STUDY STRATEGIES FOR SURVIVING PA SCHOOL

Dwayne Williams PA-C
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THE BIG PICTURE

Seeing the “BIC PICTURE” helps

- It gives us a road map to organize the information you learn. Rather than aimlessly drive, you use GPS to get to destination.
  You can relate all you learn to a common theme.

- It maximizes your retention.

- It helps to understand the little details more.

STUDENT MYTH: IF I UNDERSTAND ALL THE LITTLE DETAILS THEN I WILL MASTER THE TOPIC.

- Knowing the big picture helps to understand the little details more!
The most fundamental principle of efficient studying – the best use of your limited time – requires **ACTIVE** not passive learning.

* **ACTIVE LEARNING:** requires **MAKING ACTIVE DECISIONS** about the material

  - “**WHY** Is this important?”

How to organize material

- What is the **LITTLE PICTURE**

- “Where does this fit into the ‘**BIG PICTURE’?”

- Making connections to old material “WHERE have I seen this before??
STRATEGIES

4 ACTIVE LEARNING STRATEGIES

* Understand the little picture

* Finding the "big picture" by skimming the information before lecture – identifying and memorizing the **four or five major topics** will keep you on track during lecture.

* Creating a complete rough draft of the material

* Creating summary charts, lists or diagrams that organize the **needed** material to emphasize patterns that facilitate memorization.

* Actively memorizing the charts, etc., *as* they are created, then incorporating quick and frequent review during later study to nail the information down – **you'll still need the fundamentals after exams are over.**
**STRATEGIES**

- **MEMORIZATION.**
  - Don't put off memorizing material until just before the exam.
  - NOOOOOO CRAMMING!!

- Frequent review of the material leads to more retention by moving it into long term memory.

- If you cram it the night before, you won't remember it a week later with cramming, much less the next year.

- It worked in undergrad, not PA school
HOW TO PUT IT ALL TOGETHER??

EXAMPLE OF ASTHMA
ASTHMA

1. BASIC ANATOMY

- Airways gets air from environment to lungs.
- trachea to bronchi to bronchioles to alveoli
**ASTHMA**

2. BASIC PHYSIOLOGY

- The more the bronchiole expands the better gas exchanges
- **Sympathetic system (epinephrine):** bronchodilation by stimulating B2 receptor

*Parasympathetic system (Acetylcholine) causes bronchoconstriction*
SAY IF I WAS EXPLAINING THE DISEASE TO MY PATIENT, HOW WOULD I DO IT IN 1 OR MAXIMUM 2 SENTENCES??

ASTHMA IS:

1. **REVERSIBLE hyperirritability**\(^*\) of the *tracheobronchial tree*, resulting in

2. *bronchoconstriction and*

3. *inflammation*\(^*\)

**SIMPLE**

ASTHMA IS WHEN THE AIRWAYS THAT BRING OXYGEN BECOME EXTRA SENSITIVE AND CLOSE UP AND BECOME INFLAMMED
THE BIG PICTURE - EXAMPLE

* BIG PICTURE CONCEPT OF ASTHMA: 1) AIRWAY HYPERIRRITABILITY 2) BRONCHOCONSTRICTION 3) INFLAMMATION

* How does it all relate????

CLINICAL MANIFESTATIONS:

1. **Wheezing:** air makes sound going through narrow airway
2. **Shortness of breath:** inflammation and constriction makes it difficult for air to move
3. **Cough:** irritated airways more likely to stimulate cough reflex
THE BIG PICTURE - EXAMPLE

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* How does it all relate????

**DIAGNOSIS:**

1. **Pulmonary Function test:** inflamed, constricted airays OBSTRUCT the flow of air out the lung

2. **Metacholine challenge test:** it is like acetylcholine so it causes constriction to test hyperreactivity

3.
THE BIG PICTURE - EXAMPLE

BIG PICTURE CONCEPT OF ASTHMA: 1) AIRWAY HYPERIRRITABILITY 2) BRONCHOCONSTRICTION 3) INFLAMMATION

How does it all relate????

TREATMENT

1. **Bronchodilators:** decreases constriction – B2 agonists, anticholinergics, theophylline

2. **Anti-inflammatories & reducers of hyperirritability:** steroids, mast cell modifiers, leukotriene modifiers
THE BIG PICTURE - EXAMPLE

- BIG PICTURE CONCEPT OF ASTHMA: 1) AIRWAY HYPERIRRITABILITY  2) BRONCHOCONSTRICION  3) INFLAMMATION

- How does it all relate????

MECHANISM OF ACTION

1. **B2 AGONIST:** stimulate the b2 receptor of sympathetic system

SIDE EFFECT

1. May cross react with B1 receptor of sympathetic system leading to tremors, palpitations, fast heart rate
THE BIG PICTURE - EXAMPLE

* BIG PICTURE CONCEPT OF ASTHMA: 1) AIRWAY HYPERIRRITABILITY 2) BRONCHOCONSTRICTION 3) INFLAMMATION

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MECHANISM OF ACTION

1. **Anticholinergic**: blocks acetylcholine (acetylcholine bronchoconstricts so if you block it you get dilation)

SIDE EFFECT

1. Acetylcholine increased salivation, lacrimation, digestion, defecation, digestion so anticholinergics can cause dry mouth, dry eyes, constipation etc.