Respiratory Class Preparation Day 2

Medication Review

1. Your client has recently started on montelukast (Singular) for allergic rhinitis. You know that it is important to monitor what for this client?
    a. Renal function
    b. Blood pressure
    c. Liver function
    d. Heart rate
2. You should instruct a client using phenylephrine spray for nasal congestion to do which of the following to avoid rebound congestion?
    a. Limit the drug's use to 3 to 5 days.
    b. Add an intranasal glucocorticoid.
    c. Taper the dose before discontinuation.
    d. Restrict the drug's use to one nostril at a time.
3. You anticipate that your client with a dry, hacking cough would be prescribed which of the following medications?
    a. Fluticasone
    b. Dextromethorphan
    c. Amoxicillin
    d. Diphenhydramine
4. You educate your patient these are common side effects of diphenhydramine, a first-generation antihistamine:
    a. Diarrhea
    b. Insomnia
    c. Dry mouth, constipation
    d. Rash
5. During assessment, the nurse notes that the patient with acute pharyngitis has a thick, white coating on their tongue. Which medication do they anticipate giving to treat?
    a. Amphotericin B
    b. Azithromycin
    c. Prednisone
    d. Nystatin
6. List the four drugs that are considered the initial treatment regimen of choice for patients newly diagnosed with tuberculosis: ___isoniazid, rifampin, pyrazinamide, and ethambutol_____
7. Prompt treatment with what medication is essential to resolving bacterial pneumonia?
    a. Bronchodilator
    b. Antipyretic
    c. Corticosteroid
    d. Antibiotic
8. A client diagnosed with sinusitis is newly prescribed a steroid nasal spray. The nurse includes which of the following in their teaching?
    a. Systemic side effects are common
    b. Should be used on a regular basis, not PRN
    c. Use care operating machinery and driving
    d. Take on empty stomach

🫁🫁 Homework Activity: “Mission: Lung Possible”

🔍 Objective:

By the end of this activity, students will be able to:

- Identify key lower respiratory disorders
- Understand basic ventilation mechanics
- Explain respiratory defense mechanisms
- Apply correct isolation precautions for common infections

🫁 PART 1: Lung Locker – Diagnosis Decoder (5 minutes)

Match the correct **lower respiratory disorder** to the patient scenario below:

Scenario	Diagnosis Choices
A 68-year-old with productive cough, fever, crackles in lower lobes, lives in a care home.	A. Emphysema
A college student with fever, night sweats, hemoptysis, lives in shared housing.	B. Pertussis
A smoker with chronic cough, barrel chest, and pursed-lip breathing.	C. Pneumonia
A child with coughing fits and “whoop” sound	D. Tuberculosis (TB)

🧠 **Your Mission:** Identify each disorder (A–D) and list one typical **sign/symptom** for each.

a. Emphysema is when the alveoli deteriorate. One of the main symptoms of this disorder is severe dyspnea.
b. Pertussis is a respiratory infection that is more commonly known as whooping cough. This disorder is characterized by a “whooping” sound a person may make while trying to gasp for air in between coughs.
c. Pneumonia is a respiratory infection that inflames the alveoli in the lungs. This infection is caused by bacteria, but it can also be fungal or viral. Common symptoms of pneumonia include a productive cough, fever and dyspnea
d. TB is an infection caused by bacteria and can spread from the lungs to other parts of the body. Symptoms of tuberculosis are fever, chest pain, long lasting cough with sputum or blood and fatigue

□ PART 2: Infection Intel – Isolation Match-Up (5 minutes)

Match each respiratory disorder to its correct **isolation precaution**:

Condition	Precaution Options
Asthma	A. Airborne
Tuberculosis (TB)	B. Droplet
Influenza	C. Droplet + Airborne (per local policy)
COVID-19	D. Standard (no isolation)

□ PART 3: Ventilation Vault – Mechanics Riddle (5 minutes)

Agent Alveolus needs help remembering how air moves in and out of the lungs! Fill in the blanks:

1. When the **diaphragm contracts**, it moves ____downward____, creating __negative or low_____ pressure in the thoracic cavity and drawing air in.
2. When the diaphragm relaxes, air is pushed out because the pressure becomes _____low_____.
3. The primary muscles of ventilation include the ____internal_____ and ___external_____ intercostals.

□ **Bonus:**
What happens to ventilation if the diaphragm is paralyzed?

If the diaphragm is paralyzed, ventilation doesn't happen as easily. The diaphragm is the muscle that does most of the work for ventilation, if it doesn't work, the body will rely on accessory muscles to do all of the work.

PART 4: Defense System ID (5 minutes)

Match each **respiratory defense mechanism** with its function:

Defense Mechanism	Function
Cough Reflex	A. Sweeps particles up toward throat to be swallowed or coughed out
Alveolar macrophages	B. Engulf and digest microbes deep in the lungs
Nasal hairs & mucus	C. Clears irritants and secretions from upper airways
Mucociliary escalator	D. Trap large particles before they reach the lungs

 Final Mission: Choose one defense mechanism and explain how it could be impaired in a smoker.

The cough reflex helps clear anything that may be irritating our airway. Smokers inhale many chemicals that stay in the airway and desensitizes receptors, which causes there to be less of a response to any irritants. This means that there will be an increase in the buildup of irritants and secretions. Smokers will become more prone to respiratory infections.