improve her situation. Which one of the following has consistent evidence of benefit in cases such as this?

A. Cognitive-behavioral therapy
B. Viewing pornography
C. Oral estrogen
D. Oral sildenafil (Viagra)
E. Topical testosterone

ANSWER (E): This patient meets the criteria for hypoactive sexual desire disorder (HSDD). The incidence of this condition is variable based on the age, life stage, and culture of the patient, but is estimated to be present in about 5%–15% of the adult female population. This diagnosis includes two components: (1) recurrent deficiency or absence of sexual desire or receptivity to sexual activity, and (2) distress about such a deficiency. In menstruating women, oral estrogen and oral sildenafil have not been shown to be superior to placebo. Cognitive-behavioral therapy has been shown to be helpful for other sexual dysfunctions but not with HSDD. Topical testosterone, in either patch or gel form, has shown consistent improvements in arousal, desire, fantasy, orgasm, and overall satisfaction in cases of HSDD.

8. Which one of the following treatments has been shown to improve the quality of life for a patient with tinnitus?

A. Antidepressant therapy
B. Ginkgo biloba
C. Niacin
D. Vitamin B12
E. Cognitive-behavioral therapy

ANSWER (E): Treatments to reduce awareness of tinnitus and tinnitus-related distress include cognitive-behavioral therapy, acoustic stimulation, and educational counseling. No medications, supplements, or herbal remedies have been shown to substantially reduce the severity of tinnitus.

9. In addition to a thorough history and physical examination, the routine evaluation of patients presenting with syncope should include:

A. A CBC, comprehensive metabolic panel, TSH level, and urinalysis
B. Orthostatic blood pressure measurements and an EKG
C. Cardiac stress testing
D. Echocardiography and Doppler ultrasonography of the carotid arteries
E. CT or MRI of the brain

ANSWER (B): Orthostatic blood pressure measurement and an EKG are indicated in the routine evaluation of patients with syncope. All other testing should be directed by findings obtained in the history and on the physical examination.

10. Which one of the following is the most appropriate first-line therapy for primary dysmennorhea?

A. Combined monophasic oral contraceptives
B. Combined multiphasic oral contraceptives
C. Subdermal etonogestrel (Nexplanon)
D. Intramuscular medroxyprogesterone (Depo-Provera)
E. NSAIDs

ANSWER (E): The first-line treatment for primary dysmenorrhea should be NSAIDs (SOR A). They should be started at the onset of menses and continued for the first 1–2 days of the menstrual cycle. Combined oral contraceptives may be effective for primary dysmenorrhea, but there is a lack of high-quality randomized, controlled trials demonstrating pain improvement (SOR B). They may be a good choice if the patient also desires contraception. Although combined oral contraceptives and intramuscular and subcutaneous progestin-only contraceptives are effective treatments for dysmenorrhea caused by endometriosis, they are not first-line therapy for primary dysmenorrhea.