New or Uncontrolled Asthma: Adult and Children ≥12 Years Single Inhaler Therapy Asthma Treatment Summary

Nottinghamshire Area Prescribing Committee

Check: self-management plan, symptoms, exacerbations, inhaler technique, adherence, how many inhalers used (too few/ many), vaccines offered, smoking & pollution.
Consider Allergy treatment. Advise : If treatment becomes less effective or symptoms deteriorate – seek medical attention.

Expiry Cost Age (SIT License)	Single Inhaler Therapy (SIT) (No salbutamol or other SABA)
	Formoterol/Budesonide. 120 dose DPI
3 years £28 ≥12 years	Symbicort Inhaler 200/6
2 years £19 ≥12 years	WockAir 160/4.5
4 months £21.50 ≥12 years	Fobumix 160/4.5
	If DPI not suitable
3 months £9.90 (Proxor) £14 (Bibecfo) £13.98 (Luforbec) ≥18 years	**Formoterol/Beclomethasone 120 dose MDI** Proxor 100/6 Bibecfo 100/6 Luforbec 100/6

Increase and reduce dose according to asthma control.

Uncontrolled with moderate dose MART? See page 2

Newly diagnosed or only using a SABA

AIR
(Anti-Inflammatory Reliever)

ONE reliever dose PRN
(consider expiry)

Uncontrolled on AIR OR new & highly symptomatic
(e.g. regular nocturnal waking or recent exacerbation)

Low dose MART
(Maintenance And Reliever Therapy)
ONE dose BD & 1 reliever PRN

Uncontrolled on low dose MART

Moderate dose MART
(Maintenance And Reliever Therapy)
TWO doses BD & 1 reliever PRN

PRN Reliever : 1 dose as needed. Symptoms after a few minutes? Take an additional dose
No more than 6 doses on any single occasion: See Asthma attack advice box below.

Formoterol/budesonide DPI
Best evidence for AIR & MART
Low carbon footprint
≥12 licence for AIR & MART
Longer in use expiry options convenient for AIR

Formoterol/beclomethasone MDI & DPI
Off label for AIR and moderate MART. Offer a spacer. Areochambers are compatible

MART max daily doses
Formoterol/budesonide DPI
Normally not more than 8 doses a day. Max 12 doses a day for limited period.
Seek medical attention
Proxor, Bibecfo & Luforbec MDI.
8 doses in 24 hrs

≥ 5 doses in 24 hrs = High dose ICS.
5 doses in 24 hours = 150 doses per month > 1 inhaler
8 doses in 24 hours = 240 doses per month = 2 inhalers

Asthma attack using SIT Advice for patients 'If you feel worse at any point OR you do not feel better after six doses call 999 for an ambulance. If needed repeat after 10 minutes & call 999 again.'
People using SIT do not normally need a SABA. Only prescribe a SABA with SIT if advised by specialist. Document advice in patient self-management plan. CKS advice for HCPs

Uncontrolled Asthma on Moderate MART

Check: self-management plan, symptoms, exacerbations, inhaler technique, adherence, how many inhalers used (too few/ many), vaccines offered, smoking & pollution.
Consider Allergy treatment. Advise : If treatment becomes less effective or symptoms deteriorate – seek medical attention.

If asthma uncontrolled despite good adherence and inhaler technique check blood eosinophil count and FeNO level (if available)

If blood eosinophils† raised despite good adherence (at least 75% of expected inhalers collected)

→ Refer to Secondary Care

REFERRAL CRITERIA:

- FeNO / eosinophil raised †
  or
- asthma still uncontrolled despite trials of Montelukast and Tiotropium
  or
- ≥ 2 courses of oral steroids in previous 12 months

If blood eosinophils† are NOT raised or patient is awaiting Secondary Care appt:

Moderate MART with 12- week trial of:

Either

Montelukast (MHRA warning)

- 12-14 years 5mg OD
- >15 years 10mg OD

Or

Tiotropium (only for CrCl >49ml/min, see other cautions)

- Spiriva Respimat 2 doses OD
- Tiogiva 1 dose OD (unlicensed)

→

After 12-week trial:

- If asthma controlled, continue treatment

or

- If improved but inadequate, continue treatment & start trial of alternative.

or

- If not improved, **STOP** treatment and start trial of alternative

If uncontrolled →

† above upper limit of normal for local lab

Adult and Children ≥12 Years. Asthma Treatment Summary V3.1
Last reviewed Feb 2025. Review date. May 2028.
Accessibility checked: The guideline contains a table that might not be accessible to some screen readers.

Nottinghamshire Adult (12 years and older) Asthma Treatment Guideline

Summary based on NICE/BTS/SIGN Guideline NG245

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Summary of changes

No SABA only. Do not prescribe salbutamol for asthma without a regular inhaled ICS.

- Switch to 'as needed single inhaler' AIR (Anti-inflammatory Reliever Therapy)^ regimen

Offer newly diagnosed patients and patients with uncontrolled asthma

- Single Inhaler Therapy SIT^ using a combined ICS/formoterol inhaler (e.g. Fobumix, Symbicort)
- Either as AIR^ or MART^ regimens.

If asthma is controlled continue current pathway regimen using cost effective formulary inhalers.

MHRA Salbutamol Over Use Risk 2025

^See below and glossary

Table 1. First Choice SIT Inhalers for newly diagnosed and uncontrolled Asthma

Inhaler	Age *		AIR dose.	Low dose MART	Moderate dose MART.	MART Max daily dose.	Expiry after opening	Cost 120 dose
			Increase or reduce dose according to control					
1st line. Budesonide /formoterol DPI. Best evidence. License ≥12 & all doses.								
Fobumix 160/4.5	≥12		1 dose PRN No more than 6 doses on any single occasion If symptoms persist after a few minutes, an additional inhalation should be taken.	ONE dose BD + 1 dose prn	TWO doses BD + 1 dose prn	Normally 8 per day. Max 12 doses / day for limited period. ≥ 5 doses in 24 hrs = high dose ICS	4 months	£21.50
Symbicort Inhaler 200/6							3 years	£28
Wockair 160/4.5							2 years	£19
2nd Line. Beclomethasone/formoterol MDI. Extra fine particle. Always offer a spacer. Aerochamber.								
Proxor 100/6	≥18		1 PRN. Off label *No more than 6 doses on any single occasion.*	ONE dose BD + 1 prn	*TWO doses BD + 1 prn Off label*	8 doses /24 hours ≥ 5 doses in 24 hrs = high dose ICS	3 months	£9.90
Bibecfo 100/6							3 months	£14
Luforbec 100/6							3 months	£13.98

Asthma attack advice 'If you feel worse at any point OR you do not feel better after six doses call 999 for an ambulance. If needed repeat after 10 minutes & call 999 again.'
People using SIT do not normally need a SABA. Only prescribe SABA if advised by specialist.

*Age of SIT license in SPC. DPIs labelled

200/6 & 160/4.5 are the same strength. 200/6 refers to the metered dose & 160/4.5 refers to the delivered dose

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Table 2. Other formulary DPI ICS/formoterol inhalers suitable for SIT.

Inhaler	Age *		**AIR dose.**	**Low dose MART**	**Moderate dose MART.**	**MART Max daily dose.**	Expiry after opening	Cost 120 dose inhaler
			Increase and reduce dose according to control					
Fostair Nexthaler 100/6	≥18		1 PRN *Off label No more than 6 doses on any single occasion.*	ONE dose BD & 1 prn	*TWO doses BD + 1 prn Off label*	8 doses /24 hours	6 months	£29.32
Duoresp Spiromax 160/4.5	≥12		1 PRN. No more than 6 doses on any single occasion	ONE dose BD or TWO doses daily. + 1 prn	TWO doses BD + 1 prn.	Not more than 6 on any single occasion. Normally not more than 8 inhalations. Up to 12 inhalations could be used for a limited period.	12 months	£28

*Age of SIT license in SPC

Uncontrolled Asthma on moderate MART – additional information.

Montelukast MHRA alert .

- Warn patients or carers about neuropsychiatric ADRs including sleep disorders, stuttering, obsessive compulsive symptoms.
- Review after 1 month, stop if not effective or ADRs outweigh benefit.

Spiriva Respimat **is the only LAMA** (long acting muscarinic antagonist) **licensed for asthma.**

- All other LAMAs including other tiotropium inhalers are not licensed.
- A class effect for tiotropium and potentially other LAMAs is to be expected. Patients unable to use the Respimat device can be offered a suitable alternative tiotropium or other LAMA inhaler.

Table 3. First choice LAMA inhalers**.**

Inhaler	**Age**		**Licensed for Asthma**	**Dose**	**Cost** for 30 days
Spiriva Respimat 2.5microgram Soft Mist Inhaler. Tiotropium SMI	≥6		**Yes**	TWO doses OD Requires a slow deep breath.	£23
Tiogiva 18microgram Tiotropium DPI	Adults (COPD licence)		**No**	ONE dose OD	£19.20

Prescribing Tips.

Quantity and expiry

Ensure patients are prescribed sufficient to use MART regularly and as needed but counsel to seek advice if frequently using extra doses. **Note: ≥ 5 doses in 24 hrs = high dose ICS**.

If using AIR occasionally ensure that patient is aware of expiry after opening. Consider longer expiry product to reduce waste and number of prescriptions.

Offer all patients a written self-management plan Your asthma action plan Asthma + Lung UK

- Explain that there are things that can trigger asthma symptoms and exacerbations.
- Include in the personalised action plan approaches for minimising exposure to air pollution and any other personal triggers.
- For more guidance on how to minimise exposure and the effect of air pollution on health. Air pollution: outdoor air quality and health & Air pollution | Asthma + Lung UK

Optimise Inhaler technique

- Right Breathe website or How to use your inhaler | Asthma + Lung UK videos on how to use device.
- Most patients should be on a single type of device wherever possible.
- Metered dose inhalers (MDI) should be used with a spacer device. Areochamber Plus is recommended first choice.
- Community Pharmacy offers the New Medicine Service to support patients starting a new inhaler.

Montelukast MHRA warning Montelukast: reminder of the risk of neuropsychiatric reactions - GOV.UK

- Discontinue montelukast if patients experience new or worsening symptoms of neuropsychiatric reactions. E.g. changes in mood, sleep or behaviour such as nightmares, aggression, anxiety or thoughts about self-injury.
- Advise patients and their caregivers to carefully read the list of neuropsychiatric reactions in the Patient Information Leaflet and to seek medical advice immediately should they occur.

Review Tips

Review patients regularly, frequency depending on control (at least annually), and 8-12 weeks after starting or adjusting medicines.

Assessment of control

3 simple questions or consider a validated questionnaire. Asthma Control Test.

In the last week (or month):

- Have you had difficulty sleeping because of your asthma symptoms (including cough)?
- Have you had your usual asthma symptoms during the day (cough, wheeze, chest tightness or breathlessness)?
- Has your asthma interfered with your usual activities (e.g. housework, work/school etc)?

Also

- Exacerbations in past 2 years
- Amount of reliever used, symptomatic if used 3 times a week or more.
- Symptomatic = having 1 or more nights per week when asthma causes night-time waking

Count inhalers: most SIT inhalers = 120 doses

- 5 doses in 24 hours = 150 doses per month > 1 inhaler
- 8 doses in 24 hours = 240 doses per month = 2 inhalers

Take into account and try to address the possible reasons for uncontrolled asthma before starting or adjusting medicines.

- Alternative diagnosis or comorbidities – see referral criteria
- Check Adherence and inhaler technique before any step up in medication. Consider patient variable factors alongside their ability to use.
- Smoking (active or passive), including vaping using e-cigarettes
- Occupational exposures.
- Psychosocial factors (for example, anxiety and depression, relationships and social networks)
- Seasonal factors
- Environmental factors (for example, air pollution, indoor mould exposure)

Exercise Induced Asthma – Exercise, physical activity and asthma | Asthma + Lung UK

For many patients if exercise triggers asthma, it's a sign it is not as well controlled as it could be.

AIR regimen SPC : exercise-induced bronchoconstriction should be discussed between physician and patient; the recommended use should take into consideration the frequency of need. In case of frequent need of bronchodilation without corresponding need for an increased dose of inhaled corticosteroids, an alternative reliever should be used.

Patients on previous asthma pathways

- If asthma is controlled continue current treatment pathway using cost effective formulary options

Transferring from other pathways

- Switch patients only using a SABA (usually salbutamol) to as-needed AIR therapy.

- Asthma not controlled on regular low or moderate dose ICS consider change to low or moderate dose MART. See NICE tables and table 4 for examples and doses of inhalers.

- Asthma not controlled on regular high dose ICS are not suitable for MART and should be **referred** to a specialist in asthma care

Table 4. Low dose / Moderate dose / High dose regular ICS NICE guidance
(less preferred inhalers are included for reference).

Inhaled corticosteroid	Examples – various strengths		Low dose	Moderate dose	High dose
	ICS only	Combined ICS/LABA			
Standard - particle Beclometasone and Budesonide.	Beclometasone Easyhaler Budesonide Easyhaler Pulmicort Soprobec Clenil	Symbicort Fobumix	200mcg bd	400mcg bd or 500mcg bd	800mcg bd or 1000mcg bd
Extra-fine Beclometasone	Qvar Kelhale	Bibecfo Luforbec Fostair Proxor	100mcg bd	200mcg bd	400mcg bd
Fluticasone	Flixotide	Combisal Sirdupla Seretide	100mcg bd	250mcg bd	500mcg bd

Recommendation for change

Current regular ICS dose + prn SABA	Switch to
Low-dose ICS Low-dose ICS/LABA Low-dose ICS and montelukast Low-dose ICS/LABA montelukast	Low dose MART
Moderate-dose ICS Moderate-dose ICS/LABA Moderate-dose ICS + montelukast or LAMA, or both Moderate-dose ICS/LABA + montelukast or LAMA, or both	Moderate-dose MART
High-dose ICS High-dose ICS/LABA	Refer to secondary care

When changing from low- or moderate-dose ICS (or ICS/LABA combination inhaler) plus supplementary therapy to MART, consider whether to stop or continue the supplementary therapy based on the degree of benefit achieved when first introduced.

Greener NHS

The NHS has committed to reducing its carbon footprint by 80% by 2028 to 2032, including a shift to lower carbon inhalers.

Dry powder inhalers (DPIs) and other newer types of inhalers like soft mist inhalers are less harmful to the environment than traditional metered dose inhalers (MDIs).

- Use Asthma inhalers and the environment: BTS, NICE and SIGN patient decision aid to facilitate discussion
- Advise patient to return their used inhalers to a pharmacy for disposal.

For more information please see PIL inhalers and the environment and Greener NHS - Nottinghamshire Area Prescribing Committee

Glossary

Low carbon/ greener inhaler.

High carbon inhaler

ICS. Inhaled CorticoSteroid

SIT. Single Inhaler Therapy. Using a single inhaler that contains a combination of ICS/ formoterol.

AIR therapy - is treatment with a reliever inhaler that contains a combination of ICS/formoterol. When this is used in response to symptoms without regular maintenance therapy it is called as-needed AIR therapy

Maintenance and reliever therapy (MART) A form of combined ICS/formoterol treatment in which a single inhaler containing ICS and formoterol is used for daily maintenance therapy and the relief of symptoms as needed. The terms low-dose MART and moderate-dose MART refer to the dosage of the maintenance component of MART. People using MART do not normally need a SABA.

Asthma control - Complete control of asthma is defined as no daytime symptoms, no night-time awakening due to asthma, no asthma attacks, no need for rescue medication, no limitations on activity including exercise, normal lung function (in practical terms forced expiratory volume in 1 second [FEV1] and/or peak expiratory flow [PEF] more than 80% predicted or best), and minimal side effects from treatment.