



The Right Questions for the Right Answers

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# Clinical Vignettes for the USMLE Step 2 CK

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FOURTH EDITION

- ▶ One complete board-format exam
- ▶ 400 clinical vignettes covering all the clinical sciences
- ▶ 8 blocks of 50 questions—just like the USMLE Step 2 CK
- ▶ Reviewed by students who recently passed the USMLE Step 2 CK



# **Clinical Vignettes for the USMLE Step 2 CK**

**PreTest™ Self-Assessment and Review**

**Fourth Edition**

**McGraw-Hill**

**Medical Publishing Division**

New York Chicago San Francisco Lisbon London Madrid Mexico City  
Milan New Delhi San Juan Seoul Singapore Sydney Toronto

**Clinical Vignettes for the USMLE Step 2 CK, Fourth Edition**

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1 2 3 4 5 6 7 8 9 0 DOC/DOC 0 9 8 7 6

ISBN: 0-07-146403-4

*This book was set in Berkeley by North Market Street Graphics.*

*The editor was Catherine A. Johnson.*

*The production supervisor was Sherri Souffrance.*

*Project management was provided by North Market Street Graphics.*

*RR Donnelley was printer and binder.*

*This book is printed on acid-free paper.*

**Cataloging-in-Publication data is on file for this title at the Library of Congress.**

International Edition ISBN 0-07-110075-X

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# Preface

The current format of the United States Medical Licensing Examination Step 2 Clinical Knowledge (USMLE Step 2 CK) exam emphasizes clinical vignettes—in single-best-answer multiple-choice and matching formats—as the primary test questions. The examination is 400 questions broken into eight blocks of 50 questions each. Examinees have one hour to complete each block.

*Clinical Vignettes for the USMLE Step 2 CK: Fourth Edition* parallels this format. The book contains 400 clinical vignette-style questions covering the core clinical sciences and was assembled based on the published content outline for the USMLE Step 2. The questions are divided into 8 blocks of 50 questions. As on the Step 2 CK exam, each block tests the examinee on all core clinical medicine areas. Halfway through each block, a stopwatch set at 30 minutes is included to remind the examinee of the one-hour limit. Answers are in the second half of the book. Each answer is accompanied by a concise but comprehensive explanation and is referenced to a key textbook or journal article for further reading.

The questions in this book were culled from the seven PreTest clinical science books. The publisher acknowledges and thanks the following authors for their contributions to this book:

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McGraw-Hill  
July 2006



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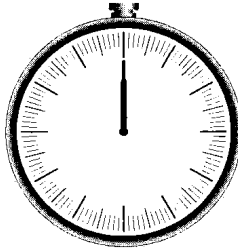
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# BLOCK I



***You HAVE 60 MINUTES TO COMPLETE 50 QUESTIONS.***

## Questions

**I-1.** A 37-year-old postal worker from Atlantic City, New Jersey, presents to the emergency room with the chief complaint of dry cough for several days. He has fever, malaise, dyspnea on exertion, and pleuritic chest pain. He has experienced mild nausea and diffuse abdominal pain. He has been in good health otherwise and has no recent travel history. No contacts have been ill. Physical examination is remarkable for a temperature of  $38.5^{\circ}\text{C}$  ( $101.4^{\circ}\text{F}$ ) and decreased breath sounds at the lung bases bilaterally. Chest radiograph reveals pleural effusions and a widened mediastinum. Which of the following is the most likely diagnosis?

- a. Pneumonic plague
- b. Tularemia
- c. Hemorrhagic fever
- d. Inhalation anthrax
- e. Hantavirus pulmonary syndrome

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**1-2.** A young girl who was underweight and hypotonic in infancy is obsessed with food, eats compulsively, and at age 4, is already grossly overweight. She is argumentative, oppositional, and rigid. She has a narrow face, almond-shaped eyes, and a small mouth. Which of the following is the most likely diagnosis?

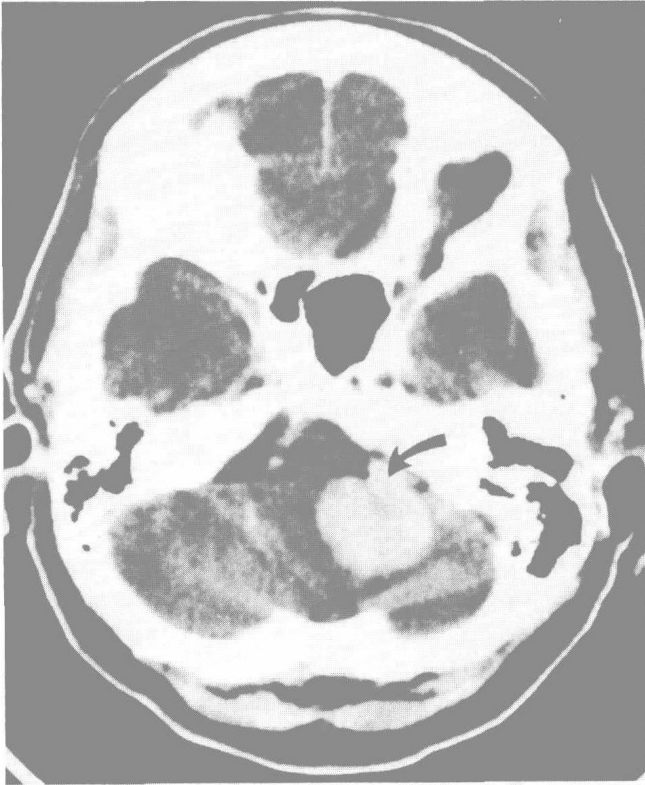
- a. Down syndrome
- b. Fragile X syndrome
- c. Fetal alcohol syndrome
- d. Hypothyroidism
- e. Prader-Willi syndrome

**1-3.** A 68-year-old hypertensive man undergoes successful repair of a ruptured abdominal aortic aneurysm. He receives 9 L Ringer's lactate solution and four units of whole blood during the operation. Two hours after transfer to the surgical intensive care unit, the following hemodynamic parameters are obtained: systemic blood pressure (BP) 90/60 mmHg, pulse 110 beats per minute, central venous pressure (CVP) 7 mmHg, pulmonary artery pressure 28/10 mmHg, pulmonary capillary wedge pressure 8 mmHg, cardiac output 1.9 L/min, systemic vascular resistance 1400 (dyne·sec)/cm<sup>5</sup> (normal is 900 to 1300), PaO<sub>2</sub> 140 mmHg (FiO<sub>2</sub>: 0.45), urine output 15 mL/h (specific gravity: 1.029), and hematocrit 35%. Which of the following is the most appropriate management given this data?

- a. Administration of a diuretic to increase urine output
- b. Administration of a vasopressor agent to increase systemic blood pressure
- c. Administration of a fluid challenge to increase urine output
- d. Administration of a vasodilating agent to decrease elevated systemic vascular resistance
- e. A period of observation to obtain more data



**1-4.** A 35-year-old woman has noticed that over the past 3 to 5 months she has had some difficulties with balance, particularly when she closes her eyes. On examination, she has decreased hearing in her left ear and also left body dysdiadochokinesia. Her physician orders a head CT. Given this CT scan, which was obtained without contrast enhancement, the physician must assume that the posterior fossa mass at the arrow is which of the following?



- a. Normal
- b. Calcified
- c. Highly vascular
- d. Granulomatous
- e. Highly cystic

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**1-5.** A 40-year-old G4P5 at 39 weeks gestation has progressed rapidly in labor with a reassuring fetal heart rate pattern. She has had an uncomplicated pregnancy with normal prenatal labs including an amniocentesis for advanced maternal age. The patient begins the second stage of labor and after 15 min of pushing starts to demonstrate deep variable heart rate accelerations. You suspect that she may have a fetus with a nuchal cord. You expediently deliver the baby by low-outlet forceps and hand the baby over to the neonatologists called to attend the delivery. As soon as the baby is handed off to the pediatric team, it lets out a strong spontaneous cry. The infant is pink with slightly blue extremities that are actively moving and kicking. The heart rate is noted to be 110 on auscultation. What Apgar score should the pediatricians assign to this baby at 1 min of life?

- a. 10
- b. 9
- c. 8
- d. 7
- e. 6

**1-6.** A 29-year-old G1P0 patient at 15 weeks gestational age presents to your office complaining of some shortness of breath that is more intense with exertion. She has no significant past medical history and is not on any medication. The patient denies any chest pain but sometimes feels as though her heart is pounding. She is concerned because she has always been very athletic and cannot maintain the same degree of exercise that she was accustomed to prior to becoming pregnant. On physical exam, her pulse is 90/min. Her blood pressure is 90/50. On cardiac exam, a systolic ejection murmur is identified. The lungs are clear to auscultation and percussion. Which of the following is the most appropriate next step to pursue in the workup of this patient?

- a. Refer the patient for a ventilation-perfusion scan to rule out a pulmonary embolism
- b. Perform an arterial blood gas
- c. Refer the patient to a cardiologist
- d. Reassure the patient
- e. Order an ECG

**1-7.** Following a weekend of snowmobiling, a 42-year-old man comes to the emergency department with pain, numbness, and discoloration of his right forefoot. You diagnose frostbite. Which of the following is the proper initial treatment?

- a. Debridement of the affected part followed by silver sulfadiazine dressings
- b. Administration of corticosteroids
- c. Administration of vasodilators
- d. Immersion of the affected part in water at 40 to 44°C (104 to 111.2°F)
- e. Rewarming of the affected part at room temperature

**1-8.** On presentation for yearly exam, a healthy, non-sexually active, post-menopausal 60-year-old female gives a history of having had normal yearly mammograms and normal yearly Pap smears over the past 10 years, but has never had an endometrial tissue sample or any screening test for ovarian cancer. The most clearly indicated cancer screening evaluation on today's visit is which of the following?

- a. Bilateral mammogram
- b. Pap smear
- c. Endometrial tissue sample
- d. CA 125 blood test
- e. CEA level

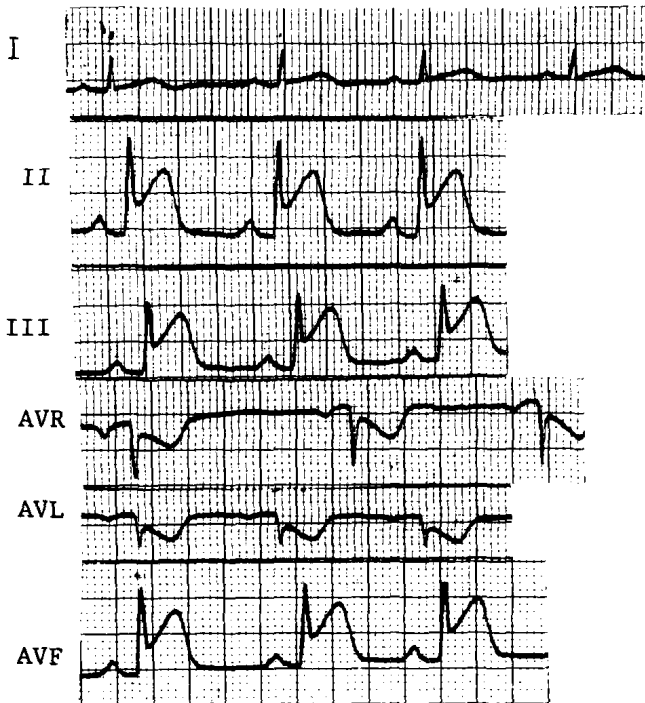
**1-9.** A 26-year-old man comes to the emergency room with the chief complaint of suicidal ideation. He is admitted to the psychiatric ward, where he is noncompliant with all treatment regimens and does not show any psychiatric symptoms other than his insistence that he is suicidal. It is subsequently discovered that he is wanted by the police, who have a warrant for his arrest. Which of the following best describes this behavior?

- a. Primary gain
- b. Secondary gain
- c. Displacement
- d. Rationalization
- e. Marginal intellectual function

**1-10.** A 39-year-old woman has diplopia several times a day for 6 weeks. She consults a physician when the double vision becomes unremitting, and also mentions a dull pain behind her right eye. When a red glass is placed over her right eye and she is asked to look at a flashlight off to her left, she reports seeing a white light and a red light. The red light appears to her to be more to the left than the white light. Her right pupil is more dilated than her left pupil and responds less briskly to a bright light directed at it than does the left pupil. Before any further investigations can be performed, the woman develops the worst headache of her life and becomes stuporous. Her physician discovers that she has marked neck stiffness and photophobia. The physician performs a transfemoral angiogram. This radiologic study is expected to reveal that the woman has which of the following?

- a. An arteriovenous malformation
- b. An occipital astrocytoma
- c. A sphenoidal meningioma
- d. A pituitary adenoma
- e. A saccular aneurysm

**1-11.** A 55-year-old obese woman develops pressure-like substernal chest pain lasting 1 h. Quickly obtained additional history includes the fact that she works as a housekeeper, which requires a considerable amount of lifting and exertion. Recently she had a somewhat similar pain at night after lying down. There is a positive family history of gallstones (mother and sister). Her ECG is shown below. Which of the following is the most likely diagnosis?



- a. Costochondritis
- b. Acute anterior myocardial infarction
- c. Acute inferior myocardial infarction
- d. Pericarditis
- e. Gastroesophageal reflux
- f. Cholecystitis

**I-12.** A 25-year-old woman is treated with an antipsychotic medication after being admitted to an inpatient unit for a psychotic break. Six days after being started on the medication, she is noted to be repeatedly pacing the halls. Even when she is seated, she jiggles her legs and taps her hands on the table constantly. When asked about this behavior, she replies that “my arms and legs just feel like they have to move.” Which of the following is the most likely explanation for this patient’s behavior?

- a. She is experiencing a side effect from the medication
- b. She is becoming increasingly psychotic
- c. She is experiencing withdrawal from an illicit substance
- d. She is fearful of the inpatient environment
- e. She is experiencing the onset of neuroleptic malignant syndrome

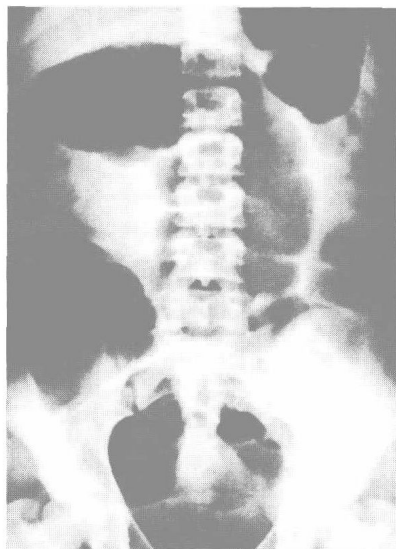
**I-13.** While you are on call at the hospital covering labor and delivery, a 32-year-old G3P2002 who is 35 weeks calls you complaining of lower back pain. The patient informs you that she had been lifting some heavy boxes while fixing up the baby’s nursery. The patient’s pregnancy has been complicated by diet-controlled gestational diabetes. The patient denies any regular uterine contractions, rupture of membranes, vaginal bleeding, or dysuria. She denies any fever, chills, nausea, or emesis. She reports that the baby has been moving normally. On physical exam, you note that the patient is obese; her cervix is long and closed. Her abdomen is soft and nontender with no palpable uterine contractions. No flank pain can be elicited. She is afebrile. The external fetal monitor indicates a reactive fetal heart rate strip; there are rare irregular uterine contractions demonstrated on toco. The patient’s urinalysis comes back with trace glucose and protein, and is otherwise negative. The patient’s most likely diagnosis is which of the following?

- a. Labor
- b. Musculoskeletal pain
- c. Urinary tract infection
- d. Chorioamnionitis
- e. Round ligament pain

**I-14.** A 55-year-old woman with long-standing chronic lung disease and episodes of acute bronchitis complains of increasing sputum production, which is now on a daily basis. Sputum is thick, and daily sputum production has dramatically increased over several months. There are flecks of blood in the sputum. The patient has lost 8 lb. Fever and chills are absent, and sputum cultures have not revealed specific pathogens. Chest x-ray shows increased pulmonary markings and honeycombing in the lower lobes. CT scan shows a signet ring sign with markedly dilated bronchi. Which of the following is the most likely cause of the patient's symptoms?

- a. Pulmonary tuberculosis
- b. Exacerbation of chronic lung disease
- c. Bronchiectasis
- d. Anerboic lung abscess
- e. Carcinoma of the lung

**1-15.** A 50-year-old man presents to the emergency room with a 6-h history of excruciating abdominal pain and distention. The abdominal film shown here is obtained. Which of the following is the most appropriate next diagnostic maneuver?



- a. Emergency celiotomy
- b. Upper gastrointestinal series with small-bowel follow-through
- c. CT scan of the abdomen
- d. Barium enema
- e. Sigmoidoscopy

**1-16.** A boy has the onset of difficulty walking at 16 months. Reflexes are decreased. Over the course of several months, the patient becomes dysarthric and mental functioning decreases. Testing reveals that the patient has a deficiency of arylsulfatase A. Which of the following is the most likely diagnosis?

- a. Sandhoff's disease
- b. Tay-Sachs disease
- c. Gaucher's disease
- d. Metachromatic leukodystrophy
- e. McArdle's disease



**1-17.** A 71-year-old woman with a history of chronic congestive heart failure presents to her family physician for a routine checkup. The physician notices that she has lost 20 lb since her last visit six months ago. When questioned, the patient gives a history of intermittent periumbilical pain that begins 30 minutes after eating and lasts two to three hours. She claims the pain is worse after large meals, so she has begun to eat less out of fear of precipitating the pain. Which of the following is the most likely diagnosis?

- a. Pancreatitis
- b. Intestinal ischemia
- c. Cholecystitis
- d. Small-bowel obstruction
- e. Peptic ulcer disease

**1-18.** You are called to the emergency room to see one of your patients. The father of this 3-year-old was spraying the yard with an unknown insecticide. In the emergency room, the child is noted to have bradycardia, muscle fasciculations, meiosis, wheezing, and profound drooling. Which of the following agents was most likely included in this pesticide?

- a. Organophosphate
- b. Chlorophenothane (DDT)
- c. Sodium cyanide
- d. Warfarin
- e. Paraquat

**1-19.** A 15-year-old girl complains of a low-grade fever, malaise, conjunctivitis, coryza, and cough. After this prodromal phase, a rash of discrete pink macules begins on her face and extends to her hands and feet. She is also noted to have small red spots on her palate. Which of the following is the most likely cause of her rash?

- a. Toxic shock syndrome
- b. Gonococcal bacteremia
- c. Reiter syndrome
- d. Rubeola (measles)
- e. Rubella (German measles)