

## Behavioral Science Sample Items

1. A 50-year-old man develops difficulty walking while receiving drug therapy for paranoid behavior. Physical examination shows masked facies and diffuse muscle rigidity. He is slow in initiating movement and walks with a shuffling narrow-based gait. Which of the following drugs is the most likely cause of these findings?
  - (A) Barbiturate
  - (B) Benzodiazepine
  - (C) Monoamine oxidase inhibitor
  - (D) Phenothiazine
  - (E) Tricyclic compound
  
2. A 24-year-old man is brought to the emergency department by his mother after barricading himself in his apartment. For 8 months, he has believed that aliens follow him and control his mind. He was fired from his part-time job 6 months ago because of unusual behavior. There are no other apparent psychosocial stressors. His paternal grandmother has major depressive disorder. He does not use drugs, but his mother states that he frequently drinks beer. There is no disturbance of mood, sleep, or appetite. Examination shows an extremely agitated and suspicious patient. There is a 1 × 1-cm abrasion in the right frontal area. His blood alcohol concentration is 0.5 mg/dL, and serum  $\gamma$ -glutamyltransferase (GGT) activity is 40 U/L (N=5–50). Which of the following is the most likely diagnosis?
  - (A) Alcohol-induced mood disorder
  - (B) Bipolar disorder, manic
  - (C) Brief psychotic disorder
  - (D) Schizoaffective disorder
  - (E) Schizophrenia, paranoid type
  
3. A 43-year-old woman is brought to the emergency department 1 hour after a stranger stole her purse. She is agitated and extremely upset. She is 163 cm (5 ft 4 in) tall and weighs 91 kg (200 lb); BMI is 34 kg/m<sup>2</sup>. Physical examination shows no other abnormalities. Her blood glucose concentration is increased. Which of the following is the most likely explanation for this finding?
  - (A)  $\beta$ -Cell hypersecretion
  - (B) Cushing disease
  - (C) Glucagon-secreting adenoma
  - (D) Pancreatitis
  - (E) Normal stress hormone response
  
4. A 4-year-old girl is brought to the physician by her mother because of a fever for 1 day. The physician is more than 1 hour behind schedule because of two patient emergencies earlier that day. When he enters the room, the mother yells, "Do you know how long we've had to wait? This is totally unacceptable!" It is most appropriate for the physician to initially state which of the following?
  - (A) "I am frustrated, too, with being so far behind schedule."
  - (B) "I hope my staff explained about the difficult patients who caused the delay."
  - (C) "It must have been very difficult to be here for so long with a sick child."
  - (D) "My office staff scheduled too many patients for today."
  - (E) "Unfortunately, some patients demand more time than we scheduled for them."

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5. A 45-year-old man is admitted to the hospital because of chest pain for 1 hour. He has a sedentary lifestyle, and his diet is high in fat and sodium. The diagnosis of acute angina is made, and the appropriate treatment is administered. After the patient's condition is stabilized, the physician recommends an exercise regimen and a low-fat, low-sodium diet. Two weeks later, the patient returns for a follow-up examination. He indicates that he has not yet returned to work and spends most of the day lying on the couch. He has not had any chest pain, shortness of breath, dyspnea with exertion, or peripheral edema. Which of the following initial statements by the physician is most appropriate?
- (A) "Are you afraid you might have a heart attack if you exercise?"
  - (B) "Are you doing any types of exercise other than channel surfing?"
  - (C) "Have you also not been following the diet I recommended?"
  - (D) "What do you think is interfering with your ability to resume activity?"
  - (E) "When would you like to start working on improving your health?"
6. A firstborn 1-year-old girl is hospitalized for evaluation of arrested growth. Pregnancy and delivery were uncomplicated, and development was normal initially. The infant is listless and has a diaper rash. She is below the 5th percentile for length and weight. No other abnormalities are noted. After 1 week of routine hospital care, the infant has gained 1 kg (2.2 lb) and has become more responsive. Which of the following is the most likely explanation for the arrested growth?
- (A) Hypothyroidism
  - (B) Infantile psoriasis
  - (C) Milk allergy
  - (D) Parental neglect
  - (E) Pyloric stenosis
7. A 15-year-old boy with generalized tonic-clonic seizures is brought to the physician by his mother for a follow-up examination. She says he has not been taking his medication regularly. In his presence, she explains to the physician that she is baffled by her son's behavior and "can't get him to take his pills, let alone take out the trash." Even after his mother leaves, the patient stares out the window and refuses to talk. Which of the following behaviors during the interview is most appropriate to assess the patient's compliance with this regimen?
- (A) Confront the patient about his poor behavior
  - (B) Explain the patient's resistance to him
  - (C) Laugh and joke with the patient
  - (D) Project a firm, businesslike manner
  - (E) Project a respectful, tolerant attitude and encourage free discussion
8. The children of a 67-year-old woman ask their family physician for advice about their mother's behavior 4 weeks after the death of her husband of 40 years. They are concerned because she weeps whenever she comes upon an object in her home that she associates with him. Her appetite has decreased, and she has had a 2-kg (4.4-lb) weight loss. She awakens 1 hour before the alarm goes off each morning. She is able to care for herself. Although she does not leave her home for any social activities, she does enjoy visits from her family. Which of the following is the most likely explanation and appropriate management?
- (A) Normal grief reaction, and she requires no medical attention
  - (B) Normal grief reaction, and she would benefit from diazepam therapy
  - (C) Pathologic grief reaction, and she should be treated with an antidepressant
  - (D) Pathologic grief reaction, and she should be treated with psychotherapy
  - (E) Pathologic grief reaction, and she should be encouraged to move in with one of her children

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9. A 4-year-old girl is brought to the physician because she consistently uses her left hand. Her mother, who is also left-handed, tells the physician that she wants her daughter to be right-handed because she resents all the obstacles she faced as a left-handed child. She makes her daughter practice with a crayon held only in her right hand. Which of the following responses by the physician is most appropriate?
- (A) "I know you want the best for your daughter, but pressing her to change is unlikely to work and might cause its own problems."
  - (B) "I understand your concerns, and since she is only 4, your efforts will likely result in her being right-handed by age 7 years."
  - (C) "Times have changed. There is much less discrimination against left-handed people now."
  - (D) "You may be causing irreversible psychological trauma to your child, which could be worse than being left-handed."
  - (E) "You shouldn't interfere with nature."
10. A 65-year-old man comes to the physician for a follow-up examination after the results of a bronchoscopy showed squamous cell carcinoma. When the physician tells the patient the diagnosis, the patient becomes tearful and responds, "No, you're wrong! This must be a mistake. This can't happen to me. Let's do more tests." This patient is most likely at which of the following stages of grief?
- (A) Anger
  - (B) Bargaining
  - (C) Denial
  - (D) Depression
11. A 10-month-old boy is brought to the emergency department by his babysitter 1 hour after he was difficult to arouse following a head injury. The babysitter says he hit his head after falling off a bed and that she could not wake him at first when she found him lying on the floor. The patient is conscious and not in distress. Physical examination shows a 2-cm hematoma over the left parietal region of the head. There are ecchymoses in various stages of healing on different body surfaces, including the buttocks and low back. Neurologic examination shows no abnormalities. When questioned about the bruises, the babysitter replies, "He just seems to bruise easily. Maybe he has some sort of bleeding problem." After notifying the parents, the physician should do which of the following next?
- (A) Ask the hospital social worker to obtain a criminal background check on the babysitter
  - (B) Have a court appoint a guardian for the child
  - (C) Notify child protective services of suspected abuse
  - (D) Refer the patient to a pediatric hematologist
  - (E) Register a formal complaint against the babysitter with the local police department
12. A 10-year-old girl is brought to the physician by her parents for a well-child examination. When alone with the physician, the parents state that they are concerned because some of her friends seem overly preoccupied with food when they are visiting. Their daughter also has begun to show an interest in fashion magazines and stylish clothing. Although their daughter has had consistent and appropriate weight gain throughout her life, the parents are aware of the risks for eating disorders and are eager to do anything they can to avoid such a problem. It is most appropriate for the physician to recommend which of the following to the parents regarding their daughter?
- (A) Encourage more family meals
  - (B) Forbid access to fashion magazines
  - (C) Have her eat more at every meal
  - (D) Suggest she prepare her own meals
  - (E) Weigh her weekly

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13. A 46-year-old man comes to the physician for a follow-up examination. He underwent coronary artery bypass grafting 3 weeks ago. He works long hours daily as the head chef and owner of a restaurant. He has had a 14-kg (30-lb) weight gain since opening his restaurant 3 years ago. He attributes this weight gain to “working around food all day, every day.” He does not smoke cigarettes. His father had a myocardial infarction at the age of 60 years. The patient is 175 cm (5 ft 9 in) tall and now weighs 102 kg (225 lb); BMI is 33 kg/m<sup>2</sup>. Physical examination shows no other abnormalities. He tells the physician that he is afraid to cut down on his work hours because his business might suffer as a result, but he says, “I don’t want to have a heart attack like my dad did.” Which of the following responses by the physician is most appropriate?
- (A) “The fact that you do not smoke cigarettes balances out your other risk factors, such as your weight and family history.”
  - (B) “Given your family history, modifying other risk factors won’t have much impact.”
  - (C) “I suggest you have someone else run your business for the time being, so you can spend your days in a more healthy environment.”
  - (D) “Let’s discuss some lifestyle changes, including weight loss, exercise, and decreased stress.”
  - (E) “Since the only risk factor for a myocardial infarction you can change is your weight, I suggest you initiate a weight-loss program fairly soon.”
14. A 40-year-old woman with hypertension comes to the physician for a follow-up examination. Her blood pressure is 160/96 mm Hg. She tells the physician that she has been having difficulty being compliant with her medication regimen and low-sodium diet. Which of the following responses by the physician is most appropriate?
- (A) “I will go over the regimen and diet again to make sure you understand them.”
  - (B) “I’d like you to read these pamphlets on the risks of hypertension. You will then realize the seriousness of your condition.”
  - (C) “If you don’t follow my recommendations, you could end up having a heart attack or stroke. You could also become blind.”
  - (D) “Tell me the difficulties you’ve been having. Perhaps we can make your regimen and diet easier for you to follow.”
  - (E) “Unfortunately, if you do not follow your medication regimen and diet, I will find it difficult to act as your physician.”
15. A 27-year-old woman comes to the physician because of an itchy rash on her hands for 2 weeks. She states that she began training as a hairstylist 3 weeks ago and works 6 hours daily, cutting, coloring, and highlighting hair and giving perms. Examination of the hands shows edema with weepy vesicular lesions in a glove pattern bilaterally. Which of the following initial actions by the physician is most appropriate?
- (A) Advise the patient to stop her training and look for another type of job
  - (B) Immediately irrigate the affected area with copious amounts of water and prescribe an anti-inflammatory ointment
  - (C) Inform the patient that her lesions are consistent with poison ivy dermatitis and determine when and where she was exposed
  - (D) Prescribe oral corticosteroid treatment and tell the patient to avoid giving perms since harsh chemicals are involved
  - (E) Prescribe topical corticosteroid treatment and advise the patient to wear non-latex gloves at work

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16. A 42-year-old man with mild intellectual developmental disorder comes to his primary care physician for a follow-up examination. The patient has received care from this physician for many years. He recently received the diagnosis of inoperable retroperitoneal sarcoma. His prognosis is poor. He serves as his own guardian and lives independently. His oncologist recommends chemotherapy that is highly toxic and has less than a 5% response rate for this type of tumor. The primary care physician believes that the burden of suffering clearly outweighs the limited potential benefit of this treatment. The patient says that he is unsure whether he wishes to undergo the chemotherapy. Which of the following is the most appropriate next step by the primary care physician?
- (A) Ask the patient what he understands about the treatment and its likely effects
  - (B) Contact the oncologist and request that he reconsider this treatment plan
  - (C) Emphasize the toxic adverse effects of the treatment and how uncomfortable the patient would be
  - (D) Encourage the patient to allow the primary care physician to decide what is best for him
  - (E) Stress the extremely low chance that treatment will provide any benefit to the patient
17. A 5-year-old boy with Down syndrome is admitted to the hospital because of a 1-month history of fatigue, intermittent fever, and weakness. Results from a peripheral blood smear taken during his evaluation are indicative of possible acute lymphoblastic leukemia. The physician recommends a bone marrow aspiration to confirm the diagnosis and subsequent cytogenetic studies as needed. The patient's parents refuse to consent to the procedure because they think such an invasive test will cause their son too much unnecessary pain. Without confirmation of the diagnosis and results from cytogenetic testing, the patient's treatment may be adversely affected. Which of the following is the most appropriate next step for the physician?
- (A) Accede to the parents' wishes to spare their son further pain
  - (B) Consult child protective services
  - (C) Discuss options to manage the potential pain during the procedure
  - (D) Do the necessary procedure despite the parents' objections
  - (E) Explain that the child will die if the procedure is refused
18. A 70-year-old man with terminal pancreatic cancer is admitted to the hospital because of severe shortness of breath. He has no documented advance care plans. His three children tell the physician that they want everything possible to be done for their father, including cardiopulmonary resuscitation (CPR) and intubation, if necessary. The patient is cachectic and unaware of his surroundings. Which of the following initial responses by the physician is most appropriate?
- (A) "I hear you, and I understand how difficult it must be for you to see your father ill. Let's talk more about the options."
  - (B) "I know that you are distressed about your father's illness, but you must accept that he will die soon."
  - (C) "I want you to reconsider your decision about CPR and intubation. Your father's prognosis is very poor."
  - (D) "Relatives in this type of situation feel distressed, and they want to prolong the life of their loved one unnecessarily."
  - (E) "You are just prolonging the inevitable. Your father is going to die."
19. A 32-year-old woman comes to the emergency department after taking 40 1-mg tablets of alprazolam. She says that her boyfriend threatened to leave her, and she feels "empty." She drinks several six-packs of beer weekly and uses cocaine daily. She has outbursts of rage whether or not she is intoxicated. Which of the following is the most likely personality disorder?
- (A) Antisocial
  - (B) Borderline
  - (C) Dependent
  - (D) Narcissistic

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20. A 34-year-old woman with major depressive disorder comes to the physician for a follow-up examination. She says that her depressive symptoms are worsening. Multiple medication regimens have been ineffective. The patient says that she spoke recently with a former college roommate who also has depression. Her friend is currently enrolled in a clinical trial for a new antidepressant at a local center. The patient says, "My friend seems to be doing really well with this new medication, and I think I'd like to try it out to see if it would work for me, too. Can you write me a referral to the center where my friend is enrolled?" Which of the following is the most appropriate initial response by the physician to this patient's request?
- (A) Decline to refer the patient because she has treatment-refractory depression that typically is not accepted into clinical trials
  - (B) Discuss the conduct of clinical trials so that the patient has a clear understanding of how they operate
  - (C) Inform the patient that she cannot receive future care from the physician if she enrolls in the clinical trial
  - (D) Inform the patient that she will not get the best care possible if she enrolls in an experimental trial
  - (E) Refer the patient to the center because so many other treatment options have failed

**Behavioral Science Sample Items**

**Answer Form for Behavioral Science Sample Questions**

**(Questions 1–20)**

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**Answer Key for Behavioral Science Sample Questions**

**(Questions 1–20)**

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