1. **A mother brings her 8-year-old daughter to the clinic because she found a tick in the girl's hair and would like her daughter to be tested for Lyme disease. The nurse practitioner (NP) explains that the enzyme-linked immunosorbent assay (ELISA), an early test for Lyme disease, is effective in finding early cases of Lyme disease but can also give positive results in some people who do not have the disease, making additional testing necessary. This means that the ELISA test has which of the following?**

High sensitivity, low specificity

Sensitivity is a measure of a test's ability to detect disease in someone who has it ("true positives"), whereas specificity is a measure of a test's ability to determine who does not have the disease ("true negatives"). The mother was told that the ELISA test has a high true-positive rate (high sensitivity) but also a relatively high false-negative rate (low specificity) that the subsequent testing improves upon

2. **A theoretical laboratory test for infection with HIV is known to have high sensitivity. This means that the test has which of the following?**

b. Good ability to rule out HIV in those who do not have HIV

Rationale: High sensitivity means that a test is positive for most of the people who actually have the condition tested for, and thus a negative result strongly predicts that the person does not have disease. Because high sensitivity does not address false positives (positive results in individuals that do not have the disease), a highly sensitive test is good at ruling out true negative cases but may or may not be good at ruling it truly positive cases (this is determined by specificity).

3. **A theoretical new laboratory test for strep throat has high specificity. When a test has high specificity, clinicians can be confident in which of the following aspects?**

e. If the test result is positive, a confirmatory test should be performed.

High specificity means that a test is negative for most of the people who actually do not have the condition tested for, thus a negative result strongly predicts that the person does not have disease. Because high specificity

does not address false negatives (negative results in individuals who actually have the disease), a highly specific test is good at ruling out true positive cases but may or may not be good at ruling it truly negative cases (this is determined by sensitivity).

4. **Weight change may indicate the presence of important underlying pathology requiring further investigation. Which of the following best describes a significant weight change that requires further evaluation?**

a. A 45-year-old male with baseline weight of 280 lb who decides to undertake a light exercise regimen and loses 15% of his total body weight in 3 months

Rationale: A safe rate of intentional weight loss is no more than 2 lb/week; this patient has lost about 3.5 lb/week. In addition, it would be reasonable to question why he experienced such rapid weight loss from such a small deviation in his baseline activity.

5. **. A 19-year-old student of art history presents to clinic after a syncopal (fainting) episode at school. He is notably thin; on a thorough review of his medical history, he admits that he eats only minimally to maintain a very low body weight that he feels is ideal. He is embarrassed that his issues were discussed by peers after this episode, especially because he believes that this is a problem that is only faced by girls and women. Concerning the two most common eating disorders (anorexia nervosa and bulimia nervosa), which of the following statements is true?**

c. Both of these eating disorders are associated with a real or imagined fear of appearing fat.

6. **A 55-year-old air traffic control agent reports his home blood pressure log to clinic after he was diagnosed with hypertension at a prior visit. He notes that he consistently measures within the normal range at home, but seems to fall outside the normal range every time he comes to the clinic. Which of the following blood pressure measurements is considered to be most accurate (i.e., reflecting the patient's "true" blood pressure)?**

d. Regular ambulatory monitoring recorded outside of the office setting

7. **A 68-year-old retired college professor presents for routine physical examination. After the patient has been reading a novel in the waiting room for ~20 minutes, the technician records his blood pressure in both arms using an automated device. The technician notes a 20-mm Hg difference in systolic blood pressure between the right and left arms; he repeats the readings 10 minutes later and records the same asymmetrical systolic blood pressure. Which of the following is true regarding this physical finding?**

d. This finding is clearly abnormal and requires immediate evaluation for possible cardiovascular emergency.

Rationale: A pressure difference of >10–15 mm Hg between the right and left arm should be recognized as abnormal and in need of further evaluation. Subclavian steal syndrome (reversal of blood flow in some arteries due to occlusion of the subclavian artery) and aortic dissection (a tearing of the inner layer of the aorta) may both present with this blood pressure discrepancy, and both are considered medical emergencies. Aortic dissection has a very high mortality rate even under optimal circumstances.

8. **A 62-year-old former tennis pro obtained a home blood pressure cuff after an office measurement revealed that his blood pressure fell in the hypertensive range. At a follow-up visit, he questions the accuracy of the clinician's blood pressure cuff and the veracity of his diagnosis of hypertension. Which of the following is true regarding blood pressures recorded in a practitioner's office versus values obtained in the ambulatory setting?**

   a. The accepted normal values for blood pressure are lower for ambulatory measurements compared with office measurements.

9. **A first-semester physician assistant student reports to his supervisor that he has trouble determining the diastolic blood pressure. On manual blood pressure, which of the following provides the best estimate of the true diastolic blood pressure?**

d. The disappearance of Korotkof f sounds following initial muffling.

10. **A 72-year-old retiree presents to the cardiology clinic with palpitations after several months of symptoms. An electrocardiogram (ECG) shows a tachyarrhythmia, which the cardiologist diagnoses as atrial fibrillation. In measuring the blood pressure of a patient with chronic atrial fibrillation, which of the following statements is true?**

c. Ambulatory monitoring over 2–24 hours is recommended because this rhythm produces variable and inconsistent blood pressures.

11. **A 42-year-old architect presents with widespread pain complaints, including headaches almost daily, pain at the site of an old motor vehicle accident injury, and generalized achiness and hypersensitivity throughout the body. He recounts that his first episodes of ongoing pain occurred in his early 20s, and he has been to many practitioners over several years seeking a firm diagnosis and adequate treatment of his complaints. Which of the following statements is true regarding chronic pain?**

b. Chronic pain is defined as pain not due to cancer or a recognized medical condition that persists for >3–6 months.

12. **Disparities in pain treatment have been well described in numerous studies comparing Caucasian patients to those of African American and Hispanic origin. Which of the following statements is true concerning this issue?**