Pan Mersey Asthma Management Guidelines For Adults in Primary Care

(18 years and over)

Metered Dose Inhaler Device MDI

Dry Powder Inhaler Device DPI

- This is intended as an adjunct to the British guideline on the management of asthma, to incorporate inhaled therapy recommended by Pan Mersey APC, considering cost effectiveness and local prescribing patterns. NICE guidance differs in part.
- Assess device suitability to guide choice of treatment, tailored to the individual patient's needs (see guidance on reverse). **Where patient has difficulty with inhaler devices, consider suitability of device over drug choice within that drug class. Products other than those listed below are included in the Pan Mersey Formulary and may be used where necessary.**
- Review efficacy of changes in treatment after 2-3 months.
- All patients taking regular or frequent oral steroids must be under specialist services at local hospitals/community services.
- See Pan Mersey guidance on when to issue a Steroid Treatment Card to a patient on an inhaled corticosteroid .
- **Branded prescribing of all ICS/LABA will ensure patients receive the same device each month.**

Good practice point: Check inhaler technique and concordance prior to stepping up treatment.

Move up to improve control - move down to find and maintain lowest controlling therapy

Regular preventer

Add Inhaled corticosteroid (ICS) **low dose** 400mcg/day beclometasone equivalent

Beclometasone (Clenil®) 100mcg MDI
2 puffs BD 200 doses
Spacer: Space Chamber plus

Budesonide 200mcg Easyhaler®
1 puff BD 200 doses

If concordance is an issue and the patient requires a once daily product, consider Budesonide Easyhaler® 400mcg in the evening (dry powder; 100 doses).

Initial add-on therapy – Add in LABA (normally as a combination inhaler)

LABA should not be used without ICS.

Beclometasone (fine particle)/ Formoterol (Fostair©) **100/6** MDI
1 puff BD *120 doses*
Spacer: *Space Chamber plus*

Budesonide/Formoterol (Fobumix®) 160/4.5 Easyhaler ®
1 puff BD 120 doses

Additional add-on therapies:

- 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** 400mcg/ day fine particle beclomethasone equivalent.
- Consider MART (see overleaf)

If benefit from LABA but control still inadequate-continue LABA and ICS and consider trial of other therapy- LTRA, SR theophylline, LAMA

Beclometasone (fine particle)/ Formoterol (Fostair©) 100/6 MDI
2 puff BD *120 doses*
Spacer: *Space Chamber plus*

Budesonide/Formoterol (Fobumix®) 320/9 Easyhaler®
1 puff BD 60 doses

High dose therapies

If still poorly controlled consider trials of:

- Increase total ICS to high dose 800mcg/ day fine particle beclometasone equivalent)

Beclometasone (fine particle)/ Formoterol (Fostair©) **200/6** MDI
2 puffs BD *120 doses*
Spacer: Space Chamber plus

Budesonide/Formoterol (Fobumix®) 320/9 Easyhaler®
2 puffs BD
60 doses
Note 2 devices needed for 1 month supply

- Seek specialist advice
- Sometimes an ICS/LABA AND an ICS are co-prescribed by th specialist long-term
- Addition of a fourth drug, e.g. LTRA, SR theophylline, LAMA

If concordance is an issue and the patient requires a once daily product to aid control, consider **Fluticasone furoate/Vilanterol (Relvar©) 184/22 Ellipta one puff once daily** as an alternative. (dry powder; 30 doses)

****Continue therapy as per secondary care advice****

Short-acting B2 agonist as required: "Reliever"

Reliever and regular preventer should ideally both be DPI or both MDI to aid technique

Consider moving up if using 3 doses a week or more

Salbutamol 100mcg MDI
2 puffs PRN 200 doses

Salbutamol 100mcg Easyhaler®
2 puffs PRN *200 doses*

Reliever inhaler should be part of maintenance regimen when needed, irrespective what other therapy the patient is on (except when using a MART regimen (see overleaf). A well-controlled asthmatic should have maximum 2 relievers in a 12-month period. Review control if more are needed.

The aim of asthma management is control of the disease. Complete control of asthma is defined as:

- no daytime symptoms
- no night-time awakening due to asthma
- no need for rescue medication
- no exacerbations
- no limitations on activity including exercise
- normal lung function (in practical terms FEV_1 and/or PEF>80% predicted or best).
- minimal side effects from medication

Abbreviations used in this guideline:
MDI: metered dose inhaler
DPI: dry powder inhaler
SABA: short acting beta agonist
LABA: long acting beta agonist
ICS : inhaled corticosteroid
BDP: beclometasone diproprionate
LRTA: leukotriene receptor antagonist
MART: Maintenance and reliever therapy

Inhaled Corticosteroid, Device and Brand	Equivalent Dose
These dosage equivalents are approximate and will depend on other factors such as inhaler technique.	
Beclometasone	200mcg
Clenil® MDI	200mcg
Dry powder inhalers; Easyhaler®, Asmabec®	200mcg
QVAR® devices	100mcg
Fostair® MDI / Nexthaler® (with LABA)	100mcg
Budesonide	200mcg
Easyhaler® (Fobumix with LABA), Turbohaler®, Symbicort® (with LABA), Duoresp® (with LABA)	200mcg
Fluticasone propionate	100mcg
Flixotide Evohaler®, AirFluSal®/Combisal® /Sereflo®/Sirdupla® MDI (with LABA)	100mcg
Fluticasone fuorate	**Not published**
Relvar® (with LABA)	unknown

Spacer Devices
(Volumatic®, Space Chamber Plus/ Plus Compact®).
Spacer devices can be used with MDI inhalers for patients to improve lung deposition of drug:

- MDI+spacer more effective than MDI alone and as effective as any DPI (replace spacer every 12months). The spacer should be compatible with the MDI being used.
- The drug should be administered by repeated single actuations (at least 30 secs apart) of the metered dose inhaler into the spacer, each followed by inhalation.
- There should be minimal delay between MDI actuation and inhalation.
- Tidal breathing is as effective as single breaths.
- Spacers should be cleaned monthly rather than weekly as per manufacturer's recommendations or performance is adversely affected. They should be washed in detergent and allowed to dry in air. The mouthpiece should be wiped clean of detergent before use.
- If patient unwilling to use spacer with MDI switch to DPI device.

For more detailed information on asthma management, see:
http://www.brit-thoracic.org.uk www.asthma.org.uk

For review of asthma control please see methods listed in table 7
https://www.brit-thoracic.org.uk/document-library/clinical-information/asthma/btssign-asthma-guideline-2016/

Maintenance and Reliever Therapy (MART)

- Beclometasone/Formoterol (Fostair®) 100/6 MDI
  1 puff BD AND 1 puff PRN (max 8 puffs/24hours)
  120 doses

- Budesonide/Formoterol (Fobumix® Easyhaler) 160/4.5)
  2 puffs OD – 2 puffs BD AND 1 puff PRN (max 8-12 puffs/ 24 hours)
  120 doses

Some poorly controlled adult asthmatics over 18 years who have a history of asthma attacks on medium dose ICS or ICS/LABA will benefit from using an inhaled corticosteroid and a long-acting $beta_2$ agonist for the prophylaxis of asthma regularly (twice daily) and when needed (as a reliever, instead of a short acting bronchodilator). Preferred LABA/ICS are Fostair 100/6 MDI and Fobumix® Easyhaler 80/4.5 or 160/4.5
Patients should be carefully selected for this regime and appropriate education should be given. These patients do not need a SABA (except in exercise induced asthma) and concordance should be good with ICS/LABA. When starting this treatment, the total regular daily dose of inhaled corticosteroid should not be reduced. Patients must be carefully instructed on the appropriate dose and management of exacerbations before initiating this therapy. Patients requiring frequent daily use of Fostair 100/6 MDI or Fobumix® Easyhaler 160/4.5 as a reliever should have their maintenance treatment reviewed regularly.