

# Getting Ready for the **USMLE Step I**

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# My Plan

- Brief overview of the test
- Planning and studying
- Specific test taking skills
  
- What questions do you have for today?

# **USMLE Step I *Purpose***

“. . . you understand can apply important concepts of the sciences basic to the practice of medicine, with a special emphasis on principles and mechanisms underlying health, disease, and modes of therapy.”

# Classification By System

- 40 - 50%      General Principles eg *DNA replication, homeostatsis – not limited to single organ system*
- 50 - 60%      Individual Organ System  
eg *Hematopopoietic, Nervous Skin and Connective, Musculoskeletal, Respiratory, Cardiovascular, Gastrointestinal*

# Classification By Process

30 - 50% Normal structure and function

30 - 50% Abnormal processes

15 - 25% Principles of therapeutics

10 - 20% Psychosocial, cultural and environmental considerations

# Scores

2008: Mean 221, SD 23, Pass 93%

2010: Pass Score – 188

about 65% - 75% of items correct

# Test Construction

- 8 hours total time, 45 min for breaks
- 7 Blocks of 48 test items, 30 to 60 min
- 75 sec per item
- No penalty for guessing
- Parallel tests, within sites and days

# Test Construction

- Graphs, charts, pictures
  - Potential audio and video clips
- One Best Answer, some with many options
- Case presentations
- Sequential item (case) sets
- NOT arranged by content area



# Computer Interface

- Mark items for review and return
- Review all items
- 'Laminated writing surface' for notes
- Learn the interface BEFORE test
  - FRED V2 interface for audio/video, sequential item sets

# One Best Answer

A patient has severe, acute anxiety. Before prescribing a benzodiazepine, a review of the mental status and history of the patient should be done, because dependence to the drug is most likely to develop if there is a

- (A) diagnosis of a passive/dependent personality type
- (B) family history of drug abuse
- (C) family history of mental illness
- (D) history of depression
- (E) history of excessive alcohol use

# Reality Check

# The facts

- 4 to 5 weeks cannot replace 18 months
- No gimmicks, no hidden knowledge
- No intention to remember, it is gone
- Did not generalize / integrate concept, less useful in solving new problems
- Not memorable (ah ha!, patient based), less likely useable

# The Rest of the Semester

- Preparation for clerkships
- Opportunity to consolidate and integrate information
- Intend to remember
- Memorable - patients, diagrams, color

# Planning

What is your current plan?

# What Can I do Now?

- Assess
- Plan for the next few months
- Study relevant to your current learning tasks
- Continue learning

# Assessment for Now

- Review performance in the curriculum
  - Concepts / content you have mastered?
  - Concepts / content you need to relearn?
  - What you remember from the first year?
- Consider taking a self assessment test



# Planning Now

- List of concepts to be mindful of now
- Integrate concepts from prior learning into current course work
  - Anatomy, physiology, pharmacology, etc
- Formulate patient's problems in terms of what you have learned
- TAKE TIME TO REMEMBER

# Learning Now

- What did I just learn?
- Why is this important?
- How does it relate to what I have already learned? Fill in a gap?
- What questions to I now have about the topic? What gaps are left?

# **Planning for May and June**

# Elements of a Plan

- Assessment of current knowledge skills
- Reasonable expectations
- Good environment
- Implementation
- Monitor and adjust plan as needed

# Assessment

- Review latest curriculum experience
- Self assessment test data
- List areas of weakness and strength
- Plan for later reassessment

# Planning

- Determine time available for study
- Schedule most difficult concepts / areas early or late in sequence
- Include review of areas of strength in the middle of the calendar
- Plan for 'maintenance' – exercise, sleep, food, relationships

# How Much Time Needed?

- Usual time allotted is 4 to 6 weeks after end of classes, 8 hrs day
- Increased time is not clearly related to scores
- Students who significantly delay testing seem to do worse

# Plan Elements

- 5 or 6 days per week
- 8 to 10 hours, with breaks
- Daily plans with goals
  - Content as well as test skills
- Brief review at beginning
- Assessment at end of segments
- Stick to plan



# Active Learning

- Establish questions you want to answer
- Use information to explain a patient's presentation
- Write, draw, make tables, explain to someone else
- Teach and learn from others
- DON'T just sit there!

# Daily Assessment

- Close books, notes
- Sketch out quickly in writing
- Compare with notes
- Minor changes to schedule may be made, but keep to plan

# Environment

- Consistent place for study
- Have materials at hand
- Eliminate distractions
- Get in a 'rut'
  - This is a place to student
  - This is my schedule

# Adjust Plan

- Are you on schedule?
- Is there a major concept / content area that has proven more difficult to accomplish?
- Are you reaching your goals?
- Some adjustments are fine, as long as all areas in plan can be covered

Study as if you will be writing essays!

Intend to remember and understand as your knowledge and skills will be needed to do well in your clerkships!

Emphasize concepts & problem solving!

# **Study Resources**

# Resources in General

- Remember old friends,
  - replace old enemies
- 1 book is better than 2 for a topic
- Make it memorable - patients or other experiences you have had

# Primary Resources

- Your self - self assessment
- Fellow students - study groups
- Notes, syllabi, course texts
- Patients you have met
- USMLE 2010 Information - bulletin, tutorial, timed test, sample items



# Secondary Resources

- Stress management – counselors, not drugs
- Commercial review books
- Commercial assessment tests
- Professional review courses
- Books of questions and answers

# Improving Test Reasoning

Question Analysis  
Technique

# Question Analysis Groups

- Practice and receive feedback on skills
  - Improve focusing skills
  - Increase test taking skills in general
  - Decrease time needed
  - Independent of content area

# Question Analysis Groups

- Groups of 2 to 5 students
- 1 to 2 hours per week
- Items may not be related to specific study topics
- Focus on reasoning, not 'correct' answer (not factual items)

# Question Analysis Step 1

- Think aloud through the stem
  - What is being asked?
  - What do I know?
  - What do I need to know?
- Think aloud through options
  - Why is this likely or not
  - What do I need to know

# Question Analysis Step 2

- Feedback given by group
  - Errors of reasoning
  - Content not recognized
  - Alternative reasoning
  - NO: I don't know
- If item NOT understood, research
- 5 to 10 minutes per item

# Test Taking

# USMLE Items

- Assume them to be high quality and not easily 'gamed'
  - Instructor based errors are not present
- Assume them to be straight forward in intention – no tricky zebras
- Complex, requiring reasoning and integration of knowledge



# General Test Taking

- Practice on interface BEFORE
- Read directions carefully
- Identify question task
  - Lead-in statement
- Answer question before looking
- Read EACH option, even if answer appears to be 'A'

# General Test Taking

- Use partial knowledge to give reasonable answers
- If stuck, mark the item, move on to next item
  - EXCEPTION: Sequential Item Set
- Change answers judiciously
  - First answer is more likely the best

# Extraneous Material

- Most items include typical information about a patient that may not be relevant to the question
  - Age, gender, race, previous history
- Identify core question, ignore extraneous material
  - Focus technique can help

# Why Focusing Technique?

- Errors made
  - Answer a question that is not being asked
  - Focusing on an irrelevant fragment of the question
  - Not identifying important sections of the question
  - Premature closure

# Focusing

- Identify lead-in question
- Jot down three important words in stem
- Jot down three important words in options
- Use true/false strategy
- Divide long stems in to segments
- Restate the question

# Lead in Question

A 28-year-old woman, gravida 2, para 2, whose last menstrual period began five days ago has a mass in her left breast. Examination discloses a discrete 2-cm apparently cystic mass in the upper-outer quadrant of the left breast. Supraclavicular and auxiliary areas are negative. **The most appropriate next step in management is**

- (A) danazol therapy
- (B) excisional biopsy
- (C) needle aspiration
- (D) careful periodic reexamination after onset of menses
- (E) reassurance

# Lead-in Questions

- Which of the following is the most likely diagnosis / cause?
- Which of the following curves best represents the result?
- The patient should be monitored for which of the following adverse effects?

# Determine Essentials

An inherited metabolic disorder of carbohydrate metabolism is characterized by abnormally high levels of hepatic glycogen with normal structure, and no detectable rise in the blood glucose concentration following oral administration of fructose. **These two observations suggest that the disease is a result of the absence of**

- (A) fructokinase
- (B) glucokinase
- (C) glucose 6-phosphatase
- (D) phosphoglucomutase
- (E) UDPG-glycogen transglucosylase



# True/False Strategy

An inherited metabolic disorder of carbohydrate metabolism is characterized by abnormally high levels of hepatic glycogen with normal structure, and no detectable rise in the blood glucose concentration following oral administration of fructose. These two observations suggest that the disease is a result of the absence of

- T** (A) fructokinase
- F** (B) glucokinase
- F** (C) glucose 6-phosphatase
- ?** (D) phosphoglucomutase
- T** (E) UDPG-glycogen transglucosylase

# Dealing with Anxiety

# Handling Anxiety

- Recognize
- Interrupt
- Relax
- Self Support
- Re focus
- Proceed

# Recognize Anxiety

- Drifting attention
- Damp hands
- Thinking about performance and not test
- Reminders from computer

# Interrupt Anxiety

- Subvocalize 'STOP'
- Put your marker down, remove hands from keyboard
- Close your eyes

# Relax

- Take a deep breath
- Stretch
- Tense muscles of head, neck, truck
  - Hold for 10 seconds
  - Release tension

# Self Support

- 'I have prepared well for this test'
- 'I can solve problems with bio-medical information'
- 'I can complete this test well'

# Refocus

- 'I'll get started now'
- 'What is this item asking?'
- Proceed with work