# COPD System Disorder

| Patient information | |
|---|---|
| Name: Augustus Cooper | Gender: Male |
| Date of birth: September 12, 1955 | Age: 69 |
| Date of assessment: February 21, 2025 | |
| Diagnosis: Chronic Obstructive Pulmonary Disease (COPD), moderate severity | |

**Pathophysiology of the disorder**

COPD is characterized by chronic inflammation of the airways and lung parenchyma, leading to airflow limitation. It involves chronic bronchitis, emphysema, and small airway disease, resulting in airway narrowing, mucus hypersecretion, and alveolar destruction.

**Health promotion and disease prevention**

Smoking cessation support provided
Influenza and pneumococcal vaccinations recommended
Education on inhaler use and pulmonary rehabilitation
Nutritional counseling offered

**Risk factors**

45-year history of cigarette smoking (1 pack/day)
Occupational exposure to dust and chemicals
Age-related decline in lung function
Family history of chronic lung disease

**Expected findings**

Chronic productive cough
Dyspnea on exertion
Wheezing and decreased breath sounds
Barrel chest appearance
Prolonged expiration phase

**Laboratory and diagnostic testing**

| **Spirometry:** | | **Chest x-ray:** | |
|---|---|---|---|
| ◉ Yes | ○ No | ◉ Yes | ○ No |
| If yes, state results: | | If yes, state results: | |
| $FEV_1$: 58% predicted, $FEV_1$/FVC ratio: 65% — indicating moderate obstruction | | Hyperinflation of lungs, flattened diaphragm, increased retrosternal airspace | |
| **CT scan:** | | **Blood test:** | |
| ◉ Yes | ○ No | ◉ Yes | ○ No |
| If yes, state results: | | If yes, state results: | |
| vidence of emphysematous changes in upper lobes | | Elevated hematocrit (52%), mild hypoxemia noted | |

| Arterial blood gases (ABG): | |
|---|---|
| (●) Yes | ( ) No |
| If yes, state results: | |
| 7.38, $PaCO_2$: 48 mmHg, $PaO_2$: 65 mmHg — indicating compensated respiratory acidosis | |

**Medication**

| Type | Dosage and frequency |
|---|---|
| Short-acting beta-agonist | Albuterol inhaler, 2 puffs q4h PRN |
| Long-acting beta-agonist | Salmeterol, 50 mcg inhalation BID |
| Inhaled corticosteroid | Fluticasone, 100 mcg inhalation BID |
| Phosphodiesterase-4 inhibitor | Roflumilast, 500 mcg daily |

**Interdisciplinary care**

| Doctor | Name and contact information |
|---|---|
| Primary care provider | Dr. Emily Carter – (555) 123-4567 |
| Pulmonologist | Dr. John Smith – (555) 987-6543 |
| Respiratory therapist | Lisa Brown, RRT – (555) 321-6789 |
| Dietitian | Sarah Kim, RD – (555) 456-7890 |
| Psychologist/counselor | James Lee, LCSW – (555) 654-3210 |

**Nursing interventions**

Monitor respiratory status and oxygen saturation regularly
Educate patient on medication adherence and proper inhaler technique
Encourage smoking cessation and provide resources
Assist with energy conservation techniques
Promote pulmonary rehabilitation and breathing exercises

**Evaluation**

Patient demonstrates improved understanding of medication regimen
Oxygen saturation maintained above 90% on supplemental oxygen
Reports decreased frequency of exacerbations over past 3 months
Adherence to pulmonary rehabilitation sessions noted

**Healthcare professional information**

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|---|---|
| Name: Jennifer Adams, RN | Medical license ID: RN5674321 |
| Signature: **Jennifer Adams** | Date of assessment: February 21, 2025 |