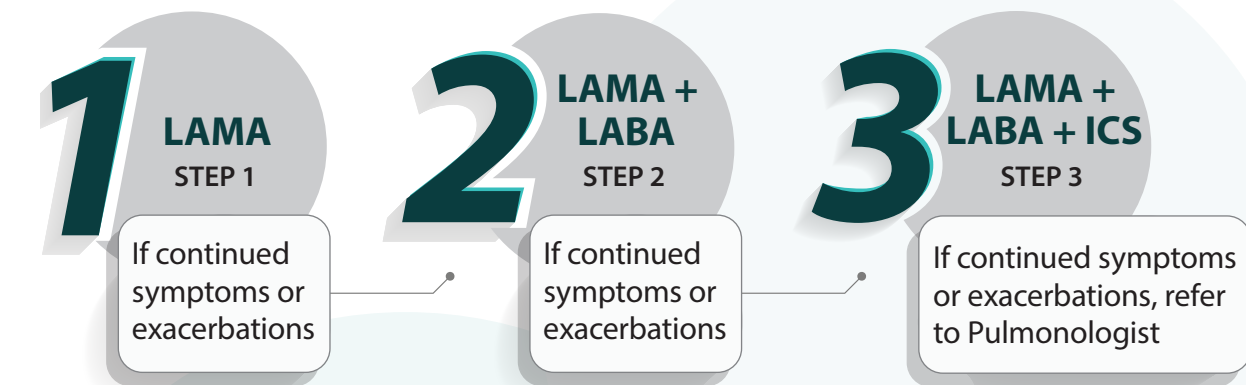


Pharmacotherapy for Stable COPD

Pharmacotherapy can reduce symptoms, decrease the risk and severity of exacerbations, and improve health status and exercise tolerance for patients with COPD.^{1,2} Long-acting bronchodilators used in patients with symptomatic COPD have been shown to decrease dyspnea, improve quality of life, and decrease exacerbations when compared to placebo.¹⁻⁶

Figure 1.
Step approach to treating COPD



1
Tiotropium (Spiriva®)
LAMA

All patients with COPD and persistent symptoms should start on a long-acting muscarinic antagonist (LAMA)^{1,7,8}

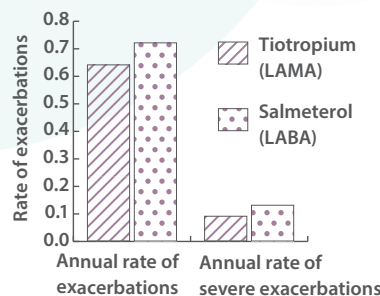
Short-acting beta agonist (SABA) can be added to LAMA therapy in patients who need immediate relief, prescribed on an as-needed schedule.¹

Figure 2.
Reduced annual rate of exacerbations and increased time to first exacerbation with tiotropium (LAMA) monotherapy compared to salmeterol (LABA)⁷

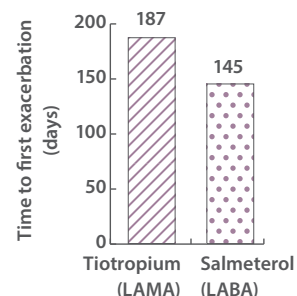
KEY MESSAGE

Use a LAMA as initial therapy for patients with persistent symptoms

Tiotropium reduced annual rate of exacerbations by 11% and severe exacerbations by 27%



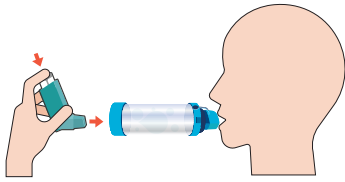
Tiotropium increased the time to first exacerbation by 42 days



POET-COPD trial comparing tiotropium to salmeterol in patients with moderate-to-very-severe COPD and a history of exacerbations in the previous year (p <0.05 for all comparisons in figures).

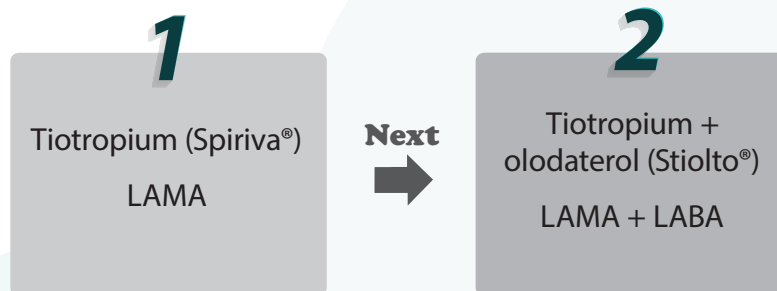
If symptoms are not adequately controlled or patient has an exacerbation, what are the next steps?

Ensure adherence with inhalers before changing therapy^{1,2}



- Provide instructions and demonstrate proper inhaler technique.
- Spacers improve drug delivery when used with metered-dose inhalers (MDI).
- Inhaler technique and adherence to therapy should be assessed before considering dose adjustments and/or changing therapy. (Links to VA Instructional Videos for using inhalers in the Veteran Health Library (<https://www.veteranshealthlibrary.va.gov/>): **Combivent Respimat, Pressurized Metered-Dose Inhaler, HandiHaler, Mometasone Twisthaler, How to Use a Nebulizer, Wixela Inhub Inhaler**).

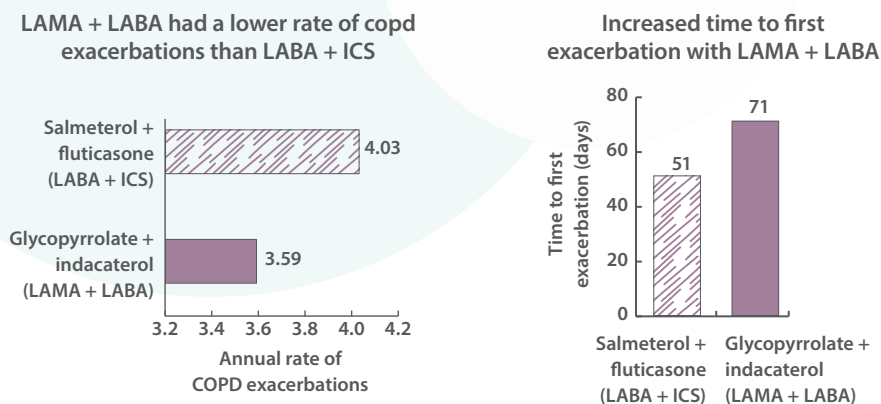
If the Veteran is using the inhaler properly, but continues to have symptoms or exacerbations then add a long-acting beta agonist (LABA):¹



KEY MESSAGE Use a LAMA + LABA for patients with continued symptoms or exacerbations on LAMA monotherapy.

Why is the combination of LAMA + LABA used instead of LABA + inhaled corticosteroid (ICS)?^{9,10}

Figure 3.
Combination of LAMA + LABA reduced COPD exacerbations and increased the time to first exacerbation compared to LABA + ICS.¹⁰

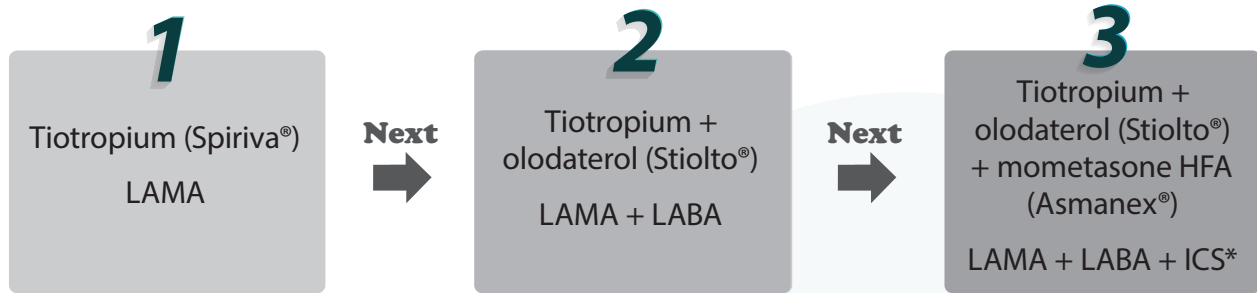


FLAME trial evaluating Glycopyrrolate + indacaterol (LAMA + LABA) compared to salmeterol-fluticasone (LABA + ICS) in patients with COPD and a history of at least one exacerbation in the previous year. The trial was designed to evaluate the annual rate of all COPD exacerbations (p < 0.001 for all comparisons in figure).

Did You Know

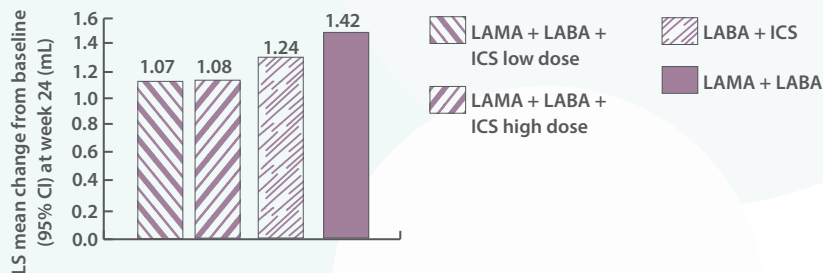
Using a combination inhaler for LAMA and LABA improves adherence and is more cost-effective than using two separate inhalers.

If the Veteran is using the inhaler properly, but continues to have symptoms or exacerbations then add an inhaled corticosteroid (ICS).^{1,11,12}



*Tiotropium (Spiriva®) + salmeterol + fluticasone (Wixela®) is an alternative for triple therapy. If Veteran has difficulty using multiple inhalers and needs LAMA + LABA + ICS, consider using triple combination inhaler budesonide + glycopyrrolate + formoterol (Breztri®). VA formulary information at: <https://www.va.gov/formularyadvisor/>.

Figure 4.
Rates of moderate or severe exacerbations were lower using LAMA+LABA+ ICS compared to LAMA + LABA or LABA + ICS in patients with moderate to very severe COPD.¹¹



ETHOS trial evaluated the use of annual rate of moderate or severe COPD exacerbations in patients taking triple therapy at two dose levels of ICS compared to LAMA + LABA and LABA + ICS. Both triple therapy regimens had lower rates of exacerbations. LAMA + LABA + ICS low dose = glycopyrrolate + formoterol + budesonide 160 µg; LAMA + LABA + ICS high dose = glycopyrrolate + formoterol + budesonide 320 µg LABA + ICS = formoterol + budesonide 320 µg; LAMA + LABA = glycopyrrolate + formoterol.

KEY MESSAGE

Add ICS to LAMA + LABA therapy when symptoms persist, or Veteran has an exacerbation on LAMA + LABA therapy.

More information about these recommendations can be found by reviewing the VA/DoD Clinical Practice Guidelines: [Management of Chronic Obstructive Pulmonary Disease \(COPD\) \(2021\) - VA/DoD Clinical Practice Guidelines.](#)

What if the patient is not on a recommended regimen?

1 Patient with stable COPD and no asthma taking LABA + ICS and no exacerbations in >2 years	2 Patient with stable COPD and no asthma taking LAMA + LABA + ICS and no exacerbations for >2 years	3 Patient with stable COPD, no asthma, taking separate inhalers of LAMA and LABA	4 Patient with stable COPD and has asthma and taking non-formulary LABA/ICS
Consider discontinuing ICS either by stopping it or tapering	Consider discontinuing ICS either by stopping it or tapering	Consider switching to a combination product	Consider switching to formulary LABA/ICS inhaler
Use LAMA + LABA combination inhaler, w/ first-line of tiotropium/olodaterol (Stiolto®) and discontinue LABA + ICS	Use LAMA + LABA combination inhaler, first-line is tiotropium/olodaterol (Stiolto®)	Combination LAMA + LABA first-line is tiotropium/olodaterol (Stiolto®)	Combination LABA + ICS first-line is salmeterol/fluticasone (Wixela Inhub®)

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Abbreviations

COPD: chronic obstructive pulmonary disease

ICS: inhaled corticosteroid

LABA: long-acting beta-2 agonist

LAMA: long-acting muscarinic antagonist

SABA: short-acting beta-2 agonist

SAMA: short-acting muscarinic antagonist