

Asthma November 2024



NICE National Institute for
Health and Care Excellence



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Shortage of Salbutamol (Salamol[®] and Ventolin[®]) 100micrograms/dose inhaler CFC free

There is currently a constraint in supply of salbutamol (Salamol[®] and Ventolin[®]) 100micrograms/dose CFC free inhalers. More supplies are expected in the coming days and all suppliers are working to expedite deliveries to mitigate the issues. The current anticipated re-supply date is 7th Feb 2025.

Action for prescribers

- Before prescribing, check to see if the supply is urgent. Does the patient have any unopened or extra inhalers at home they can use?
- Consider using this opportunity to change patients to a Salbutamol dry powder inhaler like Salbutamol Easyhaler[®] or Ventolin[®] accuhaler. See [Rightbreathe](#) for video on how to use new device.
- In line with the new [NICE/BTS asthma guidelines](#), look at the possibility to start patients on MART or AIR therapy where appropriate.
- Consider generic prescribing of salbutamol 100micrograms/dose CFC free inhalers to ease supply in the event of localised gaps in distribution.

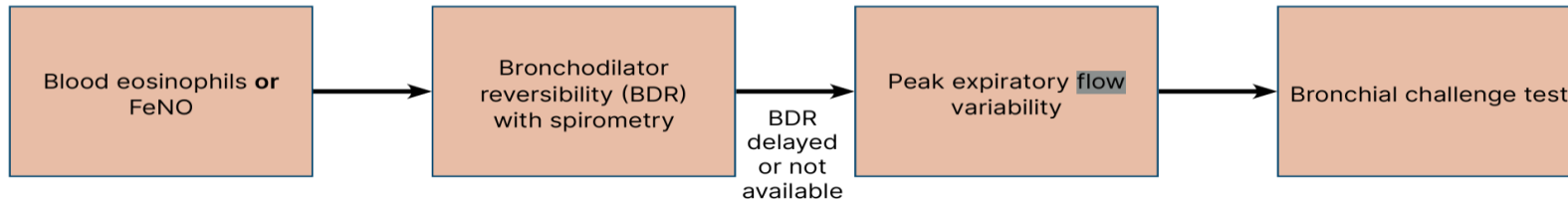
Patients started on a new inhaler can have their inhaler technique and adherence to new inhaler checked at their local community pharmacy under the [New Medicine Service \(NMS\)](#).

Diagnosis of asthma in adults and young people aged 16 years with history suggestion asthma

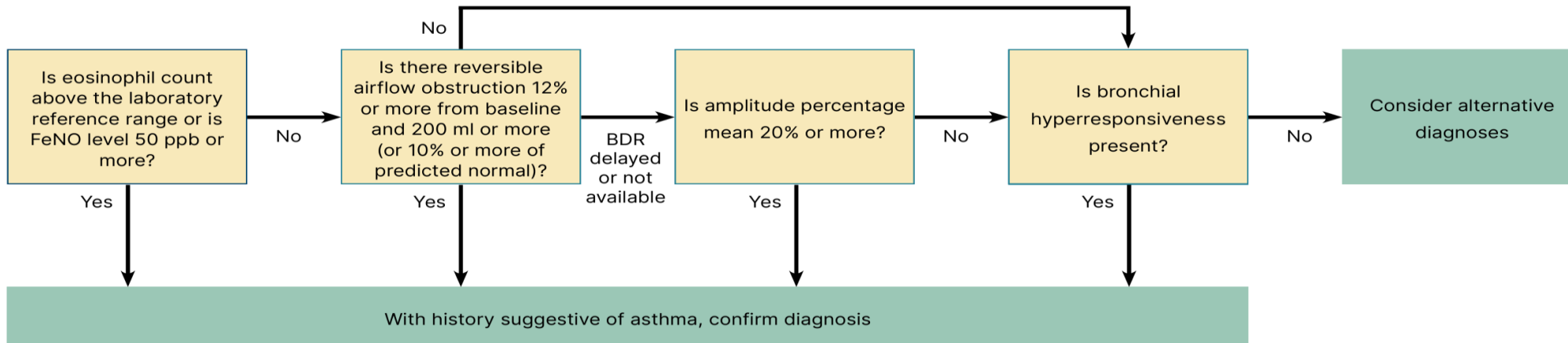
Algorithm A: Objective tests for diagnosing asthma in adults and young people (aged over 16 years) with a history suggesting asthma

BTS, NICE and SIGN guideline on asthma

Order of tests



Interpretation of test results



What is MART??

- Maintenance and Reliever Therapy (MART) is an asthma treatment plan where you use one combination inhaler instead of two separate preventer and reliever inhalers.
- There are several types of combination inhalers that can be used safely for MART, These may be dry powder inhalers, or metered dose inhalers.
- But not all combination inhalers can be used for MART, only those with an inhaled steroid and a bronchodilator medicine called **formoterol**.

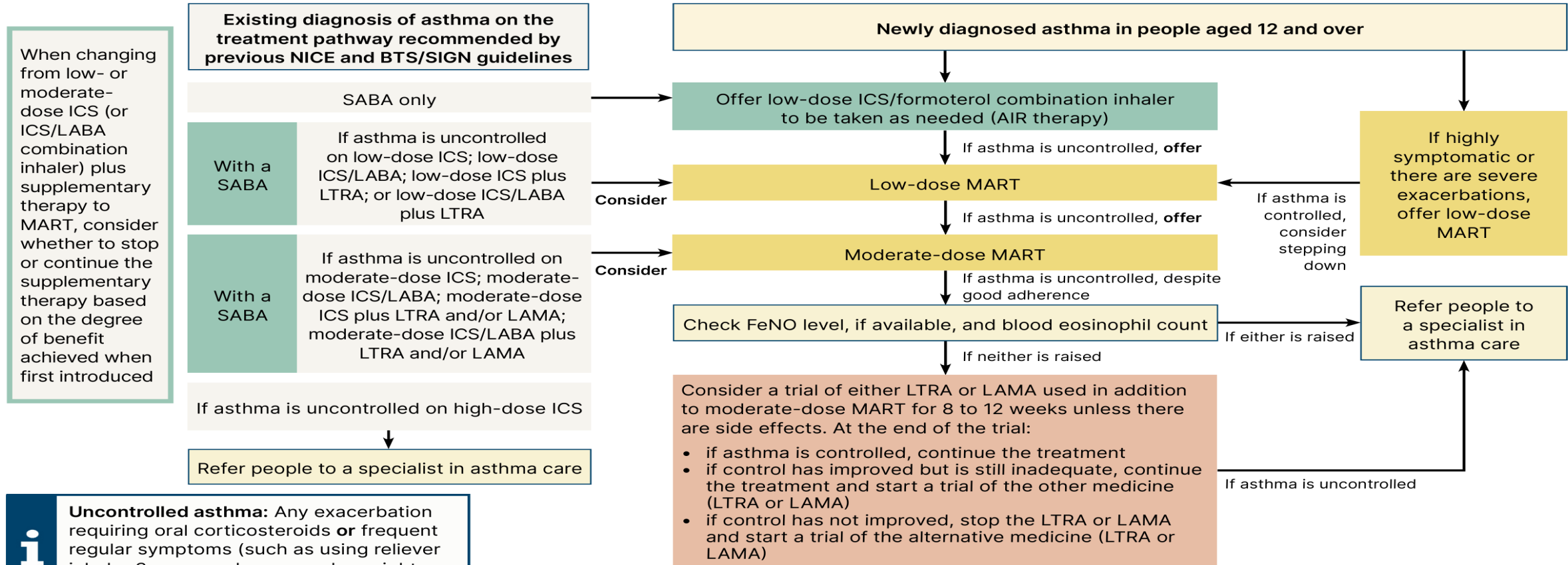
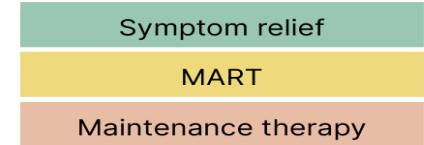
What will MART do ?

- Reduce inflammation in your airways
- Prevent asthma symptoms such as breathlessness and a tight chest
- Act quickly to deal with symptoms or an asthma attack
- Lower your risk of an asthma attack or flare up where you need high doses of steroid tablets.

Algorithm C: Pharmacological management of asthma in people aged 12 years and over

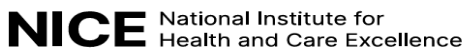
BTS, NICE and SIGN guideline on asthma

Take into account and try to address the possible reasons for uncontrolled asthma before starting or adjusting medicines for asthma. For example: alternative diagnoses or comorbidities; suboptimal adherence; **suboptimal** inhaler technique; active or passive smoking (including e-cigarettes); psychosocial factors; seasonal factors; environmental factors (such as air pollution and indoor mould exposure)



i **Uncontrolled asthma:** Any exacerbation requiring oral corticosteroids or frequent regular symptoms (such as using reliever inhaler 3 or more days a week or night-time waking 1 or more times a week)

ICS, inhaled corticosteroid; LABA, long-acting beta₂ agonist; LAMA, long-acting muscarinic receptor antagonist; LTRA, leukotriene receptor antagonist; MART, maintenance and reliever therapy (using ICS/formoterol combination inhalers); SABA, short-acting beta₂ agonist.



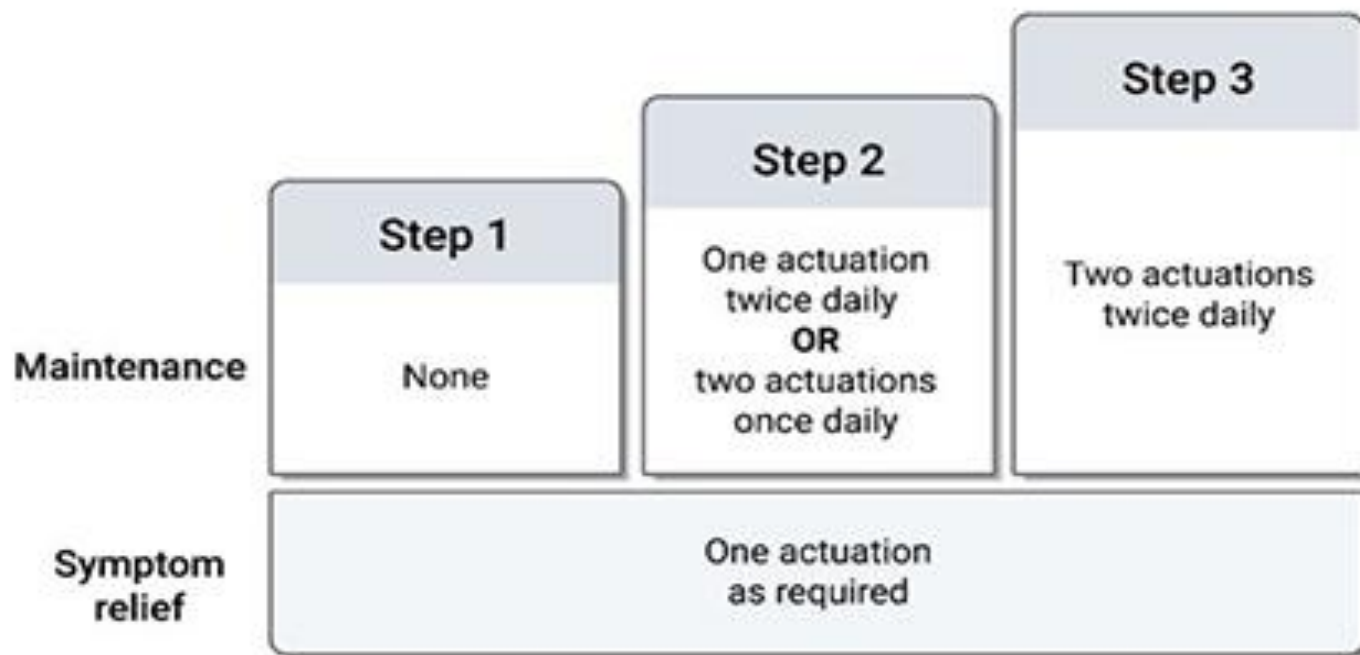
What is AIR therapy ?

- An anti-inflammatory reliever, known as AIR, is a combination inhaler which contains two types of medicine:
- a steroid anti-inflammatory medicine which treats the inflammation in your airways
- a reliever medicine called formoterol which quickly opens up your airways when you get asthma symptoms or have an asthma attack
- In November 2024 the only product licensed for air therapy is Formoterol/budesonide (low dose ICS & formoterol)

Anti-Inflammatory Reliever therapy based algorithm using Budesonide/ Formoterol 200µg/6µg

STEP UP to achieve control and reduce risk of exacerbations

STEP DOWN after a period of prolonged control
to find and maintain lowest required step



Combination available for MART therapy

- Beclomethasone and formoterol (pMDI or DPI Nexhaler)
- Fostair[®] both as pMDI or Nexhaler DPI (cost £29.32 per 120 doses) same cost for pMDI or nexhaler
- Luforbec[®] only available as pMDI (cost 13.95 per 120 doses)
- Only the 100mcg/6mcg is licensed to use in MART therapy

Cont...

- Budesonide and formoterol
- Symbicort[®] 100/6, 200/6 (pMDI) & 400/6 (60 doses only) (pMDI & DPI turbohaler) cost £28 per 120 doses (same cost for pMDI and DPI)
- Duoresp Spiromax[®] 160/4.5, 320/9 only available as DPI (cost £27.97 per 120 doses)
- Wockair 160mcg/4.5mcg, 320mcg/9mcg only available as DPI (cost £19 per 120 doses)

Duoresp Spiromax and Wockair

- Each delivered dose (the dose that leaves the mouthpiece) contains 160 micrograms of budesonide and 4.5 micrograms of formoterol fumarate dihydrate.
- This is equivalent to a metered dose of 200 micrograms budesonide and 6 micrograms of formoterol fumarate dihydrate.

Table 1. ICS dosages for people aged 12 years and over

	Low dose	Moderate dose	High dose
Beclometasone dipropionate			
Standard particle metered dose and dry powder inhalers	200 to 500 micrograms per day in 2 divided doses	600 to 800 micrograms per day in 2 divided doses	1,000 to 2,000 micrograms per day in 2 divided doses
Extra-fine particle metered dose inhalers ¹	100 to 200 micrograms per day in 2 divided doses	300 to 400 micrograms per day in 2 divided doses	500 to 800 micrograms per day in 2 divided doses
Budesonide			
Dry powder inhalers	200 to 400 micrograms per day as a single dose or in 2 divided doses	600 to 800 micrograms per day as a single dose or in 2 divided doses	1,000 to 1,600 micrograms per day in 2 divided doses
Ciclesonide			
Metered dose inhalers	80 to 160 micrograms per day as a single dose	240 to 320 micrograms per day as a single dose or in 2 divided doses	400 to 640 micrograms per day in 2 divided doses
Fluticasone propionate			
Metered dose and dry powder inhalers (excluding Seffalair Spiromax) ^{2 3}	100 to 250 micrograms per day in 2 divided doses	300 to 500 micrograms per day in 2 divided doses	600 to 1,000 micrograms per day in 2 divided doses
Fluticasone furoate			
Dry powder inhalers ⁴	Not available	100 micrograms per day as a single dose	200 micrograms per day as a single dose
Mometasone furoate			
Dry powder inhaler	200 micrograms per day as a single dose	400 micrograms per day as a single dose or in 2 divided doses	600 to 800 micrograms per day in 2 divided doses
Inhalation powder capsules ⁵	80 micrograms per day as a single dose	160 micrograms per day as a single dose	320 micrograms per day as a single dose

4:08

5G

< Beclometasone with formoterol (BNF)

2 inhalations twice daily.

Dose equivalence and conversion

1 inhalation contains 100 micrograms beclometasone dipropionate and 6 micrograms formoterol fumarate, in extrafine particles.

100 micrograms of beclometasone dipropionate extrafine is equivalent to 250 micrograms of beclometasone dipropionate in a non-extrafine formulation.

When switching from non-extrafine formulations to *Fostair NEXThaler*[®], the dose should be reduced and adjusted according to response.

For FOSTAIR NEXTHALER[®] 200/6:

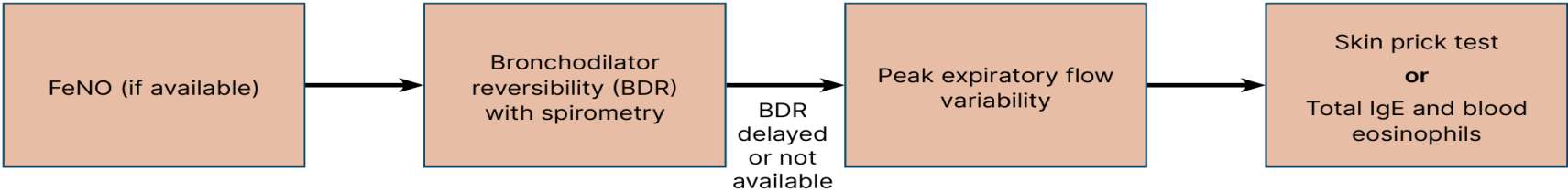


Fostair and luforbec contain extrafine particles of beclomethasone dipropionate

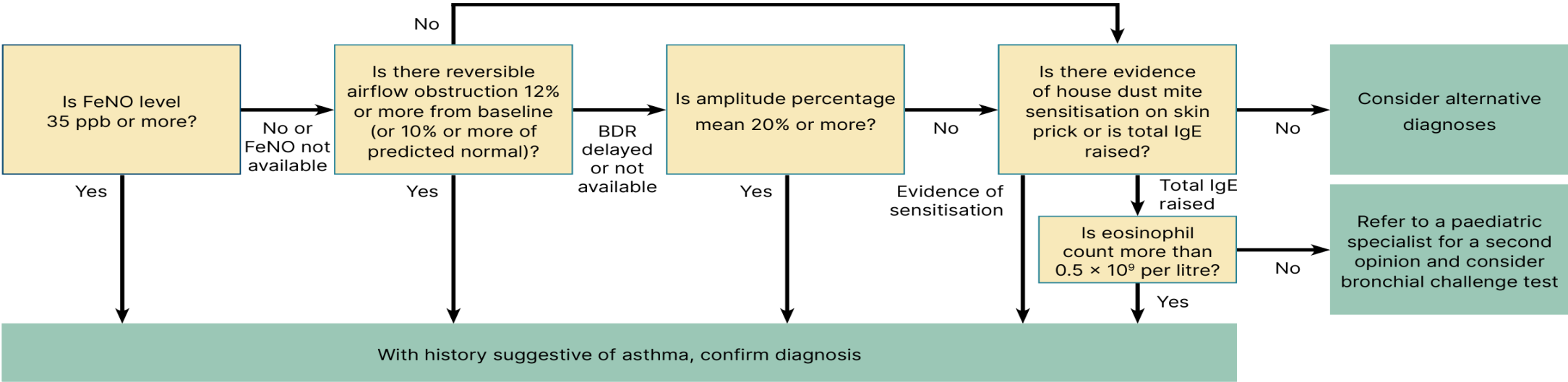
Algorithm B: Objective tests for diagnosing asthma in children aged 5 to 16 with a history suggesting asthma

BTS, NICE and SIGN guideline on asthma

Order of tests



Interpretation of test results



Algorithm D: Pharmacological management of asthma in children aged 5 to 11 years

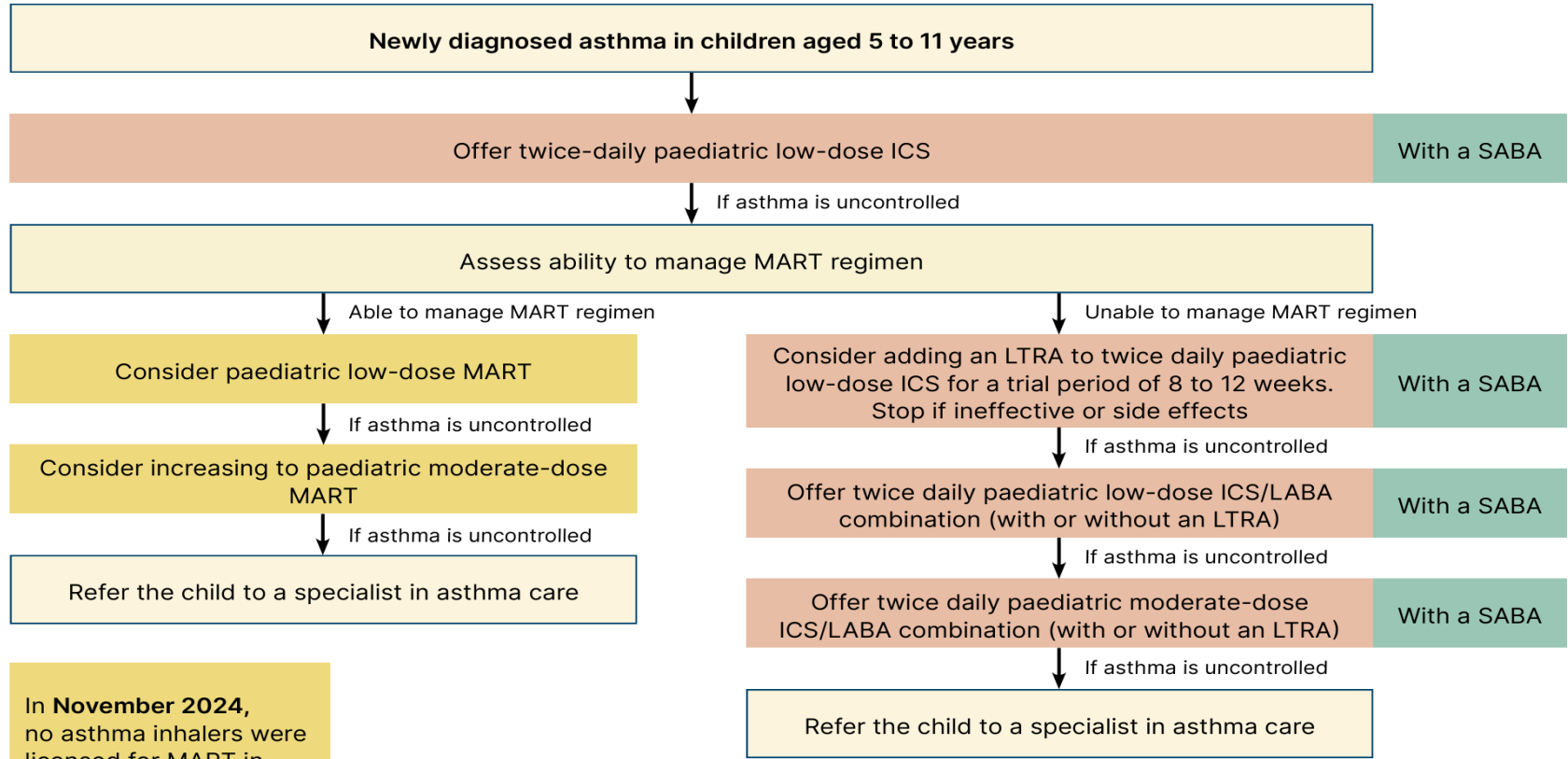
BTS, NICE and SIGN guideline on asthma

Take into account and try to address the possible reasons for uncontrolled asthma before starting or adjusting medicines for asthma. For example: alternative diagnoses or comorbidities; suboptimal adherence; suboptimal inhaler technique; active or passive smoking (including e-cigarettes); psychosocial factors; seasonal factors; environmental factors (such as air pollution and indoor mould exposure)

Symptom relief

MART

Maintenance therapy



For guidance on dosages for paediatric low-dose ICS, see [inhaled corticosteroid doses for the BTS, NICE and SIGN asthma guideline](#)

In **November 2024**, no asthma inhalers were licensed for MART in children under 12, so use would be off-label

i **Uncontrolled asthma:** Any exacerbation requiring oral corticosteroids **or** frequent regular symptoms (such as using reliever inhaler 3 or more days a week or night-time waking 1 or more times a week)

ICS, inhaled corticosteroid; LABA, long-acting beta₂ agonist; LTRA, leukotriene receptor antagonist; MART, maintenance and reliever therapy (using ICS/formoterol combination inhalers); SABA, short-acting beta₂ agonist.

Table 2. ICS dosages for children aged 5 to 11 years

	Paediatric low dose	Paediatric moderate dose	Paediatric high dose
Beclometasone dipropionate			
Standard particle metred dose inhalers	100 to 200 micrograms per day in 2 divided doses	300 to 400 micrograms per day in 2 to 4 divided doses	500 to 800 micrograms per day in 2 to 4 divided doses
Extra-fine particle metered dose inhalers A	100 micrograms per day in 2 divided doses	150 to 200 micrograms per day in 2 divided doses	300 to 400 micrograms per day in 2 divided doses
Budesonide			
Dry powder inhalers	100 to 200 micrograms per day as a single dose or in 2 divided doses	300 to 400 micrograms per day as a single dose or in 2 divided doses	500 to 800 micrograms per day in 2 divided doses
Ciclesonide			
Metered dose inhalers B	80 micrograms per day as a single dose	160 micrograms per day as a single dose or in 2 divided doses	240 to 320 micrograms per day in 2 divided doses
Fluticasone propionate			
Metered dose and dry powder inhalers C	100 micrograms per day in 2 divided doses	150 to 200 micrograms per day in 2 divided doses	250 to 400 micrograms per day in 2 divided doses

A Extra-fine particle CFC-free inhalers include brands such as Qvar, which are more potent than standard particle CFC-free inhalers.

ICS	Dose		
	Low dose	Medium dose	High dose*
Combination inhalers			
Beclometasone dipropionate (extrafine) with formoterol			
Fostair MDI (Chiesi Limited)	100/6 one puff twice per day	100/6 two puffs twice per day	200/6 two puffs twice per day
Fostair NEXThaler (Chiesi Limited)	100/6 one puff twice per day	100/6 two puffs twice per day	200/6 two puffs twice per day
Budesonide with formoterol			
Spiromax (Teva Pharma B.V.)	160/4.5 one puff twice per day	160/4.5 two puffs twice per day 320/9 one puff twice per day	320/9 two puffs twice per day
Symbicort Turbohaler (AstraZeneca UK Limited)	100/6 two puffs twice per day 200/6 one puff twice per day	200/6 two puffs twice per day 400/12 one puff twice per day	400/12 two puffs twice per day
Fobumix Easyhaler (Orion Pharma UK)	80/4.5 two puffs twice per day 160/4.5 one puff twice per day	160/4.5 two puffs twice per day 320/9 one puff twice per day	320/9 two puffs twice per day
Fluticasone propionate with formoterol			
Flutiform MDI (Napp Pharmaceuticals Limited)	50/5 two puffs twice per day	125/5 two puffs twice per day	250/10 two puffs twice per day
Flutiform K-haler (Napp Pharmaceuticals UK)	50/5 two puffs twice per day	125/5 two puffs twice per day	n/a
Fluticasone propionate with salmeterol			
Seretide Accuhaler (GlaxoSmithKline UK)	100/50 one puff twice per day	250/50 one puff twice per day	500/50 one puff twice per day
AirFluSal Forspiro (Sandoz Limited)	n/a	n/a	500/50 one puff twice per day
Seretide Evohaler (GlaxoSmithKline UK)	50/25 two puffs twice per day	125/25 two puffs twice per day	250/25 two puffs twice per day
AirFluSal MDI (Sandoz Limited)	n/a	125/25 two puffs twice per day	250/25 two puffs twice per day
Aloflute MDI (Mylan)	n/a	125/25 two puffs twice per day	250/25 two puffs twice per day
Combisal MDI (Aspire Pharma Ltd)	50/25 two puffs twice per day	125/25 two puffs twice per day	250/25 two puffs twice per day
Fusacomb Easyhaler (Orion Pharma UK)	n/a	250/50 one puff twice per day	500/50 one puff twice per day
Sereflo MDI (Cipla EU Ltd)	n/a	125/25 two puffs twice per day	250/25 two puffs twice per day
Sirdupla MDI (Mylan)	n/a	125/25 two puffs twice per day	250/25 two puffs twice per day
Stalpex DPI (Orbice) (Glenmark Pharmaceuticals Europe)	n/a	n/a	500/50 one puff twice per day
Seretide Accuhaler (GlaxoSmithKline UK)	100/50 one puff twice per day	250/50 one puff twice per day	500/50 one puff twice per day
Fluticasone furoate with vilanterol			
Relvar Ellipta (GlaxoSmithKline UK)	n/a	92/22 one puff once per day	184/22 one puff once per day

* High doses should only be used after referring the patient to specialist care

For children from 5-1. Please use Combisal available in 25mcg/5mcg 25mcg/125mcg and 25mcg per 250mcg First line in the SWL formulary, cost between £10.99 to £13.50 per 120 doses

Active ingredients Fluticasone with Salmeterol

Algorithm E: Pharmacological management of asthma in children under 5

BTS, NICE and SIGN guideline on asthma

To exit full screen, press Esc

Take into account and try to address the possible reasons for uncontrolled asthma before starting or adjusting medicines for asthma. For example: alternative diagnoses or comorbidities; suboptimal adherence; suboptimal inhaler technique; passive smoking (including e-cigarettes); seasonal factors; environmental factors (such as air pollution and indoor mould exposure)

Symptom relief

Maintenance therapy

Children under 5 with suspected asthma and symptoms indicating need for maintenance therapy or severe acute episodes of difficulty breathing and wheeze

Consider 8 to 12 week trial of twice daily paediatric low-dose ICS

With a SABA

If symptoms do not resolve during trial

Check inhaler technique and adherence, whether there is an environmental source of their symptoms and review if an alternative diagnosis is likely

Refer the child to a specialist in asthma care if none of these explain treatment failure

If symptoms resolve during trial

Consider stopping ICS and SABA treatment after 8 to 12 weeks and review symptoms after a further 3 months

If symptoms recur after review or acute episode requires systemic corticosteroids or hospitalisation

Restart regular ICS. Begin at a paediatric low dose and titrate up to a paediatric moderate dose if needed

With a SABA

Consider a further trial without treatment after reviewing the child within 12 months

If asthma is uncontrolled

Consider an LTRA in addition to the ICS for a trial of 8 to 12 weeks, then stop if ineffective or side effects

With a SABA

If asthma is uncontrolled

Stop the LTRA and refer the child to a specialist in asthma care for further investigation and management

For guidance on dosages for paediatric low-dose ICS, see [inhaled corticosteroid doses for the BTS, NICE and SIGN asthma guideline](#)



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