

## Adult/Geriatric Critical Thinking Worksheet

**Student Name:** Jesus Carrasco

**Unit:** South 10

**Pt. Initials:** W.W.

**Date:** 1/19/2021

### 1. Disease Process & Brief Pathophysiology

Chronic Obstructive Pulmonary Disease is a progressive inflammatory disease which presents airflow limitation. Cigarette smoking, noxious particles and gases are the most common factors. The pathogenesis of COPD results in inflammation of the airways, bronchioles and alveoli of the lungs, and blood vessels. The disease causes the lungs to lose most of the elastic recoil and cause obstructive airflow due to mucus hypersecretion. Inhalation of toxins and/or cigarette smoke causes damage to connective tissue within the respiratory system. This results in the inability to expire air and gas exchange abnormalities causing hypoxemia and hypercapnia.

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

Pulmonary Function Test

Chest Xray (P), CT Scan (P), ECG (P)

Pulse Oximetry (P), Pleural Effusion (P)

Arterial Blood Gas analysis(P), Sputum (P)

Labs: CBC (P), WBC(P), H & H (P), Covid Screening(P)

History and Physical Examination (P)

Alpha 1 Antitrypsin Levels

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

Cigarette smoke (P)

Exposure to: dust(P), chemicals (P), farming (P), fumes (P), pollution

Asthma Dx

Genetics

Respiratory Infection (P)

### 5. Lab Values that may be affected

Arterial Blood Gas (P)

Complete Blood Count and White Blood Count due to infection (P), H&H (P)

Alpha 1

Pulse Oximetry(P)

### 3. Signs and Symptoms

Shortness of Breath with/witout physical activity (P)

Wheezing (P), Cyanosis (P), JVD, Tachypnea (P)

Chest Tightness (P), Use of accessory muscles (P)

Chronic Cough with/without sputum

Frequent respiratory infections (P)

Lack of energy (P)

Unintended weight loss, Pulmonary HTN

Swelling in ankles, feet or legs

### 6. Current Treatment

Supplemental High Flow O2 therapy (P)

Low carb and pureed diet (P)

Antibiotic Treatment (P)

Brochodilator Treatment (P)

Diuretics (P)

Nebulizer treatment (P)

Physical therapy (P)

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**7. Focused Nursing Diagnosis:**

Impaired Gas Exchange

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

The increased need for oxygen and demand during activities of daily living can impair one's conscious ability to calmly take breaths sufficient for life.

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

Patient has dyspnea upon exertion and turning while in bed. At rest, oxygen saturation levels remain < 90%, as patient continues to use accessory muscles and take short/shallow breaths.

**10. Desired patient outcome:**

Activity is limited to bedrest orders. Patient to demonstrate ability to perform proper pursed lip breathing exercises 4-5 times per day. This type of

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

1 .Assist patient to a comfortable position by elevating head of the bed and/or providing arms and legs with pillows. Also, assisting patient in leaning over a bed or table for support.

**Evidenced Based Practice:**

Elevating the head assists respiratory function by gravity and supporting the arms and legs allows reduces muscle fatigue helps in chest expansion. Cited: In Ms. Thomas's Power Point slide #19-20 and 25. The 7 years of working as an Exercise Physiologist for UMC's Cardiac and Pulmonary Rehab.

2. Instruct and evaluate Incentive Spirometry treatment. This treatment will also work along side pursed lip breathing exercises.

**Evidenced Based Practice:**

The IS device will assist in strengthening the lungs and assist in prevention of pneumonia. The long the lungs stay open the longer gases exchange is permitted. Cited: Ms. Thomas'es COPD PPT, Slide #27. Cited: The 7 years of working as an Exercise Physiologist for UMC's Cardiac and Pulmonary Rehab

**12. Patient Teaching:**

1. Instruct patient on the importance of oxygen therapy and how to monitor pulse oximetry.
2. Instruct on the importance of getting medical treatment at the first/earliest sign of an infection or pulmonary exacerbation.
3. Instruct and observe proper technique for using an inhaler with/without spacer for adequate medication administration.

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

1. Silver Sneakers, exercise plan within select insurance companies which allows coverage for patients wanting to join a gym.
2. Pulmonary Rehabilitation
3. Better Breathers Club Program: An organization for pulmonary patients within the region to provide education and support for patients suffering/recovering from pulmonary disorders

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training will allow further time for gas exchange in the lungs and more CO<sub>2</sub> to be expired. Will assess tolerance by patients ability to increase expiration time to 4-5 seconds. Oxygen saturation levels and SOB will be used to support effectiveness of exercises. By: 1/19/21 at 1700.

3. Assist and encourage physical activity such as ambulation within room and hallway if permitted.

**Evidenced Based Practice:**

Ambulation promotes circulation within the body. Increased circulation can reduce chances of blood clotting problems, muscle atrophy and decreased endurance. Cited: The 7 years of working as an Exercise Physiologist for UMC's Cardiac and Pulmonary Rehab. Cited: Ms.'s Thomas's Gas Exchange Basics Powerpoint Slide #3