

How to use this guidance

- ! This guideline should be used to support new patients being commenced on therapy or those requiring treatment to be stepped up or down.
- ! Inhaler switches should only take place if clinically appropriate after a review.
- ! Inhalers should be prescribed by brand name, except for salbutamol.
- ! Combination inhalers should be used where appropriate.

Choosing the right device

- Inhaler technique and adherence should be checked at each review and prior to any treatment escalation.
- Choice of device should be based on individual patient inhaler technique including inspiratory flow rate.
- Can the patient inhale
 - **Hard and fast = DPI pathway**
 - **Slow and steady = MDI pathway (encourage spacer use)**
- In this guidance, inhalers are given a symbol indicating required inspiratory flow rate:

○ pMDI
 ~ Med Low
 ■ Medium
 ≡ Med High
 ■ High

Green Inhaler Prescribing

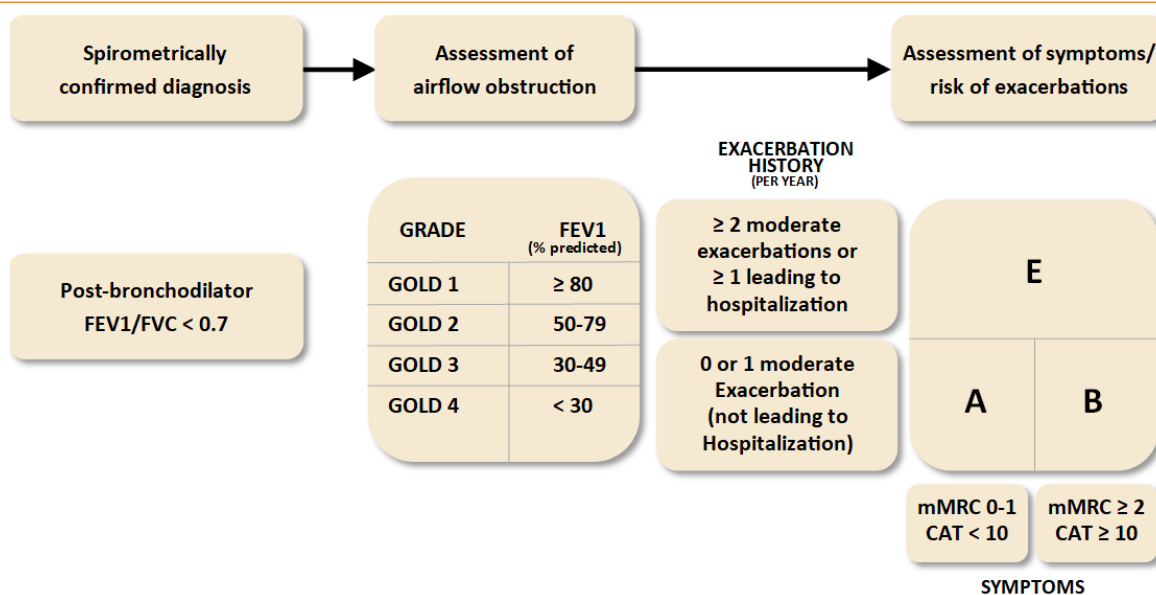
- As part of NHS Scotland's commitment to greener prescribing, the environmental impact of inhalers has been examined and should be incorporated into prescribing decisions.
- MDIs contain hydrofluorocarbon propellants that are greenhouse gases.
- Over-reliance of salbutamol increases the carbon footprint of a respiratory patient. Therefore, it is essential to identify and treat uncontrolled airways disease, encourage preventer adherence, and ensure inhaler devices are chosen based on individual inhaler technique to optimise control.
- DPIs have lower estimated carbon footprints than MDIs. Therefore, if a patient is able to use both MDI and DPI they should be given a DPI.
- Ventolin® evohalers have higher CO₂ emissions than other brands of salbutamol.
- In this guidance inhalers are given a symbol to indicate carbon footprint. This symbol indicates a 'greener' choice:



Abbreviations

DPI	Dry Powder Inhaler	MDI	Metered Dose Inhaler
ICS	Inhaled Corticosteroid	SABA	Short-Acting Beta ₂ Agonist
LABA	Long-Acting Beta ₂ Agonist	LAMA	Long-Acting Muscarinic Antagonist
mMRC	modified MRC score	CAT score	COPD Assessment Test Score

GOLD ABE Assessment Tool



References

- Alliance Tech Medical: In-check dial: Inhaler resistance range. Issue number: 3 Available from: [In-Check DIAL | Alliance Tech Medical](#)
- PrescQIPP Community Interest Company. Lowering the Inhaler Carbon Footprint. Bulletin 295; 2021. Available from: [Respiratory care | PrescQIPP C.I.C](#)
- Global Initiative for Chronic Obstructive Lung Disease (GOLD) 2023: Global strategy for prevention, diagnosis and management of COPD: 2023 Report. Available from <https://goldcopd.org/2023-gold-report-2/>

Guidance on Inhaled Therapies: Chronic Obstructive Pulmonary Disease (COPD)

COPD confirmed by post bronchodilator spirometry with FEV1/FVC <0.7 or lower limit of normal

Inhaled bronchodilation is not recommended for patients with smoking related symptoms but preserved lung function. (seek specialist advise if needed)

STOP. THINK. REVIEW.



Before stepping up treatment

- Check inhaler technique/adherence
- Referral to pulmonary rehabilitation through Primary Care
- Consider smoking status and smoking cessation
- Lifestyle and exercise
- Manage co-morbidities
- Consider self-management advice and ACP document as necessary
- Assess if suitable for oxygen therapy
- Vaccination

Assess inhaler technique to determine suitability for MDI or DPI pathway

COPD with breathlessness

- 0-1 exacerbations leading to no hospitalisation **or**
- Some breathlessness and exercise limitation **or**
- CAT <10/mMRC <2 (**GOLD A**)

COPD with multiple exacerbations and/or worsening breathlessness

- ≥ 2 exacerbations **or** 1 leading to hospital admission **or** (**GOLD E**)
- CAT score ≥ 10 or mMRC ≥ 2 (**GOLD B**)

If infrequent symptoms:
SABA as required

If frequent use of SABA

SABA as required PLUS LABA+LAMA dual therapy

If continued breathlessness or exacerbations

SABA as required PLUS ICS+LABA+LAMA

For the symptomatic group if no response to triple therapy after 3 months, consider stepping down to LABA+LAMA. Consider referral to a specialist if:

- **CAT score >30 (at any stage of the pathway)**
- **Suspicion of asthma-COPD overlap**
- **Worsening exacerbations despite triple therapy**

Eosinophil can be used to aid prescribing choice: Blood eosinophil count: >300/μL very high chance of response to ICS component, 100-300/μL intermediate chance, <100/μL less chance.

DPI Pathway - *hard and fast breath*

MDI Pathway - *slow and steady breath*

SABA

1st

Salbutamol Easyhaler® 100mcg
1-2 inhalations as required

High



Salbutamol 100mcg pMDI
1-2 inhalations as required

pMDI



2nd

Bricanyl Turbohaler® 500mcg
(Terbutaline)
1 inhalation as required

Medium



LABA + LAMA

1st

Anoro Ellipta® 55/22mcg
(Umeclidinium/Vilanterol)
1 inhalation once a day

Med Low



Spiolto Respimat® 2.5/2.5mcg
(Tiotropium/Olodaterol)
2 inhalations once a day

Med Low



ICS + LABA + LAMA

1st

Trelegy Ellipta® 92/22/55mcg
(Fluticasone fuorate/Umeclidinium/Vilanterol)
1 inhalation once a day

Med High



Trimbow® 87/5/9mcg pMDI
(Beclometasone/Formoterol/Glycopyrronium)
2 inhalations twice daily

pMDI



Trimbow NEXThaler® 87/5/9mcg
(Beclometasone/Formoterol/Glycopyrronium)
2 inhalations twice daily

Med High



Trixeo Aerosphere 5/7.2/160 mcg pMDI
(Formoterol/Budesonide/Glycopyrronium)
2 inhalations twice daily

pMDI

