

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. **Training and education should be provided at this time.**
- ! Inhalers should be prescribed by brand name, except for salbutamol
- ! Combination inhalers should be used where appropriate
- ! In asthma or suspected asthma, sole intermittent reliever therapy with salbutamol or equivalent is not safe without an inhaled steroid.

Choosing the right device

- Inhaler technique and adherence should be checked at each review and prior to any treatment escalation (please be considerate of child's cognitive ability)
- Patient should be reminded to bring their own inhaler(s) and spacer to the appointment for technique review
- 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)**

Greener 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 decision
- MDIs contain hydrofluorocarbon propellants that are greenhouse gases
- Over-reliance on 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 — consider this from age 10-12 (please be considerate of child's cognitive ability)
- 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:
- *Consider prescribing Soprobeq pMDI 100mcg (1 puff) as an alternative to Soprobeq pMDI 50mcg (2 puffs)



Abbreviations

DPI	Dry Powder Inhaler	AAP	Asthma Action Plan
MART	Maintenance and Reliever Therapy	ICS	Inhaled Corticosteroid
pMDI	pressurised Metered Dose Inhaler		
LABA	Long-Acting Beta ₂ Agonist		
LTRA	Leukotriene Receptor Antagonist		
SABA	Short-Acting Beta ₂ Agonist		
AIR	Anti-Inflammatory Reliever		



**STOP.
THINK.
REVIEW.**

- Check inhaler technique/adherence
- Manage co-morbidities/review triggers
- Consider parental smoking/vaping status
- Consider smoking cessation
- Lifestyle and exercise
- Consider self-management advice
- Consider vaping in young person
- Counsel on neuropsychiatric side effects of Montelukast**



References

Scottish Intercollegiate Guidelines Network (SIGN). SIGN 158: British guideline on management of asthma. Edinburgh: SIGN; 2019. (SIGN publication no. 158). Available from <https://www.sign.ac.uk/media/1773/sign158-updated.pdf>
 PrescQIPP Community Interest Company. Lowering the Inhaler Carbon Footprint. Bulletin 295; 2021. Available from: [Respiratory care | PrescQIPP C.I.C](#)


Guidance on Inhaled and Oral Therapies: Asthma (CHILDREN)

CHILDREN UNDER 5 YEARS

MDI Pathway WITH SPACER - *slow and steady*

Regular Preventer	1st	Soprobeq pMDI 50, 100, 200mcg (Beclometasone) 100-200mcg twice daily*	
Alternative choice for <5 years		Montelukast 4mg chewable tablets/granules sachets 1x 4mg dose at bedtime (stop if no benefit after 4-8 weeks)	
Initial Add on Therapy <5 years	1st	Montelukast 4mg chewable tablets/granules sachets 1x 4mg dose at bedtime (stop if no benefit after 4-8 weeks)	
Initial Add on Therapy ≥4 years	1st	Combisal® pMDI 25/50mcg (licensed from 4 years) (Salmeterol/Fluticasone propionate) 2 inhalations twice daily (reduce to once daily if stable)	
Spacer <5 years	1st	AeroChamber Plus Flow-Vu Anti-Static (Yellow) Mask 1-5yrs	

MART YOUNG PEOPLE 12 YEARS AND ABOVE












Maintenance dose	1st	Symbicort Turbohaler® 100/6mcg (Budesonide/Formoterol) 2 inhalations twice daily (reduce to once daily if stable)	
Reliever dose		Up to 4 additional doses in 24 hours Max 8 doses in 24 hours	
Asthma attack		6 inhalations, if no improvement to be medically reviewed as soon as possible.	
In stable patients with mild asthma (symptoms less than 3-5 days per week, with normal or mildly reduced lung function), consider Symbicort 200/6 as an Anti-Inflammatory Reliever (AIR) used as required.			

CHILDREN 5 YEARS AND OVER

MDI Pathway WITH SPACER - *slow and steady*

DPI Pathway - *hard and fast breath*



Regular Preventer Therapy ICS	1st	Soprobeq pMDI 50, 100, 200mcg (Beclometasone) 100-200mcg twice daily		Budesonide Easyhaler® 100mcg 100-200mcg twice daily (reduce to once daily if stable— 200mcg)	
Initial Add on Therapy ≥5 years Low dose ICS/LABA	2nd	Combisal® pMDI 25/50mcg (licensed from 4 years) (Salmeterol/Fluticasone propionate) 2 inhalations twice daily (reduce to once daily if stable)		Symbicort Turbohaler® 100/6mcg (licensed from 6 years technique more effective from 10 years) (Budesonide/Formoterol) 2 inhalations twice daily (reduce to once daily if stable)	
LTRA	3rd	**Montelukast 5mg tablets at nights (age 6-14 years) **Montelukast 10mg at night (≥ 15years). Stop if no benefit after 4-8 weeks.			
Additional Controller Therapy Medium dose ICS/LABA				Relvar Ellipta® 92/22mcg (licensed from 12 years) (Fluticasone furoate/ Vilanterol) 1 inhalation once daily	
				Symbicort Turbohaler® 100/6mcg or 200/6mg (licensed from 12 years) (Budesonide/Formoterol) 2 inhalations twice daily	
Intermittent Reliever Therapy SABA ALL PATIENTS	1st	Salbutamol pMDI 100mcg 1-2 inhalations as required Can be temporarily increased to 4 inhalations as part of an AAP		Salbutamol Easyhaler® 100mcg 1-2 inhalations as required	
	2nd			Bricanyl Turbohaler® 500mcg (Terbutaline) 1 inhalation as required	
Specialist Initiation High Dose ICS/LABA	1st	Combisal® pMDI 25/125mcg (Salmeterol/Fluticasone propionate) 2 inhalations twice daily		Relvar Ellipta® 184/22mcg (Fluticasone furoate/Vilanterol) 1 inhalation once daily	
	2nd	Theophylline M/R tablets 200 (<11yrs), 300, 400mg 200mg every 12 hours. Adjusted up to 400mg every 12 hours based on levels.			
	3rd	Theophylline oral syrup			
Spacer ≥5 year		AeroChamber Plus Flow-Vu Anti-Static (Green) Youth			