“Live as if you were to die tomorrow. Learn as if you were to live forever.”
– Mahatma Gandhi
First Aid for the USMLE Step 2CK: The Really Short Version

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Assistant Clinical Professor
Chief, Section of Allergy & Immunology
University of Louisville

Senior Editor
First Aid Board Series
USMLERx Test Bank Series
Overview

- USMLE Step 2 – The Basics
- Defining Your Goals
- Timelines for Study
- Choosing Prep Resources
- Study Tips
- Panelist Discussion
- Q&A
USMLE Step 2 CK - The Basics

- 9 hours total
- 352 questions in 8 one hour blocks
- 44 questions per block
- 45 minutes of break time

Lunch
A 56-year-old man has had the painful weeping rash shown for 2 days. He underwent chemotherapy for non-Hodgkin lymphoma 1 year ago. His temperature is 36.7°C (98°F), pulse is 80/min, and blood pressure is 138/76 mm Hg. Examination shows no other abnormalities. Which of the following is the most likely diagnosis?

- A. Herpes zoster
- B. Impetigo
- C. Pyoderma gangrenosum
- D. Syphilis
- E. Systemic lupus erythematosus
Question Types

- One-best answer items
- Sequential item sets
- Matching sets
  - A few with multimedia
  - Clinical vignettes – 95+% of exam
  - Multi-step reasoning
  - Experimental questions
The response options for the next 2 items are the same. Select one answer for each item in the set.

For each patient with headache, select the most likely diagnosis.

- A. Acute sinusitis
- B. Chronic sinusitis
- C. Cluster headache
- D. Intracranial tumor
- E. Meningoencephalitis
- F. Migraine
- G. Pheochromocytoma
- H. Post-traumatic headache
- I. Subarachnoid hemorrhage
- J. Temporal arteritis
- K. Temporomandibular joint syndrome

A 43-year-old man comes to the emergency department at 3:00 AM because of a constant severe headache for 1 hour. The pain is localized behind the left eye. He also has had a watery discharge from the left nostril. He has had similar episodes nightly over the past week. He has a history of similar symptoms over a 3-week period 2 years ago. His left pupil is smaller than his right, and there is ptosis on the left. A watery discharge is visible in the left naris.
For each patient with headache, select the most likely diagnosis.

- A. Acute sinusitis
- B. Chronic sinusitis
- C. Cluster headache
- D. Intracranial tumor
- E. Meningoencephalitis
- F. Migraine
- G. Pheochromocytoma
- H. Post-traumatic headache
- I. Subarachnoid hemorrhage
- J. Temporal arteritis
- K. Temporomandibular joint syndrome

A 19-year-old woman comes to the physician because of recurrent severe headaches for 1 year. The headaches are unilateral and throbbing and are accompanied by nausea, vomiting, and light sensitivity. The headaches occur once or twice monthly, reach their peak intensity in 1 hour, and last 12–24 hours. There is no aura. Examination shows no abnormalities.
The following vignette applies to the next 2 items. The items in the set must be answered in sequential order. Once you click Proceed to Next Item, you will not be able to add or change an answer.

A 34-year-old man comes to the office because of a 24-hour history of crampy pain originating in the right flank and radiating to his groin. He describes the pain as the worst pain of his life and says he also has had nausea and one episode of vomiting. The patient appears muscular and is in mild distress. Vital signs now are temperature 37.8°C (100.0°F), pulse 120/min, and blood pressure 135/92 mm Hg supine. Oral mucosa is dry. Auscultation of the lungs discloses no abnormalities. Cardiac examination discloses an S1, a physiologically split S2 with no gposps, and a 2/6 systolic ejection murmur. Abdominal examination discloses guarding in the right upper and lower quadrant; bowel sounds are diminished. There is right-sided costovertebral angle tenderness. Results of laboratory studies are shown:

<table>
<thead>
<tr>
<th>Serum</th>
<th>Urine</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALT 28 U/L</td>
<td>Specific gravity 1:010</td>
</tr>
<tr>
<td>AST 36 U/L</td>
<td>pH 6.5</td>
</tr>
<tr>
<td>Alkaline phosphatase 120 U/L</td>
<td>Protein trace positive</td>
</tr>
<tr>
<td>Bilirubin, total 0.5 mg/dL</td>
<td>Leukocyte esterase trace positive</td>
</tr>
<tr>
<td>BUN 12 mg/dL</td>
<td>Nitrite Negative</td>
</tr>
<tr>
<td>Creatinine 1.1 mg/dL</td>
<td>WBC 4–8/hpf</td>
</tr>
<tr>
<td>Blood</td>
<td>RBC 25–30/hpf</td>
</tr>
<tr>
<td>Hemoglobin 15 g/dL</td>
<td></td>
</tr>
<tr>
<td>WBC 10,500/mm³</td>
<td></td>
</tr>
</tbody>
</table>

Item 1 of 2
Which of the following is the most likely diagnosis?

- A. Cholelithiasis
- B. Cystitis
- C. Pyelonephritis with *Proteus* species
- D. Renal tubular acidosis
Item 1 of 2
Which of the following is the most likely diagnosis?

- A. Cholelithiasis
- B. Cystitis
- C. Pyelonephritis with *Proteus* species
- D. Renal tubular acidosis
- E. Urolithiasis

Item 2 of 2
While in the office, the patient passes a renal stone. He recovers and returns to the office 7 days later for follow-up. Analysis of the stone discloses that it contains calcium oxalate. Which of the following is the most appropriate next step?

- A. Begin therapy with a thiazide diuretic
- B. Begin therapy with a low-oxalate diet
- C. Recommend increased fluid intake
- D. Refer the patient for lithotripsy
- E. Refer the patient for urodynamic studies

End of Case
## Physician Tasks Tested

<table>
<thead>
<tr>
<th>Physician Tasks</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Establishing a diagnosis</td>
<td>25-40</td>
</tr>
<tr>
<td>Understanding the mechanisms of disease</td>
<td>20-35</td>
</tr>
<tr>
<td>Applying principles of management</td>
<td>15-25</td>
</tr>
<tr>
<td>Promoting preventive medicine and health maintenance</td>
<td>15-25</td>
</tr>
</tbody>
</table>
## Most Common Lead-Ins

<table>
<thead>
<tr>
<th>Lead-In</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the most likely diagnosis?</td>
<td>40</td>
</tr>
<tr>
<td>Which of the following is the most appropriate initial step in management?</td>
<td>20</td>
</tr>
<tr>
<td>Which of the following is the most appropriate next step in management?</td>
<td>20</td>
</tr>
<tr>
<td>Which of the following is the most likely cause of . . . ?</td>
<td>5</td>
</tr>
<tr>
<td>Which of the following is the most likely pathogen . . . ?</td>
<td>3</td>
</tr>
<tr>
<td>Which of the following would most likely prevent . . . ?</td>
<td>2</td>
</tr>
</tbody>
</table>
Scores and Passing Rates

- Passing is 189/75
- Mean is 226
- 23 points is roughly 1 SD
- Allopathic med students
  - 96% pass on first try
  - 99% eventually pass
- Osteopathic med students
  - 87% pass on first try
- IMGs
  - 81% pass on first try
USMLE Step 2CK Score Report

UNITED STATES MEDICAL LICENSING EXAMINATION®
STEP 2 CLINICAL KNOWLEDGE (CK) SCORE REPORT

This score report is provided for the use of the examinee. Third party users of USMLE information are advised to rely solely on official USMLE transcripts.

USMLE ID: [Redacted]
Test Date: July 18, 2009

The USMLE is a single examination program consisting of three Steps designed to assess an examinee’s understanding of and ability to apply concepts and principles that are important in health and disease and that constitute the basis of safe and effective patient care. Step 2 is designed to assess whether an examinee can apply medical knowledge, skills, and understanding of clinical science essential for the provision of patient care under supervision, including emphasis on health promotion and disease prevention. The inclusion of Step 2 in the USMLE sequence is intended to ensure that due attention is devoted to principles of clinical sciences and basic patient-centered skills that provide the foundation for the safe and competent practice of medicine. There are two components to Step 2: a Clinical Knowledge (CK) examination and a Clinical Skills (CS) examination. This report represents results for the Step 2 CK examination only. Results of the examination are reported to medical licensing authorities in the United States and its territories for use in granting an initial license to practice medicine. The two numeric scores shown below are equivalent; each state or territory may use either score in making licensing decisions. These scores represent your results for the administration of Step 2 CK on the test date shown above.

PASS

This score is based on the minimum passing score recommended by USMLE for Step 2 CK. Individual licensing authorities may accept the USMLE-recommended pass/fail result or may establish a different passing score for their own jurisdictions.

212

This score is determined by your overall performance on Step 2 CK. For recent administrations, the mean and standard deviation for first-time examinees from U.S. and Canadian medical schools are approximately 226 and 23, respectively, with most scores falling between 146 and 260. A score of 184 is set by USMLE to pass Step 2 CK. The standard error of measurement (SEM) for this scale is seven points.

87

This score is also determined by your overall performance as the examinee. A score of 75 on this scale, which is equivalent to a score of 184 on the scale described above, is set by USMLE to pass Step 2 CK. The SEM for this scale is two points.

<table>
<thead>
<tr>
<th>PHYSICIAN TASK PROFILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Performance</td>
</tr>
<tr>
<td>Preventive Medicine &amp; Health Maintenance</td>
</tr>
<tr>
<td>Understanding Mechanisms of Disease</td>
</tr>
<tr>
<td>Diagnosis</td>
</tr>
<tr>
<td>Principles of Management</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NORMAL CONDITIONS &amp; DISEASE CATEGORY PROFILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Growth &amp; Development: Principles of Care</td>
</tr>
<tr>
<td>Immunologic Disorders</td>
</tr>
<tr>
<td>Diseases of Blood &amp; Blood Forming Organs</td>
</tr>
<tr>
<td>Mental Disorders</td>
</tr>
<tr>
<td>Diseases of the Nervous System &amp; Special Senses</td>
</tr>
<tr>
<td>Cardiovascular Disorders</td>
</tr>
<tr>
<td>Diseases of the Respiratory System</td>
</tr>
<tr>
<td>Nutritional &amp; Digestive Disorders</td>
</tr>
<tr>
<td>Gynecologic Disorders</td>
</tr>
<tr>
<td>Renal, Urinary &amp; Male Reproductive Systems</td>
</tr>
<tr>
<td>Disorders of Pregnancy, Childbirth &amp; Puerperium</td>
</tr>
<tr>
<td>Musculoskeletal, Skin &amp; Connective Tissue Diseases</td>
</tr>
<tr>
<td>Endocrine &amp; Metabolic Disorders</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DISCIPLINE PROFILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicine</td>
</tr>
<tr>
<td>Obstetrics &amp; Gynecology</td>
</tr>
<tr>
<td>Pediatrics</td>
</tr>
<tr>
<td>Psychiatry</td>
</tr>
<tr>
<td>Surgery</td>
</tr>
</tbody>
</table>

The above Performance Profile is provided to aid in self-assessment. The shaded area defines a borderline level of performance for each content area. Borderline performance is comparable to a HIGH PABLOW PAM on the test.

Performance bands indicate areas of relative strength and weakness. Some bands are wider than others. The width of a performance band reflects the precision of measurement: narrower bands indicate greater precision. The band width for a given content area is the same for all examinees. An asterisk indicates that your performance band extends beyond the displayed portion of the scale. Small differences in the location of bands should not be over interpreted. If two bands overlap, performance in the associated areas should be interpreted as similar. Because Step 2 CK is designed to be integrative, many items contribute to more than one content area. As a consequence, caution should be used when interpreting differences in performance across content areas.

This profile should not be compared to those from either Step 2 CK administration.

Additional information concerning the topics covered in each content area can be found in the USMLE Step 2 CK Content Description and Sample Test Materials.
Defining Your Goals

- Just pass the exam → 200 – 225
- Beat the mean → 226 – 250
- Ace the exam → 250+
- “ROAD to Riches”
  - Radiology/Radiation Oncology
  - Ortho/Ophtho/Otolaryngo/Urology
  - “Aesthetic” Surgery (Plastics)
  - Dermatology
NRMP: Charting Outcomes in the Match

**Chart 10**

**USMLE STEP 1 SCORES OF MATCHED APPLICANTS BY PREFERRED SPECIALTY**

*U.S. Seniors and Independent Applicants*

**U.S. Seniors who Matched**

- Plastic Surgery
- Dermatology
- Otolaryngology
- Radiation Oncology
- Radiology-Diagnostic
- Orthopaedic Surgery
- Transitional Year
- Internal Medicine
- Pathology-Anatomic and Surgical
- Surgery-General
- Emergency Medicine
- Internal Medicine/Pediatrics
- Anesthesiology
- Neurology
- Pediatrics
- Obstetrics and Gynecology
- Family Medicine
- Physical Medicine and Rehabilitation
- Psychiatry
NRMP: Charting Outcomes in the Match

**Chart 15**

**USMLE Step 1 Scores**

Median Probability of Matching to Preferred Specialty by USMLE Step 1 Scores

- **U.S. Seniors, Other Specialties**
- **U.S. Seniors, Highly Competitive Specialties**
- **Independent Applicants, Other Specialties**

**Note:** Not significant for independent applicants who preferred the highly competitive specialties
NRMP: Charting Outcomes in the Match

Chart 7
USMLE Step 2 Scores of Matched Applicants by Preferred Specialty and Applicant Type

U.S. Seniors
NRMP: Charting Outcomes in the Match

Chart 7
USMLE Step 2 Scores of Matched Applicants by Preferred Specialty and Applicant Type

Independent Applicants
NRMP: Charting Outcomes in the Match

Chart DM-3

USMLE Step 1 Scores
Dermatology

U.S. Seniors

 Matched  Not Matched

Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and ECFMG.
NRMP: Charting Outcomes in the Match

USMLE Step 2 Scores
Dermatology

U.S. Seniors

Matched  Not Matched

Step 2 Scores

Source: NRMP Data Warehouse and AAMC Data Warehouse. USMLE scores by permission of the NBME and ECFMG.
Academic Factors Important to Residency Directors

- Grades in specialty clerkship
- Grades in specialty elective
- Other clerkship grades
- Class rank
- USMLE Step 1 scores
- Membership in AOA
- Elective grades
- USMLE Step 2 scores
- Preclinical grades
- Research activities
Timeline for Study

- The “Just Pass” Schedule – 2 to 4 weeks
  - First Aid High Yield Facts
  - Mini-reviews or all-in-one reviews
  - Review questions – 1 question bank

- The “Gunner” Schedule – 4 to 12 weeks
  - In addition to above
  - Detailed reviews
  - More review questions – 1-2 question banks
Defining Your Goals

- Just pass the exam → 200 – 225
- Beat the mean → 226 – 250
- Ace the exam → 250+
- “ROAD to Riches”
  - Radiology/Radiation Oncology
  - Ortho/Ophtho/Otolaryngo/Urology
  - “Aesthetic” Surgery (Plastics)
  - Dermatology
Review Resources

- Text reviews
- Test banks
- Self-test reviews
- Case-based reviews
- Review courses
- Other media
  - Flash cards
  - CDs/MP3/Videos
  - PDA/smartphone
Picking and Choosing Resources

- Check out the book reviews in *First Aid for the USMLE Step 2CK*
- Use clerkship texts
- Check out the library reserve
- Buy only what you can use
- Don’t blindly buy a whole series
Study Tips

- Establish a study schedule and stick with it
- Alternate study methods for variety
- Focus on high yield material and what you already know
- Keep the common lead-ins in mind
- Allow time in schedule for breaks, exercise and personal issues
CBT Tips

- Be very familiar with the CBT tutorial
- Know the keyboard shortcuts
- Use computerized practice tests in addition to paper exams
- Mix Q&A throughout and at end
# CBT Practice Options

<table>
<thead>
<tr>
<th>Types</th>
<th>Suggested Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>USMLE Sample Test</td>
<td>Format familiarity</td>
</tr>
<tr>
<td>NBME/CCSSA</td>
<td>Benchmarking</td>
</tr>
<tr>
<td>Commercial Test Banks</td>
<td>Practice/study Simulation</td>
</tr>
</tbody>
</table>
Now a word from our sponsor... 😊

USMLERx Step 2CK Qmax

- **2600+** high-yield USMLE Step 1-style questions
- **100’s** of revised questions for 2011
- Select questions by difficulty level
Panel Discussion + Q&A

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  - Get First Aid/USMLERx updates
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  - Step 2CK Qmax