



CLINICAL GUIDELINES FOR COPD+

KEY INDICATORS FOR CONSIDERING A COPD DIAGNOSIS

Consider COPD, and perform spirometry, if any of these key indicators are present in an individual over age 40. These indicators are not diagnostic themselves, but the presence of multiple key indicators increases the probability of a diagnosis of COPD. *The diagnosis should be confirmed by spirometry.*

- **History of Exposure to Risk Factors:** Tobacco smoke. Occupational dusts and chemicals. Smoke from home cooking and heating fuels.
- **Chronic Sputum Production:** Any pattern of chronic sputum production may indicate COPD.
- **Dyspnea that is:** Progressive (worsens over time). Persistent (present every day). Usually worse with exercise. Described by the patient as an “increased effort to breathe,” “heaviness,” “air hunger,” or “gasping.”
- **Chronic Cough:** May be intermittent and may be unproductive.

+Adapted from the Global Initiative for Chronic Obstructive Lung Disease (GOLD,) *Global Strategy For the Diagnosis, Management, and Prevention of COPD, Updated 2010. Full text available at www.goldcopd.org*

THERAPY AT EACH STAGE OF COPD

Stage I: Mild	Stage II: Moderate	Stage III: Severe	Stage IV: Very Severe
FEV ₁ /FVC < 0.70 FEV ₁ ≥ 80% predicted • Mild airflow limitation • Sometimes chronic cough and sputum production • Patient may not be aware lung function is abnormal	FEV ₁ /FVC < 0.70 50% ≤ FEV ₁ < 80% predicted • Worsening airflow limitation • SOB on exertion • Patient typically seeks medical attention due to chronic respiratory symptoms or an exacerbation	FEV ₁ /FVC < 0.70 30% ≤ FEV ₁ < 50% predicted • Further worsening of airflow limitation • ↑SOB • ↓Exercise capacity • Fatigue • Repeated exacerbations	FEV ₁ /FVC < 0.70 FEV ₁ < 30% predicted or FEV ₁ < 50% predicted plus chronic respiratory failure • Severe airflow limitation • Exacerbations may be life threatening • Quality of life appreciably impaired
Active reduction of risk factor(s); influenza vaccination-----→ Add short-acting bronchodilator (when needed)-----→			
		Add regular treatment with one or more long-acting bronchodilators (when needed); Add rehabilitation	
		Add inhaled glucocorticosteroids if repeated exacerbations	
		Add long term oxygen if chronic respiratory failure. Consider surgical treatments	

Postbronchodilator FEV₁ is recommended for the diagnosis and assessment of severity of COPD

PHARMACOLOGIC THERAPY OF STABLE COPD

Bronchodilators:

These medications are central to symptom management in stable COPD. Inhaled therapy is preferred.


- The choice between beta2-agonist, anticholinergic, theophylline, or combination therapy depends on availability and individual response in terms of symptom relief and side effects.
- Bronchodilators are prescribed “as needed” to relieve intermittent or worsening symptoms, and on a regular basis to prevent or reduce persistent symptoms.
- Long-acting inhaled bronchodilators are more effective and convenient.
- Combining bronchodilators of different pharmacological classes (such as a beta2-agonist and an anticholinergic inhaled bronchodilator) may improve efficacy and decrease the risk of side effects compared to increasing the dose of a single bronchodilator.
- The long-acting anticholinergic inhaled bronchodilator tiotropium, also reduces COPD exacerbations and has FDA approval for this indication.

Glucocorticosteroids:

- Regular treatment with inhaled glucocorticosteroids is only appropriate for symptomatic patients with an FEV₁ < 50% predicted and repeated exacerbations (for example, 3 in the last three years). Regular treatment with inhaled glucocorticosteroids has been shown to decrease exacerbations and thus improve health status but does not modify the long-term decline in FEV₁. Treatment with inhaled glucocorticosteroids increases the likelihood of pneumonia and does not reduce mortality.
- An inhaled glucocorticosteroid combined with a long-acting beta2-agonist is more effective than individual components in reducing exacerbations and improving lung function and health status. Some combination therapy may increase the likelihood of pneumonia and has no significant effects on mortality. In patients with an FEV₁ < 60%, pharmacotherapy with long-acting beta2-agonist, inhaled glucocorticosteroid and its combination decreases the rate of decline of lung function. Addition of a long-acting beta2-agonist/inhaled glucocorticosteroid to an anticholinergic such as tiotropium, appears to provide additional benefit.
- Long-term treatment with oral glucocorticosteroids is not recommended.

Phosphodiesterase-4 inhibitors:

- In patients with Stage III (Severe) or Stage IV (Very Severe) COPD and a history of exacerbations and chronic bronchitis, the phosphodiesterase-4 inhibitor (oral drug), roflumilast, reduces exacerbations treated with oral glucocorticosteroids. These effects are also seen when roflumilast is added to long-acting bronchodilators; there are no comparison studies with inhaled glucocorticosteroids.



BREATHE-COPD is a Health Management Program available free of charge to ConnectiCare members diagnosed with COPD. Enrolled members may receive educational materials, individualized health coaching and case management from a Registered Nurse.

To enroll a member in BREATHE-COPD or to refer a member diagnosed with COPD to QuitCare (ConnectiCare's smoking cessation program), call 1-800-390-3522.

To find out more information about ConnectiCare's Health Management Programs, refer to ConnectiCare's Physician & Provider Manual or www.connecticare.com.



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