

**Preconference Form**

Student Name: Chandler Moore  
Medical Diagnosis/Disease: COPD

**NCLEX IV (8): Physiological Integrity/Physiological Adaptation**

Anatomy and Physiology  
Normal Structures  
**Respiratory System:**  
**Upper Respiratory Tract:**  
Nasal Cavity: Heats, humidifies, and filters the air inhaled through inspiration  
Mouth: Secondary pathway for air to enter the respiratory system. Allows more air to be inhaled than the nasal cavity, however it does not filter any air it encounters.  
Pharynx: Routes air from the mouth and nasal cavity to the larynx trachea and the lungs. The pharynx also prevents particles of food or liquid from reaching the trachea and entering the lungs.  
Larynx: The larynx is the voice box, this is what allows you to speak. When you speak it causes the larynx to vibrate and produce sound which is your voice. The larynx also funnels air to the trachea and then to the lungs.  
**Lower Respiratory Tract:**  
Trachea: This carries air to and from the lungs. During inhalation the trachea also aids in warming the air and moisturizing the air before it enters the lungs.  
Bronchi: Bronchi carries oxygen into the lungs and expels carbon dioxide. However, before it enters the lungs the bronchi moisten the air as well as screen out foreign particles. Once the air enters the lungs through the bronchi it is distributed to the functional tissues of the lungs (alveoli).  
Bronchioles: The bronchioles serve as a transition between the large

Pathophysiology of Disease  
COPD is chronic inflammation of the airway's parenchyma (bronchioles and alveoli). The defining feature of COPD is airflow limitation that is not fully reversible during exhalation. The main cause of this is the loss of elastic recoil and an obstruction of the airway. The inflammation process most often starts with the repeated exposure of noxious particles causing tissue destruction and disruption of the normal defense mechanisms in the lungs. The main site of airflow limitation is in the smaller airways. As the peripheral airways become obstructed it causes air to get trapped and the chest starts to expand. This causes the respiratory muscles not being able to function effectively. As a result, the client becomes dyspneic with limited exercise capacity. This also commonly causes an impairment of gas exchange across the respiratory system and the entire body.

**NCLEX IV (7): Reduction of Risk**

Anticipated Diagnostics  
Labs  
Serum a1-antitrypsin levels, WBC, CBC, ABG's  
Additional Diagnostics  
H and P  
CXR  
Spirometry  
6 min walk test  
COPD Assessment test  
Cough and deep breathing

---

bronchi and the alveolae ducts. The bronchioles carry oxygen rich air into the lungs and carbon dioxide rich air out of the lungs. The bronchioles deliver air to around 300 million alveoli. Bronchioles also allow gas exchange to take place between the blood and the alveoli.

Alveoli: During inspiration alveoli expand and take in oxygen rich air. During exhalation the alveoli shrink and expel carbon dioxide. Within the alveoli there are alveolar sacs where gas exchange takes place between the oxygen rich air and the bloodstream. This allows the blood to always take in oxygen rich blood to keep the body healthy.

Lungs: The lungs are the main source of gas exchange in the body. During inhalation the lungs expand and take in lots of oxygen rich air. During exhalation, the lungs shrink and expel carbon dioxide which is a waste product of the human body. The lungs also assist in delivering oxygen to the bloodstream during gas exchange. Lastly, the lungs also protect the body from harmful substances as the lungs expel waste during every ventilation.

Diaphragm: The diaphragm is a skeletal muscle that flattens and contracts during inhalation, which causes a vacuum effect an assist in pulling air into the lungs. When you exhale the diaphragm relaxes and allows the lungs to expel air.

<p><u>Contributing Risk Factors</u></p> <p>Smoking Infection Asthma Air pollution Aging Genetics Alpha -1 Antitrypsin Deficiency</p>	<p><u>Signs and Symptoms</u></p> <p>Shortness of breath Dyspnea Dizziness Cough Wheezing Chest tightness Lack of energy Drowsiness Restlessness Weight loss Loss of appetite</p>	<p><u>Possible Therapeutic Procedures</u></p> <p><u>Non-surgical</u> Endobronchial Valve Therapy</p> <p><u>Surgical</u> Lung Volume Reduction Surgery (LVRS) Bronchoscopic Lung Volume Reduction (BLVR) Bullectomy</p>	<p><u>Prevention of Complications</u></p> <p>(What are some potential complications associated with this disease process)</p> <p>Pulmonary Hypertension Dyspnea Acute Respiratory Failure Pneumonia Acute Exacerbations Fall Risk Impaired activity</p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**NCLEX IV (6): Pharmacological and Parenteral Therapies**

Anticipated Medication Management

Oxygen Therapy  
Bronchodilators  
Anticholinergics  
B2 adrenergic agonists (SABA)  
Ipratropium bromide (SAMA's)  
ICS  
Mucolytic  
Expectorants

**NCLEX IV (5): Basic Care and Comfort**

Non-Pharmacologic Care Measures

Nutritional Therapy: If client is obese or has impaired nutrition  
Use of Incentive Spirometer and other breathing techniques  
Occupational Therapy: Be able to perform ADL's while keeping oxygen levels up  
Adequate Sleep  
Moderate Exercise

**NCLEX III (4): Psychosocial/Holistic Care Needs**

What stressors might a patient with this diagnosis be experiencing?

- Fear of not being able to breathe
- Trouble coping: With the fact if they smoked
- Fear of not being able to go back to their "normal life" activities

**Client/Family Education**

List 3 potential teaching topics/areas

- Activity: Educate the client that their activity level is going to be impaired, and encourage them to create a plan for each day of activity with plenty of time for breaks in between
- Psychosocial Care: Educate client that if they are having trouble coping or trouble with anxiety that they can talk to a psychologist or other professionals in a private setting. Encourage client to let their emotions free
- Sleep: Educate client on the possible problems they may have when trying to get sleep. Encourage client to get as much rest as they can if they feel tired.

**NCLEX I (1): Safe and Effective Care Environment**

Multidisciplinary Team Involvement  
(Which other disciplines do you expect to share in the care of this patient)

Respiratory Therapy  
Occupational Therapy  
Respiratory Surgeon  
Nutritionist  
Pharmacologist  
Psychologist  
Radiology  
Respiratory Nurse

