



## PHARMACOLOGICAL MANAGEMENT OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD) IN PRIMARY & SECONDARY CARE

<b>TARGET AUDIENCE</b>	Primary & Secondary Care
<b>PATIENT GROUP</b>	Adults with a diagnosis of Chronic Obstructive Pulmonary Disease

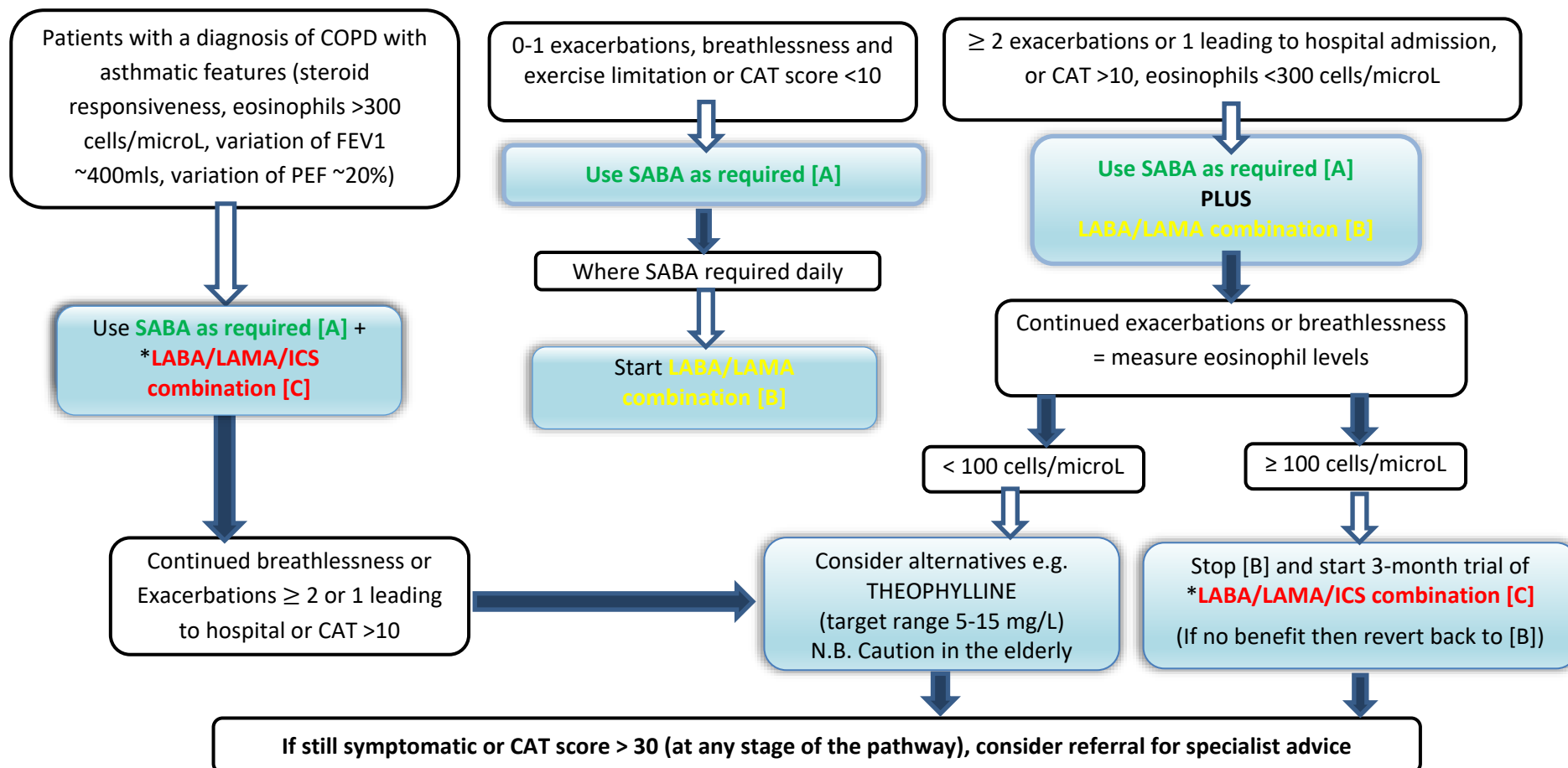
<b>Lead Author</b>	Prof Manish Patel & Prof Andrew Smith	<b>Date approved</b>	May 2025 (by ADTC NHS Lanarkshire)
<b>Version</b>	6.4	<b>Review Date</b>	May 2028

## Clinical Guidelines Summary

### COPD confirmed by spirometry (see physiologist report)

#### KEY

[A] Short acting  $\beta$  agonist (**SABA**)  
 [B] Long acting  $\beta$  agonist (**LABA**)  
 plus long acting muscarinic antagonist (**LAMA**)  
 combination inhaler  
 [C] LABA, LAMA and inhaled corticosteroid (**ICS**)  
 combination inhaler



**Excessive mucus production** (at any stage of the pathway) = consider adding oral **Acepiro®** (Acetylcysteine) 600mg effervescent tablets 1 daily. Review at 4-6 weeks and stop if no benefit.

Lead Author	Prof Manish Patel & Prof Andrew Smith	Date approved	May 2025 (by ADTC NHS Lanarkshire)
Version	6.4	Review Date	May 2028

## Guideline Body

**COPD patients should be reviewed at least annually. At each review give advice on smoking cessation, ensure pneumococcal, influenza & COVID 19 vaccinations are up to date, optimise BMI, promote exercise, enrol patient onto pulmonary rehabilitation programme if MRC $\geq$ 3**

### Important considerations:

- Consider Chest x-ray to exclude other pathologies & FBC on diagnosis.
- Consider Checking O<sup>2</sup> saturation annually.
- Optimise treatment of co-morbidities.
- Prescribe inhalers using the brand name (exceptions are salbutamol and terbutaline).
- Ensure good inhaler technique.
- Trial medication for 3 months. If no benefit = STOP.
- LAMAs should be used with caution in patients with cardiovascular disease.











### \*Consider ICS withdrawal in the following circumstances (for patients without asthmatic features):

- Eosinophil level <100 cells/microL, and no history of exacerbations in the past year = consider withdrawal of ICS to LAMA/LABA in the first instance (if on triple therapy),
- Patients with bacterial pneumonia if eosinophil level <300 cells/microL

### Glossary

<b>FEV1:</b> Forced expiratory volume in 1 second	<b>FVC:</b> Forced Vital Capacity	<b>BMI:</b> Body Mass Index	<b>PEF:</b> Peak Expiratory Flow
<b>CAT:</b> COPD Assessment Test	<b>MRC:</b> Medical Research Council Dyspnoea scale	<b>GHG:</b> Green house gas emissions (g CO <sub>2</sub> e) per puff ( <a href="#">PresQUIPP Bulletin 295</a> ) 👉 Low <35 g CO <sub>2</sub> e per puff 🚫 High $\geq$ 35 g CO <sub>2</sub> e per puff	
<b>pMDI:</b> pressurised Metered Dose Inhaler	<b>DPI:</b> Dry Powder Inhaler	<b>SDT:</b> Scottish Drug Tariff	<b>Dm+d:</b> Dictionary of Medicines & Devices

<b>Lead Author</b>	Prof Manish Patel & Prof Andrew Smith	<b>Date approved</b>	May 2025 (by ADTC NHS Lanarkshire)
<b>Version</b>	6.4	<b>Review Date</b>	May 2028

Group	Prescribe as	Inhaler type	Grams CO <sub>2</sub> e per puff	Dose	Ingredient	SABA	LAMA	LABA	ICS	Cost for 30 days treatment ( <a href="#">SDT</a> and <a href="#">dm+d</a> March 2024)
[A]	Salbultamol Easyhaler 200 micrograms	DPI		1 doses as required	Salbutamol	✓				£6.63
	Salbutamol 100 micrograms	pMDI		2 doses as required *	Salbutamol	✓				£1.46
	Terbutaline 500 micrograms	DPI		1 dose as required	Terbutaline	✓				£8.30
[B]	Anoro Ellipta® 55/22 micrograms	DPI		1 dose daily	Vilanterol Umeclidinium		✓	✓		£32.50
	Bevespi® 7.2/5 micrograms	pMDI		2 doses twice daily*	Glycopyrronium Formoterol		✓	✓		£32.50
	Spiolto Respimat® 2.5/2.5 micrograms	DPI		2 doses daily	Tiotropium Umeclidinium		✓	✓		£32.50
[C]	Trelegy Ellipta® 92/55/22micrograms	DPI		1 dose daily	Fluticasone Vilanterol Umeclidinium		✓	✓	✓	£44.50
	Trixeo Aerosphere® 5/7.2/160 micrograms	pMDI		2 doses twice daily*	Formoterol Budesonide Glycopyrronium		✓	✓	✓	£44.50
	Trimbow NEXTHALER® 88/5/9 micrograms	DPI		2 doses twice daily	Beclometasone Formoterol Glycopyrronium		✓	✓	✓	£44.50
	Trimbow® 87/5/9 micrograms	pMDI		2 doses twice daily*	Beclometasone Formoterol Glycopyrronium		✓	✓	✓	£44.50













**\*Patients receiving an MDI inhaler should be prescribed a spacer device. Use of a spacer can improve deposition of drug to the lower airways by up to 50%. The device should be cleaned regularly as per the manufacturer's advice and should be replaced every 12 months ([RESPe](#))**

Formulary status	Preferred	Total
------------------	-----------	-------








Lead Author	Prof Manish Patel & Prof Andrew Smith	Date approved	May 2025 (by ADTC NHS Lanarkshire)
Version	6.4	Review Date	May 2028

Uncontrolled when printed - access the most up to date version on [www.nhsguidelines.scot.nhs.uk](http://www.nhsguidelines.scot.nhs.uk)

# NHSL COPD Quick Reference Treatment Guide

DPI Route	pMDI Route
<b>Group [A] SABA when required</b>	
 <p>Salbutamol Easyhaler® 200mcg DPI </p> <p>Preferred</p> <p>1 doses as required</p>	 <p>Salbutamol 100mcg pMDI </p> <p>Preferred</p> <p>2 doses as required</p>
<b>Group [B] SABA + LABA/LAMA</b>	
 <p>Anoro Ellipta® 55/22mcg DPI </p> <p>Preferred</p> <p>1 dose daily</p>	 <p>Bevespi Aerosphere® 7.2/5mcg pMDI </p> <p>Preferred</p> <p>2 doses twice daily</p>
<b>Group [C] SABA + LABA/LAMA/ICS</b>	
 <p>Trelegy Ellipta® 22/95/55 mcg DPI </p> <p>Preferred</p> <p>1 dose daily</p>	 <p>Trixeo Aerosphere® 5/7.2/160mcg pMDI </p> <p>Preferred</p> <p>2 doses twice daily</p>

## Alternative Formulary Options

Group [A] SABA when required	Group [B] SABA + LABA/LAMA	Group [C] SABA + LABA/LAMA/ICS
 <p>Terbutaline Turbohaler® 500mcg DPI </p> <p>Total</p> <p>1 doses as required</p>	 <p>Spiolto Respimat® 2.5/2.5mcg DPI </p> <p>Total</p> <p>2 doses daily</p>	 <p>Trimbow Nexthaler® 88/5/9 mcg DPI * </p> <p>Total</p> <p>2 doses twice daily</p>
<p>* Trimbow® 87/5/9 mcg pMDI  option also available where required</p>		

Lead Author	Prof Manish Patel & Prof Andrew Smith	Date approved	May 2025 (by ADTC NHS Lanarkshire)
Version	6.4	Review Date	May 2028

## References/Evidence

Global Initiative for Chronic Obstructive Lung Disease (GOLD). 2024. Global Strategy for Prevention, Diagnosis and Management of COPD: 2024 Report. [online]. Philadelphia: Global Initiative for Chronic Obstructive Lung Disease (GOLD). Available from: [2024 GOLD Report - Global Initiative for Chronic Obstructive Lung Disease - GOLD \(goldcopd.org\)](#) [Accessed 30.04.2024]

National Health Service. 2024. NHSBSA dm+d browser. [online]. Scotland: National Health Service. Available from: [dm+d browser \(nhsbsa.nhs.uk\)](#) [Accessed 08.05.2024]

Public Health Scotland. 2024. Scottish Drug Tariff. [online]. Edinburgh: Public Health Scotland. Available from: [Overview - Scottish Drug Tariff - Services - Public Health Scotland](#) [Accessed 08.05.2024]

Respiratory Education to Support Professionals through eLearning. 2024. Spacer devices. [online]. Edinburgh: Chest Heart & Stroke Scotland, The University of Edinburgh. Available from: [Spacer devices | RESPe \(respelearning.scot\)](#) [Accessed 14.05.2024]

PrescQIPP Community Interest Company. 2011. Bulletin 295: Inhaler carbon footprint. [online]. Leeds: PrescQIPP Community Interest Company. Available from: [Bulletin 295: Inhaler carbon footprint | PrescQIPP C.I.C](#) [Accessed 14.05.2024]

NHS Lanarkshire, Right Decision Service. 2024. Joint Adult Formulary. [online]. Scotland: Right Decision Service. Health Improvement Scotland. Available from: [Joint Adult Formulary | Right Decisions \(scot.nhs.uk\)](#) [Accessed 08.05.2024]

Public Health Scotland. 2024. Respiratory Conditions – Quality Prescribing Strategy: Improvement Guide 2024-2027. [online]. Edinburgh: Public Health Scotland Available from: [Publications | Quality Prescribing Strategy - Respiratory \(gov.scot\)](#) [Accessed 30.04.2024]

Lead Author	Prof Manish Patel & Prof Andrew Smith	Date approved	May 2025 (by ADTC NHS Lanarkshire)
Version	6.4	Review Date	May 2028

*Uncontrolled when printed - access the most up to date version on [www.nhs.uk/guidelines.scot.nhs.uk](http://www.nhs.uk/guidelines.scot.nhs.uk)*

***Pharmacological Management of COPD in Primary Care***

UK Government, 2025. MHRA approves world's first low-carbon version of COPD inhaler Triexo Aerosphere. [online] UK Government. Available from: [MHRA approves world's first low-carbon version of COPD inhaler Triexo Aerosphere - GOV.UK](https://www.gov.uk/government/news/mhra-approves-worlds-first-low-carbon-version-of-copd-inhaler-trixeo-aerosphere) [Accessed 16.05.2025]

Barnes P J. Thorax. 2006: Theophylline for COPD. Available from 2006 Sep;61(9):742–744. doi: [10.1136/thx.2006.061002](https://doi.org/10.1136/thx.2006.061002) [Accessed 24.06.2025]

Lead Author	Prof Manish Patel & Prof Andrew Smith	Date approved	May 2025 (by ADTC NHS Lanarkshire)
Version	6.4	Review Date	May 2028

*Uncontrolled when printed - access the most up to date version on [www.nhsguidelines.scot.nhs.uk](http://www.nhsguidelines.scot.nhs.uk)*

## 1. Governance information for Guidance document

<b>Lead Author(s):</b>	Prof Manish Patel and Prof Andrew Smith
<b>Endorsing Body:</b>	ADTC
<b>Version Number:</b>	6.3
<b>Approval date</b>	27 <sup>th</sup> August 2024
<b>Review Date:</b>	27 <sup>th</sup> August 2027
<b>Responsible Person (if different from lead author)</b>	

CONSULTATION AND DISTRIBUTION RECORD	
<b>Contributing Author / Authors</b>	Hayley Docherty Prescribing Adviser, Leo Haddock Advanced Clinical Services Pharmacist
<b>Consultation Process / Stakeholders:</b>	NHSL Respiratory Service Improvement Group & the Lanarkshire Local Medical Committee

<b>Lead Author</b>	Prof Manish Patel & Prof Andrew Smith	<b>Date approved</b>	May 2025 (by ADTC NHS Lanarkshire)
<b>Version</b>	6.4	<b>Review Date</b>	May 2028



<b>Distribution</b>	
---------------------	--

**CHANGE RECORD**

<b>Date</b>	<b>Lead Author</b>	<b>Change</b>	<b>Version No.</b>
	Dr Patel & Dr Smith	Reviewed in line with GOLD 2024. Referral to pulmonary rehab changed to MRC $\geq 3$ . COVID 19 vaccine recommendation added ICS/LABA option removed ICS withdrawal criteria updated to Patients with bacterial pneumonia if eosinophil level $< 300$ cells/microL	6.2
	Dr Patel & Dr Smith	NACYS changed to ACEPIRO in line with NHSL formulary	6.2
	Dr Patel & Dr Smith	Bevespi added as MDI option for LABA/LAMA patients following SMC approval	6.2
	Dr Patel & Dr Smith	Utlibro and Duaklir removed and Spiolto moved to total formulary	6.2
	Dr Patel & Dr Smith	Trixeo moved to preferred list based on slightly better GHG emission	6.2
	Dr Patel & Dr Smith	GHG emissions indicated for each inhaler and picture guide added	6.2
	Dr Patel & Dr Smith	Trimbow moved to total formulary with the Nextahler device also added as DPI option	6.2
	Dr Patel & Dr Smith	Salbutamol Easyhaler added as DPI option for SABA, already on formulary	6.2

<b>Lead Author</b>	Prof Manish Patel & Prof Andrew Smith	<b>Date approved</b>	May 2025 (by ADTC NHS Lanarkshire)
<b>Version</b>	6.4	<b>Review Date</b>	May 2028

# **Pharmacological Management of COPD in Primary Care**

20/11/24	Dr Patel & Dr Smith	Updated spirometry guidance for COPD diagnosis	6.3
16/05/25	Dr Patel & Dr Smith	Trixeo carbon footprint changed from red to green as per MHRA update  Reference and reference range added for theophylline	6.4

**2.You can include additional appendices with complimentary information that doesn't fit into the main text of your guideline, but is crucial and supports its understanding.**

e.g. supporting documents for implementation of guideline, patient information, specific monitoring requirements for secondary and primary care clinicians, dosing regimen/considerations according to weight and/or creatinine clearance

<b>Lead Author</b>	Prof Manish Patel & Prof Andrew Smith	<b>Date approved</b>	May 2025 (by ADTC NHS Lanarkshire)
<b>Version</b>	6.4	<b>Review Date</b>	May 2028

*Uncontrolled when printed - access the most up to date version on [www.nhslguidelines.scot.nhs.uk](http://www.nhslguidelines.scot.nhs.uk)*