

Introduction to Clinical Diagnosis Sample Items

- A 6-month-old boy is brought to the physician because of left knee swelling for 24 hours. Three months ago, he had three large hematomas on his forehead that resolved without treatment. His two sisters and his mother have no history of similar symptoms. His mother's maternal uncle and her brother died before the age of 30 years of massive cerebral hemorrhages. Physical examination shows deep ecchymoses over the buttocks and severe swelling of the left knee. The most likely explanation for these findings is a deficiency of which of the following?

 - Factor I (fibrinogen)
 - Factor V (proaccelerin)
 - Factor VIII (antihemophilic factor)
 - Factor XIII (transglutaminase)
 - von Willebrand factor
- A 56-year-old man has had a small, slowly growing nodule on his chin during the past 3 years. The lesion is 1.3 cm in diameter, the center is ulcerated, and the border is waxy. Examination of tissue obtained on excision of the lesion is most likely to show which of the following?

 - Actinic keratosis
 - Basal cell carcinoma
 - Melanoma
 - Seborrheic keratosis
 - Squamous cell carcinoma
- A 23-year-old woman comes to the physician because of a 5-month history of intermittent discharge from both breasts. Her last menstrual period was 6 months ago. She takes no medications and is otherwise healthy. She has never been sexually active. Physical examination shows scant white fluid expressible from the breasts bilaterally. Serum studies are most likely to show an increase in which of the following hormone concentrations?

 - Estradiol
 - Follicle-stimulating hormone
 - Luteinizing hormone
 - Progesterone
 - Prolactin
 - Testosterone
- A 39-year-old man has the acute onset of pain, corneal clouding, and diffuse redness in the left eye. There is no discharge. Vision is 20/20 in the right eye and 20/100 in the left eye. The left pupil is dilated. Which of the following is the most likely cause of these findings?

 - Acute glaucoma
 - Acute hordeolum
 - Bacterial conjunctivitis
 - Corneal abrasion
 - Subconjunctival hemorrhage
- A 27-year-old man with a sleep disorder enrolls in a research study. During sleep evaluation, he is noted to snore loudly and stop breathing for prolonged periods of 30 to 40 seconds. Toward the end of one of these apneic periods, arterial blood gas analysis is done. Which of the following sets of findings is most likely in this patient?

	pH	PCO₂	PO₂
(A)	Increased	decreased	normal
(B)	Normal	increased	increased
(C)	Normal	decreased	increased
(D)	Decreased	increased	decreased
(E)	Decreased	decreased	normal

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6. A 65-year-old woman comes to the physician because of a 2-day history of a high temperature, chills, and headache. She was diagnosed with multiple myeloma 6 months ago. Her temperature is 39°C (102.2°F), pulse is 90/min, and blood pressure is 150/80 mm Hg. Examination shows lethargy and severe neck rigidity; no other abnormalities are noted. Which of the following organisms is most likely to be found on Gram stain of cerebrospinal fluid?
- (A) *Haemophilus influenzae*
 - (B) *Listeria monocytogenes*
 - (C) *Neisseria meningitidis*
 - (D) *Pseudomonas aeruginosa*
 - (E) *Streptococcus pneumoniae*
7. A 55-year-old man who is a farmer is brought to the emergency department 30 minutes after his wife found him unresponsive in their barn. She reports that he was foaming at the mouth and had evidence of tearing of the eyes, vomiting, and diarrhea. He is unresponsive to painful stimuli. His pulse is 45/min, and blood pressure is 90/60 mm Hg. Bilateral diffuse wheezes are heard on auscultation of the chest. This patient has most likely sustained poisoning by which of the following?
- (A) Carbon monoxide
 - (B) Ethanol
 - (C) Ethylene glycol
 - (D) Methanol
 - (E) Organophosphate
8. A 28-year-old female executive has irresistible urges to sleep during the day. She often has episodes of dropping her head, slurred speech, and suddenly dropping things from her hands, all lasting for seconds to minutes. In addition, she frequently has vivid, colorful dreams just before falling asleep. Occasionally, when in certain emotionally charged situations, she feels like her whole body goes limp; however, she remembers everything. Which of the following is the most likely diagnosis?
- (A) Absence seizures
 - (B) Delayed sleep phase syndrome
 - (C) Insomnia
 - (D) Narcolepsy
 - (E) Night terrors
9. A 15-year-old girl is brought to the physician by her mother for a follow-up examination. She has a 3-year history of seizure disorder treated with topiramate. Her mother says, "I am worried because she's refused to take her medication since she started dating this new guy. She won't even tell me why." Physical examination shows no abnormalities. After the mother is asked to leave the room, which of the following is the most appropriate statement by the physician to begin a discussion of this patient's lack of adherence to her medication regimen?
- (A) "Can you tell me why you don't want to take your medication anymore?"
 - (B) "I would like to discuss the serious consequences that could result from your not taking your medication."
 - (C) "I'm worried that your boyfriend isn't a good influence on you."
 - (D) "Perhaps I can talk to your boyfriend about your condition so that you can take your medication again."
 - (E) "Since you are still a minor, you must respect your mother's decision and take your medication."

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10. A 78-year-old woman is brought to the physician because of a headache and visual problems for 4 days. The headache is more severe on the left side, in the area above and in front of her ear. She has had intermittent fevers, difficulty chewing, and a 4.5-kg (10-lb) weight loss during the past 6 weeks. Her temperature is 37.4°C (99.4°F). Visual fields are decreased. There is tenderness to palpation on the left side of the scalp. Which of the following is the most likely diagnosis?
- (A) Acute meningitis
 - (B) Cluster headache
 - (C) Idiopathic intracranial hypertension
 - (D) Migraine
 - (E) Subarachnoid hemorrhage
 - (F) Temporal arteritis
 - (G) Tension-type headache
11. A 65-year-old man comes to the physician because of a 6-week history of fatigue and difficulty swallowing; he also has had a 6.8-kg (15-lb) weight loss during this period. Ten years ago, he underwent operative resection of squamous cell carcinoma of the floor of the mouth. He takes no medications. He has smoked 2 packs of cigarettes daily for 40 years and drinks 60 oz of alcohol weekly. Physical examination shows a nontender abdomen with bowel sounds present. The physician suspects a second primary cancer. This cancer is most likely located at which of the following sites?
- (A) Brain
 - (B) Esophagus
 - (C) Liver
 - (D) Lymph nodes
 - (E) Stomach
12. A previously healthy 34-year-old woman had a single rigor 3 days ago. Since then she has had temperatures to 38.9°C (102°F), shortness of breath with minimal exertion, and cough productive of rust-colored sputum. An x-ray of the chest shows consolidation in the right lower lobe of the lung. Which of the following is the most likely diagnosis?
- (A) Mycoplasmal pneumonia
 - (B) Pneumococcal pneumonia
 - (C) Pseudomonal pneumonia
 - (D) Toxoplasmosis
 - (E) Tuberculosis
13. A 35-year-old woman comes to the physician because of abdominal pain for 6 months. She has not had fever, nausea, or vomiting. She has no history of major medical illness. She takes no medications. She does not smoke cigarettes or drink alcohol. Physical examination shows ecchymoses in various stages of healing over the upper and lower extremities. There are acute hematomas around the wrists. Test of the stool for occult blood is negative. A pregnancy test result is negative. It is most appropriate for the physician to ask which of the following questions to begin a discussion with this patient about the possibility of physical abuse?
- (A) "Can you tell me how you received these bruises?"
 - (B) "What do you think about making an appointment with a social worker?"
 - (C) "Why do you stay with someone who physically abuses you?"
 - (D) "Why don't you tell me why you really came to see me?"
 - (E) "Would you like me to report whoever did this to you to the authorities?"

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14. A 22-year-old football player is brought to the emergency department 1 hour after he sustained a left leg injury during a tackle. Physical examination shows mild tenderness and anterior instability of the tibia with the knee in 90 degrees of flexion (positive drawer sign). Active range of motion of the left knee is limited by pain. Which of the following best explains these findings?
- (A) Hemarthrosis
 - (B) Patellar fracture
 - (C) Tear of the anterior cruciate ligament
 - (D) Tear of the medial ligament
 - (E) Tear of the medial meniscus
15. A postmenopausal 60-year-old woman comes to the physician because of a 2-year history of vaginal dryness, intermittent vaginal pain, and decreased pleasure with sexual intercourse. Vital signs are within normal limits. Abdominal examination shows no abnormalities. Pelvic examination shows pale, dry vaginal mucosa. No masses are palpated. Which of the following is the most appropriate next step in management?
- (A) Advise the patient that since these problems are expected for a woman her age, the risks associated with pharmacotherapy outweigh any benefits
 - (B) Explain to the patient that it will be important to assess the impact of her condition on her husband as further treatment is initiated
 - (C) Inform the patient that she should accept her symptoms as part of the normal aging process
 - (D) Inform the patient that these problems are often psychological and that she would benefit from psychotherapy
 - (E) Reassure the patient that her symptoms are common among women her age and that there are treatments available
16. A 73-year-old woman is brought to the emergency department because of severe back pain for 1 day. She has had no recent falls or trauma to the area. Menopause occurred at the age of 52 years. Her temperature is 37°C (98.6°F), pulse is 92/min, and blood pressure is 140/92 mm Hg. Physical examination shows spinal tenderness at T8. A spinal x-ray shows fractures at T8 and T10. Which of the following is the most likely underlying cause of this patient's condition?
- (A) Osteitis deformans (Paget disease)
 - (B) Osteomalacia
 - (C) Osteoporosis
 - (D) Pott disease
 - (E) Spinal metastasis
17. An 18-year-old man comes to the physician because of nausea, headache, blood in his urine, and malaise for 2 days. Three weeks ago, he had severe pharyngitis that resolved spontaneously after several days without antibiotic therapy. His blood pressure is 165/88 mm Hg. Physical examination shows mild peripheral edema. His serum creatinine concentration is 2.1 mg/dL, and serum CH50 concentration is markedly decreased. Urinalysis shows:

Protein	2+
RBC	25–50/hpf
WBC	10–20/hbf
RBC casts	present

Which of the following is the most likely diagnosis?

- (A) Goodpasture syndrome
- (B) IgA nephropathy
- (C) Malignant hypertension
- (D) Post-streptococcal glomerulonephritis
- (E) Granulomatosis with polyangiitis

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18. A 60-year-old woman comes to the physician because of a 3-month history of abdominal fullness and increasing abdominal girth with vague lower quadrant pain. Abdominal examination shows distention. Pelvic examination shows a 10-cm, hard, irregular, nontender, right adnexal mass. Which of the following is the most appropriate statement by the physician at this time?
- (A) “Do you have any friends or family members with you today who could join us before I tell you the diagnosis?”
 - (B) “I’m concerned about something I found during the examination today. Let’s talk about what needs to be done to figure out what it is.”
 - (C) “I’m not sure whether there is something abnormal in your pelvis. You’ll need to undergo a pelvic ultrasonography for further study.”
 - (D) “It looks like you have ovarian cancer, but we’ll need to do further tests to be sure.”
 - (E) “Unfortunately, I need to refer you to a cancer specialist because you have some abnormal examination findings.”
19. A 26-year-old woman comes to the emergency department because of a 12-hour history of lower abdominal pain and vaginal bleeding. There is no history of medical illness, and she takes no medications. Her temperature is 37°C (98.6°F), pulse is 125/min, respirations are 40/min, and blood pressure is 96/64 mm Hg. Abdominal examination shows distention and tenderness. Decreased bowel sounds are heard. Pelvic examination shows an adnexal mass on the right. Measurement of which of the following is the most appropriate next step in management of this patient?
- (A) Leukocyte count
 - (B) Platelet count
 - (C) Prothrombin time
 - (D) Serum α -fetoprotein concentration
 - (E) Serum β -human chorionic gonadotropin concentration
20. A 25-year-old woman with stable cystic fibrosis meets inclusion criteria for a placebo-controlled industry-sponsored research study on a new treatment. The primary care physician is not part of the research team, but he is familiar with the research and considers it to be scientifically sound. The research protocol provides medication and medical care limited to assessing medication effects and adverse effects for 6 months. The patient knows of the study and asks the physician if she should enroll. Which of the following is the most appropriate initial response by the primary care physician?
- (A) Advise against participation because the research is funded by a pharmaceutical company
 - (B) Provide the patient with basic information about the study, and ask if she would like to learn more from the research team
 - (C) Strongly recommend to the patient that she participate in the study because it will benefit future generations
 - (D) Tell the patient that if she enrolls in the study, he will not be able to provide any medical care for her during this study

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Answer Form for Introduction to Clinical Diagnosis Sample Questions

(Questions 1–20)

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|-----|-------|-----|-------|
| 1. | _____ | 11. | _____ |
| 2. | _____ | 12. | _____ |
| 3. | _____ | 13. | _____ |
| 4. | _____ | 14. | _____ |
| 5. | _____ | 15. | _____ |
| 6. | _____ | 16. | _____ |
| 7. | _____ | 17. | _____ |
| 8. | _____ | 18. | _____ |
| 9. | _____ | 19. | _____ |
| 10. | _____ | 20. | _____ |

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Answer Key for Introduction to Clinical Diagnosis Sample Questions

(Questions 1–20)

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|-----|---|-----|---|
| 1. | C | 11. | B |
| 2. | B | 12. | B |
| 3. | E | 13. | A |
| 4. | A | 14. | C |
| 5. | D | 15. | E |
| 6. | E | 16. | C |
| 7. | E | 17. | D |
| 8. | D | 18. | B |
| 9. | A | 19. | E |
| 10. | F | 20. | B |