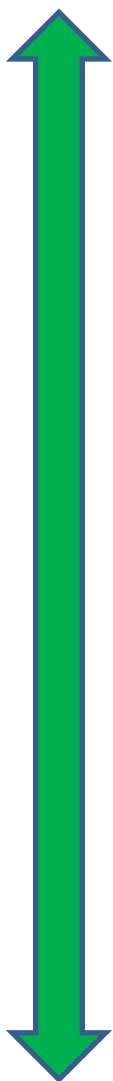


The Pharmacological management of stable asthma in adults

Most
Cost
Effective



Least
Cost
Effective

PRN therapy	Regular preventer (low dose ICS)	Initial add-on therapy (LABA/Low dose ICS)	Additional add-on therapy (LABA/medium dose ICS)	High-dose (ICS) therapies	Continuous or frequent use of oral steroids
Salbutamol 100mcg/dose inhaler (MDI) 2 puffs prn £21.90	400 – 500mcg BDP equivalent/day: Clenil Modulate 100mcg/dose inhaler (MDI) 2 puffs bd £54.17	400 – 500mcg BDP equivalent/day: Flutiform 50/5 inhaler (MDI) 2 puffs bd £175.20	800mcg BDP equivalent/day: DuoResp 320/9 Spiromax (DPI) 1 puff bd £364.63	1600mcg BDP equivalent/day: DuoResp 320/9 Spiromax (DPI) 2 puffs bd £729.27	
Salbutamol 100mcg/dose dry powder inhaler (DPI) 2 puffs prn £48.33	Easyhaler beclometasone 200mcg/dose (DPI) 1 puff bd £54.49	Fostair 100/6 inhaler (MDI) 1 puff bd £178.36	Symbicort 200/6 Turbohaler (DPI) 2 puffs bd £462.33	Symbicort 400/12 Turbohaler (DPI) 2 puffs bd £924.67	
Salbutamol 200mcg/dose dry powder inhaler (DPI) – 1 puff prn: Ventolin Accuhaler £87.60	Qvar Easi-Breathe 50mcg/dose (BAAI) 2 puffs bd £56.50	Fostair NEXThaler 100/6 (DPI) 1 puff bd £178.36	Symbicort 400/12 Turbohaler (DPI) 1 puff bd £462.33	2000mcg BDP equivalent/day: Fostair 200/6 inhaler (MDI) 2 puffs bd £356.73	
Salbutamol 100mcg/dose breath actuated inhaler (BAAI) 2 puffs prn £91.98	Qvar 50mcg/dose inhaler (MDI) 2 puffs bd £57.45	DuoResp 160/4.5 Spiromax (DPI) 1 puff bd £182.32	1000mcg BDP equivalent/day: Flutiform 125/5 Inhaler (MDI) 2 puffs bd £340.67	Fostair NEXThaler 200/6 (DPI) 2 puffs bd £356.73	
Terbutaline Turbohaler 500mcg/dose (DPI) 1 puff prn £101.03	Qvar Autohaler 50mcg/dose (BAAI) 2 puffs bd £57.45	Seretide 50 Evohaler (MDI) 2 puffs bd £219	Fostair 100/6 inhaler (MDI) 2 puffs bd £356.73	Relvar Ellipta 184/22 (DPI) 1 puff od £358.92	
	Easyhaler budesonide 200mcg/dose (DPI) 1 puff bd £64.64	Seretide 100 Accuhaler (DPI) 1 puff bd £219	Fostair NEXThaler 100/6 (DPI) 2 puffs bd £356.73	Aerivio 500/50 Spiromax (DPI) 1 puff bd £364.63	
	Fluticasone 50mcg/dose evohaler (MDI) 2 puffs bd £66.19	Symbicort 200/6 Turbohaler (DPI) 1 puff bd £231.17	Seretide 250 Accuhaler (DPI) 1 puff bd £425.83	Seretide 500 Accuhaler (DPI) 1 puff bd £497.86	
	Budesonide Turbohaler 200/dose (DPI) 1 puff bd £86.43	Symbicort 100/6 Turbohaler (DPI) 2 puffs bd £401.50	Seretide 125 Evohaler (MDI) 2 puffs bd £425.83	Flutiform 250/10 Inhaler (MDI) 2 puffs bd £554.31	
	Fluticasone 100mcg/dose accuhaler (DPI) 1 puff bd £130.43		Relvar Ellipta 92/22 (DPI) 1 puff od £267.67	Seretide 250 Evohaler (MDI) 2 puffs bd £723.67	
			Add-on therapies: Leukotriene receptor antagonist (LTRA) – 1 st line cost effective LTRA option is generic montelukast 10mg tablets one at night £20.99 Long acting muscarinic antagonist (LAMA) – the only licensed LAMA option in asthma currently is tiotropium in the form of Spiriva Respimat 2 puffs od £279.83		

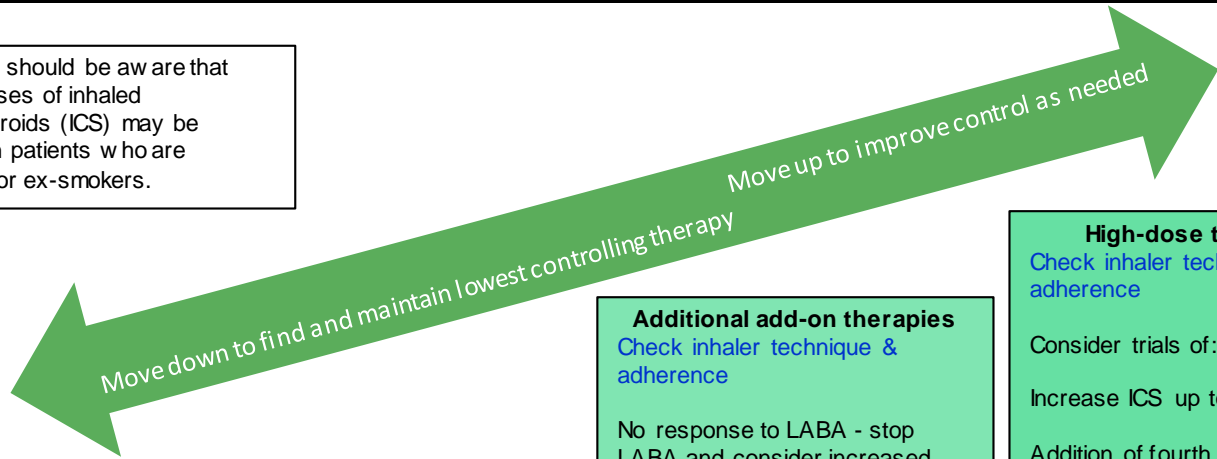
- MDI** – Metered dose inhaler
- DPI** – Dry powder inhaler
- BAAI** – Breath actuated aerosol inhaler
- BDP** – Beclometasone dipropionate.

Doses quoted are BNF adult doses.
Costs based on quoted doses over 365 days (without a spacer). Prices from Drug Tariff January 2017 & dm+d

The Pharmacological management of stable asthma in adults

Asthma - suspected	Asthma - diagnosed
Diagnosis and assessment	Evaluation: •assess symptoms, measure lung function, check inhaler technique and adherence •adjust dose •update self-management plan •move up and down as appropriate •eliminate trigger factors (where possible)

Clinicians should be aware that higher doses of inhaled corticosteroids (ICS) may be needed in patients who are smokers or ex-smokers.



Consider monitored initiation of treatment with low dose ICS

Infrequent, short-lived wheeze

Regular preventer
Check inhaler technique & adherence

Low -dose ICS

MDI:
Qvar 50mcg p2bd
Clenil 100 p2bd

DPI:
Easyhaler 200 p1bd (beclomethasone or budesonide)

Initial add-on therapy
Check inhaler technique & adherence

Add inhaled LABA to low-dose ICS (normally as combination inhaler)

MDI:
Fostair 100/6 p1bd
Flutiform 50/5 p2bd

DPI:
Fostair NEXThaler 100/6 p1bd
DuoResp 160/4.5 p1bd

Additional add-on therapies
Check inhaler technique & adherence

No response to LABA - stop LABA and consider increased dose of ICS

If benefit from LABA but control still inadequate – continue LABA and increase ICS to medium dose (if control still inadequate consider trial of other therapy – LTRA, SR theophylline, LAMA)

MDI:
Fostair 100/6 p2bd
Flutiform 125/5 p2bd

DPI:
Fostair NEXThaler 100/6 p2bd
DuoResp 320/9 p1bd

Once daily option (useful for poor adherence): Relvar 92/22 p1od

High-dose therapies
Check inhaler technique & adherence

Consider trials of:

Increase ICS up to high dose

Addition of fourth drug e.g. LTRA, SR theophylline, SR beta 2 agonist tablet, LAMA

If asthma still uncontrolled refer patient to a respiratory specialist

MDI:
Fostair 200/6 p2bd
Flutiform 250/10 p2bd *

DPI:
Fostair NEXThaler 200/6 p2bd,

Relvar 184/22 p1od

Continuous or frequent use of oral steroids

Patient should be under the ACTIVE CARE of a respiratory specialist

Check inhaler technique & adherence

Use daily steroid tablet in the lowest dose providing adequate control

Maintain high-dose ICS

Consider other treatments to minimize use of steroid tablets

Preferred products listed above (if a patient cannot use or declines listed inhalers then alternative products in recommended classes are available – choice of product should be based on BTS/SIGN asthma guideline). Please prescribe inhalers **by BRAND** where possible.

* Other options are significantly more cost effective (see costs sheet)

Short acting beta 2 agonists (salbutamol 100mcg/dose MDI is 1st line cost effective option) as required – consider moving up if using three doses a week or more