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PHYSICAL DIAGNOSIS

Self-Assessment and Review

Tyson K. Cobb

Third Edition

choice questions with
and current references



Physical Diagnosis

PreTest® Self-Assessment and Review

Third Edition

Editor

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To my family
for their unselfish support of my academic endeavors
T.K.C.

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Introduction

Physical Diagnosis: PreTest® Self-Assessment and Review, 3/e, has been designed to provide medical students, as well as physicians, with a comprehensive and convenient instrument for self-assessment and review of physical diagnosis. The 500 questions provided have been designed to parallel the format and degree of difficulty of the questions contained in the United States Medical Licensing Examination (USMLE) Step 1 and Step 2.

Each question in the book is accompanied by an answer, a paragraph explanation, and a specific page reference to a current journal article, a textbook, or both. A bibliography that lists all the sources used in the book follows the last chapter.

Perhaps the most effective way to use this book is to allow yourself one minute to answer each question in a given chapter; as you proceed, indicate your answer beside each question. By following this suggestion, you will be approximating the time limits imposed by the board examinations previously mentioned.

When you have finished answering the questions in a chapter, you should then spend as much time as you need verifying your answers and carefully reading the explanations. Although you should pay special attention to the explanations for the questions you answered incorrectly, you should read every explanation. The authors of this book have designed the explanations to reinforce and supplement the information tested by the questions. If, after reading the explanations for a given chapter, you feel you need still more information about the material covered, you should consult and study the references indicated.

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General Appearance of Disease

DIRECTIONS: Each item below contains a question or incomplete statement followed by suggested responses. Select the **one best** response to each question.

1. A 15-year-old boy presents with complaints of pain in the left hip. The pain has been present for approximately 3 weeks and is increasing in severity. It is worse at night and is relieved by aspirin. There is no history of trauma or previous hip problems. This history is most consistent with

- (A) osteoarthritis
- (B) septic joint
- (C) osteoid osteoma
- (D) avascular necrosis
- (E) muscle strain

2. All the following would be typical presenting signs or symptoms of *early* septic shock EXCEPT

- (A) flushed appearance
- (B) warmth
- (C) elevated cardiac output
- (D) agitation
- (E) obtundation

3. Which of the following would be LEAST likely to be associated with gastrointestinal bleeding?

- (A) Hypotension and tachycardia
- (B) Ingestion of nonsteroidal anti-inflammatory agents
- (C) History of prior gastrointestinal bleeding
- (D) Alcohol abuse
- (E) Negative stool guaiac testing

4. All the following signs and symptoms are consistent with *early* compartment syndrome of the flexor compartment of the forearm EXCEPT

- (A) pain disproportionate to what might be expected for the degree of injury
- (B) unrelenting pain after a pain-free interval
- (C) pain with passive finger extension
- (D) a swollen and tense flexor compartment
- (E) loss of the radial pulse at the wrist and of motor function

5. Which of the following best describes a third-degree sprain?

- (A) An injury that results in fracture of bone at the site of ligament attachment
- (B) Ankle pain with ambulation
- (C) A complete tear of a ligament that results in joint instability
- (D) A tear of a minimum number of ligamentous fibers with tenderness but no instability
- (E) A tear of a greater number of ligamentous fibers with loss of function and joint reaction but no instability

6. Cushing's syndrome is characterized by all the following EXCEPT

- (A) hirsutism
- (B) truncal obesity
- (C) hyperpigmentation of buccal mucosa
- (D) poor wound healing
- (E) acne

7. A 3½-year-old girl is brought to your office by her parents who are concerned about her knock-knees (genu valgum). The parents state she was bowlegged as an infant and has become progressively knock-kneed over the past 6 months. The patient is otherwise healthy and has met all developmental milestones. Height and weight are within the 80th percentile. The femoral-tibial angle measures 14 degrees bilaterally. The intramalleolar distance is 10 cm with the knees just touching. The most likely diagnosis is

- (A) Blount's disease
- (B) physiologic knock-knees
- (C) malunion
- (D) rickets
- (E) partial physeal arrest

8. A 17-month-old boy is found to have multiple fractures and blue sclerae. This is most characteristic of

- (A) osteogenesis imperfecta
- (B) osteoporosis
- (C) achondroplasia
- (D) osteomalacia
- (E) osteitis deformans

9. A 21-year-old man presents to the office for a sore throat. On examination, the patient is found to be tall, with gynecomastia and testicular atrophy. Which is the most likely diagnosis?

- (A) Testicular feminization syndrome
- (B) 45,X (Turner's syndrome)
- (C) Trisomy 21 (Down's syndrome)
- (D) 47,XXY (Klinefelter's syndrome)
- (E) Hepatic cirrhosis

10. Arthritis, fatigue, and a malar rash would most likely be associated with which of the following?

- (A) Psoriasis
- (B) Pseudogout
- (C) Systemic lupus erythematosus (SLE)
- (D) Rheumatoid arthritis
- (E) Osteoarthritis

11. Seven light-brown maculae, each greater than 1 cm in diameter on the trunk of a patient with axillary freckling and firm subcutaneous masses, would suggest the diagnosis of

- (A) Peutz-Jeghers syndrome
- (B) tuberous sclerosis
- (C) Sturge-Weber syndrome
- (D) Albright's disease
- (E) neurofibromatosis

12. A patient who is tall for her age and has long fingers and lenticular dislocation would likely have which of the following associated symptoms?

- (A) A marked decrease in joint mobility
- (B) Mitral valve prolapse or an aortic aneurysm
- (C) Shortness of breath
- (D) Dermal hemorrhage
- (E) A negative thumb sign (Steinberg's sign)

13. All the following statements are true of the pivot shift test EXCEPT

- (A) the pivot shift test is used to diagnose anterior cruciate ligament deficiency of the knee
- (B) the posterior pull of the iliotibial tract is responsible for the reduction observed during this test
- (C) the phenomenon observed during this test is due to rotational forces
- (D) an internal rotational force is applied to the foot/leg during this test
- (E) a valgus stress is applied to the knee during this test

14. Which of the following best describes the term *arthritis*?

- (A) Any inflammatory process in a joint
- (B) Deterioration of articular cartilage
- (C) Joint infection
- (D) Any disease of the joint
- (E) Joint pain

15. When performing a physical examination, all the following are true EXCEPT

- (A) Weber's test may help distinguish sensory from conductive hearing loss
- (B) inspection of the chest should precede auscultation
- (C) inspection of hands and nails may provide clues about respiratory problems
- (D) intraocular pressure is best determined by the examination of retinal vessels
- (E) the Snellen chart is used to test visual acuity

16. All the following statements concerning measurement of axillary temperature as opposed to oral or rectal temperature in a pediatric patient are true EXCEPT

- (A) oral temperature is difficult to take in young children who do not understand instructions
- (B) in a frightened child, insertion of an instrument into the rectum will serve to increase anxiety
- (C) axillary temperature is usually more than 0.5°C lower than oral temperature
- (D) axillary temperature can be determined more rapidly than oral or rectal temperature
- (E) rectal temperature is the most accurate of the above three methods for assessing body temperature

17. Which of the following statements is true concerning the measurement of blood pressure?

- (A) The bladder should encircle approximately 80 percent of the circumference of the limb
- (B) A cuff that is too wide will give an artificially high reading
- (C) Readings from the two arms generally vary by more than 20 mmHg in a normal patient
- (D) It is not necessary to fully deflate the cuff before repeating a measurement
- (E) The pressure at which Korotkoff sounds disappear should be read as the systolic pressure

18. Fullness of the infracondylar recess just inferior to the lateral condyle of the humerus would be consistent with all the following EXCEPT

- (A) subluxation of the ulnar nerve
- (B) effusion of the elbow joint
- (C) synovitis
- (D) dislocation of the radial head
- (E) fracture of the radial head

19. Which of the following involves a partial tear of a musculotendinous unit?

- (A) Fracture
- (B) First-degree strain
- (C) Second-degree strain
- (D) Third-degree strain
- (E) Contusion

20. A clinical feature that aids in making the diagnosis of pityriasis rosea is the fact that

- (A) Wickham's striae are present
- (B) the lesions recur frequently
- (C) lesions follow skin cleavage lines
- (D) the disease is communicable
- (E) dramatic improvement follows administration of tetracycline

21. The sensitivity of digital rectal examinations can be characterized as

- (A) high for rectal carcinoma and prostate carcinoma
- (B) high for prostate carcinoma but low for appendicitis
- (C) high for appendicitis and prostate carcinoma
- (D) low for appendicitis, prostate carcinoma, and rectal carcinoma
- (E) low for prostate carcinoma and high for rectal carcinoma

22. A patient presents with an osteoma of the jaw. Other signs or symptoms that might lead to the diagnosis of Gardner's syndrome include

- (A) rapidly enlarging bones in both hands
- (B) hematuria
- (C) exophthalmos
- (D) colonic polyps
- (E) lytic skull lesions seen on x-ray

23. A child with Sprengel's deformity would most likely demonstrate all the following EXCEPT

- (A) limited abduction of the shoulder
- (B) limited internal rotation of the shoulder
- (C) elevation of one shoulder
- (D) loss of the normal contour of the neck
- (E) a neck that appears full on one side

DIRECTIONS: The group of questions below consists of lettered options followed by numbered items. For each numbered item, select the appropriate lettered option(s). Each lettered option may be used once, more than once, or not at all. **Choose exactly the number of options indicated following each item.**

Items 24–27

Match each symptom or sign with the appropriate disease.

- (A) Sjögren's syndrome
- (B) Systemic lupus erythematosus
- (C) Rheumatoid arthritis
- (D) Ankylosing spondylitis
- (E) Psoriatic arthropathy

24. Stiff back in the morning that improves with exercise (**SELECT 1 DISEASE**)

25. Skin lesions (**SELECT 1 DISEASE**)

26. Dry eyes and dry mouth (**SELECT 1 DISEASE**)

27. Butterfly rash (**SELECT 1 DISEASE**)

Items 28–31

Match each sign or set of signs with the appropriate syndrome.

- (A) Down's syndrome
- (B) Turner's syndrome
- (C) Edwards' syndrome
- (D) Patau's syndrome
- (E) Klinefelter's syndrome

28. Epicanthal folds, broad nose, protruding tongue (**SELECT 1 SYNDROME**)

29. Testicular atrophy (**SELECT 1 SYNDROME**)

30. Short female with a webbed neck (**SELECT 1 SYNDROME**)

31. Prominent occiput, micrognathia, cleft lip and palate (**SELECT 1 SYNDROME**)

Items 32–35

Match each clinical picture with the appropriate arthropod.

- (A) *Ornithodoros coriaceus*
(pajaroello tick)
- (B) *Latrodectus mactans*
(black widow spider)
- (C) *Dermacentor andersoni*
(Rocky Mountain wood tick)
- (D) *Loxosceles reclusa* (brown recluse spider)
- (E) *Trombicula larvae*
(chiggers)

32. Central necrotic area expanding in size up to 20 cm (**SELECT 1 ARTHROPOD**)

33. Weakness in the legs followed by ascending flaccid paralysis (**SELECT 1 ARTHROPOD**)

34. Pruritic papules or papulourticarial lesions persisting for days to weeks (**SELECT 1 ARTHROPOD**)

35. Intense muscle pains, abdominal rigidity, and nausea (**SELECT 1 ARTHROPOD**)

Items 36–39

Match each skin manifestation with the appropriate cause.

- (A) Chronic arsenic ingestion
- (B) Viral hepatitis
- (C) Melanism
- (D) Rubella
- (E) Quinacrine ingestion

36. Tanned skin even when there is no sun exposure (**SELECT 1 CAUSE**)

37. Yellow skin and yellow sclerae (**SELECT 1 CAUSE**)

38. Gray skin with dark maculae (**SELECT 1 CAUSE**)

39. Greenish-yellow skin (**SELECT 1 CAUSE**)

Items 40–43

Match each description or disease below with the correct ocular sign.

- (A) Arcus senilis
- (B) Kayser-Fleischer ring
- (C) Pterygium
- (D) Chalazion
- (E) Blepharitis

- 40.** Gray band of corneal opacity in a 25-year-old man with hyperlipidemia (**SELECT 1 SIGN**)
- 41.** Wilson's disease (**SELECT 1 SIGN**)
- 42.** Granulomatous cyst of a meibomian gland (**SELECT 1 SIGN**)
- 43.** Vascular membrane growing toward center of cornea (**SELECT 1 SIGN**)

Items 44–50

For each finding, select the most appropriate diagnosis.

- | | |
|-------------------------------|-----------------------------|
| (A) Acute pancreatitis | (E) Alzheimer's disease |
| (B) Perforated duodenal ulcer | (F) Parkinson's disease |
| (C) Nephrotic syndrome | (G) Rubeola (measles) |
| (D) Hypothyroidism | (H) Varicella (chicken pox) |

- 44.** Partial alleviation of pain when the patient sits up and leans forward (**SELECT 1 DIAGNOSIS**)
- 45.** Rebound tenderness and abdominal guarding (**SELECT 1 DIAGNOSIS**)
- 46.** Koplik's spots (**SELECT 1 DIAGNOSIS**)
- 47.** Superficial vesicles with erythematous bases (**SELECT 1 DIAGNOSIS**)
- 48.** Shuffling gait (**SELECT 1 DIAGNOSIS**)
- 49.** Dementia (**SELECT 2 DIAGNOSES**)
- 50.** Coarse hair (**SELECT 1 DIAGNOSIS**)

General Appearance of Disease

Answers

- 1. The answer is C.** (*Wold, pp 2–7.*) A history of pain that increases in severity, worsens at night, and is relieved by aspirin should suggest osteoid osteoma as a potential diagnosis. It is three times more common in males. Patients in their second decade of life are most commonly affected. The proximal femur is the most common location. Osteoarthritis is a common cause of hip pain in elderly patients. A septic hip joint is typically very acute with other constitutional signs of infection. Only osteoid osteoma has a classic history of relief with aspirin.
- 2. The answer is E.** (*Tintinalli, 4/e, p 201.*) The early phase of septic shock is characterized by vasodilation, resulting in a warm, flushed patient with normal or elevated cardiac output. Fever, agitation, or confusion is often present. In *late* septic shock, patients may be obtunded with decreased urine output, blood pressure, and cardiac output.
- 3. The answer is E.** (*Tintinalli, 4/e, p 221.*) Patients with gastrointestinal bleeding may have a history of prior gastrointestinal bleeding, use of non-steroidal anti-inflammatory agents, alcohol abuse, or use of corticosteroids or anticoagulants. Vital signs will reveal hypotension and tachycardia if blood loss is significant. Guaiac stool testing is usually positive. Ingestion of iron or bismuth can simulate melena. Guaiac testing in this setting will be negative.
- 4. The answer is E.** (*Rockwood, 4/e, pp 487–492.*) Compartment syndrome results from elevated pressure within a closed space. Irreversible damage to the contents of the compartment will occur if elevated pressures persist. This condition should be considered a surgical emergency. The most important symptom is pain disproportionate to what might be expected for the problem for which the patient is being treated. Patients may have a pain-free interval after an injury and then develop unrelenting pain. They may complain of numbness or tingling in the affected extremity. The compartment is tense and tender to palpation, and passive muscle stretch increases the pain. Loss of pulse and motor function are late signs of compartment syndrome. Irreversible damage has usually occurred by the time these latter two findings present.