

# COPD Care Guide

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CALIFORNIA CORRECTIONAL  
HEALTH CARE SERVICES

*Information contained in the Care Guide is not a substitute for a health care professional's clinical judgment. Evaluation and treatment should be tailored to the individual patient and the clinical circumstances. Furthermore, using this information will not guarantee a specific outcome for each patient. Refer to "Disclaimer Regarding Care Guides" for further clarification.*

<https://cchcs.ca.gov/clinical-resources/>

## SUMMARY

### GOALS

- ✓ Identify individuals who smoke and offer them help to quit.
- ✓ Increase use of appropriate therapy for COPD patients
- ✓ Reduce emergency department (ED) visits and hospitalizations
- ✓ Offer influenza, COVID and pneumococcal vaccinations
- ✓ Educate COPD patients to increase their self management skills
- ✓ End-of-Life planning; encourage POLST/Advanced Directive

### ALERTS

- Chronic O<sub>2</sub> saturation < 88%: Consider long-term oxygen
- Patients at high risk for poor outcomes if infected with viral respiratory pathogens, consider pre/post exposure Rx
- Symptoms of COPD exacerbation: ↑ sputum purulence, ↑ sputum volume, ↑ dyspnea
- Never use long term oral steroids

### DIAGNOSTIC CRITERIA

COPD is a common, preventable, and treatable disease that is characterized by persistent respiratory symptoms and airflow limitation that is due to airway and/or alveolar abnormalities usually caused by significant exposure to noxious particles or gases and influenced by host factors including abnormal lung development. Significant comorbidities may have an impact on morbidity and mortality.<sup>1</sup>

**Diagnosis:** Suspected based on the patient's symptoms and physical examination and confirmed when a patient who has symptoms of COPD is found by **post-bronchodilator spirometry to have FEV<sub>1</sub> /FVC ratio < 0.70.**

- ▶ Chest X-Ray is not sensitive for the diagnosis of COPD; it may be done to rule out other diagnoses and as a baseline (See page 2 for further evaluation)
- ▶ Screening for Alpha 1-antitrypsin deficiency is recommended to be done once for patients diagnosed with COPD

### MULTIDIMENSIONAL ASSESSMENT OF COPD

- ✓ Establish diagnosis by post-bronchodilator **FEV<sub>1</sub> /FVC ratio < 0.70**
- ✓ Establish severity of airflow limitation (GOLD\* Stage at right)
- ✓ Assess patient's symptom burden using the Modified Medical Research Council (mMRC) Dyspnea Scale (See Table 1 page 3)
- ✓ Determine number of exacerbations/hospitalizations in past year: 0-1 or > 2
- ✓ Determine the patient's GOLD ABCD Group (Table 2 page 3)
- ✓ Choose initial medication based on patient's GOLD ABCD group (Table 3 page 4)

<u>Stage</u>	<u>FEV<sub>1</sub>% Predicted</u>
GOLD1: MILD	FEV <sub>1</sub> ≥ 80%
GOLD 2: MODERATE	50% ≤ FEV <sub>1</sub> < 80%
GOLD 3: SEVERE	30% ≤ FEV <sub>1</sub> < 50%
GOLD 4: VERY SEVERE	FEV <sub>1</sub> < 30% predicted

**FEV<sub>1</sub>** = Forced expiratory volume in 1 sec; **FVC** = Forced vital capacity; **PaO<sub>2</sub>** = Arterial partial pressure of oxygen; **PaCO<sub>2</sub>** = Arterial pressure of carbon dioxide

\*GOLD: Global Initiative for Chronic Obstructive Lung Disease

## TREATMENT

**Inhaled Medications:**\* (Provide education on proper inhaler/device technique and review frequently, especially if not responding to treatment)

- ▶ **Initiation of therapy** based on the GOLD\* ABCD assessment of symptoms and risk of exacerbation (Table 3 page 4 and Appendix A).
- ▶ **Follow-up medication adjustments** based on lack of symptom control and/or recurrent exacerbations (Algorithm 1 page 2 and Appendix B).

\*SABA: Short-acting beta-agonist (all patients as needed for acute symptoms); LABA: Long-acting beta-agonist; SAMA: Short-acting muscarinic antagonists; LAMA: Long-acting muscarinic antagonists; ICS: Inhaled corticosteroid

**Steroids:** 5-7 day course of oral corticosteroid indicated for treatment of COPD exacerbation. NO role for chronic use of oral corticosteroids.

**Antibiotics:** In outpatients with moderate to severe exacerbation, antibiotics improved clinical outcomes (See Algorithm 2 page 5 and Appendix C).

**PDE4-Inhibitors:** Reduce inflammation. Roflumilast is a once-daily oral medication indicated only in patients with chronic bronchitis, severe to very severe COPD, and a history of exacerbations.

**Continuous O<sub>2</sub> Therapy:** Improves survival if severe chronic resting hypoxemia ( $\text{PaO}_2 \leq 55$  mm HG OR  $\text{SaO}_2 \leq 88\%$ ); goal is baseline  $\text{SaO}_2 \geq 90\%$ ).

**Pulmonary Rehabilitation:** Self-directed pulmonary rehab strategies including exercise program/conditioning to help quality of life and decrease symptoms.

## MONITORING (SEE PAGES 7-8)

- ▶ Follow-up as clinically indicated. Close follow-up is indicated after hospital discharge as well as during and after any exacerbation.
- ▶ Pneumococcal (1 dose of PCV20 or 1 dose of PCV15 followed by a dose of PPSV23  $\geq 1$  years later\*), COVID, and annual influenza vaccines. Ask about tobacco use at every visit; offer help with smoking cessation.
- ▶ Review medication adherence and inhaler technique, especially if patient is not responding to therapy.

\*Latest ACIP guidelines