

ACTIVE LEARNING TEMPLATE: **System Disorder**

STUDENT NAME _____

DISORDER/DISEASE PROCESS **COPD**

REVIEW MODULE CHAPTER _____

Alterations in Health (Diagnosis)
Chronic obstructive pulmonary disease (COPD)

Pathophysiology Related to Client Problem
Damage to the airways and tiny air sacs in the lungs

Health Promotion and Disease Prevention
- Smoking cessation
- Avoid exposure to second hand smoke

ASSESSMENT

Risk Factors
- tobacco smoking
- Exposure to second hand smoke
- Environmental chemicals
- People with asthma who smoke
- Age
- Genetics

Expected Findings
- Shortness of breath
- wheezing
- chest tightness
- A chronic cough
- frequent respiratory infections
- lack of energy

SAFETY CONSIDERATIONS

- occupational exposure to chemical fumes and dust use respiratory protective equipment.

Laboratory Tests
- Arterial blood gas analysis

Diagnostic Procedures
- pulmonary function test
- chest X-Ray
- CT scan

PATIENT-CENTERED CARE

Nursing Care
- Assess respiratory status
- Monitor signs and symptoms of allergic reactions

Medications
- Bronchodilators such as
- Pro Air HFA
- Ventolin HFA
- Levalbuterol
- Tiotropium
- Salmeterol
- Corticosteroids
- Antibiotics

Client Education
- Smoking cessation

Therapeutic Procedures
- Oxygen therapy
- pulmonary rehabilitation program

Interprofessional Care
- Pulmonologists

Complications
- Respiratory infections
- Heart problems
- lung cancer
- High blood pressure
- Depression

ACTIVE LEARNING TEMPLATE: **Medication**

STUDENT NAME _____

MEDICATION Indacaterol

REVIEW MODULE CHAPTER _____

CATEGORY CLASS Bronchodilator

PURPOSE OF MEDICATION

Expected Pharmacological Action

Produces accumulation of cyclic adenosine monophosphate (cAMP) at beta₂-adrenergic receptors. Relatively specific for pulmonary receptors.

Therapeutic Use

Bronchodilation, with improvement in symptoms of COPD.

Complications

Only with overdose such as angina, hypertension or hypotension, tachycardia, arrhythmias, nervousness, headache, tremor, dry mouth, palpitation, muscle cramp.

Medication Administration

- Inhaln (Adults) 75 mcg once daily

Contraindications/Precautions

- Hypersensitivity; Acute deteriorating COPD or acute respiratory symptoms; Asthma.
- Use during pregnancy only if potential benefit justifies potential fetal risks.
- Concurrent use of MAO inhibitors, tricyclic antidepressants or drugs that prolong the Qtc interval.

Nursing Interventions

Assess respiratory signs (rate, breath sounds, degree of dyspnea, pulse) before administration and at peak of the medication.
- Monitor for signs and symptoms of allergic reactions (difficulty breathing or swallowing, swelling of tongue, lips and face, urticaria), skin rash.

Interactions

- Risk of serious adverse cardiovascular effects with MAO inhibitors, tricyclic antidepressants, drugs that prolong the Qtc interval.
- Use with caffeine-containing herbs (cola nut, guarana, mate tea, coffee stimulant effect).

Client Education

- Advise patient not to discontinue without consulting health care professional.
- Notify signs and symptoms of allergy reaction.
- Notify health care professional of all Rx or OTC medications, vitamins or herbal products.

Evaluation of Medication Effectiveness

- Decrease in the number of flare-ups or the worsening of COPD symptoms.