Critical Thinking and Test Taking
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Level of Critical Thinking

- Creating
- Evaluating
- Analyzing
- Applying
- Understanding
- Remembering
Buzz words for each level

- **Knowing**
  - Define, Identify, List
    - Ex. Question: Define Diabetes

- **Understanding**
  - Explain, Summarize, Discuss, Compare
    - Ex. Question: What are the associations between Diabetes and Obesity

- **Applying**
  - Illustrate, Show, Solve
    - Illustrate biochemically what happens in obesity that causes insulin resistance

- **Analyzing**
  - Analyze, Connect, Infer
    - If increased cholesterol in a cell membrane makes the membrane less fluid, then will more cholesterol help promote insulin resistance?

- **Evaluating**
  - Assess, Recommend, Discriminate, Justify
    - A 29-year-old woman has presented to the office. She is obese, has type 2 diabetes, and is reporting elevated blood pressures measured at home and at work. You are considering starting her on an angiotensin-converting enzyme inhibitor. Justify your reason for this course of action

- **Creating**
  - Plan, Prepare, Propose
    - Design an experiment to test the effectiveness of angiotensin-converting enzyme inhibitor as a treatment for type 2 diabetes
Strategies for Each Level

- **Knowing (memorize)**
  - write a list/recite/draw

- **Understanding**
  - discuss with peers

- **Applying**
  - Review process and then ask yourself what would what would happen if....
  - Predict outcomes based on data presented

- **Analyzing**
  - Define relationships
  - Interpret data without reading author’s interpretation

- **Evaluating**
  - Be able to discuss divergent views on topic
  - Be able to prioritize (ex. What is the next best course of action)

- **Creating**
  - Design an experiment
  - Create a graphical representation of a given process of concept
The Whiteboard – GET ONE!!

- What did you study yesterday?
  - Write down the topic at the top of the board
- Write as much as you can remember about the topic
- Ask yourself questions about the material:
Test Taking Tips- Multiple Choice

- Cover up answers read question at bottom
- Decide if clue or concept
  - Clue specific 'which'
  - Concept- idea "describe, explain, manage"
- Read vignette
  - Stop reading on clue question when you see clue
  - Read entire vignette for concepts question
- Find every answer relevant
  - If two match
    - Which one more common, better, things in order
- Still equivalent. Pick bottom answer...
- Change answers to questions only if you erred, or misread the question!
  Or if you find information in the test that corrects a previous answer.
Sample Questions

Cyclosporin A is a useful drug for patients receiving organ transplants because it

Answer Choices

1. Is a powerful antibiotic
2. Is an anti-fungal agent
3. Acts as an immunosuppressant
4. Inhibits DNA replication
5. Increases antigens in circulation
Refsum's disease is characterized by visual disturbances, ataxia, and heart disease. This inherited metabolic disease is due to:

**Answer Choices**

1. Impaired synthesis of linolenic acid.
2. Inability to degrade phytanic acid.
3. Inability to degrade sphingomyelin.
4. Deficiency in apolipoprotein E.
Case
A 25-year-old woman presents to the Emergency Department with abdominal pain, fever, chill, weight loss, and nausea. Her symptoms began approximately 2 days ago, but significantly worsened over the past 24 hours. Her past medical history is negative and she has no surgical history.

Her lab work shows a WBC of 13,000/mm³, elevated erythrocyte sedimentation rate (ESR), and elevated liver enzymes.

An abdominal radiograph was negative and an ultrasound of the abdomen showed a 1.6 cm hypoechoic, round mass in the liver near the gall bladder.

An aspiration is performed and the diagnosis of a pyogenic liver abscess is made.

Question
The most common bacterial cause of this patient's condition is

Answer Choices

1. Bacteroides species
2. Escherichia coli
3. Klebsiella pneumoniae
4. Proteus species
5. Staphylococcus species
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