

Improving the Care of Persons With Chronic Obstructive Pulmonary Disease (COPD)

Patient with suspected or confirmed COPD



Perform clinical assessment, including consideration of contributing comorbid conditions:

History – including tobacco use, activity level, exercise tolerance, symptom burden, history of acute exacerbations.

Exam – including pulse oximetry, wheezing, use of accessory muscles and labored breathing, BMI.

Investigate for other diagnoses and comorbid conditions.



Confirm COPD diagnosis with spirometry



Initiate or adjust COPD therapy based on an accurate patient assessment and initial classification into groups A-D, based on exacerbation history and symptom severity (Tables 1 and 2).

Offer prevention and risk reduction methods including tobacco cessation, vaccinations and patient education.

Provide a written COPD action plan that includes daily treatment, how to manage worsening symptoms and taking prompt action.



Consider need to initiate or adjust medications in a symptomatic COPD patient. For information on escalating or de-escalating therapies, see the GOLD website: <https://goldcopd.org>.



Consider long-term oxygen therapy (LTOT) for persons with chronic, stable resting severe hypoxemia with signs of tissue hypoxia (Figure 1).



Consider other supportive therapies



Consider pulmonary rehabilitation for persons with symptoms and limitation of daily activities despite adequate treatment.

Consider pulmonary referral.

Nutrition referral for obesity.

Palliative and end-of-life care for persons with more advanced COPD.



Ensure periodic assessments (at 1- to 6-month intervals)

When to consider a pulmonary referral:

One or more COPD hospitalizations over the last year.

Two or more exacerbations requiring steroids over the last year.

Rapidly declining FEV1 or residual volume greater than 175% predicted.

Signs of sleep-disordered breathing.

Continued need for supplemental oxygen or increasing oxygen requirements.

Inconsistent spirometry pattern or overlap syndrome with cardiovascular disease, pulmonary fibrosis or asthma.

Need to escalate therapy beyond typical inhaler regimens.

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Figure 1

Supportive therapy with supplemental oxygen

ARTERIAL HYPOXEMIA:

PaO₂ < 55 mmHg or SaO₂ < 88% with or without hypercapnia, confirmed twice over a 3-week period.

OR

PaO₂ 56-59 mmHg or SaO₂ < 88% with evidence of pulmonary hypertension, peripheral edema suggestive of congestive cardiac failure, or polycythemia (hematocrit > 55%).

SUPPLEMENTAL OXYGEN:

At least 15 hours per day titrated to keep SaO₂ ≥ 90%.

FOLLOW-UP 60-90 DAYS:

Assess effectiveness and determine if still indicated.

Table 1

COPD assessment tool (adapted from the GOLD Guidelines 2019)

Spirometry confirmed airflow limitation Post bronchodilator FEV1/FVC < 0.7	Severity of airflow limitation Mild – FEV1 ≥ 80% predicted Moderate – FEV1 50-79% predicted Severe – FEV1 30-49% predicted Very severe – FEV1 < 30% predicted	Group by symptom assessment and exacerbation risk	
		Group A Exacerbation: 0 or 1 (not leading to hospital admission) CAT score < 10	Group B Exacerbation: 0 or 1 (not leading to hospital admission) CAT score ≥ 10
		Group C Exacerbation: ≥ 2 or ≥ 1 (leading to hospital admission) CAT score < 10	Group D Exacerbation: ≥ 2 or ≥ 1 (leading to hospital admission) CAT score ≥ 10

CAT = COPD Assessment Test

Table 2

Initial treatment recommendations (adapted from the GOLD Guidelines 2019)

Group	Symptom assessment and exacerbation risk	Initial treatment
Group A	Exacerbations: 0 or 1 (not leading to hospital admission); CAT score < 10	Bronchodilator (short- or long-acting)
Group B	Exacerbations: 0 or 1 (not leading to hospital admission); CAT score ≥ 10	Long-acting bronchodilator (LABA or LAMA)
Group C	Exacerbations: ≥ 2 or ≥ 1 (leading to hospital admission); CAT score < 10	LAMA
Group D	Exacerbations: ≥ 2 or ≥ 1 (leading to hospital admission); CAT score ≥ 10	LAMA or LAMA + LABA* or LABA + ICS**

LABA = long-acting β₂-agonist; LAMA = long-acting anticholinergic/muscarinic antagonist; ICS = inhaled corticosteroid

*Consider if highly symptomatic (CAT > 20).

**Consider if eosinophils ≥ 300 cell/μL.

Reference

Global Initiative for Chronic Obstructive Lung Disease (GOLD). *Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease: 2019 Report*. Available from <http://www.goldcopd.org>.

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