

Qualifications Table for COPD

Source: VA/DoD Clinical Practice Guideline For the Management of Chronic Obstructive Pulmonary Disease

The ICSI Chronic Obstructive Pulmonary Disease Work Group endorsed with qualifications the following recommendations.

Recommendation	Strength of Recommendation	Agree without Qualification	Qualification Statement	Literature (New Search Support)
Diagnosis and Assessment of COPD				
#1 – We recommend that spirometry, demonstrating airflow obstruction (post-bronchodilator forced expiratory volume in one second/forced vital capacity [FEV ₁ /FVC] < 70%, with age adjustment for more elderly individuals), be used to confirm all initial diagnoses of chronic obstructive pulmonary disease (COPD).	Strong For	No	Care needs to be exercised when interpreting spirometry in the elderly as the percentages of patients with FEV ₁ /FVC < 0.7 rises with age so that about ½ of subjects age 75-85 have a decreased FEV ₁ /FVC ratio (<i>Chest</i> 2000;117:326S-31S). In a study of asymptomatic never-smokers > 70 years of age, 35% had FEV ₁ /FVC < 0.7.	<i>Hardie, 2002; Petty, 2000</i>
#2 – We have no recommendations regarding the utilization of existing clinical classification systems at this time.	Not Applicable	Yes	#2 dovetails into #3, see below	<i>Goossens, 2014</i>
#3 – We suggest classification of patients with COPD into two groups: a. Patients who experience frequent exacerbation (two or more/year, defined as prescription of corticosteroids, prescription of antibiotics, hospitalization or emergency department [ED] visit); and b. Patients without frequent exacerbations.	Weak For	Yes	Agree	<i>Gupta, 2014; Hsu, 2013</i> Resources: mMRC (Modified Medical Research Council dyspnea scale)
#4 – We recommend offering prevention and risk reduction efforts including smoking cessation and vaccination. <i>Modified from the 2007 CPG without an updated systematic review of the evidence.*</i>	Strong For	Yes	Agree	Resource: CDC Vaccination link USPSTF – for current ACIP recommendations on immunizations, http://www.cdc.gov/vaccines/schedules/index.html . This link goes off-site. Click to read the external link disclaimer.

Recommendation	Strength of Recommendation	Agree without Qualification	Qualification Statement	Literature (New) Search Support
<p>#5 – We recommend investigating additional comorbid diagnoses particularly in patients who experience frequent exacerbations (two or more/year, defined as prescription of corticosteroids, prescription of antibiotics, hospitalization, or ED visit) using simple tests and decision rules (cardiac ischemia [troponin, electrocardiogram], congestive heart failure [B-type natriuretic peptide (BNP), pro-BNP], pulmonary embolism [D-dimer plus clinical decision rule] and gastroesophageal reflux).</p>	Strong For		Agree	<p><i>Neshemura, 2014;</i> <i>Shapira-Rootman, 2014</i></p>
<p>#6 We suggest that patients with COPD and signs or symptoms of a sleep disorder have a diagnostic sleep evaluation. <i>Modified from the 2007 CPG without an updated systematic review of the evidence.*</i></p>	Weak For	Yes	Agree	<p><i>Holmedahl, 2014</i></p>
<p>#7 – We suggest that patients presenting with early onset COPD or a family history of early onset COPD be tested for alpha-1 antitrypsin (AAT) deficiency. <i>Modified from the 2007 CPG without an updated systematic review of the evidence.*</i></p>	Weak For	Yes	Agree	
<p>#8 – We recommend that patients with AAT deficiency be referred to a pulmonologist for management of treatment. <i>Modified from the 2007 CPG without an updated systematic review of the evidence.*</i></p>	Strong For	Yes	Agree	

Recommendation	Strength of Recommendation	Agree without Qualification	Qualification Statement	Literature (New) Search Support
Pharmacologic Therapy				
#9 – We recommend prescribing inhaled short-acting beta 2-agonists (SABAs) to patients with confirmed COPD for rescue therapy as needed. <i>Modified from the 2007 CPG without an updated systematic review of the evidence.*</i>	Strong for	Yes	Agree	
#10 – We suggest using spacers for patients who have difficulty actuating and coordinating drug delivery with metered-dose inhalers (MDIs). <i>Modified from the 2007 CPG without an updated systematic review of the evidence.*</i>	Weak for	Yes	Agree	
#11 – We recommend offering long-acting bronchodilators to patients with confirmed, stable COPD who continue to have respiratory symptoms (e.g., dyspnea or cough).	Strong for	Yes	Agree	<i>Roskell, 2014</i>
#12 – We suggest offering the inhaled long-acting antimuscarinic agent (LAMA) tiotropium as first-line maintenance therapy in patients with confirmed, stable COPD who continue to have respiratory symptoms (e.g., dyspnea or cough).	Weak for	Yes	Agree	<i>Oba, 2015; Mathioudakis, 2014</i>
#13 – We recommend inhaled tiotropium as first-line therapy for patients with confirmed, stable COPD who have respiratory symptoms (e.g., dyspnea or cough) and severe airflow obstruction (i.e., post bronchodilator FEV ₁ < 50%) or a history of COPD exacerbations.	Strong For	Yes	Agree	

Recommendation	Strength of Recommendation	Agree without Qualification	Qualification Statement	Literature (New) Search Support
<p>#14 – For clinically stable patients with a confirmed diagnosis of COPD and who have not had exacerbations on short-acting antimuscarinic agents (SAMAs), we suggest continuing with this treatment, rather than switching to long-acting bronchodilators.</p> <p><i>Modified from the 2007 CPG without an updated systematic review of the evidence.*</i></p>	Weak For	No	Clinically stable patients currently using a SAMA (ipratropium) or those having increased exacerbations should be offered the first-line therapy of LAMA. However, the short-acting agents do have demonstrated clinical benefit and may be continued if patient preference or cost considerations make this alternative therapy the preferred agent for selected patients.	
<p>#15 – For patients treated with a SAMA who are started on a LAMA to improve patient outcomes, we suggest discontinuing the SAMA.</p> <p><i>Modified from the 2007 CPG without an updated systematic review of the evidence.*</i></p>	Weak For	Yes	Agree	
<p>#16 – We recommend against offering an inhaled corticosteroid (ICS) in symptomatic patients with confirmed, stable COPD as a first-line monotherapy.</p>	Strong Against	Yes	Agree	DiSantostefano, 2014; Karbasi-Afshar, 2014; Mattishent, 2014
<p>#17 – We recommend against the use of inhaled long-acting beta 2-agonists (LABAs) without an ICS in patients with COPD who may have concomitant asthma.</p>	Strong Against	Yes	Agree	
<p>#18 – In patients with confirmed, stable COPD who are on inhaled LAMAs (tiotropium) or inhaled LABAs alone and have persistent dyspnea on monotherapy, we recommend combination therapy with both classes of drugs.</p>	Strong For	Yes	Agree	

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#19 – In patients with confirmed, stable COPD who are on combination therapy with LAMAs (tiotropium) and LABAs and have persistent dyspnea or COPD exacerbations, we suggest adding ICS as a third medication.	Weak For			<i>Lee, 2015;</i> <i>Bollmeier, 2014;</i> <i>Liu, 2014</i>
#20 – We suggest against offering roflumilast in patients with confirmed, stable COPD in primary care without consultation with a pulmonologist.	Weak Against	Yes	Agree	<i>Munoz-Esqueme, 2014;</i> <i>Rennard, 2014</i>
#21 – We suggest against offering chronic macrolides in patients with confirmed, stable COPD in primary care without consultation with a pulmonologist.	Weak Against	Yes	Agree Chronic macrolide therapy is typically considered to involve daily or alternate day medication for six months or more.	
#22 – We suggest against offering theophylline in patients with confirmed, stable COPD in primary care without consultation with a pulmonologist.	Weak Against	Yes	Agree	
#23 – There is insufficient evidence to recommend for or against the use of N-acetylcysteine (NAC) preparations available in the U.S. in patients with confirmed, stable COPD who continue to have respiratory symptoms (e.g., dyspnea, cough).	Not Applicable	Yes	Agree	
#24 – We suggest not withholding cardio-selective beta-blockers in patients with confirmed COPD who have a cardiovascular indication for beta-blockers.	Weak For	Yes	Agree	<i>Mathioudakis, 2014</i>
#25 – We suggest using non-pharmacologic therapy as first-line therapy and using caution in prescribing hypnotic drugs for chronic insomnia in primary care for patients with COPD, especially for those with hypercapnea or severe COPD.	Weak For	Yes	Agree	

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<p>#26 – For patients with COPD and anxiety, we suggest consultation with a psychiatrist and/or a pulmonologist to choose a course of anxiety treatment that reduces, as much as possible, the risk of using sedatives/anxiolytics in this population.</p> <p><i>Modified from the 2007 CPG without an updated systematic review of the evidence.</i></p>	Weak For	No	For patients with COPD and anxiety, we suggest consultation with a primary care physician, psychiatrist or pulmonologist to choose a course of anxiety treatment. Treating physicians should use caution in prescribing sedatives/anxiolytics for this population.	<p><i>Abascal-Bolado, 2015;</i> Anxiety and depression, combined with or separate from feelings of severe shortness of breath, should be assessed and concurrently treated to optimize health care utilization and increase QOL for patients with COPD.</p> <p><i>Blakemore, 2014</i></p>
Oxygen Therapy				
<p>#27 – We recommend providing long-term oxygen therapy (LTOT) to patients with chronic stable resting severe hypoxemia (partial pressure of oxygen in arterial blood [PaO₂] < 55 mmHg and/or peripheral capillary oxygen saturation [SaO₂] ≤ 88%) or chronic stable resting moderate hypoxemia (PaO₂ of 56-59 mmHg or SaO₂ > 88% and ≤ 90%) with signs of tissue hypoxia (hematocrit > 55%, pulmonary hypertension or cor pulmonale).</p> <p><i>Modified from the 2007 CPG without an updated systematic review of the evidence.*</i></p>	Strong For	Yes	Agree	Resource: 6-Minute Walk Test
<p>#28 – We recommend that patients discharged home from hospitalization with acute transitional oxygen therapy are evaluated for the need for LTOT within 30-90 days after discharge. LTOT should not be discontinued if patients continue to meet the above criteria.</p> <p><i>Modified from the 2007 CPG without an updated systematic review of the evidence.*</i></p>	Strong For	Yes	Agree	
<p>#29 – We suggest against routinely offering ambulatory LTOT for patients with chronic stable isolated exercise hypoxemia in the absence of another clinical indication for supplemental oxygen.</p>	Weak Against	Yes	Agree	<i>Stoller, 2010</i> Resource: 6-Minute Walk Test

Recommendation	Strength of Recommendation	Agree without Qualification	Qualification Statement	Literature (New) Search Support
<p>#30 – For patients with COPD and hypoxemia and/or borderline hypoxemia (SaO₂ < 90%) who are planning to travel by plane, we suggest a brief consultation or an e-consult with a pulmonologist.</p> <p><i>Modified from the 2007 CPG without an updated systematic review of the evidence.*</i></p>	Weak For	No	<p>Airline travel is safe for most patients with COPD. Hypoxemic patients should be evaluated clinically and a decision should be made regarding oxygen requirements. Patients with COPD receiving continuous oxygen at home will require supplementation during flight. Many airlines will allow the use of battery-operated portable oxygen concentrators (POCs) on board during flight. POCs were first approved for use by the FAA in summer 2005.</p> <p>Each airline has its own policy regarding on-board oxygen transport and in-flight oxygen usage.</p> <p>Patients need to contact the airline for their current policies regarding oxygen.</p> <ul style="list-style-type: none"> • Patients should notify the oxygen supply company two weeks in advance. • Many airlines have their own airline-specific medical form for the clinician to fill out. • POC rentals can be per day/week/month. • Patients should always carry a copy of their oxygen prescription. 	
<p>#31 – When other causes of nocturnal hypoxemia have been excluded, we suggest against routinely offering LTOT for the treatment of outpatients with stable, confirmed COPD and isolated nocturnal hypoxemia.</p>	Weak Against	Yes	Agree	
Stable Hypercapnea				
<p>#32 – In the absence of other contributors (e.g., sleep apnea), we suggest referral for a pulmonary consultation in patients with stable, confirmed COPD and hypercapnea.</p>	Weak For	Yes	Agree	

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Support Self-Management				
#33 – We suggest supported self-management for selected high-risk patients with COPD.	Weak For	Yes	Agree	Zwerinck, 2014
#34 – We suggest against using action plans alone in the absence of supported self-management.	Weak Against	No	Ensure that the patient has someone to contact (phone, electronically, etc.) as well as written documentation of patient education that the patient participated in the creation of the plan.	
Telehealth				
#35 – We suggest using telehealth for ongoing monitoring and support of the care of patients with confirmed COPD.	Weak For	Yes	Agree	Lundell, 2015
Pulmonary Rehabilitation				
#36 – We recommend offering pulmonary rehabilitation to stable patients with exercise limitation despite pharmacologic treatment and to patients who have recently been hospitalized for an acute exacerbation.	Strong For	Yes	Agree	Jácome, 2014; Osterling, 2014
Breathing Exercise				
#37 – We suggest offering breathing exercise (e.g., pursed lip breathing, diaphragmatic breathing or yoga) to patients with dyspnea that limits physical activity.	Weak For	Yes	Agree	Borge, 2014
Nutrition Referral				
#38 – We suggest referral to a dietitian for medical nutritional therapy recommendations (such as oral calorie supplementation) to support patients with severe COPD who are malnourished (body mass index [BMI] < 20 kg/m ²).	Weak For	Yes	Agree	

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Lung Volume Reduction Surgery and Lung Transplant				
#39 – We recommend that any patient considered for surgery for COPD (lung volume reduction surgery [LVRS] and lung transplant) be first referred to a pulmonologist for evaluation. <i>Modified from the 2007 CPG without an updated systematic review of the evidence.*</i>	Strong For	Yes	Agree	
Management of Patients in Acute Exacerbation of COPD				
#40 – We recommend antibiotic use for patients with COPD exacerbations who have increased dyspnea and increased sputum purulence (change in sputum color) or volume.	Strong For	Yes	Agree	
#41 – We suggest basing choice of antibiotic on local resistance patterns and patient characteristics. a. First-line antibiotic choice may include doxycycline, trimethoprim/sulfamethoxazole (TMP-SMX), second-generation cephalosporin, amoxicillin, amoxicillin/clavulanate and azithromycin. b. Despite the paucity of evidence regarding the choice of antibiotics, we suggest reserving broader spectrum antibiotics (e.g., quinolones) for patients with specific indications such as: i. Critically ill patients in the intensive care unit (ICU); ii. Patients with recent history of resistance, treatment failure or antibiotic use; and iii. Patients with risk factors for health care-associated infections.	Weak For	Yes	Agree Typical second-generation cephalosporins include cefuroxime, cefaclor and cefprozil.	
#42 – For outpatients with acute COPD exacerbation who are treated with antibiotics, we recommend a five-day course of the chosen antibiotic.	Strong For	Yes	Agree	
#43 – There is insufficient evidence to recommend for or against procalcitonin-guided antibiotic use for patients with acute COPD exacerbations.	Not Applicable	Yes	Agree	

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Recommendation	Strength of Recommendation	Agree without Qualification	Qualification Statement	Literature (New) Search Support
#44 – For acute COPD exacerbations, we recommend a course of systemic corticosteroids (oral preferred) of 30-40 mg prednisone equivalent daily for 5-7 days.	Strong For	Yes	Agree	
Management of Patients with COPD in the Hospital or Emergency Department				
#45 – We suggest use of airway clearance techniques utilizing positive expiratory pressure (PEP) devices for patients with COPD exacerbations and difficulty expectorating sputum.	Weak For	Yes	Agree	
#46 – We recommend the early use of non-invasive ventilation (NIV) in patients with acute COPD exacerbations to reduce intubation, mortality and length of hospital stay.	Strong For	Yes	Agree	
#47 – We recommend the use of NIV to support weaning from invasive mechanical ventilation and earlier extubation of intubated patients with COPD.	Strong For	Yes	Agree	<i>Bajaj, 2015</i>

*For additional information please refer to the "Reconciling 2007 CPG Recommendations" section of the Va/DoD guideline (page 9).