Jointly approved by Ipswich and East Suffolk CCG, North East Essex CCG and East Suffolk and North Essex NHS Foundation Trust

Adult (≥18 years)
Asthma Quick Reference Guide

1st choice inhaler for each step is listed below. See over the page for alternative inhalers

Key Points:

- Advise patients with asthma to stop smoking – refer to One Life Suffolk/Provide for advice and support.
- Start treatment at the step most appropriate to initial severity of their asthma.
- When control is good, treatment should be decreased[1]
- Patients should receive training for each device prescribed, and be able to demonstrate satisfactory technique.[1]
- Advise patients to monitor symptoms and return to clinic if no improvement or if symptoms worsen.
- Offer annual influenza vaccination to all patients with asthma that require continuous or repeated use of **inhaled or systemic** steroids or with previous exacerbations requiring hospital admission[2].
- Offer a one-off pneumococcal vaccination to patients who require continuous or frequent repeated use of **oral** corticosteroids (i.e. at a dose equivalent to ≥20 mg prednisolone daily)[2]
- Check inhaler technique and concordance and reconsider diagnosis if response to treatment is unexpectedly poor.[1]
- Ensure patient has a self-management plan.
- Perform yearly asthma review.
- All patients using metered dose inhalers (MDIs) containing steroids should be encouraged to use a spacer device

Inhaled SABA prn should be prescribed at all steps of treatment (Salbutamol 100mcg Easyhaler or MDI 1-2 puffs prn). For those with infrequent short-lived wheeze occasional use of inhaled SABA therapy may be the only treatment required. Consider stepping up treatment if using more than three times per week.

Stepping Up?

Think C.T.T.

- Compliance
- Technique
- Trigger factors

Step 1: Add in regular ICS [BDP 400mcg/day] (Easyhaler Beclometasone 200mcg 1 puff BD or Qvar 50mcg 2 puffs BD)

Step 2: Add LABA using combination inhaler [BDP 400mcg/day] (Fostair 100/6 1 puff BD or Flutiform 50/5mcg 2 puffs BD)

Step 3: Benefit from LABA but control still inadequate, increase ICS dose in combination inhaler [BDP 800mcg/day] (Fostair 100/6 2 puffs BD or Flutiform 125/5mcg 2 puffs BD)

If absolutely no response to LABA,
Consider stopping combination device and starting regular ICS [BDP 800mcg/day] (Easyhaler Beclometasone 200mcg 2 puff BD or Qvar 100mcg 2 puffs BD)
If asthma still not controlled add either a leukotriene receptor antagonist (LTRA) (montelukast 10mg ON) or theophylline

Seek specialist advice before proceeding

Step 4: Consider trial of:

- Increasing ICS dose up to BDP 2000mcg/day (Fostair 200/6 2 puffs BD or Flutiform 250/10mcg 2 puffs BD)
- **Or** addition of either a LTRA (montelukast 10mg ON) or theophylline

On specialist recommendation only: Add in LAMA
Tiotropium Respimat 2.5mcg 2 puffs OD

Step 5: Refer to respiratory specialist

Combined maintenance and reliever therapy (FMART) can be considered for patients who have a history of asthma attacks on medium dose ICS or ICS/LABA

Stepping Down?

- Reduce ICS dose slowly
- Aim to use the lowest effective ICS dose
- Consider a treatment review every 12 weeks

Flow chart based on recommendations from the British Thoracic Society and Scottish Intercollegiate Guidelines Network[1]

	Step 1 [BDP 400-500mcg]	Step 2 [BDP 400-500mcg]	Step 3		Step 4 [BDP 1600 – 2000mcg]	Step 5
			LABA benefit but inadequate response [BDP 800 – 1000mcg]	LABA no benefit [BDP 800-1000mcg]		
Formulary options (for new initiations)	Easyhaler Beclometasone 200mcg (DPI)* 1 puff BD ** CO_2e Qvar 50mcg MDI or Autohaler (BAA) 2 puffs BD CO_2e Clenil Modulite 100mcg (MDI)* 2puffs BD CO_2e	Fostair NEXThaler 100/6 (DPI)* 1 puff BD ** CO_2e Fostair 100/6mcg (MDI)* 1 puff BD ** CO_2e Flutiform 50/5mcg (MDI)* 2 puffs BD CO_2e	Fostair NEXThaler 100/6 (DPI)* 2 puffs BD CO_2e Fostair 100/6mcg (MDI)* 2 puffs BD CO_2e Flutiform 125/5mcg (MDI)* 2 puffs BD CO_2e	Easyhaler Beclometasone 200mcg (DPI)* 2 puff BD CO_2e Qvar 100mcg MDI or Autohaler (BAA) 2 puffs BD CO_2e Clenil Modulite 200mcg (MDI)* 2 puffs BD CO_2e AND if still uncontrolled Montelukast 10mg tablets ON	**Seek specialist advice** Fostair NEXThaler 200/6 (DPI)* 2 puffs BD CO_2e Fostair 200/6 (MDI)* 2 puffs BD CO_2e Flutiform 250/10mcg* (MDI) 2 puffs BD CO_2e OR Montelukast 10mg tablets ON	**Refer to specialist**
	Use SABA as required Easyhaler Salbutamol 100mcg or Salbutamol MDI 100mcg+spacer 1-2 puffs prn **Consider stepping up if needing 3 doses or more per week**					

* Inhaler features a dose counter ** One inhaler will last for at least 2 months at this dose

Colour coded costs

Cost brackets for one year of regular treatment at specified dose.

<£150	£150 - £299
£300 - £399	>£400

Key

MDI - Metered dose inhaler
DPI - Dry powder inhaler
BAA - Breathe actuated aerosol
ICS - Inhaled corticosteroid
SABA - Short acting ß$_2$ agonist
LABA - Long acting ß$_2$ agonist
LAMA - Long acting muscarinic antagonist
LTRA - Leukotriene receptor antagonist
FMART- Fostair maintenance and reliever therapy
[BDP xxxmcg] - Equivalent dose of beclometasone dipropionate

Environmental impact of inhalers

Carbon footprint per puff

CO_2e Low (<35g CO_2e)

CO_2e High (≥35g CO_2e)

More information on the carbon impact can be found here

Complete control of asthma: The 6 measures[1]

1. No daytime symptoms
2. No night-time awakening due to asthma
3. No need for rescue medication
4. No exacerbations
5. No limitation on activity including exercise
6. Normal lung function (FEV1 and/or PEF>80% predicted or best

With minimal side-effects

High dose steroids

[BDP>800mcg daily]

Ensure patient has:

- a steroid card
- a spacer device (patients using an MDI only)

Environmental Disposal of inhalers

More carbon emissions are released when inhalers, even empty ones, are disposed of in a landfill site compared to incineration. Patients should be encouraged to return inhalers to their pharmacy for incineration.

Spacer devices (for MDI devices only)

- Replace device every 12 months
- Use either Space Chamber Plus compact (dishwasher safe) or Aerochamber Plus
- Flo-tone device (a mini spacer with training whistle) is available in primary care to encourage correct pMDI use

Useful resources:

- IESCCG Asthma action plans
- Asthma UK patient resources and action plans
- High dose steroid cards order form
- Primary Care Respiratory Society (PCRS-UK)

Criteria for specialist referral in adults[1]

- Prominent systemic features (myalgia, fever, weight loss)
- Unexplained restrictive spirometry
- Suspected occupational asthma
- Monophonic wheeze or stridor
- Chronic sputum production
- Chest X-ray shadowing
- Severe asthma exacerbation
- Unexpected clinical findings (i.e. crackles, clubbing, cyanosis)
- Persistent non-variable breathlessness
- Poor response to asthma treatment/ uncontrolled at step 4
- Persistently raised eosinophil count
- Diagnosis unclear
- 3 or more courses of prednisolone in 1 year

Produced by the Medicines Management Team, IESCCG in collaboration with NEECCG and ESNEFT v2.0 Approved by SNEEAPC Feb 2022 Review Feb 2024

References:

1. British Thoracic Society and Scottish Intercollegiate Guidelines Network (SIGN). British Guideline on the Management of Asthma. Published May 2008; last revision July 2019.
2. Department of Health. The Green Book - Immunisation against infectious disease. Chapter 19 Influenza (last updated October 2020) and Chapter 25 Pneumococcal (last updated January 2020).
3. National Institute for Health and Clinical Excellence (NICE). Clinical Knowledge Summaries (CKS) – Asthma. Last updated October 2020. Accessed via http://www.cks.nhs.uk
4. PrescQIPP Bulletin 295: Inhaler Carbon Footprint. Attachment 1. Inhaler Carbon Footprint Data 2.4. Accessed 19/11/21