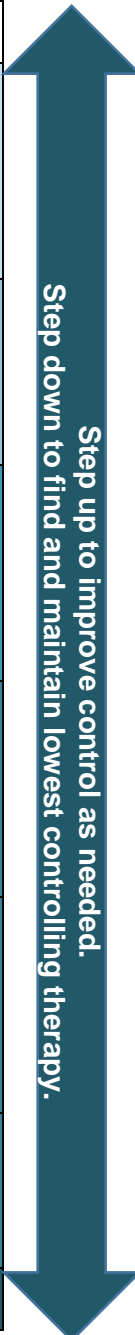


## Treatment of Chronic Asthma in Adults

|  | Metered Dose Inhaler (MDI) plus spacer device   | Alternative device device (only if patient can't use standard MDI)   | Notes  |  |
|--|---|--|--|--|
| Continue relief SABA as required or SMART / MART therapy   | <p>Prior to diagnosis</p> <p><b>Short acting <math>\beta</math>2 agonist (SABA) as required</b> (unless using SMART / MART – see below)</p> | <p><b>Salbutamol inhaler 100 mcg/dose</b><br/>2 puffs as required via an EasyChamber spacer</p>  | <p><b>Easyhaler Salbutamol 100mcg/dose (breath actuated DPI)</b><br/>2 puffs as required</p> <p><b>Airomir Autohaler 100mcg/dose (breath actuated MDI)</b><br/>2 puffs as required</p> | Consider stepping up if using three doses a week or more   |
|  | <p>Step 1 (diagnosis confirmed) - Regular preventer</p> <p><b>Low-dose inhaled corticosteroid (ICS)</b></p>                                 | <p><b>Soprobec (or Clenil Modulite*) 100mcg/dose</b><br/>2 puffs BD via a Volumatic spacer</p> <p><b>Kelhale (or Qvar*) 50mcg/dose</b><br/>2 puffs BD via an EasyChamber spacer</p>  | <p><b>Qvar Easi-Breathe 50mcg/dose (breath actuated MDI)</b><br/>2 puffs BD</p>  | <p>Kelhale contains extra fine particles and is approximately twice as potent as Soprobec/Clenil Modulite.<br/>*indicates a brand supplied from BTUH only</p>  |
|  | <p>Step 2 - Initial add-on therapy</p> <p><b>Add inhaled LABA to low-dose ICS (LABA/low dose ICS)</b></p>                                   | <p><b>Fostair 100/6 (beclometasone/formoterol)</b><br/>1 puff BD via an EasyChamber spacer</p>   | <p><b>Fostair NEXThaler 100/6 (DPI) (beclometasone/formoterol)</b><br/>1 puff BD</p> <p><b>Symbicort 200/6 Turbohaler (DPI) (budesonide/formoterol)</b><br/>1 puff BD</p>              |  |
|  | <p>Step 3 - Additional controller therapies</p> <p><b>Step 3a: Increase ICS to medium dose (LABA/medium dose ICS)</b></p>                   | <p><b>Fostair 100/6 (beclometasone/formoterol)</b><br/>2 puffs BD via an EasyChamber spacer</p>  | <p><b>Fostair NEXThaler 100/6 (DPI) (beclometasone/formoterol)</b><br/>2 puffs BD</p> <p><b>Symbicort 200/6 Turbohaler (DPI) (budesonide/formoterol)</b><br/>2 puffs BD</p>            |  |
|  | <p><b>If no response to LABA, consider stopping LABA and continue medium dose ICS</b></p>   | <p><b>Soprobec (or Clenil Modulite*) 200mcg/dose</b><br/>2 puffs BD via a Volumatic spacer</p> <p><b>Kelhale (or Qvar*) 100mcg/dose</b><br/>2 puffs BD via an EasyChamber spacer</p> | <p><b>Qvar Easi-Breathe 100mcg/dose (breath actuated MDI)</b><br/>2 puffs BD</p> <p><b>Easyhaler Beclomethasone 200mcg/dose (DPI)</b><br/>2 puffs BD</p>                               |  |
|  | <p><b>OR Step 3b: Add LTRA to (LABA/low dose ICS)</b></p>   | <p><b>Montelukast 10mg tablets</b><br/>1 ON<br/>Prescribe generically</p>  |  | <p>September 2019 MHRA Alert: Prescribers should be alert for neuropsychiatric reactions in patients taking montelukast and carefully consider the benefits and risks of continuing treatment if they occur.</p> |
| <p><b>Step 4 - Refer patient for specialist care and initiation of specialist therapies if not controlled/frequent exacerbations, including treatment with high dose ICS (Relvar Ellipta) or theophylline.</b></p> |   |  |  |  |



### Aim of Treatment

The aim of asthma management is complete control of the disease, 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<sub>1</sub> and/or PEF >80% predicted or best)
- minimal side effects from medication

### Stepwise Approach

1. Start treatment at the step most appropriate to initial severity
2. Achieve early control
3. Maintain control by:
  - stepping up treatment as necessary
  - stepping down when control is good

Before initiating a new drug or changing therapy, check compliance with existing treatment, check satisfactory inhaler technique and eliminate trigger factors.

### Stepping Down

- Patients should be maintained at the lowest effective dose of ICS to achieve control
- Review and consider reducing ICS dose every 3 months by approximately 25-50% each time.
- After treatment is stepped down the patient should have their treatment reviewed within 6-8 weeks

### SMART / MART therapy

- SMART: Symbicort Maintenance and Reliever Therapy. Symbicort 200/6 as a rescue medication (a total daily dose of more than 8 inhalations is not normally needed; however, a total daily dose of up to 12 inhalations could be used for a limited period), with no salbutamol.
- MART: Maintenance and Reliever Therapy. Fostair inhaler and NEXThaler (100/6 only) can be used as a rescue medication (maximum total daily dose of 8 inhalations), with no salbutamol.
- Both require careful patient education and quantity of inhalers used should be monitored.
- Please note this is only suitable for use in asthma, and not COPD.

### Regular review and assessment

- Assess asthma control using a validated questionnaire such as the Royal College of Physicians '3 Questions'
- Identification of risk factors
- Assessment of inhaler technique and reassessment
- Review high use of SABA inhalers (more than 6 inhalers/year) which is associated with an increased risk of asthma death, particularly when adherence to ICS is low (National Review of Asthma Deaths)
- Optimisation of medicines
- Provision of an agreed personalised asthma action plan that the patient understands and will use, including step up and step down advice ([www.asthma.org.uk](http://www.asthma.org.uk))
- Offer smoking cessation advice and education
- Offer annual influenza vaccination

### Spacer devices

- Improves lung deposition, aids co-ordination, reduces oropharyngeal deposition and local side effects
- Recommended cost effective spacer devices compatible with the following MDI:

| MDI                 | EasyChamber spacer | Volumatic spacer |
|---------------------|--------------------|------------------|
| Salbutamol/Ventolin | ✓                  | ✓                |
| Clenil Modulite     | ✓                  | ✓                |
| Soprobec            | ✗                  | ✓                |
| Kelhale             | ✓                  | ✗                |
| Qvar                | ✓                  | ✗                |
| Fostair             | ✓                  | ✗                |

- Should be replaced at least every 12 months
- Should be washed monthly in detergent and allow to air dry

### Resources

- Asthma UK: [www.asthma.org.uk](http://www.asthma.org.uk)
- RightBreathe for training videos and inhaler information: [www.rightbreathe.com](http://www.rightbreathe.com)
- Primary Care Respiratory Society: [www.pcrs-uk.org](http://www.pcrs-uk.org)
- BTS/SIGN British Guideline on the Management of Asthma: [www.brit-thoracic.org.uk/quality-improvement/guidelines/asthma/](http://www.brit-thoracic.org.uk/quality-improvement/guidelines/asthma/)

|                      |  |
|----------------------|--|
| <b>Title</b>         | Treatment of Chronic Asthma in Adults  |
| <b>Reference</b>     | BTS/SIGN British Guideline on the Management of Asthma (July 2019): <a href="http://www.brit-thoracic.org.uk/quality-improvement/guidelines/asthma/">www.brit-thoracic.org.uk/quality-improvement/guidelines/asthma/</a>   |
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