Surrey Sussex LPC webinar

Asthma – it's time to change!

10th June 2025

Helen Marlow

Lead Respiratory Specialist Pharmacist and
NICE Medicines and Prescribing Associate
h.marlow@nhs.net

What are we going to talk about?

- Background
- What do the new NICE/BTS/SIGN guidelines say about asthma treatment – key changes?
- Preventer and reliever therapy – Benefits of AIR and MART
- Surrey Heartlands Asthma Guidelines
- Updated inhaler choices
- Tips for supporting asthma patients with their inhalers
- Key messages and Questions

Abbreviations:

ICS: Inhaled Corticosteroid; LABA: Long-acting beta$_2$ agonist; SABA : Short-acting beta$_2$ agonist;
LTRA: Leukotriene receptor antagonist; LAMA: Long-acting muscarinic receptor antagonist
DPI: Dry Powder Inhaler; pMDI: Pressurised metered dose inhaler

Definition of asthma

- Asthma is a heterogeneous disease, often characterised by **chronic airway inflammation**
- Symptoms include wheeze, cough, breathlessness and chest tightness
- **Varies over time and intensity**, with variable expiratory airflow limitation
- **Shouldn’t be defined according to mild, moderate or severe**

Why it's important to prevent asthma attacks

Patient with serious outcomes but "mild" asthma with few symptoms in preceding 3 months -16% near fatal asthma, 15-20% of asthma deaths

Prevent deaths

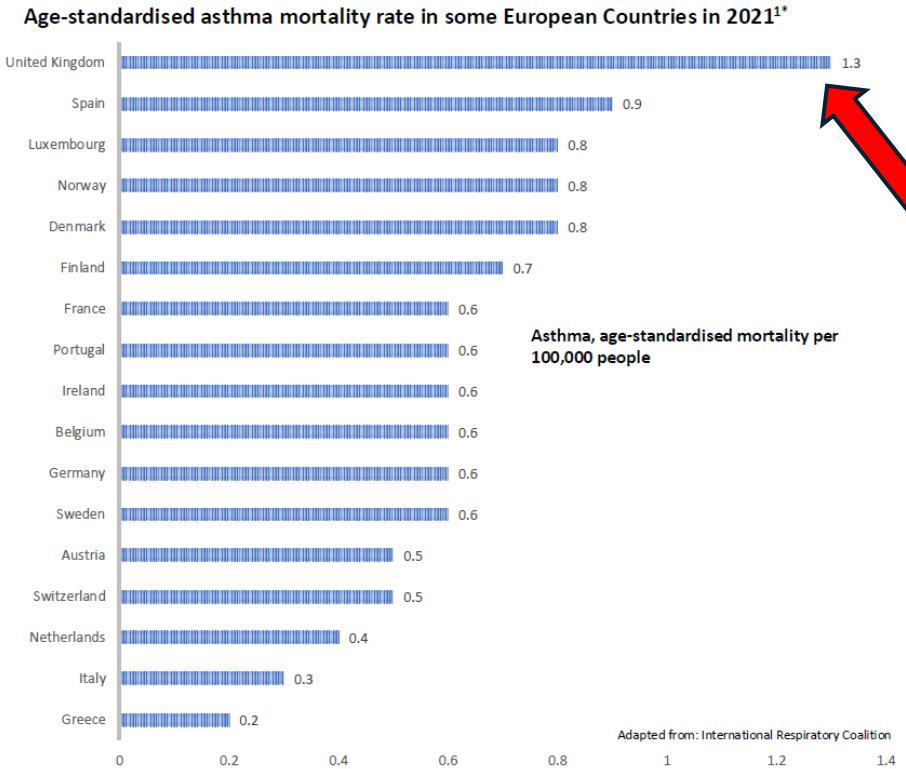
Reduce risk of attacks

Reduce risk of airway damage and loss of lung function

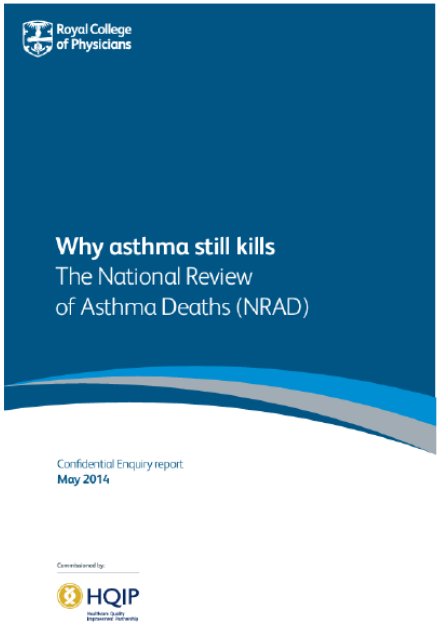
Reduce risk of side effects from systemic corticosteroids

Increases with cumulative total dose of OCS (4 to 5 courses of OCS in lifetime increases risk)

UK Asthma outcomes need improving!



It is estimated that 2/3 of the UKs asthma deaths are preventable[2]



*The mortality rate shows the number of deaths per 100,000 people within the year. The rate is age standardised, which means it provides a weighted average that controls for differing age distributions between countries.1. International Respiratory Coalition. Asthma. Available from: https://international-respiratory-coalition.org/diseases/asthma/ (Accessed Jan 2025)); 2. NRAD Royal College of Physicians (2014). Why asthma still kills. The National Review of Asthma Deaths (NRAD). Available at: https://www.rcplondon.ac.uk/projects/outputs/why-asthma-still-kills [Accessed Jan 2025]

Approach to management changed from ICS plus SABA as reliever to combined Preventer and Reliever

Adults & all Children ≥ 12 yrs
Some younger children

Traditional approach = 2 inhalers:

ICS maintenance (or ICS/LABA)
PLUS
SABA reliever (rapid short-acting)

New approach = 1 inhaler:

ICS (budesonide) maintenance (MART) or as needed (AIR)
PLUS
Formoterol reliever (rapid and long-acting)

AIR and MART

Preventer and reliever therapy in 1 inhaler = “2 in 1” inhaler

Contains: ICS low or moderate dose – budesonide* PLUS Formoterol (rapid onset and long-acting LABA) (Only 4 inhalers licensed)

*beclomethasone for > 18 yrs only

AIR anti-inflammatory reliever Low dose ICS/formoterol	**MART Maintenance and reliever** Low and moderate dose ICS/formoterol
Use as needed in response to mild and infrequent asthma symptoms without taking regular maintenance Rx	**Use daily maintenance Rx** in patients who are regularly symptomatic, with as needed doses in response to symptoms
Licensed ≥ 12 years	Licensed ≥ 12 years
5 – 11 years: Not recommended	5-11 years: Recommended, off-label use
No SABA needed as reliever	*No SABA needed as reliever** * CYP 5 – 11 years old - Can provide a SABA inhaler plus spacer for **emergency use** if concern may not be able to activate a DPI during an acute asthma attack
Use AIR specific asthma action plan	Use MART specific action plan

Useful to know:

- Average reliever doses in RCTs was 3 to 4 doses per week
- Can be used pre-exercise
- Mouth rinsing not needed after PRN dose

Why use AIR and MART?

Simple for patients:
One inhaler for prevention and relief
(1 prescription charge)

Reduces exacerbations and improves symptom control

Greener:
Uses Dry Powder Inhalers which are low carbon inhalers

Useful if compliance to regular daily dosing is a problem
i.e. teenagers

Safer - Patients can be controlled on lower doses of ICS

Can be used pre-exercise in the same way as SABA

Asthma and SABAs

NICE Asthma Guideline NG245
Do not prescribe SABA alone to any patient of any age with asthma without an ICS

- Why do patients over rely on SABA?
  - First inhaler they are given and told to use whenever has symptoms
  - Works (despite inhaler technique - buccal absorption) - especially compared with ICS
  - Rapid onset of action
  - Convenience - one inhaler they can carry round and use at will!
  - Less than 50% asthmatics take ICS as intended (as low as 20% in some studies)
- Overuse of SABAs in asthma is associated with increased morbidity and risk of death, especially without ICS
  - Sign of uncontrolled asthma or under use of ICS
  - Risk is higher the more excess SABA is used
- Too much SABA can increase airway hyperresponsiveness, reduces bronchoprotection and reduces bronchodilator response (i.e. it does not work as well)

CYP ≥ 12 years on AIR or MART therapy should not be prescribed a SABA inhaler

SABA can be discontinued in most patients at the time they are changed to AIR or MART therapy.
For patients psychologically dependent on their SABA, a phased withdrawal over 3 months may be appropriate

Surrey Heartlands Asthma guidance

- Management of asthma in primary care pathways

Adults and Children ≥ 12 years

Children aged 5 to 11 years

Based on:

Asthma: diagnosis, monitoring and chronic asthma management (BTS, NICE, SIGN)

NICE guideline | NG245 | Published: 27 November 2024

NICE Guideline : NG245

Asthma pathway including BTS/SIGN guideline not within NICE scope: NG244

Management of Asthma in Primary Care – Pathway for adults and children > 12 years old

See NG244 for full NICE/BTS/SIGN pathway for diagnosing, monitoring and managing asthma

NHS Surrey Heartlands

Newly diagnosed asthma
Base initial treatment on level of presenting symptoms

Asthma considered poorly controlled if:
- Exacerbation requiring oral steroids
- Frequent regular symptoms i.e. using a reliever ≥3 times a week
- Night-time wakening ≥1 a week

Aim for:
- No symptoms, no limitation on exercise, no asthma attacks
- Not needing rescue medication

Mild and infrequent symptoms

If highly symptomatic or severe exacerbations

LOW-dose AIR ICS/formoterol
Taken as needed for symptom relief

LOW-dose MART ICS/formoterol
Taken as maintenance and reliever therapy

MODERATE-dose MART ICS/formoterol
Taken as maintenance and reliever therapy

Asthma uncontrolled despite good adherence?

Check **FeNO** (if available) and **blood eosinophils**

3-month trial of ADD-IN 3rd medicine:
Oral LTRA*
montelukast
Or
Inhaled LAMA*
Spiriva Respimat
*choice will depend on patient factors

No response: Stop and try alternative (LTRA or LAMA)
Improved, but still inadequate control: Continue and try both LAMA and LTRA

CONSIDER STEP DOWN: when symptoms are well-controlled and stable for ≥ 3 months

BEFORE STEPPING UP, CHECK: Diagnosis, Adherence, Triggers eliminated, Inhaler technique

Allow 8 to 12 weeks for response after adjusting treatment at any step in the pathway

If either is raised

Asthma uncontrolled

Refer to specialist in asthma care
(see next page)

Ensure all patients have a PAAP (personalised asthma action plan)

Patient review and monitoring:
Monitor asthma control at every review.
Ask about symptoms and check:
- ❑ Time off work or school due to asthma
- ❑ Reliever inhaler use
- ❑ Asthma attacks, oral corticosteroid use
- ❑ Inhaler technique and adherence
- ❑ Consider using a validated tool e.g. ACT score as part of the review
- ❑ Do not routinely monitor lung function e.g. PEF

Identify and address trigger factors:
- ❑ Active or passive smoking and vaping
- ❑ Indoor and outdoor pollution
- ❑ Occupational exposure
- ❑ Seasonal factors
- ❑ Psychosocial factors
- ❑ Co-morbidities

Existing patients with confirmed asthma diagnosis

Any patient on SABA alone, regardless of asthma control	Change to LOW-dose AIR ICS/formoterol
Uncontrolled on SABA plus:	**Consider changing to**
Any LOW dose ICS containing regimen	LOW dose MART ICS/formoterol
Any MODERATE dose ICS containing regimen	MODERATE dose MART ICS/formoterol
Any HIGH dose ICS containing regimen	Refer to specialist asthma care

ICS = inhaled corticosteroid; AIR = anti-inflammatory reliever therapy; MART = maintenance and reliever therapy; LTRA = leukotriene receptor antagonist; LAMA = long-acting muscarinic receptor antagonist; SABA –short-acting beta-agonist

Patients on existing pathway ≥ 12 years

Asthma considered poorly controlled if:

- Exacerbation requiring oral steroids
- Frequent regular symptoms i.e. using a reliever ≥3 times a week
- Night-time wakening ≥1 a week

Uncontrolled on SABA plus:	Consider changing to
Any LOW dose ICS containing regimen	LOW dose MART ICS/formoterol
Any MODERATE dose ICS containing regimen	MODERATE dose MART ICS/formoterol
Any HIGH dose ICS containing regimen	Refer to specialist asthma care

Any patient on SABA alone, regardless of asthma control	Change to LOW-dose AIR ICS/formoterol

Surrey Heartlands Preferred Asthma inhalers for adults and children > 12 years

Prescribe inhalers by brand to ensure device continuity

ICS/formoterol inhalers licensed from 12 years old

Inhaler (all contain budesonide with formoterol)	**Notes** (Green denotes low carbon inhaler)	**AIR**	**Low dose MART**	**Moderate dose MART**	**Reliever puffs**	**Maximum reliever puffs** (depends on regular MART dose)	**Maximum puffs in 24 hours** (* up to 12 puffs for short time if unwell)
Fobumix Easyhaler 160/4.5 	Cost-effective choice DPI	1 puff as needed	1 puff twice daily Or 2 puffs daily	2 puffs twice daily	1 puff as needed	6	8*
Symbicort Turbohaler 200/6 	DPI	1 puff as needed	1 puff twice daily Or 2 puffs daily	2 puffs twice daily	1 puff as needed	6	8*
DuoResp Spiromax 160/4.5 	DPI	1 puff as needed	1 puff twice daily Or 2 puffs daily	2 puffs twice daily	1 puff as needed	6	8*

- ✓ Low carbon inhalers
- ✓ Have dose counter
- ✓ DPIs require no co-ordination of breathing

Additional choices of ICS/formoterol inhalers licensed from 18 years old

Inhaler (all contain beclomethasone extra-fine particles with formoterol)	**Notes** (Green letters denotes low carbon inhaler)	**AIR**	**Low dose MART**	**Moderate dose MART***	**Reliever puffs**	**Maximum reliever puffs**	**Maximum puffs in 24 hours**
Fostair NEXThaler* 100/6 	DPI	Not licensed	1 puff twice daily	NA	1 puff as needed	6	8
Proxor* pMDI 100/6 	Equivalent to Fostair pMDI 100/6 pMDI	Not licensed	1 puff twice daily	NA	1 puff as needed	6	8

DPI = dry powder inhaler, pMDI = pressurised metered dose inhaler

* Fostair and Proxor are not licensed for MART dose 2 puffs twice a day, this is equivalent to high dose ICS

Which patients to consider for AIR or MART?

- Confirmed or highly suspicious of asthma diagnosis
- Poor adherence/forgetfulness
- Can recognise symptoms and act on them
- Confusion over reliever and preventer inhalers
- Poor inhaler technique, DPI easier to use - doesn’t need a spacer
- Frequent asthma attacks/uncontrolled asthma
- Seasonal symptoms- stepping up and down treatment as needed
- Overuse/over ordering of SABA inhalers

Which patients may not be suitable for AIR or MART ?

- Patient is unable to recognise symptoms
- Don’t have the capacity to use it when needed, and need someone else to make that decision
- Unable to understand the plan e.g. language, disability
- Unsure of diagnosis
- Struggles to use a DPI i.e. Insufficient respiratory flow, unable to handle, load and prime device

Management of Asthma in Primary Care – Pathway for children aged 5 to 11 years old

See NG244 for full NICE/BTS/SIGN pathway for diagnosing, monitoring and managing asthma

NHS Surrey Heartlands

Newly diagnosed asthma in children aged 5 to 11 years

Any child with asthma on SABA alone

Paediatric LOW-dose ICS Twice daily — **With SABA for symptom relief**

Allow 8 to 12 weeks for response after adjusting treatment at any step in the pathway

Asthma considered poorly controlled if:

- Exacerbation requiring oral steroids
- Frequent regular symptoms i.e. using a reliever ≥3 times a week
- Nighttime wakening ≥1 a week

Aim for:

- No symptoms, no limitation on exercise, no asthma attacks
- Not needing rescue medication

Ensure all patients have a PAAP (personalised asthma action plan)

Asthma uncontrolled?

Assess ability to managed MART regimen

Able to manage MART regimen

Paediatric LOW-dose MART ICS/formoterol * Taken as maintenance and reliever therapy

Asthma uncontrolled

Paediatric MODERATE- dose MART ICS/formoterol * Taken as maintenance and reliever therapy

Asthma uncontrolled

Refer to specialist in asthma care (see next page)

Unable to manage MART regimen

Paediatric LOW-dose ICS Twice daily — **Consider 3-month trial of Oral LTRA** montelukast — **With SABA for symptom relief**

STOP LTRA if ineffective or side-effects

Asthma uncontrolled

Paediatric LOW-dose ICS/LABA Twice daily (with or without LTRA) — **With SABA for symptom relief**

Asthma uncontrolled

Paediatric MODERATE-dose ICS/LABA Twice daily (with or without LTRA) — **With SABA for symptom relief**

Asthma uncontrolled

CONSIDER STEP DOWN: when symptoms are well-controlled and stable for ≥ 3 months

BEFORE STEPPING UP, CHECK: Diagnosis, Adherence, Triggers eliminated, Inhaler technique

Identify and address trigger factors:

- ❑ Active or passive smoking and vaping
- ❑ Indoor and outdoor pollution
- ❑ Seasonal factors
- ❑ Psychosocial factors
- ❑ Co-morbidities

Patient review and monitoring:

Monitor asthma control at every review. Ask about symptoms and check:

- ❑ Time off school due to asthma
- ❑ Reliever inhaler use
- ❑ Asthma attacks, oral corticosteroid use
- ❑ Inhaler technique and adherence
- ❑ Consider using a validated tool e.g. ACT score as part of the review
- ❑ Do not routinely monitor lung function e.g. PEF

* Off-label use of ICS/formoterol containing inhalers licensed for MART

ICS = inhaled corticosteroid; AIR = anti-inflammatory reliever therapy; MART = maintenance and reliever therapy; LTRA = leukotriene receptor antagonist; LAMA = long-acting muscarinic receptor antagonist; SABA –short-acting beta-agonist

Preferred inhalers for children aged 5 to 11 years old (see formulary for full list of options)

ICS containing inhalers

Inhaler	Notes (Green denotes low carbon inhaler)	Paediatric Low dose ICS
Easyhaler Budesonide 100 mcg 	DPI Cost-effective option	1 puff twice daily
Pulmicort Turbohaler 100mcg 	DPI	1 puff twice daily
Clenil Modulate pMDI plus spacer 100 mcg 	pMDI	1 puff twice daily

SABA containing inhalers (salbutamol)

Inhaler	Notes (Green denotes low carbon inhaler)	Reliever dose
Easyhaler Salbutamol 100 mcg 	DPI Cost-effective option	1 -2 puffs as needed Max 8 puffs in 24 hours
Ventolin Accuhaler 200mcg 	DPI	1 puff as needed Max 4 puffs in 24 hours
Salamol pMDI plus spacer 100mcg 	pMDI No dose counter	1- 2 puffs as needed Max 8 puffs in 24 hours

ICS/LABA containing inhalers

Inhaler	Notes (Green denotes low carbon inhaler)	Paediatric Low dose ICS/LABA	Paediatric Moderate ICS/LABA
Fobumix Easyhaler 80/4.5 mcg 	DPI Cost-effective option Contains budesonide /formoterol	1 puff twice daily	2 puffs twice daily
Symbicort Turbohaler 100/6mcg 	DPI Contains budesonide /formoterol	1 puff twice daily	2 puffs twice daily
Flutiform pMDI plus spacer 50/5 mcg 	pMDI Contains fluticasone /formoterol	1 puff twice daily	2 puffs twice daily
Seretide Evohaler plus spacer 50/25 mcg 	pMDI Contains fluticasone /salmeterol	1 puff twice daily	2 puffs twice daily

Tips for Prescribing Inhalers

- ✓ Assess child's ability to use inhaler, let them see, touch and feel the inhaler, then describe and show them
- ✓ Prescribe inhalers by brand, so patient receives correct inhaler device
- ✓ Dry powder inhalers are preferred if child can use the device
- ✓ Always prescribe pMDI with a spacer
- ✓ Prescribe inhalers with an integral dose counter
- ✓ Prescribe the same type of device to deliver preventer and reliever treatments where more than one inhaler is needed

DPI = dry powder inhaler, pMDI = pressurised metered dose inhaler, ICS = inhaled corticosteroid; SABA = short-acting beta-agonist, LABA = long-acting beta-agonist

Preferred inhalers for children aged 5 to 11 years old (see formulary for full list of options)

ICS/formoterol inhalers for MART in children aged 5 to 11 years (all off-label)

Inhaler (all contain budesonide with formoterol)	Notes (Green denotes low carbon inhaler)	Paediatric Low dose MART	Paediatric Moderate dose MART	Reliever puffs	Maximum reliever puffs*	Maximum puffs in 24 hours
Fobumix Easyhaler 80/4.5 	DPI Cost-effective choice	1 puff twice daily Or 2 puffs daily	2 puffs twice daily	1 puff as needed	4	8
Symbicort Turbohaler 100/6 	DPI	1 puff twice daily Or 2 puffs daily	2 puffs twice daily	1 puff as needed	4	8
Symbicort pMDI with spacer 100/3 	pMDI Only if child unable to use DPI	1 puff twice daily Or 2 puffs daily	2 puffs twice daily	2 puffs as needed	8	16

* Maximum dose of formoterol is 24 micrograms

Spacers devices suitable for children aged 5 to 11 years (see formulary for full list of options)

Spacer (A spacer with mouthpiece is recommended unless the patient has difficulty using spacer with a mouthpiece)	Notes
AeroChamber Plus Flow-Vu Anti-Static with medium mask child 1-5 years 	Child from 1 to 5 years Assess patient for suitable mask size if mask required.
AeroChamber Plus Flow-Vu Anti-Static youth 5+ years 	Child from 5 to 12 years
AeroChamber Plus Flow-Vu Anti-Static Adult (from 13 years) 	Use if need larger mouthpiece
Volumatic 	Child from 5 years Not compatible with all pMDIs, check before prescribing

Tips for Prescribing Spacer

- ✓ Spacers should not be regarded as interchangeable. Use the spacer device named in the Summary of Product Characteristics
- ✓ Patients using a spacer where their asthma is well-controlled should not switch between spacers.
- ✓ Different spacers may deliver different amounts of ICS, which may have implications for safety and efficacy
- ✓ Plastic spacers should be replaced at least every 12 months, but some may need changing at 6 months

Using inhalers off-label in CYP

- Only inhalers that are licensed are being recommended in CYP
  - A licensed medicine meets acceptable standards of efficacy, safety, and quality
- Prescribing is in the patient's best interests
  - NICE are recommending off-label use when there is enough evidence or experience to support the recommendation
  - This situation is common in paediatrics
- Healthcare professionals should follow relevant professional guidance. They should take full responsibility for the decision when prescribing or advising the use of off-label medicine
  - Understand the risks (off-label use of inhalers in CYP with good evidence is low risk)
- Provide information to the patient about off-label use
  - Where current practice supports the use of a medicine outside the terms of its licence, it may not be necessary to draw attention to the licence when seeking consent. However, it is good practice to give as much information as patients or carers require or which they may see as relevant
- Surrey Heartlands will have an information sheet for parents about off-label use of inhalers available shortly

References:
Drug Safety Update; MHRA: Volume 2 Issue 9 April 2009 Off-label or unlicensed use of medicines: prescribers' responsibilities - GOV.UK
NICE Making decisions using NICE guidelines | NICE guidelines | NICE guidance | Our programmes | What we do | About | NICE

Traffic light status – key changes for some inhalers

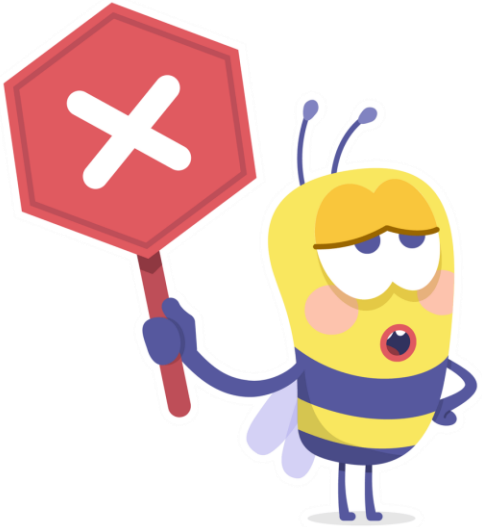
Surrey Heartlands APC May 2025

SABA	
Green	Easyhaler Salbutamol Ventolin Accuhaler Bricanyl Turbohaler Salamol CFC-free inhaler
ICS	
Green – asthma in children	ICS in single inhaler e.g. Clenil Modulite, Qvar
LABA	
Non-formulary, not for initiation in new patients	Salmeterol (Serevent), Oxis (Formoterol) etc
LAMA	
Non-formulary, not for initiation in new patients	Spiriva Handihaler
Spacers	
Green	Aero-Chamber Plus Flow-Vu - all spacers Volumatic

ICS/LABA	
Green - Preferred cost-effective ICS/formoterol DPI	Fobumix Easyhaler
Non-formulary, not for initiation in new patients	Fostair pMDI's*. Now replaced with Proxor. Most fluticasone/salmeterol containing inhalers (Seretide, Combisal, Sirdupla)
Blue – on recommendation of specialist in asthma care	*All high strength ICS/LABA* e.g. Symbicort 400/12, Fostair NEXThaler 200/6
Green – asthma in children	Seretide Evohaler 50/25 and Flutiform 50/5
ICS/LABA/LAMA	
Blue – on recommendation of specialist in asthma care	Trimbow 87/5/9, 172/5/9 Enerzair Breezhaler

*Subject to review in 2 months

Some errors we see with inhalers



Patient examples of MART prescribing

Do you know what is traditional pathway and what is MART?

Patient	Inhalers (all on repeat Rx)	Dose
A	Fostair NEXThaler 100micrograms/dose / 6micrograms/dose DPI Ventolin 100micrograms/dose Evohaler (GlaxoSmithKline UK Ltd)	Two Puffs To Be Inhaled Twice A Day One Or Two Puffs To Be Inhaled Up To Four Times A Day
B	Fostair NEXThaler 100micrograms/dose / 6micrograms/dose DPI	Inhale ONE dose TWICE daily and ONE dose when required (up to maximum of 8 doses in 24 hours)
C	Fostair 100micrograms/dose / 6micrograms/dose pMDI Salbutamol 100micrograms/dose inhaler CFC free	One to two puffs BD. Maximum of 8 puffs/day with worsening symptoms as per MART One Or Two Puffs To Be Inhaled Four Times A Day When Required
D	Clenil Modulite 100micrograms/dose inhaler Salbutamol 100micrograms/dose inhaler CFC free	Two Puffs To Be Inhaled Twice A Day Inhale Two Puffs 3 – 4 times A Day When Required
E	Seretide 125 Evohaler Ventolin 100micrograms/dose Evohaler	Two Puffs To Be Inhaled Twice A Day Two doses as required
F	Fostair 100micrograms/dose / 6micrograms/dose inhaler	Two Puffs To Be Inhaled Twice A Day

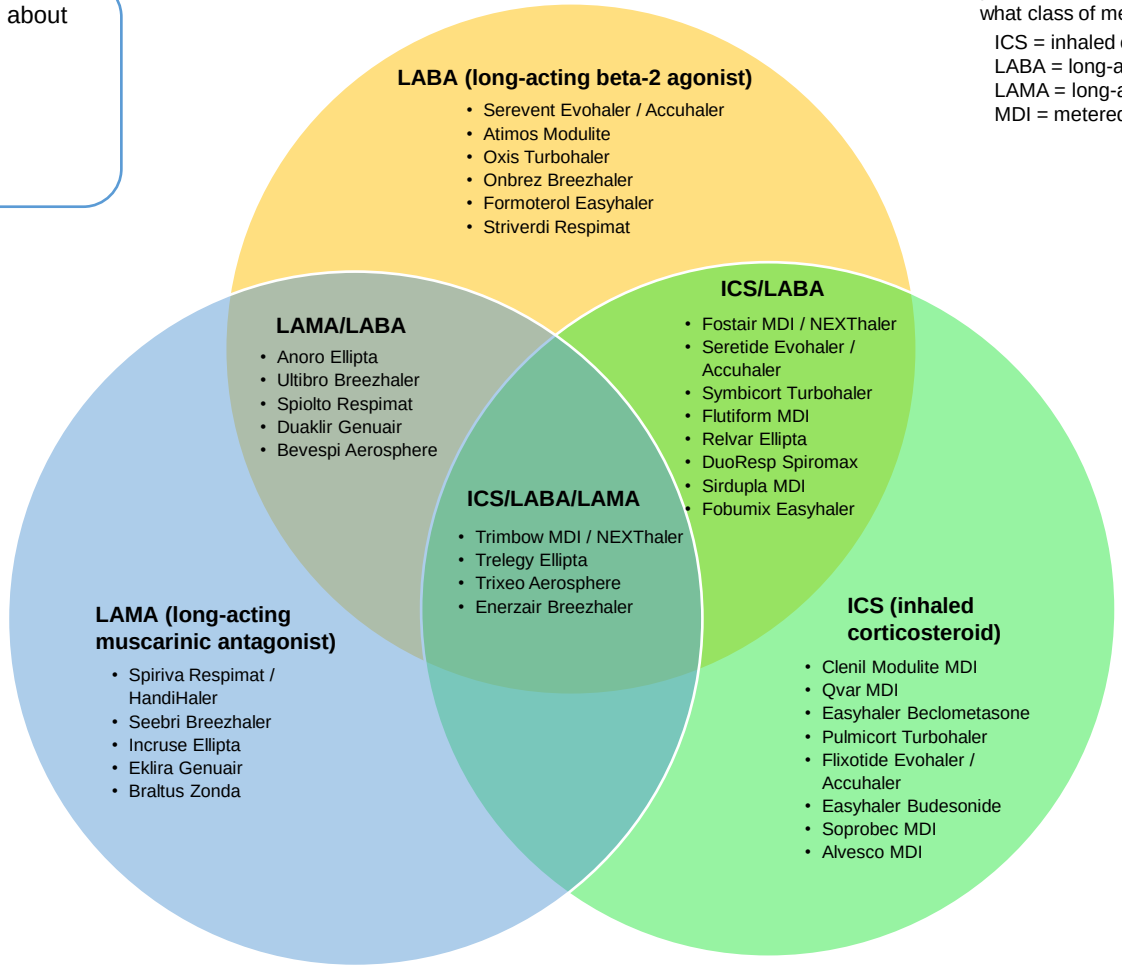
Know your Inhalers – avoid duplication!

Where to find more information about inhalers:
www.rightbreathe.com

Right Breathe

Diagram showing the brand names of commonly prescribed inhalers in Surrey Heartlands indicating what class of medicine(s) they contain:

ICS = inhaled corticosteroid;
LABA = long-acting beta-2 agonist;
LAMA = long-acting muscarinic antagonist
MDI = metered dose inhaler



Approved by MSC : May 2024

Tips for supporting asthma patients

PQS: Spacers in CYP age 5 to 15 years

- By age 5, spacer plus mouthpiece should be used
- Only use spacer with a facemask in older children when the patient is assessed as being unable to use a spacer with mouthpiece
- By age 9 or 10, child should be able to use a DPI

PQS: Patients using 3+ SABAs (no ICS) in 6 months

- Is it poor adherence or over ordering problem?
- MHRA Drug Safety Update says DO NOT prescribe SABA alone to any patient with asthma without ICS
- Patient reliance / perception of SABA can be a problem. We need to understand and address concerns

Dose counters

- SABA pMDIs and a few other ICS inhalers do not have dose counters – risk of using when empty!
- DPIs all have dose counters
- Check patient can understand / read the dose counter

What to say to patients on SABAs

- SABA pMDIs significantly contribute to our carbon footprint
- Using AIR or MART reduces the dose of ICS needed
- AIR or MART is more effective and safer
- Only one inhaler to carry round

NMS: Inhalers and inhaler technique

Aerosol (pMDI)

- Requires SLOW and STEADY inhalation (over 3-5 secs)
- Requires breath/actuation coordination OR spacer OR breath actuated device
- Good for poor inspiratory flow (very young, very old, severe disease)
- May not have dose counter

Dry powder (DPI)

- Requires QUICK and DEEP inhalation (within 2-3 secs)
- Good for people with normal inspiratory flow
- No need to shake
- Does not require spacer
- Breath actuated
- Usually has dose counter

Poor inhaler technique associated with:

- Worse **asthma** control, more exacerbations and hospital visits in **COPD**
- Up to 90% of patients show poor technique in clinical studies (varies by age group) especially with pMDIs
- 69% of HCPs do not know how to use pMDIs properly

Resources to use:

- UK Inhaler Standards and Competency Document
- Validated videos to demonstrate correct 7 steps for using inhaler (Asthma UK or Right Breathe)

- ✓ Avoid mixing different inhaler types with different technique for an individual patient, avoid mixing too many different inhaler types
- ✓ Re-check inhaler technique and retrain patients often, inhaler technique deteriorates over time, lots of patients think they are using their inhalers correctly when they are not!

Key messages

NO SABA alone for any patient with asthma

Excessive use of SABA increases risk of asthma death

AIR and MART regimens improve outcomes in asthma

Correct inhaler technique is important

Support patients to use their inhalers correctly

Know your inhalers and doses for AIR and MART

It's complicated

Support patients over reliant on SABA

Ensure all patients have an appropriate PAAP

Questions