



美国医师执照考试 (USMLE) Medicine 内科学 (第12版)

- 500 USMLE-style questions and answers
- Detailed explanations for right and wrong answers
- Targets what you really need to know for exam success
- Student tested and reviewed

Robert S. Urban
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内 科 学

(第12版)



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出版说明

美国医师执照考试 (United States Medical Licensing Examination, USMLE) 是针对全世界各国医学院的学生或毕业生, 欲到美国从医的执照考试, 考试全部为选择题, 采用计算机考试。考试分为:

Step 1 (第一阶段): 考察医学基础学科知识, 包括解剖学 Anatomy, 生理学 Physiology, 生物化学 Biochemistry, 微生物学 Microbiology, 病理学 Pathology, 药理学 Pharmacology, 遗传学 Genetics, 营养学 Nutrition, 神经科学 Neuroscience 等。

Step 2 (第二阶段):

(1) 临床医学知识 (Clinical Knowledge, CK): 包括内科学 Medicine, 外科学 Surgery, 妇产科学 Obstetrics and Gynecology, 儿科学 Pediatrics, 神经病学 Neurology, 家庭医学 Family Medicine, 急诊医学 Emergency Medicine, 预防医学 Preventive Medicine 等。

(2) 临床技能 (Clinical Skill, CS): 要通过 Step 1、Step 2 及 TOEFL 之后才能报考, 主要是考察考生的临床实践操作知识。

Step 3 (第三阶段): 测试考生的实际工作能力。内容包括采集病史、体格检查、诊断、治疗措施, 以及医疗法规等。

USMLE 在北京、上海和广州设有考点, 在中国大陆可参加 USMLE Step 1 和 USMLE Step 2 CK 的考试。考试介绍及报名情况可参见 <http://www.ecfmg.com>

为了帮助有志于参加 USMLE 的考生更好地复习, 北京大学医学出版社全面引进了 McGraw Hill 公司的两个著名 USMLE 复习品牌丛书: PreTest 系列、FIRST AID 系列。这两套丛书经过多次再版, 受到世界各地考生的欢迎。本次引进的均为其最新版本。

当前, 我国很多医学院校在进行英文授课、考试的改革, 本书对国内从事英语授课、考试的教师和学生也有重要的参考价值。为广大的医学生和医务工作者比较中美医学教育和自己掌握的知识提供参考。同时, 该书也是学习专业英语的好教材。

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Introduction

Medicine: PreTest Self-Assessment and Review, Twelfth Edition, is intended to provide medical students, as well as house officers and physicians, with a convenient tool for assessing and improving their knowledge of medicine. The 500 questions in this book are similar in format and complexity to those included in Step 2 of the United States Medical Licensing Examination (USMLE). They may also be a useful study tool for Step 3.

For multiple-choice questions, the **one best** response to each question should be selected. For matching sets, a group of questions will be preceded by a list of lettered options. For each question in the matching set, select **one** lettered option that is **most** closely associated with the question. Each question in this book has a corresponding answer, a reference to a text that provides background to the answer, and a short discussion of various issues raised by the question and its answer. A listing of references for the entire book follows the last chapter.

To simulate the time constraints imposed by the qualifying examinations for which this book is intended as a practice guide, the student or physician should allot about one minute for each question. After answering all questions in a chapter, as much time as necessary should be spent in reviewing the explanations for each question at the end of the chapter. Attention should be given to all explanations, even if the examinee answered the question correctly. Those seeking more information on a subject should refer to the reference materials listed or to other standard texts in medicine.

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To the medical students, residents, faculty, and staff
of Texas Tech University School of Medicine—
in pursuit of excellence.

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Infectious Disease

Questions

1. A 30-year-old male patient complains of fever and sore throat for several days. The patient presents to you today with additional complaints of hoarseness, difficulty breathing, and drooling. On examination, the patient is febrile and has inspiratory stridor. Which of the following is the best course of action?

- a. Begin outpatient treatment with ampicillin.
- b. Culture throat for β -hemolytic streptococci.
- c. Admit to intensive care unit and obtain otolaryngology consultation.
- d. Schedule for chest x-ray.
- e. Obtain Epstein-Barr serology.

2. A 70-year-old patient with long-standing type 2 diabetes mellitus presents with complaints of pain in the left ear with purulent drainage. On physical examination, the patient is afebrile. The pinna of the left ear is tender, and the external auditory canal is swollen and edematous. The white blood cell count is normal. Which of the following organisms is most likely to grow from the purulent drainage?

- a. *Pseudomonas aeruginosa*
- b. *Streptococcus pneumoniae*
- c. *Candida albicans*
- d. *Haemophilus influenzae*
- e. *Moraxella catarrhalis*

3. A 25-year-old male student presents with the chief complaint of rash. He denies headache, fever, or myalgia. A slightly pruritic maculopapular rash is noted over the abdomen, trunk, palms of the hands, and soles of the feet. Inguinal, occipital, and cervical lymphadenopathy is also noted. Hypertrophic, flat, wartlike lesions are noted around the anal area. Laboratory studies show the following:

Hct: 40%

Hgb: 14 g/dL

WBC: 13,000/ μ L

Diff: 50% segmented neutrophils, 50% lymphocytes

Which of the following is the most useful laboratory test in this patient?

- a. Weil-Felix titer
- b. Venereal Disease Research Laboratory (VDRL) test
- c. *Chlamydia* titer
- d. Blood cultures
- e. Biopsy of perianal lesions

4. A 35-year-old previously healthy male develops cough with purulent sputum over several days. On presentation to the emergency room, he is lethargic. Temperature is 39°C, pulse 110, and blood pressure 100/70. He has rales and dullness to percussion at the left base. There is no rash. Flexion of the patient's neck when supine results in spontaneous flexion of hip and knee. Neurologic examination is otherwise normal. There is no papilledema. A lumbar puncture is performed in the emergency room. The cerebrospinal fluid (CSF) shows 8000 leukocytes/ μ L, 90% of which are polys. Glucose is 30 mg/dL with a peripheral glucose of 80 mg/dL. CSF protein is elevated to 200 mg/dL. A CSF Gram stain shows gram-positive diplococci. Which of the following is the correct treatment option?

- a. Begin acyclovir for herpes simplex encephalitis.
- b. Obtain emergency MRI scan before beginning treatment.
- c. Begin ceftriaxone and vancomycin for pneumococcal meningitis.
- d. Begin ceftriaxone, vancomycin, and ampicillin to cover both pneumococci and *Listeria*.
- e. Begin high-dose penicillin for meningococcal meningitis.

5. A 20-year-old female college student presents with a 5-day history of cough, low-grade fever (temperature 37.8°C [100°F]), sore throat, and coryza. On examination, there is mild conjunctivitis and pharyngitis. Tympanic membranes are inflamed, and one bullous lesion is seen. Chest examination shows a few basilar rales. Sputum Gram stain shows white blood cells without organisms. Laboratory findings are as follows:

Hct: 31

WBC: 12,000/ μ L

Lymphocytes: 50%

Mean corpuscular volume (MCV): 94 nL

Reticulocytes: 9% of red cells

CXR: bilateral patchy lower lobe infiltrates

Which of the following is the best method for confirmation of the diagnosis?

- a. High titers of antibody to adenovirus
- b. High titers of IgM cold agglutinins or complement fixation test
- c. Methenamine silver stain
- d. Blood culture
- e. Culture of sputum on chocolate media

6. A 22-year-old male, recently incarcerated and now homeless, has received one week of clarithromycin for low-grade fever and left upper-lobe pneumonia. He has not improved on antibiotics, with persistent cough productive of purulent sputum and flecks of blood. Repeat chest x-ray suggests a small cavity in the left upper lobe. Which of the following statements is correct?

- a. The patient has anaerobic infection and needs outpatient clindamycin therapy.
- b. The patient requires sputum smear and culture for acid fast bacilli.
- c. The patient requires glove and gown contact precautions.
- d. Isoniazid prophylaxis should be started if PPD is positive.
- e. Drug resistant pneumococci may be causing this infection.

7. A 19-year-old male presents with a 1-week history of malaise and anorexia followed by fever and sore throat. On physical examination, the throat is inflamed without exudate. There are a few palatal petechiae. Cervical adenopathy is present. The liver span is 12 cm and the spleen is palpable.

Throat culture: negative for group A streptococci

Hgb: 12.5, Hct: 38%

Reticulocytes: 4%

WBC: 14,000/ μ L

Segmented: 30%

Lymphocytes: 60%

Monocytes: 10%

Bilirubin total: 2.0 mg/dL (normal 0.2 to 1.2)

Lactic dehydrogenase (LDH) serum: 260 IU/L (normal 20 to 220)

Aspartate aminotransferase (AST): 40 U/L (normal 8 to 20 U/L)

Alanine aminotransferase (ALT): 35 U/L (normal 8 to 20 U/L)

Alkaline phosphatase: 40 IU/L (normal 35 to 125)

Which of the following is the most important initial test combination to order?

- a. Liver biopsy and hepatitis antibody
- b. Streptococcal screen and antistreptolysin O (ASO) titer
- c. Peripheral blood smear and heterophile antibody
- d. Toxoplasma IgG and stool sample
- e. Lymph node biopsy and cytomegalovirus serology

8. A 30-year-old male presents with right upper quadrant pain. He has been well except for an episode of diarrhea that occurred 4 months ago, just after he returned from a missionary trip to Mexico. He has lost 7 pounds. He is not having diarrhea. His blood pressure is 140/70, pulse 80, and temperature 37.5°C (99.5°F). On physical examination there is right upper-quadrant tenderness without rebound. There is some radiation of the pain to the shoulder. The liver is percussed at 14 cm. There is no lower-quadrant tenderness. Bowel sounds are normal and active. Which of the following is the most appropriate next step in evaluation of the patient?

- a. Serology and ultrasound
- b. Stool for ova and parasite
- c. Blood cultures
- d. Diagnostic aspirate
- e. Empiric broad-spectrum antibiotic therapy

9. An 80-year-old male complains of a 3-day history of a painful rash extending over the left half of his forehead and down to his left eyelid. There are weeping vesicular lesions on physical examination. Which of the following is the most likely diagnosis?

- a. Impetigo
- b. Adult chickenpox
- c. Herpes zoster
- d. Coxsackie A virus
- e. Herpes simplex

10. A 28-year-old female presents to her internist with a 2-day history of low-grade fever and lower abdominal pain. She denies nausea, vomiting, or diarrhea. On physical examination, there is temperature of 38.3°C (100.9°F) and bilateral lower quadrant tenderness, without point or rebound tenderness. Bowel sounds are normal. On pelvic examination, an exudate is present and there is tenderness on motion of the cervix. Her white blood cell count is 15,000/μL and urinalysis shows no red or white blood cells. Serum β-hCG is undetectable. Which of the following is the best next step in management?

- a. Treatment with ceftriaxone and doxycycline
- b. Endometrial biopsy
- c. Surgical exploration
- d. Dilation and curettage
- e. Aztreonam

11. A 35-year-old male complains of inability to close his right eye. Examination shows facial nerve weakness of the upper and lower halves of the face. There are no other cranial nerve abnormalities, and the rest of the neurological examination is normal. Examination of the heart, chest, abdomen, and skin show no additional abnormalities. There is no lymphadenopathy. About one month ago the patient was seen by a dermatologist for a bull's-eye skin rash. The patient lives in upstate New York and returned from a camping trip a few weeks before noting the rash. Which of the following is the most likely diagnosis?

- a. Sarcoidosis
- b. Idiopathic Bell palsy
- c. Lyme disease
- d. Syphilis
- e. Lacunar infarct

12. A 25-year-old woman complains of dysuria, frequency, and suprapubic pain. She has not had previous symptoms of dysuria and is not on antibiotics. She is sexually active and on birth control pills. She has no fever, vaginal discharge or history of herpes infection. She denies back pain, nausea, or vomiting. On physical examination she appears well and has no costovertebral angle tenderness. A urinalysis shows 20 white blood cells per high power field. Which of the following statements is correct?

- a. A 3-day regimen of trimethoprim-sulfamethoxazole is adequate therapy.
- b. Quantitative urine culture with antimicrobial sensitivity testing is mandatory.
- c. Obstruction resulting from renal stone should be ruled out by ultrasound.
- d. Low-dose antibiotic therapy should be prescribed while the patient remains sexually active.
- e. The etiologic agent is more likely to be sensitive to trimethoprim-sulfamethoxazole than to fluoroquinolones.

13. A 25-year-old woman is admitted with fever and hypotension. She has a 3-day history of feeling feverish. She has no history of chronic disease, but she uses tampons for heavy menses. She is acutely ill and, on physical examination, found to have a diffuse erythematous rash extending to palms and soles. She is confused. Initial blood tests are as follows:

White blood cell count: 22,000/ μ L

Na⁺: 125 mEq/L

K⁺: 3.0 mEq/L

Ca⁺⁺: 8.0 mEq/mL

Activated partial thromboplastin time (PTT): 65 (normal 21 to 36)

Prothrombin time (PT): 12s (normal <15s)

Aspartate aminotransferase: 240 U/L (normal <40)

Creatinine: 3.0 mg/dL

Antinuclear antibodies: negative

Anti-DNA antibodies: negative

Serologic tests for RMSF, leptospirosis, measles: negative

Which of the following best describes the pathophysiology of the disease process?

- a. Acute bacteremia
- b. Toxin-mediated inflammatory response syndrome
- c. Exacerbation of connective tissue disease
- d. Tick-borne rickettsial disease
- e. Allergic reaction

14. You are a physician in charge of patients who reside in a nursing home. Several of the patients have developed influenza-like symptoms, and the community is in the midst of influenza A outbreak. None of the nursing home residents have received the influenza vaccine. Which course of action is most appropriate?

- a. Give the influenza vaccine to all residents who do not have a contraindication to the vaccine (ie, allergy to eggs).
- b. Give the influenza vaccine to all residents who do not have a contraindication to the vaccine; also give oseltamivir for 2 weeks to all residents.
- c. Give amantadine alone to all residents.
- d. Give azithromycin to all residents to prevent influenza-associated pneumonia.
- e. Do not give any prophylactic regimen.

15. A 60-year-old male complains of low back pain, which has intensified over the past 3 months. He had experienced some fever at the onset of the pain. He was treated for acute pyelonephritis about 4 months ago. Physical examination shows tenderness over the L2-3 vertebra and paraspinal muscle spasm. Laboratory data show an erythrocyte sedimentation rate of 80 mm/h and elevated C-reactive protein. Which of the following statements is correct?

- a. Hematogenous osteomyelitis rarely involves the vertebra in adults.
- b. The most likely initial focus of infection was soft tissue.
- c. Blood cultures will be positive in most patients with this process.
- d. An MRI scan is both sensitive and specific in defining the process.
- e. Surgery will be necessary if the patient has osteomyelitis.

16. A 30-year-old male with sickle cell anemia is admitted with cough, rusty sputum, and a single shaking chill. Physical examination reveals increased tactile fremitus and bronchial breath sounds in the left posterior chest. The patient is able to expectorate a purulent sample. Which of the following best describes the role of sputum Gram stain and culture?

- a. Sputum Gram stain and culture lack the sensitivity and specificity to be of value in this setting.
- b. If the sample is a good one, sputum culture is useful in determining the antibiotic sensitivity pattern of the organism, particularly *Streptococcus pneumoniae*.
- c. Empirical use of antibiotics for pneumonia has made specific diagnosis unnecessary.
- d. There is no characteristic Gram stain in a patient with pneumococcal pneumonia.
- e. Gram-positive cocci in clusters suggest pneumococcal infection.