

## Adult/Geriatric Critical Thinking Worksheet

**Student Name:** Brynne Barker

**Unit:**

**Pt. Initials:**

**Date:** 12/15/2020

### 1. Disease Process & Brief Pathophysiology

Chronic Obstructive Pulmonary Disease (COPD):  
"When a patient breathes in, air moves down their trachea and through the bronchi. The bronchi eventually branch out into bronchioles which has air sacs on the end called alveoli. At the end of the alveoli are capillaries. Oxygen moves from the lungs to the bloodstream through capillaries. In exchange, CO<sub>2</sub> moves from the blood into the capillaries and then into the lungs before it is exhaled. In COPD, the fibers that make up the walls of the alveoli become damaged. This in turn makes them less elastic and unable to recoil when a patient exhales. This causes a build up of carbon dioxide in the lungs" (Roland, 2018).

Roland, J. (2018, November 12). What is the Pathophysiology of COPD? healthline.  
<https://www.healthline.com/health/copd/pathophysiology>

### 4. Diagnostic Tests pertinent or confirming of diagnosis

- diagnosis confirmed by spirometry testing
- chest x-ray (P)
- pulmonary function testing
- EKG

### 2. Factors for the Development of the Disease/Acute Illness

- cigarette smoking (primary cause active and passive)
- occupational chemicals and dust
- air pollution
- infection (P)
- heredity
- aging (P)
- genetic susceptibilities

### 5. Lab Values that may be affected

- arterial blood gases (P)
- complete blood count (P)

### 3. Signs and Symptoms

- dyspnea or dyspnea on exertion (P)
- chronic cough
- chronic sputum production
- tachypnea (P)
- barrell chest (P)
- decreased breath sounds due to lower lobes not moving (P)
- change in mental status (P)
- accessory muscle use
- clubbing of fingers/toes
- hyperresonance
- prolonged expiration and grunting (P)
- decreased chest expansion (P)

### 6. Current Treatment

- semi fowlers position
- bronchodilators (P)
- antibiotics
- adequate hydration
- O<sub>2</sub> therapy (P)

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-Pulse oximetry (P)

-mucolytics

-corticosteroids

-lung transplant

-diuretics

**7. Focused Nursing Diagnosis:**

Ineffective Airway Clearance

**11. Nursing Interventions related to the Nursing Diagnosis in #7:**

1 .Have the patient focus on purse lipped breathing

**12. Patient Teaching:**

1. Tell the patient it is important to get early medical treatment at the first s/s of getting sick

**8. Related to (r/t):**

Irreversible airflow limitations during forced exhalation due to loss of elastic recoil

**Evidenced Based Practice:**

"Pursed lip breathing helps control shortness of breath, and provides a quick and easy way to slow your pace of breathing, making each breath more effective" (American Lung Association, 2020).

2. Use the bronchodilator first to help open the airways before using any other inhalers or medications

**9. As evidenced by (aeb):**

Patient's respirations were 30 per minute, O2 saturation was 70%, and patient was on 3 L O2 nasal cannula.

American Lung Association. (2020, February 27). Pursed Lip Breathing. <https://www.lung.org/lung-health-diseases/lung-disease-lookup/copd/patient-resources-and-videos/pursed-lip-breathing-video#:~:text=Pursed%20lip%20breathing%20is%20a,making%20each%20breath%20more%20effective.>

3. Instruct the patient on the importance of home oxygen if prescribed (patient had a hx of chronic hypoxic respiratory failure that required oxygen at home (3 L))

2. Place the patient in a semi fowlers position

**13. Discharge Planning/Community Resources:**

1. Consider pulmonary rehabilitation

2. Case management for oxygen, medication, and home health

**Evidenced Based Practice:**

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**10. Desired patient outcome:**

Slow the patient's breathing down by monitoring oxygen saturation levels and performing techniques by 12/16/2020

Goal met by 12/16/2020

"One method to curb the pain and breathing problem is to let the person lying in a semi-fowler position by effectively lowering shortness of breath while sleeping or lying down" (Patel, 2020).

Patel, A. (2020). Know About Sleeping in Semi-Fowler Position and its Benefits for COPD. Solace. <https://solacesleep.com.au/know-about-semi-fowler-position/>

**3. Importance of flu and pneumonia vaccine**

**3. Administer bronchodialator therapy as prescribed**

**Evidenced Based Practice:**

Using a bronchodialator first will help open up the patient's airways or bronchi and will allow for later medications to absorb better into the airways and lungs (not cited).