VA/DoD clinical practice guideline for the management of chronic obstructive pulmonary disease.

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Department of Veterans Affairs (VA) | Department of Defense (DoD) | Veterans Health Administration (VHA)

Management of Chronic Obstructive Pulmonary Disease Working Group. VA/DoD clinical practice guideline for the management of chronic obstructive pulmonary disease. Version 3.0. Washington (DC): Department of Veterans Affairs, Department of Defense; 2021 Apr. 94 p. [135 references]

View Original Guideline

Overview

Guideline Objective

To provide an evidence-based framework for evaluating and managing care for patients with chronic obstructive pulmonary disease (COPD) toward improving clinical outcomes

Patient Population

Adults (≥18 years of age) who have a diagnosis of COPD, including chronic bronchitis, emphysema, and chronic airflow limitation/obstruction, who are eligible for outpatient care in the VA or DoD healthcare delivery systems and those who receive outpatient care from community-based clinicians

Note: The population includes Veterans as well as deployed and non-deployed active duty Service Members and their dependents.

Recommendations

Recommendation Statements

Diagnosis and Classification

1. We suggest post-bronchodilator spirometry to confirm clinical diagnosis of chronic obstructive pulmonary disease (COPD. (**Weak For; Reviewed, New-replaced**)

   The Work Group's confidence in the quality of the evidence was **very low**.

2. There is insufficient evidence to recommend for or against any specific clinical criteria to inform decision-making regarding advancing pharmacologic therapy for COPD. (**Neither For nor Against; Reviewed, New-added**)

   The Work Group's confidence in the quality of evidence was **very low**.

Risk Reduction

3. We recommend smoking cessation for prevention and risk reduction of COPD. (**Strong For; Reviewed, New-replaced**)

   The Work Group's confidence in the quality of evidence was **moderate**.

4. We suggest routine vaccination for influenza and pneumococcal pneumonia for prevention and risk reduction of COPD exacerbations. (**Weak For; Reviewed, New-replaced**)

   The Work Group's confidence in the quality of evidence was **low**.

5. We recommend offering inhaled long-acting muscarinic antagonists (LAMAs) as first-line therapy in patients with symptomatic COPD. (**Strong For; Reviewed, New-replaced**)

   The Work Group's confidence in the quality of evidence was **moderate**.

6. We recommend against offering an inhaled long-acting beta agonist (LABA) as first-line therapy in patients with symptomatic COPD, unless a long-acting muscarinic

antagonist is not tolerated or is contraindicated. (**Strong Against; Reviewed, New-added**)

The Work Group's confidence in the quality of evidence was **moderate**.

7. We recommend against offering an inhaled corticosteroid in patients with symptomatic COPD as a first-line therapy. (**Strong Against; Not reviewed, Amended**)

   The Work Group's confidence in the quality of evidence was **moderate**.

8. For patients with moderate to severe obstruction who continue to report significant dyspnea or decreased quality of life despite using a long-acting muscarinic antagonist, we suggest adding a long-acting beta agonist to long-acting antimuscarinic agent therapy. (**Weak For; Reviewed, New-replaced**)

   The Work Group's confidence in the quality of evidence was **high**.

9. If choosing dual therapy, we recommend against offering long-acting beta agonists with inhaled corticosteroids for patients with COPD. (**Strong Against; Reviewed, New-added**)

   The Work Group's confidence in the quality of evidence was **moderate**.

10. In patients with COPD who are on combination therapy with a longacting antimuscarinic agent/long-acting beta agonist and continue to have COPD exacerbations, we suggest adding an inhaled corticosteroid as a third medication. (**Weak For; Reviewed, New-replaced**)

    The Work Group's confidence in the quality of evidence was **low**.

11. There is insufficient evidence to recommend for or against the use of eosinophilia or suspicion of asthma-COPD overlap syndrome to guide choice of additional therapy. (**Neither For nor Against; Reviewed, New-added**)

    The Work Group's confidence in the quality of evidence was **low**.

12. We suggest considering withdrawal of inhaled corticosteroids in patients with COPD without moderate to severe exacerbations in the last two years. (**Weak For; Reviewed, New-added**)

    The Work Group's confidence in the quality of evidence was **moderate**.

First-Line Therapy

13. There is insufficient evidence to recommend for or against the use of N-acetylcysteine preparations available in the United States for patients with stable COPD who continue to have respiratory symptoms (e.g., dyspnea, cough). (**Neither For nor Against; Reviewed, Amended**)

    The Work Group's confidence in the quality of evidence was **low**.

14. There is insufficient evidence to recommend for or against the use of antibiotics for outpatient COPD exacerbations (C-reactive protein guided or not). (**Neither For nor Against; Reviewed, New-replaced**)

    The Work Group's confidence in the quality of evidence was **low**.

15. We recommend providing long-term oxygen therapy to patients with chronic stable resting severe hypoxemia (PaO2 88% and ≤90%) with signs of tissue hypoxia (hematocrit >55%, pulmonary hypertension, or cor pulmonale). (**Strong For; Not reviewed, Not changed**)

    The Work Group's confidence in the quality of evidence was **moderate**.

16. We suggest against routinely offering ambulatory long-term supplemental oxygen for patients with chronic stable isolated exercise hypoxemia, in the absence of another clinical indication for supplemental oxygen. (**Weak Against; Reviewed, Not changed**)

    The Work Group's confidence in the quality of evidence was **very low**.

17. In patients with COPD, we suggest starting or continuing cardioselective beta-blockers only in those who have a cardiovascular indication for beta-blockers (e.g., heart failure with reduced ejection fraction or recent myocardial infarction). (**Weak For; Reviewed, Amended**)

    The Work Group's confidence in the quality of evidence was **very low**.

18. We suggest offering a supported self-management program that includes a written action plan with exacerbation management, smoking cessation, and exercise. (**Weak For; Reviewed, New-replaced**)

    The Work Group's confidence in the quality of evidence was **low**.

19. We suggest offering telehealth support that includes telemonitoring and/or mobile applications. (**Weak For; Reviewed, New-replaced**)

    The Work Group's confidence in the quality of evidence was **low**.

Evidence Rating Scheme

Quality of Evidence and Definitions*

High quality: Further research is very unlikely to change our confidence in the estimate of effect

Moderate quality: Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate

Low quality: Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate

Very low quality: Any estimate of effect is very uncertain

***** Guyatt GH, Oxman AD, Vist GE, Kunz R, Falck-Ytter Y, Alonso-Coello P, Schünemann HJ, GRADE Working Group. GRADE: an emerging consensus on rating quality of evidence and strength of recommendations. BMJ. 2018 Apr 26;336(7650):924-6.

Recommendation Rating Scheme

The strength of a recommendation is defined as the extent to which one can be confident that the desirable effects of an intervention outweigh its undesirable effects and is based on the Grading of Recommendations Assessment, Development and Evaluation (GRADE) framework (refer to the original guideline), which incorporates four domains. A *Strong* recommendation generally indicates *High* or *Moderate* confidence in the quality of the available evidence, a clear difference in magnitude between the benefits and harms of an intervention, similar patient values and preferences, and understood influence of other implications (e.g., resource use, feasibility).

Based on the GRADE approach, if the Work Group believes all, or almost all, informed people would recommend for or against an intervention, they develop a *Strong* recommendation. If, after assessing these domains, the Work Group believes that most informed people would recommend the intervention, but a substantial number would not, it generally assigns a *Weak* designation to the recommendation. Nevertheless, a *Weak* recommendation is clinically important and evidence-based.

In some instances, there is insufficient evidence on which to base a recommendation for or against a particular therapy, preventive measure, or other intervention. For example, the systematic evidence review may have found little or no relevant evidence, inconclusive evidence, or conflicting evidence for the intervention. The manner in which this is expressed in the CPG may vary. In such instances, the Work Group may include among its set but may be a standard of care for which no recent evidence has been generated.

Using these elements, the Work Group determines the strength and direction of each recommendation and formulates the recommendation with the general corresponding text.

Recommendation Strength and Direction	General Corresponding Text
Strong For	"We recommend..."
Weak For	"We suggest..."
Neither For nor Against	"There is insufficient evidence to recommend for or against..."
Weak Against	"We suggest against..."
Strong Against	"We recommend against..."

It is important to note that a recommendation's strength (i.e., *Strong* versus *Weak*) is distinct from its clinical importance (e.g., a *Weak* recommendation is evidence-based and still important to clinical care).

Recommendation Categories and Definitions

Recommendation categories were used to track how the previous CPG's recommendations could be reconciled. These categories and their corresponding definitions are similar to those used by the National Institute for Health and Care Excellence (NICE). The table below lists these categories, which are based on whether the evidence supporting a recommendation was systematically reviewed, the degree to which the previous CPG's recommendation was modified, and whether a previous CPG's recommendation is relevant in the updated CPG. Refer to Appendix D of the original guideline for further details on recommendation categorization.

Evidence Reviewed	Recommendation Category	Definition
Reviewed[a]	New-added	New recommendation
	New-replaced	Recommendation from previous CPG was carried forward and revised
	Not changed	Recommendation from previous CPG was carried forward but not changed
	Amended	Recommendation from previous CPG was carried forward with a nomial change
	Deleted	Recommendation from previous CPG was deleted
Not reviewed[b]	Not changed	Recommendation from previous CPG was carried forward but not changed
	Amended	Recommendation from previous CPG was carried forward with a nomial change
	Deleted	Recommendation from previous CPG was deleted

Adapted from: The guidelines manual. London (UK): NICE; 2012 & Martinez Garcia L, et al. Updated recommendations: An assessment of NICE clinical guidelines. Implement Sci. 2014;9:72.

a The topic of this recommendation was covered in the evidence review carried out as part of the development of the current CPG.

b The topic of this recommendation was not covered in the evidence review carried out as part of the development of the current CPG.

Related Content

Supporting Documents

- Guideline for Guidelines; 2019 Jan 29.
- Putting Clinical Practice Guidelines to Work in VHA.

Implementation Tools

- Provider Summary; 2021 Apr.
- Pocket Card; 2021 Apr.
- The Original Guideline includes the following:
    - Module A Algorithm: Management of COPD in Primary Care (p. 17)
    - Module B Algorithm: Management of Acute COPD Exacerbations (p. 18)
    - Module C Algorithm: Inhaled Corticosteroids Usage (p. 19)
    - Appendix F: Standardized Questionnaires (p. 69)
    - Appendix G: Inhaler Techniques (p. 71)
    - Appendix J: Alternative Text Description of Algorithms (p. 81)

Patient Education

- Patient Summary; 2021 Apr.

Note: This patient information is intended to help patients better understand their health and their diagnosed disorders. Patients and their representatives should still consult with a licensed health care professional for evaluation of treatment options as well as answers to their personal medical questions.

these Guideline Profiles is responsible for evaluating the appropriateness of applying them in a clinical setting.

TRUST Scorecard

Composition of Guideline Development Group (GDG)

Multidisciplinary GDG Members	**Yes**
Methodologist Involvement	**Yes**
Incorporation of Patient and Public Perspective	★★★★★

Systematic Review of Evidence

Literature Search	★★★★★
Study Selection	★★★★★
Evidence Synthesis	★★★★★

Foundations for Recommendations

Strength of Evidence Grade	★★★★★
Description of Benefits and Harms of Recommendations	★★★★☆
Summary of Evidence Supporting Recommendations	★★★★★
Strength of Recommendations Rating	★★★★★
Clear Articulation of Recommendations	★★★★★

Funding Source — **Yes**

Disclosure and Management of Financial Conflicts of Interests — ★★★★★

External Review — ★★★★☆

Updating — ★★★★★