Version 1.13
Dec 2015

East Lancashire Health Economy Adult Asthma Guidelines

East Lancashire Health Economy Medicines Management Board
www.elmmb.nhs.uk NHS

Aim to control asthma, defined as:

- No daytime symptoms
- No night time awakening due to asthma
- No need for rescue medications
- No exacerbations
- No limitations on activity including exercise
- Normal lung function
- With minimal side effects

BTS/SIGN

RCP 3 Questions to assess Asthma Control

1. Have you had difficulty sleeping because of your symptoms?
2. Have you had any asthma symptoms during the day?
3. Has your asthma interfered with your usual activities?

Yes to any of the above questions = uncontrolled asthma

Prescribing Tips

- Use the lowest effective doses to achieve control
- Review patients regularly, considering step *up* and step *down* according to patient's asthma control
- Remember fluticasone and Qvar/Fostair (fine particle BDP) are twice as potent as Clenil (large particle BDP)
- When using inhaled steroids (ICS) consider *total daily steroid load* (including intranasal, topical and oral steroids taken)
- A spacer device is recommended when using a metered dose inhaler (MDI). Visit ELMMB information for more details.
- Check inhaler technique and adherence to medicine regimen at each appointment and/or before any change in treatment
- The lowest cost product that is suitable for an individual should be used
- Provide patients with personalised asthma action plans
- Prescribe Combination ICS/LABA inhaler by **BRAND**

STEP UP and STEP DOWN

Step 1 — Short-acting β2-agonist (SABA)

Salbutamol MDI 100micrograms 2 puffs as required (spacer device recommended)

Alternatives: Salbutamol Easyhaler DPD
or
Bricanyl (Terbutaline) Turbohaler DPD

Criteria for stepping-up treatment

- If using salbutamol **more than twice** a week,
- Experiencing symptoms more than twice a week,
- Waking one night a week or more,
- Had an exacerbation in the last 2 years

Step 2 — SABA plus inhaled corticosteroid (ICS)

Clenil MDI (beclometasone) 100mcg 2 puffs twice a day
or
QVAR MDI or Easibreathe (ultrafine beclometasone) 50 mcg 2 puffs twice a day
or
Pulmicort Turbohaler DPD (budesonide) 200 mcg 1 puff twice a day

If patient is not controlled:

- Confirm diagnosis of asthma
- Check inhaler technique
- Check adherence to treatment

If still not controlled move up to step 3a before increasing ICS dose

Step 3a — SABA plus ICS plus Long-acting ß2-agonist (LABA) *Use combined ICS/LABA inhaler*

Review control at ONE month

Stable dosing	SMART or MART* regimen (>18 years of age)
Fostair 100/6 (Ultrafine beclometasone/formoterol) MDI or NEXThaler 1 puff twice a day via spacer (>18yrs only) or DuoResp spiromax*b 160/4.5 (budesonide/formoterol) 1 puff twice a day	DuoResp spiromax160/4.5 1 puff twice a day (increased if necessary to 2 puffs twice a day) plus extra puffs as required (A total daily dose of up to 12 inhalations could be used for a limited period. Patients using >8 inhalations daily should be strongly recommended to seek medical advice or Fostair 100/6 MDI 1 puff twice a day plus extra puffs as required (max 8 puffs daily)

If still symptomatic

Step 3b

Fostair 100/6 MDI or NEXThaler 2 puffs twice a day via spacer (>18yrs only)
or
DuoResp spiromax160/4.5*b 2 puffs twice a day

In rare cases if no response to LABA

Step 3c

STOP combination inhaler and increase inhaled corticosteroid dose:
Qvar or Qvar Easibreathe (ultrafine beclometasone) 100 microgram 2 puffs twice a day or
Pulmicort (Budesonide) Turbohaler 200 micrograms 2 puffs twice a day
and consider introduction of:
Leukotriene Receptor Antagonist (LTRA): Montelukast 10mg at night (<15 years 5mg at night)
Theophylline: Uniphyllin Continus 200mg twice a day (adjust according to theophylline levels)

Step 4 — SABA + ICS + LABA (if responded) + Additional Therapy

Refer to respiratory physician

Increase ICS to 2000 micrograms (beclometasone or equivalent) a day

- **1st line - Fostair 200/6 MDI or NEXThaler - 2 puffs twice a day**
- 2nd Line - DuoResp Spiromax 320/9 micrograms - 2 puffs twice a day or Qvar or Qvar Easibreathe 100 4 puffs BD (if patient not responded to LABA at step 3)

Additional Therapy

- Montelukast 10mg at night (<15 years 5mg at night) or Uniphyllin 200mg twice a day (adjust according to theophylline levels)

* **SMART**– Single Maintenance and Reliever Therapy or **MART**- Maintenance and Reliever Therapy *b delivered dose stated equivalent to 200/6 metered dose

East Lancashire Health Economy

Adult Asthma Guidelines - Further Information

Uncontrolled asthma?

Asthma control is often made worse by influences other than the disease process. Rather than simply increasing medication there may be other areas to address including:

- Check inhaler technique at every review — ask patient to demonstrate. Prescriber is responsible for ensuring patient can use the device.
- Check medication adherence. Is the patient taking the medicines as prescribed? Review prescribing history to see if it is consistent with the amount the patient should have taken. Remember if asthma is controlled patients should need no more than *two* salbutamol / terbutaline inhalers in a year
- Review / confirm asthma diagnosis
- Is the patient a smoker? Refer for smoking cessation. Smokers may need higher doses of ICS for therapeutic effect
- Advise on removal of possible trigger factors
- Diagnose and manage any differential diagnosis or co-existing conditions. Rhinitis and asthma co-exist in many patients.
- Check for medicine side-effects
- Consider occupational asthma, especially in adult onset allergic rhinitis or asthma

Patient Education

- All patients with asthma should receive self-management education and a written personalised asthma action plan. These have been shown to improve asthma outcomes (Gibson, et al. Cochrane Database Syst Rev, 2003; **Asthma UK asthma plan available at http://www.asthma.org.uk/advice-personal-action-plan**
- Be aware of those patients with specific needs
- Advise on:
  - ⇒ When, why and how to take their medicines
  - ⇒ Correct inhaler technique
  - ⇒ Avoidance of known trigger factors
  - ⇒ Recognising poor control

(Less than 50% of people use their medicines as prescribed)

Exercise induced asthma

Exercise induced symptoms are a marker of poorly controlled asthma. If symptoms occur manage according to treatment guideline

Refer for Specialist Review

- If diagnosis is unclear
- If patient is resistant to treatment (not responding after escalation to step 3 i.e. ≥ beclometasone 800 microgram/day or equivalent)
- If patient experiences a severe asthma exacerbation or admission to hospital for asthma

Criteria for stepping down

- Stable patients should not be left on high doses of ICS that may cause long term harm.
- Guidelines suggest that doses can be reduced by 25-50% every 3 months for stable patients while maintaining symptom control
- After treatment is stepped down the patient should have their treatment reviewed within 6-8 weeks
- Stepping down should be explained to the patient and be part of their personalised asthma action plan.

Seretide® Inhalers

These are currently not included in the ELMMB Formulary for adults >18 years (http://www.elmmb.nhs.uk)
For 12-18 year olds at Step 3 who cannot use Symbicort Turbohaler, Fostair is not licensed. Alternative choices are therefore Seretide 50 MDI 2 puffs BD at Step 3a and Seretide 125 2 puffs BD at Step 3b.

Risks associated with high dose inhaled corticosteroid (ICS)

The risk of systemic adverse effects from ICS is dose related. For adults, low to moderate doses represent little or no risk but, high-dose therapy has been directly linked to adverse effects such as skin thinning, bruising, osteoporosis, diabetes and adrenal suppression. Patients on high dose ICS should be reviewed regularly.

Approximately 85% of patients with asthma can be controlled on doses ≤800 micrograms/day of ICS.

Approximate equivalent doses of Inhaled Corticosteroids (ICS)

800 micrograms large particle Beclometasone (Clenil) =

400 micrograms ultrafine beclometasone (Qvar/Fostair) =

800 micrograms budesonide via dry powder inhaler =
400 micrograms fluticasone

Updated: Dec 2015 **Review date:** Jan 2017
Developed by: East Lancashire CCG Medicines Management in conjunction with Dr R Green, Dr S Baksi, Dr I Hafeez of East Lancashire Hospitals Trust.

Acknowledgement: Leicestershire and Rutland Respiratory Prescribing Group. Based on National asthma management guidelines — British Thoracic Society / Scottish Intercollegiate Guidelines Network Oct 2104

STEP	Drug / Dose	Annual Cost (£)
1	Salbutamol MDI (based on 2 puffs QDS)	£21.84
	Salbutamol easyhaler (2 puffs QDS)	£49.19
	Terbutaline Turbohaler (1 puff QDS)	£100.76
2	Qvar 50mcg 2 puffs BD	£57.29
	Qvar easibreathe 50mcg 2 puffs BD	£56.34
	Pulmicort Turbohaler 100mcg 1 puff BD	£86.20
	Clenil 100mcg 2 puffs twice a day	£54.02
3a	Fostair 100/6 (MDI / NEXThaler) 1 puff BD	£177.87
	Symbicort turbohaler 200/6/ 1 puff BD	£230.53
	DuoResp spiromax160/4.5 1 puff BD	£182.32
3b	Symbicort turbohaler 200/6 2 puffs BD	£461.07
	Fostair 100/6 (MDI / NEXThaler) 2 puffs BD	£355.75
	DuoResp spiromax160/4.5 2 puffs BD	£364.64
4	Fostair 200/6 (MDI / NEXThaler) 2 puffs BD	£355.75
	Symbicort 400/12 2 puffs BD	£912.00
	DuoResp Spiromax 320/9 2 puffs BD	£729.27

Prescribe Combination Inhalers By Brand To Ensure Correct Device Is Dispensed