Guideline Recommendations to Support Informed COPD Management

As a respiratory therapist you are a key member of a patient's COPD care team. **Evidence-based guidelines** such as GOLD and ATS can help you make decisions for patients with COPD.

According to GOLD Guidelines,

Initial Pharmacological Treatment Should Be Based on Patient Exacerbation History and Reported Symptoms[1]

The GOLD ABCD assessment tool

	Group C	**Group D**
≥2 moderate exacerbations or ≥1 leading to hospitalization	LAMA	LAMA or LAMA + LABA* or ICS + LABA† *Consider if highly symptomatic (eg, CAT >20). †Consider if blood eosinophil count (cells/μL) ≥300.
	Group A	**Group B**
0 or 1 moderate exacerbations (not leading to hospital admission)	A bronchodilator	A long-acting bronchodilator (LABA or LAMA)
	mMRC dyspnea scale 0-1, CAT <10	mMRC dyspnea scale ≥2, CAT ≥10

Triple therapy is not recommended for the initiation of maintenance treatment in patients with COPD

ATS=American Thoracic Society; CAT=COPD Assessment Test; COPD=chronic obstructive pulmonary disorder; GOLD=Global Initiative for Chronic Obstructive Lung Disease; ICS=inhaled corticosteroid; LABA=long-acting $beta_2$-adrenergic agonists; LAMA=long-acting muscarinic antagonists; mMRC=modified medical research council.

Management Guidelines Support LAMA/LABA as a Choice for Initial Therapy for Symptomatic Patients With COPD[1,2]

The American Thoracic Society (ATS) strongly recommends[2]:

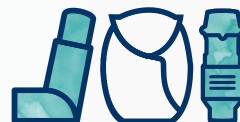
- **LAMA/LABA combination therapy** over LAMA or LABA monotherapy for patients with COPD who complain of dyspnea or exercise intolerance

GOLD recommends[1]:

- **Inhaled bronchodilators** in COPD are central to symptom management and commonly given on a regular basis to prevent or reduce symptoms
- **Combination treatment** with a LABA and a LAMA increases FEV_1 and reduces symptoms compared with monotherapy
- **Triple therapy is not recommended** as **initial treatment** for any patient
- As with all medical treatments, **ICS-containing regimens require assessment of risk vs benefit**, as regular treatment with an ICS increases the risk of pneumonia, especially in patients with severe disease

GOLD Recommends Considering Inhaler Selection Before Escalating Medication Class[1]

Evaluate patient's adherence and inhaler technique



Switch inhaler or molecule within the same class

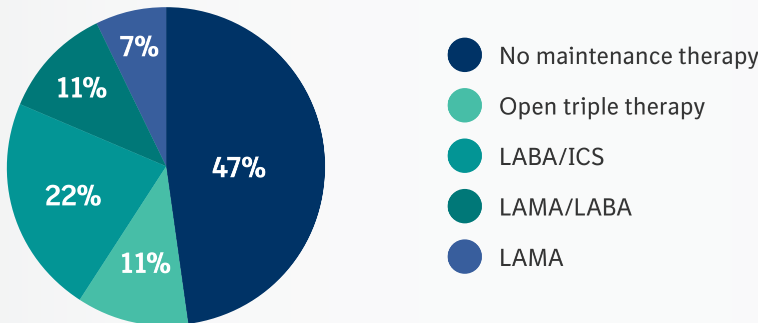
FEV_1=forced expiratory volume in 1 second.

In 2 real-world, retrospective analyses,

Triple Therapy Prescribing Was Often Not Consistent With Guideline Recommendations[3-5]

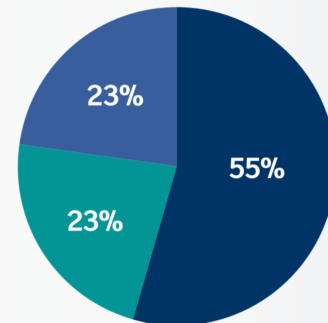
Prescription data

47% of TRELEGY® ELLIPTA® (fluticasone furoate, umeclidinium, and vilanterol) new starts were not on a COPD long-acting maintenance therapy in a prior regimen[3*]



Claims-based data

55% of patients with COPD in a Medicare population initiating triple therapy were maintenance-naïve[4*]



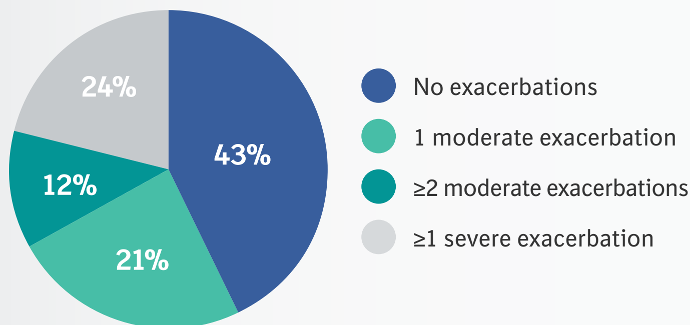
This was a retrospective, observational claims analysis of a US managed care health plan database affiliated with the Optum Research Database.[4]

Timeframe: January 1, 2013, to June 30, 2017.[4]

Population: Patients with COPD aged ≥40 years and ≥1 claim for COPD maintenance treatment; 100% of patients were enrolled in the UHC Medicare Advantage plan and initiating on free or fixed-dose combination(s) of open triple therapy.[4]

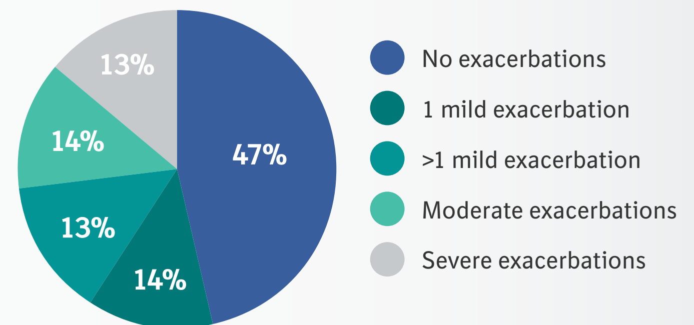
In a Medicare population

43% of patients initiating triple therapy had no history of exacerbations[3†]



In a commercial and Medicare population

47% of patients initiating triple therapy had no history of exacerbations[5†‡]



This was a retrospective analysis of medical and pharmacy claims from a large, national payer database. These data include information on patients enrolled in commercial, Medicare Advantage, and prescription drug plans.[5]

Timeframe: January 1, 2012, to December 31, 2016.[5]

Population: Patients with COPD aged 40 to 89 years with ≥1 claim for COPD maintenance treatment.[5]

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*Percentages do not add up to 100% because some patients may have been receiving multiple medications.
†Exacerbations were identified during the preindex period.
‡Percentages do not add up to 100% due to rounding.

In a retrospective, observational claims analysis,

Nonadherence to GOLD Guidelines Led to Higher Healthcare Resource Utilization[6*]

What were the consequences of nonadherence to guidelines?

↑ 4%-6%

Higher symptom burden[6]

↑ 31%

Higher likelihood of all-cause hospitalizations[6]

↑ 37%

Higher likelihood of all-cause emergency department visits[6]

In a separate real-world analysis of patients with COPD aged 40 or higher, adherence to GOLD guidelines was also associated with lower 30-day and 90-day readmissions[3]

For more information on treatment guidelines for patients with COPD, visit www.strategiesforqualitycare.com or scan the QR code

*GOLD Guidelines used in this analysis are from 2011.

References: 1. Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease; 2021 report. Accessed March 3, 2021. https://goldcopd.org/wpcontent/upload/2020/11/GOLD-REPORT-2021-v1.1-25Nov20_WMV.pdf **2.** Nici L, Mammen MJ, Charbek E, et al. Pharmacologic management of chronic obstructive pulmonary disease. An official American Thoracic Society clinical practice guideline. *Am J Respir Crit Care Med*. 2020;201(9):e56-e69. **3.** Data on file. Boehringer Ingelheim Pharmaceuticals, Inc. **4.** Palli SR, Buikema AR, DuCharme M, Frazer M, Kaila S, Juday T. Costs, exacerbations and pneumonia after initiating combination tiotropium olodaterol versus triple therapy for chronic obstructive pulmonary disease. *J Comp Eff Res*. 2019;8(15):1299-1316. **5.** Li Y, Lim J, Stemkowski S, et al. Initiation of triple therapy maintenance treatment among patients with COPD. *Am J Manag Care*. 2020;26(4):e106-e112. **6.** Mannino DM, Yu TC, Zhou H, Higuchi K. Effects of GOLD-adherent prescribing on COPD symptom burden, exacerbations, and health care utilization in a real-world setting. *Chronic Obstr Pulm Dis*. 2015;2(3):223-235.

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AARC American Association for Respiratory Care

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