Blue Cross Complete Clinical Practice Guideline Summary

Guideline for the Diagnosis and Management of Chronic Obstructive Pulmonary Disease (COPD)

<table>
<tr><th>Eligible Population</th><th>Key Components</th><th>Recommendation</th></tr>
<tr><td rowspan="5">Patients Members ≥ 18 years of age</td><td>Diagnosis</td><td>

Consider COPD in any patient with respiratory symptoms and those with a history of exposure (e.g. occupational exposure) to risk factors for the disease, especially smoking.
Characteristic symptoms of COPD include: cough, sputum production that can be variable from day to day, chronic and progressive dyspnea.
Perform spirometry on all patients suspected of COPD to confirm diagnosis. [C]

A Post-bronchodilator $FEV_1/FVC < 70\%$ confirms the presence of airflow limitation

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<tr><td>Management:
Stable COPD</td><td>
Together with symptoms, severity of spirometric abnormality, future risk of exacerbations, and the identification of comorbidities can be a guide for specific treatment steps
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<tr><th>I: Mild COPD</th><th>II: Moderate COPD</th><th>III: Severe COPD</th><th>IV: Very Severe COPD</th></tr>
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<td>$FEV_1 > 80\%$ predicted
Few symptoms, low risk of exacerbations
• short acting bronchodilators as needed [A]</td>
<td>$FEV_1 > 50\%$ and $< 80\%$ predicted
More significant symptoms, low risk of exacerbations
• long-acting bronchodilators</td>
<td>$FEV_1 > 30\%$ and $< 50\%$ predicted
Few symptoms, high risk of exacerbations
• Daily long-acting bronchodilators plus inhaled corticosteroids if repeated exacerbations
• Oral steroid bursts for exacerbations
• Consider Daliresp for frequent exacerbations</td>
<td>$FEV_1 < 30\%$ predicted or $<50\%$ with deoxygenation
Many symptoms, high risk of exacerbations · Combination therapy
• Oral steroids as needed
• Consider oxygen supplementation if oxygen saturation <= 88% or PaO2 <=55</td>
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<tr><td>Therapy for all severities</td><td>
Smoking cessation is a primary management goal for COPD [A]. Counsel all smokers (and household members) to quit at each visit [A].

Active reduction of risk factors; influenza vaccination [A] and pneumococcal vaccine.
Trigger avoidance
COPD education
Pulmonary rehabilitation [A] (if functional impairment)
Assess need for referral to specialist (e.g., pulmonologist, asthma)

May be beneficial at any stage of the disease
When lung function deficits are not consistent with symptoms
To confirm the diagnosis and rule out other diagnoses
Patient with COPD has less than 10-year pack history of smoking
Hospitalized for COPD
Frequent exacerbations
Rapid decline in FEV_1
Consideration/monitoring of oxygen therapy
Patient may be a candidate for lung transplant or volume reduction surgery (if stage IV)

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<tr><td>Management:
Exacerbations</td><td>

Generally exacerbations present with worsening in baseline dyspnea, increased sputum volume, and/or increase in sputum purulence.
Outpatient pharmacological management of COPD exacerbations may include a variety of treatments

Bronchodilators (beta 2 agonist with or without anticholinergic). Beta agonist preferred due to its rapid onset of action (A). Inhaled or systemic corticosteroids [A].
Supplemental oxygen therapy.

Antibiotic therapy may be beneficial [B]but remains controversial. The most common bacterial organisms include H. influenza, S. pneumonia, and M catarrhalis. Bactrim and doxycydine are adequate “first-line” agents. Antibiotic choice should be based on local bacterial resistance patterns.

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<tr><td>Periodic Assessment</td><td>
Educate patient/family regarding COPD disease process [A].

Correct use of devices and understanding of medications.
Recognition of COPD exacerbations [B].
Maintain physical and nutritional status.
Quality of life assessment to include, ability to perform daily activities, quality of sleep and screening for depression.
Discussions of end-of-life care [B] should take place while COPD is still stable, and following frequent hospital admissions for COPD.

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Levels of Evidence for the most significant recommendations: A=randomized controlled trials; B=controlled trials, no randomization; C=observational studies; D=opinion of expert panel

[1]Adapted from GOLD 2014 Update, Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease [2]

http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5753a6.htm?s_cid=mm5753a6_e **Revised: August, 2017**