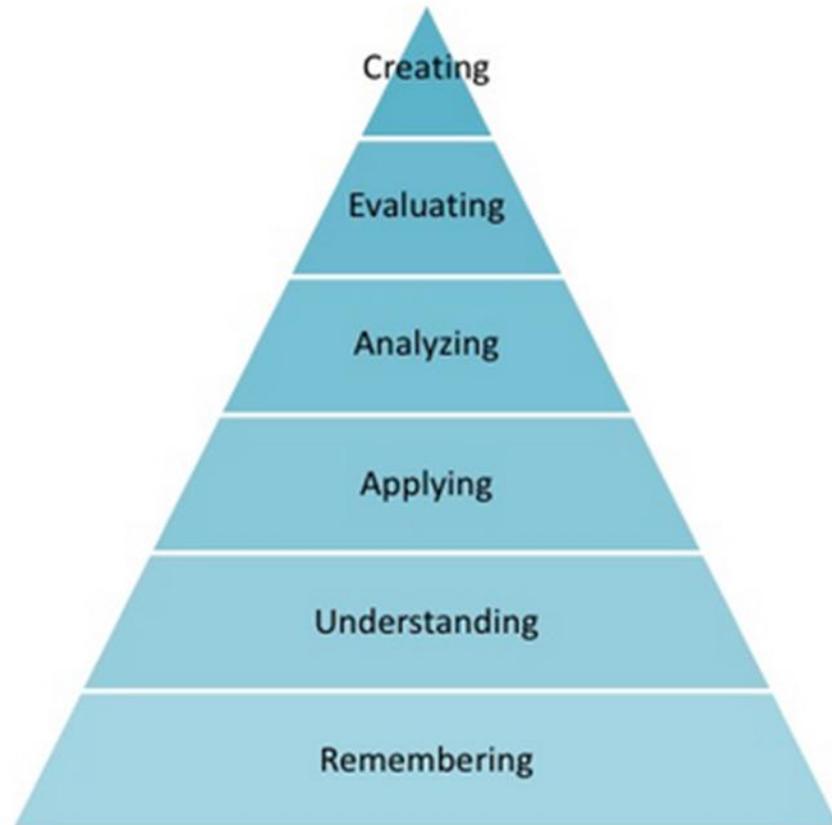


Critical Thinking and Test Taking

Joni Trempe: Director, AEC

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



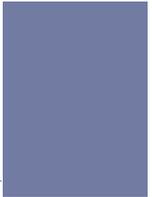


Refsum's disease is characterized by visual disturbances, ataxia, and heart disease. This inherited metabolic disease is due to:

Answer Choices

1. Impaired synthesis of linolenic acid.
2. Inability to degrade phytanic acid.
3. Inability to degrade sphingomyelin.
4. Deficiency in apolipoprotein E.
5. Deficiency in apolipoprotein B-48.





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 $13,000/\text{mm}^3$, 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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