



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

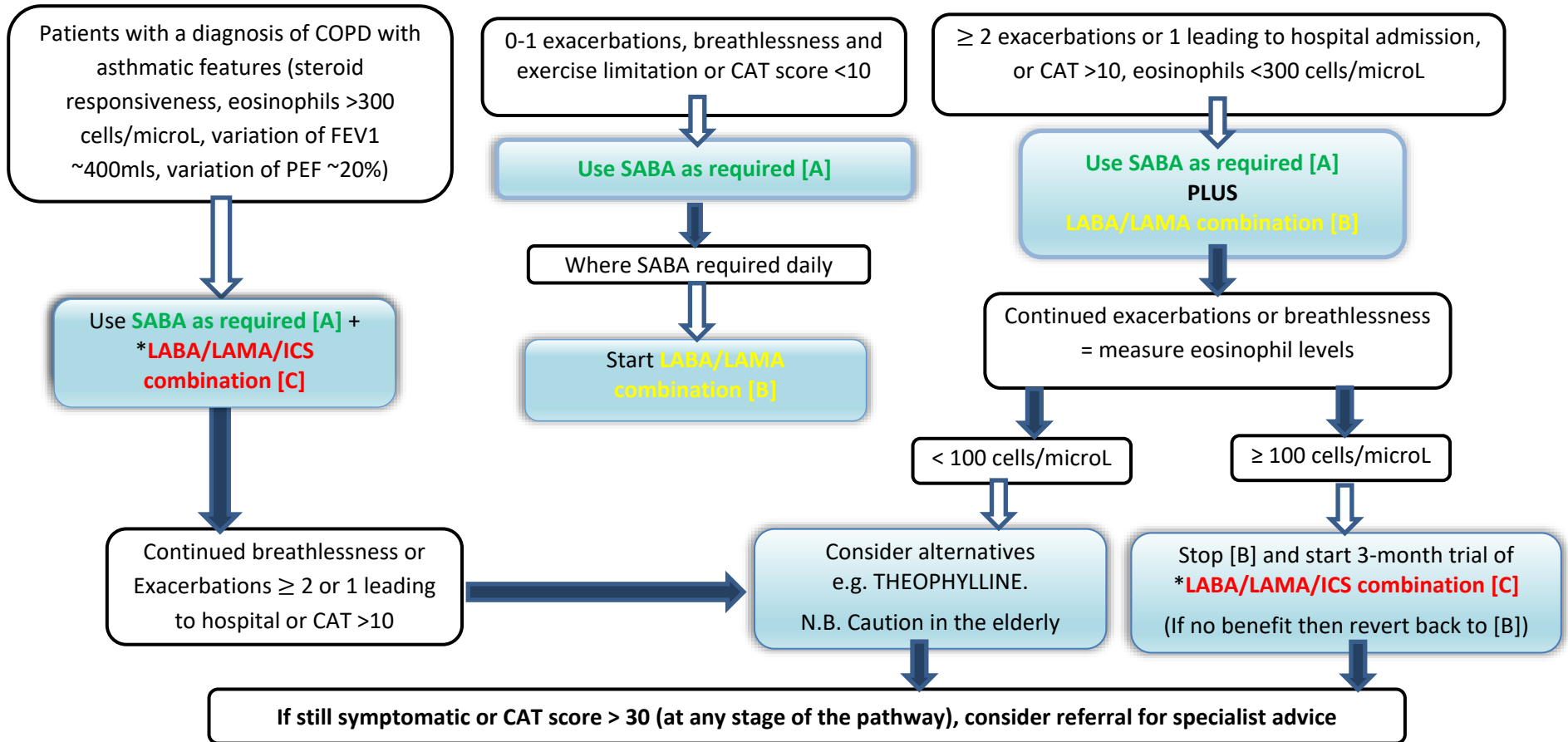
TARGET AUDIENCE	Primary & Secondary Care
PATIENT GROUP	Adults with a diagnosis of Chronic Obstructive Pulmonary Disease

Lead Author	Prof Manish Patel & Prof Andrew Smith	Date approved	27 TH August 2024
Version	6.2	Review Date	27 TH August 2027

Clinical Guidelines Summary

COPD confirmed by spirometry with FEV1/FVC < 0.7

KEY
 [A] Short acting β agonist (**SABA**)
 [B] Long acting β 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 **Acepro® (Acetylcysteine) 600mg effervescent tablets 1 daily**. Review at 4-6 weeks and stop if no benefit.

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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 O² 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

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

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Group	Prescribe as	Inhaler type	Grams CO ₂ e per puff	Dose	Ingredient	SABA	LAMA	LABA	ICS	Cost for 30 days treatment (SDT and dm+d March 2024)
[A]	Salbutamol 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
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NHSL COPD Quick Reference Treatment Guide

DPI Route	pMDI Route
Group [A] SABA when required	
 <div style="border: 1px solid black; padding: 5px; margin: 5px;"> Salbutamol Easyhaler® 200mcg DPI  </div> <div style="border: 1px solid black; background-color: #c8e6c9; padding: 5px; margin: 5px; text-align: center;">Preferred</div> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; margin: 5px; text-align: center;">1 doses as required</div>	 <div style="border: 1px solid black; padding: 5px; margin: 5px;"> Salbutamol 100mcg pMDI  </div> <div style="border: 1px solid black; background-color: #c8e6c9; padding: 5px; margin: 5px; text-align: center;">Preferred</div> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; margin: 5px; text-align: center;">2 doses as required</div>
Group [B] SABA + LABA/LAMA	
 <div style="border: 1px solid black; padding: 5px; margin: 5px;"> Anoro Ellipta® 55/22mcg DPI  </div> <div style="border: 1px solid black; background-color: #c8e6c9; padding: 5px; margin: 5px; text-align: center;">Preferred</div> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; margin: 5px; text-align: center;">1 dose daily</div>	 <div style="border: 1px solid black; padding: 5px; margin: 5px;"> Bevespi Aerosphere® 7.2/5mcg pMDI  </div> <div style="border: 1px solid black; background-color: #c8e6c9; padding: 5px; margin: 5px; text-align: center;">Preferred</div> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; margin: 5px; text-align: center;">2 doses twice daily</div>
Group [C] SABA + LABA/LAMA/ICS	
 <div style="border: 1px solid black; padding: 5px; margin: 5px;"> Trelegy Ellipta® 92/55/22 mcg DPI  </div> <div style="border: 1px solid black; background-color: #c8e6c9; padding: 5px; margin: 5px; text-align: center;">Preferred</div> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; margin: 5px; text-align: center;">1 dose daily</div>	 <div style="border: 1px solid black; padding: 5px; margin: 5px;"> Triexo Aerosphere® 5/7.2/160mcg pMDI  </div> <div style="border: 1px solid black; background-color: #c8e6c9; padding: 5px; margin: 5px; text-align: center;">Preferred</div> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; margin: 5px; text-align: center;">2 doses twice daily</div>

Alternative Formulary Options		
Group [A] SABA when required	Group [B] SABA + LABA/LAMA	Group [C] SABA + LABA/LAMA/ICS
 <div style="border: 1px solid black; padding: 5px; margin: 5px;"> Terbutaline Turbohaler® 500mcg DPI  </div> <div style="border: 1px solid black; background-color: #ffc107; padding: 5px; margin: 5px; text-align: center;">Total</div> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; margin: 5px; text-align: center;">1 doses as required</div>	 <div style="border: 1px solid black; padding: 5px; margin: 5px;"> Spiolto Respimat® 2.5/2.5mcg DPI  </div> <div style="border: 1px solid black; background-color: #ffc107; padding: 5px; margin: 5px; text-align: center;">Total</div> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; margin: 5px; text-align: center;">2 doses daily</div>	 <div style="border: 1px solid black; padding: 5px; margin: 5px;"> Trimbow Nexthaler® 88/5/9 mcg DPI *  </div> <div style="border: 1px solid black; background-color: #ffc107; padding: 5px; margin: 5px; text-align: center;">Total</div> <div style="border: 1px solid black; background-color: #e0e0e0; padding: 5px; margin: 5px; text-align: center;">2 doses twice daily</div>
		* Trimbow® 87/5/9 mcg pMDI  option also available where required

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References/Evidence

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Appendices

1. Governance information for Guidance document

Lead Author(s):	Prof Manish Patel and Prof Andrew Smith
Endorsing Body:	ADTC
Version Number:	6.2
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Review Date:	27 th August 2027
Responsible Person (if different from lead author)	

CONSULTATION AND DISTRIBUTION RECORD	
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Consultation Process / Stakeholders:	NHSL Respiratory Service Improvement Group & the Lanarkshire Local Medical Committee

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Distribution	
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CHANGE RECORD

Date	Lead Author	Change	Version No.
	Dr Patel & Dr Smith	Reviewed in line with GOLD 2024. Referral to pulmonary rehab changed to MRC ≥ 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

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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

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