

BNSSG Adult Asthma Guidelines 2022

Carbon Footprint Key		Regular low dose ICS	Regular low dose ICS + LABA	Medium dose ICS + LABA	High dose ICS + LABA	
Low	Medium			High	Give steroid treatment card	Give steroid treatment + emergency card ▲ Consider secondary care referral
Dry Powder Inhalers First choice if clinically appropriate	Easyhaler® Beclometasone 200mcg 1 puff bd	Fobumix® Easyhaler 80/4.5 1-2 puffs bd	Fobumix® Easyhaler 160/4.5 1-2 puffs bd	Fobumix® Easyhaler 320/9 ▲ 1-2 puffs bd		
		Fostair® 100/6 NEXThaler 1 puff bd	Fostair® 100/6 NEXThaler 2 puffs bd	Fostair® 200/6 NEXThaler ▲ 2 puffs bd		
	Flixotide® Accuhaler 100mcg 1 puff bd	Relvar® Ellipta▼ 92/22# 1 puff od	Relvar® Ellipta▼ 92/22# 1 puff od	Relvar® Ellipta▼ 184/22 1 puff od		
		Symbicort® 100/6 Turbohaler 1-2 puffs bd	Symbicort® 200/6 Turbohaler 1-2 puffs bd	Symbicort® 400/12 Turbohaler ▲ 1-2 puffs bd		
<i>#Note: Relvar 92/22 has been designated as both a low and medium dose</i>						
Meter Dose Inhalers Second choice if DPI not appropriate	Clenil® Inhaler 100mcg 2 puffs bd	Fostair® 100/6 Inhaler 1 puff bd	Fostair® 100/6 inhaler 1-2 puffs bd	Fostair® 200/6 inhaler ▲ 2 puffs bd		
		Combisal® 25/50 2 puffs bd	Combisal® 25/125 2 puffs bd	Combisal® 25/250 ▲ 2 puffs bd		
Breath Actuated MDI Second choice if DPI not appropriate	Qvar® Easi-Breathe 50mcg 2 puffs bd					
MART Consider if MART regimen might be more appropriate (see below)						
All patients who are not on a MART regimen should also be given a salbutamol inhaler for as needed use (PRN)						
Salbutamol	DPI	Easyhaler® Salbutamol 100mcg 1-2 puffs PRN		Ventolin Accuhaler® 200mcg 1 puff PRN		
	MDI	Do not prescribe Ventolin pMDI or generic Salbutamol MDI due to their very large carbon footprint				
		Salamol® Inhaler 100mcg 1-2 puffs PRN	Airomir® Inhaler 100mcg 1-2 puffs PRN			

Why the update?

BNSSG have made the decision to delay publication of new clinical guidance until the release of the British Thoracic Society/National Institute for Health and Care Excellence (BTS/NICE) joint guideline. BTS and NICE will be releasing a new joint asthma guideline which is due to be published in November 2023 that takes into consideration recent scientific literature and will recommend cost effective management of asthma.

With an increasing focus on the environmental impact of respiratory medicine, as outlined in the Investment and Impact Fund (IIF) 2022 and NHS Green Plan, this guideline has been updated in the interim to create an emphasis on greener inhaler prescribing.

Inhaler selection & Environmental Considerations

Inhalers have a significant carbon footprint and make up ~3% of all NHS carbon emissions and 13% of direct patient care. In the UK a large proportion of our inhalers are pressurised metered dose inhalers (pMDIs) which contain hydrofluoroalkanes (HFA) propellants which are potent greenhouse gases. In January 2019, the NHS long-term plan proposed a 50% reduction in the greenhouse gas emissions from inhalers in 10 years. Using these simple steps when prescribing inhalers will help:

1. **DPIs** or **SIMs** should be offered **first line** where clinically appropriate. Find out how to check whether a patient is suitable for a DPI below.
2. Focus on finding the right medication and device for each individual using shared decision making and ensure good inhaler technique. **Optimal asthma management** is the key goal.
3. Avoid **Flutiform MDI**, **Symbicort MDI**, **Ventolin Evohaler MDI** and **generic Salbutamol MDI** which all have large carbon footprints.
4. Ask patients to **return all used or unwanted inhalers to community pharmacies or dispensaries** for disposal by incineration or re-cycling.
5. Click [here](#) for more guidance on how to reduce the environmental impact of inhalers. The [Greener Practice guide](#) is also helpful.

DPI suitability

Most patients will be able to use DPI inhalers but some patients with poor inspiratory ability may struggle to use them. If you are not sure, assess the patient's inspiratory ability by observing them inhaling. As always, inhaler technique is key and so should always be assessed and discussed whichever device is chosen.

- Can the patient take a deep quick breath in within 2-3 seconds? **DPI likely to be fine**
- Can the patient take a slow steady breath in over 4-5 seconds but not a deep quick breath? **MDI may be needed instead of DPI**

Key considerations

If a patient has had **≥2 courses of oral corticosteroids (OCS) in 12 months** or **≥6 SABA inhalers in 12 months**, review the appropriateness of therapy immediately as their asthma is likely poorly controlled, putting them at greater risk of death from an asthma attack

- **Acute Asthma**
 - Please refer to: [BTS/SIGN Asthma Guidelines Quick Reference Guide 2019, P.15-16](#)
 - Patients using a medium or high dose ICS + LABA should **NOT** be advised to double-up their inhaler dose after an exacerbation
 - All asthmatics discharged from hospital post exacerbation should be seen face-to-face by a GP/practice asthma nurse **within 1-2 weeks**
- **Steroid Emergency Cards:**
 - The NPSA recently issued national guidance promoting a new patient-held Steroid Emergency Card to help healthcare staff identify patients with adrenal insufficiency and provide information on emergency treatment
 - Please refer to Table 3 in the [SPS guidance](#) for advice on what inhaled glucocorticoid doses should receive a steroid emergency card
 - These inhalers are indicated with a ▲ on the page below
 - Always remember to check if patient is using MART regime
- **Smoking cessation services:**
 - Bristol - [Stop Smoking Service](#)
 - North Somerset - [Smoke Free North Somerset](#)
 - South Gloucestershire - [One You South Gloucestershire Smoke Free](#)
 - Please see [Remedy](#) for up-to-date referral pathways
- **Spacers**
 - Spacers must be considered for all patients on a **pMDI** as they have been shown to improve lung drug deposition and reduce side effects.
 - Spacers should be **cleaned monthly** and **replaced annually**
 - Community pharmacists can provide spacers to patients using MDIs
 - BNSSG recommend using the Anti-static Space Chamber Plus which is compatible (but not licensed for use with) with all pMDIs.

Maintenance and Reliever Therapy (MART)

Consider this if patient has inadequate control and frequent use of reliever medication and/or previous exacerbations requiring medical intervention. Patients must have education on the use of the inhaler as MART, and clinicians must be confident patients understand how to use it appropriately. Patients should be advised to always have their inhaler available for rescue use. Salbutamol PRN is **not** required in addition to MART. Practices should monitor compliance and any dose-related adverse effects.

Product for MART	Inhaler device	MART dosing	Max daily dose	Age restrictions
Symbicort 200/6 and 100/6 ▲	DPI Turbohaler	2 puffs per day + PRN	12 puffs*	12 years +
Fobumix 80/4.5 and 160/4.5 ▲	DPI Easyhaler	2 puffs per day + PRN	12 puffs*	18 years +
Fostair 100/6 ▲	MDI and NEXThaler	1 puff BD + PRN	8 puffs	18 years +

*12 puffs daily can be used for a limited time but patients using >8 puffs/day need urgent clinic review

Diagnosis

Ensure correct diagnosis

Refer to: [BTS/SIGN Asthma Guidelines Quick Reference Guide 2019, P.2-6](#)

Non-pharmacological Asthma Care

Vaccinations

Smoking cessation

Weight loss

[Breathing exercises](#)

Medications

See inhaler table on next page

Check compliance and inhaler technique **before** stepping up

[Right breathe](#) website has good inhaler technique videos

All inhalers **must** be prescribed by brand

Ensure device consistency across therapy to enhance patient compliance

Consider if **MART** regimen if more suitable

Spacers should be used with MDI inhalers. They should be **cleaned monthly** and **replaced annually**

Reviews

-At **every** review and **before** stepping up therapy check; peak inspiratory flow, asthma control, number of exacerbations, time off work/school, OCS use, inhaler technique, adherence, SABA reliance, trigger factors, smoking status

-Consider [Asthma Control Test](#) when reviewing patients

-Recheck diagnosis if asthma control remains poor despite using at least a low dose ICS/LABA

-Every patient **must** have a [Personalised Asthma Action Plan](#)

-**Rhinitis** is a risk factor for the development and increasing severity of asthma. Refer to [BNSSG Formulary](#) for medication

- Consider stepping therapy **down** after ≥ 3 months complete asthma control

Refer to secondary care if:

- If there is diagnostic uncertainty
- Admission to hospital for poorly controlled asthma
- Asthma remains uncontrolled after 3 months following treatment optimisation
- There is complicating multi-morbidity
- Consideration of monoclonal antibody therapy
- If complicating lung conditions (e.g. vasculitis, allergic bronchopulmonary aspergillosis or bronchiectasis)
- If ≥ 2 courses of oral corticosteroids in 12 months, despite optimising medication