

LLR Adult Asthma Guideline (≥18 years)

This guideline is for adults with a confirmed diagnosis of asthma. If asthma is suspected, use the Asthma Diagnosis algorithm available on PRISM. There are **2 options** for treatment once asthma is diagnosed: (1) the **flexible regimen**, derived from evidence-based recommendations from GINA 2023 (Global Strategy for Asthma Management and Prevention) and is the preferred LLR pathway or (2) the traditional regimen which involves separate relievers and preventers as per BTS/SIGN and NICE asthma guidelines

Very few patients will have mild asthma symptoms. Start here **only** if: **ASTHMA SYMPTOMS LESS THAN TWICE A MONTH**

START HERE:
Low dose ICS and reliever for majority of patients **ASTHMA SYMPTOMS ≥ TWICE A MONTH**

Medium dose ICS/LABA combination THEN
Consider adding **Montelukast 10mg nocte, +/- Spiriva 2.5mcg Respimat 2 doses OD**

SEVERE ASTHMA (see notes) REFER TO SECONDARY CARE

FLEXIBLE REGIMEN

ICS/LABA AS NEEDED (ANTI-INFLAMMATORY RELIEVER [AIR])

Dry powder Inhaler (DPI) First Line	Fobumix 160/4.5 Easyhaler 1 dose PRN or Fostair 100/6 NEXThaler 1 dose PRN or Symbicort 200/6 Turbohaler 1 dose PRN
Aerosol If DPI not suitable	Luforbec 100/6 MDI 1 dose PRN via EasyChamber spacer

ICS/LABA MAINTENANCE & RELIEVER THERAPY (MART)

Dry powder Inhaler (DPI) First Line	Fobumix 160/4.5 Easyhaler 1 dose BD plus 1 dose PRN Fostair 100/6 NEXThaler 1 dose BD and 1 dose PRN or Symbicort 200/6 Turbohaler 1 dose BD plus 1 dose PRN
Aerosol If DPI not suitable	Luforbec 100/6 MDI 1 dose BD plus 1 dose PRN via EasyChamber spacer

MAINTENANCE & RELIEVER THERAPY (MART)

Dry powder Inhaler (DPI) First Line	Fobumix 160/4.5 Easyhaler 2 doses BD plus 1 dose PRN or Fostair 100/6 NEXThaler 2 doses BD and 1 dose PRN or Symbicort 200/6 Turbohaler 2 doses BD plus 1 dose PRN
Aerosol If DPI not suitable	Luforbec 100/6 MDI 2 doses BD plus 1 dose PRN via EasyChamber spacer

HIGH dose ICS/LABA combination

Dry powder Inhaler (DPI) First Line	Fobumix 320/9 Easyhaler 2 doses BD* or Fostair 200/6 NEXThaler 2 doses BD or Symbicort 400/12 Turbohaler* 2 doses BD plus Easyhaler Salbutamol 100 1-2 doses PRN * prescribe 2 x 60 doses / month
Aerosol If DPI not suitable	Luforbec 200/6 MDI 2 doses BD via EasyChamber spacer plus Salamol MDI 100mcg 1-2 doses PRN via EasyChamber spacer

NB: ICS/formoterol as a reliever alone (without maintenance ICS/formoterol) is licensed only for Symbicort Turbohaler, but off-licence use for Fobumix Easyhaler, Fostair NEXThaler/ MDI and Luforbec MDI endorsed by RPG #

Fostair / Luforbec is licensed for maximum 8 doses/24 hours. **Fobumix/Symbicort** > 8 doses/24 hours is not normally needed; however up to 12 doses could be used for a limited period. If patients use > 8 doses daily it is strongly recommended they seek medical advice. No more than 6 inhalations should be taken on any single occasion.

CONFIRM DIAGNOSIS and STEP UP and STEP DOWN TREATMENT ACCORDING TO ASTHMA CONTROL

TRADITIONAL REGIMEN

All patients with asthma should be treated with an inhaled corticosteroid (ICS); using short-acting bronchodilator (SABA) e.g. salbutamol monotherapy is now outdated and no longer acceptable

REGULAR LOW DOSE ICS PLUS SABA

Dry powder Inhaler (DPI) First Line	Budesonide 200 Easyhaler 1 dose BD or Pulmicort 200 Turbohaler 1 dose BD plus Easyhaler Salbutamol 100 1-2 doses PRN
Aerosol If DPI not suitable	Qvar 50 MDI 2 doses BD via EasyChamber spacer or Qvar 50 Easibreathe 2 doses BD plus Salamol 100 MDI 1-2 doses PRN

REGULAR LOW DOSE ICS/LABA AND SABA
Consider changing to MART therapy for all patients (see above)

Dry powder Inhaler (DPI) First Line	Fobumix 160/4.5 Easyhaler 1 dose BD or Fostair 100/6 NEXThaler 1dose BD or Symbicort 200/6 Turbohaler 1 dose BD plus Easyhaler Salbutamol 100 1-2 doses PRN
Aerosol If DPI not suitable	Luforbec 100/6 MDI 1 dose BD via EasyChamber spacer plus Salamol 100mcg MDI 1-2 doses PRN via EasyChamber spacer





















REGULAR MEDIUM DOSE ICS/LABA + SABA
Consider changing to MART therapy for all patients, **THEN** consider adding Montelukast/Spiriva Respimat (see above)

Dry powder inhaler (DPI) First Line	Fobumix 160/4.5 Easyhaler 2 doses BD or Fostair 100/6 NEXThaler 2 doses BD or Symbicort 200/6 Turbohaler 2 doses BD plus Salbutamol 100 Easyhaler 1-2 doses PRN
Aerosol If DPI not suitable	Luforbec 100/6 MDI 2 doses BD via EasyChamber spacer plus Salamol 100mcg MDI 1-2 doses PRN via EasyChamber spacer

At each review:
Assess symptoms, *measure* lung function, check and *optimise* inhaler technique and adherence.
Adjust therapy by stepping up and down treatment (move across). If patients are using their reliever medicine or experiencing symptoms *more than twice a week and/or waking once a week or more*, escalate treatment by moving across (up) the algorithm. Remember to update the patient's personalised self-action plan accordingly

Inhaler shelf-life - Fobumix Easyhaler (after opening the foil wrapping, use within 4 months, Luforbec MDI (3 months at room temperature), Fostair Nexthaler (after opening the pouch use within 6 months)

ASTHMA INHALER CHOICE FORMULARY GUIDE

	FLEXIBLE REGIMEN		TRADITIONAL	
<p>Dry powder Inhaler (DPI) First Line</p> 	<p>Fobumix 160/4.5 Easyhaler</p> <p>or</p> <p>Fostair 100/6 NEXThaler</p> <p>or</p> <p>Symbicort 200/6 Turbohaler</p>	  	<p>Budesonide 200 Easyhaler</p> <p>Pulmicort 200 Turbohaler</p> <p>Fobumix 160/4.5 + 320/9 Easyhaler</p> <p>Fostair 100/6 + 200/6 NEXThaler</p> <p>Symbicort 200/6 + 400/12 Turbohaler</p> <p>Easyhaler Salbutamol 100</p>	     
<p>Aerosol If DPI not suitable</p>	<p>Luforbec 100/6 MDI via spacer device EasyChamber</p>	 	<p>Qvar 50 MDI via spacer device EasyChamber</p> <p>Qvar 50 Easibreathe</p> <p>Luforbec 100/6 + 200/6 MDI via spacer device EasyChamber</p> <p>Salamol 100 MDI via spacer device EasyChamber</p>	       
<p>FLEXIBLE ICS/LABA PRESCRIBING</p> <ul style="list-style-type: none"> • Most of the evidence for MART and AIR is with DPI inhalers – recommend to prescribe first line • If MDI prescribed a spacer device must be provided/used • MART: at initiation prescribe 2 inhalers – one to use BD and one PRN • Ensure prescribing templates allow patients to order PRN ICS/LABA. Monitor prescription and review if >3 extra/year • Use read codes for single inhaler maintenance and reliever therapy 				

Inhalers – THINK GREEN see [LLR APC Green Inhaler](#)

The NHS has set the target of reaching net zero by 2040 for the greenhouse gas emissions which it can control ('NHS Carbon Footprint'). Inhalers are included in this scope and account for approximately 13% of the carbon footprint related to delivery of care. To reduce the carbon footprint of inhaler prescribing:


- Optimise asthma care following national guidelines.
- Offer dry powder inhalers (DPI) or soft mist inhalers as first choice where clinically appropriate.
- Check and optimise inhaler technique. Use [How to use your inhaler | Asthma UK](#) videos
- Ask patients to return all used or unwanted inhalers to community pharmacies for disposal by incineration or re-cycling.

7 steps to Optimise Inhaler Technique

- 1 Prepare the inhaler device.
- 2 Prepare or load the dose.
- 3 Breathe out gently as far as is comfortable, not into the inhaler.
- 4 Tilt the chin up slightly and put the mouthpiece in your mouth and close your lips around it.
- 5 Breathe in: for Aerosol (e.g. pMDI, (SMI) - Slowly and steadily, /and for Dry Powder Inhaler (DPI) - Quickly and deeply.
- 6 Remove the inhaler from your mouth and hold your breath for up to 10 seconds or for as long as possible.
- 7 Wait a few seconds then repeat steps 1-6 for a second dose, if needed. Close inhaler/replace lid as appropriate.

ADDITIONAL MEDICINES

Spiriva 2.5mcg Respimat
Limited benefit in asthma patients with normal lung function



FURTHER INFORMATION

AIM OF TREATMENT

To control the disease with minimal side-effects. Asthma control is 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

Use ACT to assess and monitor asthma control - In the past 4 weeks

1. How much of the time did your asthma keep you from getting as much done at work, school or home?				
1. <i>All of the time</i>	2. <i>Most of the time</i>	3. <i>Some of the time</i>	4. <i>A little of the time</i>	5. <i>None of the time</i>
2. How often have you had shortness of breath?				
1. <i>More than once a day</i>	2. <i>Once a day</i>	3. <i>3 to 6 times a day</i>	4. <i>Once or twice a week</i>	5. <i>Not at all</i>
3. How often did your asthma symptoms (wheezing, coughing, shortness of breath, chest tightness or pain) wake you up at night or earlier than using in the morning?				
1. <i>4 or more nights a week</i>	2. <i>2 or 3 nights a week</i>	3. <i>Once a week</i>	4. <i>Once or twice</i>	5. <i>Not at all</i>
4. How often have you used your rescue inhaler (such as salbutamol)?				
1. <i>3 or more times a day</i>	2. <i>1 or 2 times per day</i>	3. <i>2 or 3 times per week</i>	4. <i>Once a week or less</i>	5. <i>Not at all</i>
5. How would you rate your asthma control during the past 4 weeks?				
1. <i>Not controlled at all</i>	2. <i>Poorly controlled</i>	3. <i>Somewhat controlled</i>	4. <i>Well controlled</i>	5. <i>Completely controlled</i>

Asthma symptom control is best assessed using a validated tool = ACT questions (but you must also assess other features of poor control [box 1])

ACT<20 = uncontrolled

CONSENSUS PATHWAY FOR MANAGING UNCONTROLLED ASTHMA IN ADULTS

Adapted from:
<https://www.healthinnovationoxford.org/our-work/respiratory/asthma-biologics-toolkit/aac-consensus-pathway-for-management-of-uncontrolled-asthma-in-adults/>

1. Indicators of Uncontrolled asthma

- (i) Over previous 12 months (any of):**
- ≥ 2 courses OCS for asthma
 - ≥ 1 hospital admission/ED for asthma
 - >3 SABA or PRN ICS/LABA prescribed
 - Poor symptom control (as assessed RCP/ACT)
 - RCP as above /ACT<20
 - persisting daytime symptoms e.g. >2x/week, or nocturnal waking due to asthma in the previous 2 weeks,
 - persisting airflow obstruction on spirometry (FEV1/FVC <70%, and/or FEV1 <80% predicted)
- (ii) On maintenance OCS for asthma**

Prescribing Tips

KEY: SABA (Short-acting beta-agonist); ICS (Inhaled corticosteroid), LABA (Long-acting beta-agonist). MDI (metered dose inhaler). DPI = drv powder inhaler

- Review patients regularly, frequency depending on control (at least annually).
- Use the lowest effective ICS (+/-LABA) doses to achieve and maintain control – step down.
- Remember Qvar/Luforbec (extra fine particle beclometasone) are 2.5 times as potent as Clenil (non-extra-fine beclometasone).
- **High** doses of ICS may cause long term harm. If the patient is well controlled and stable then consider reducing the dose.
- When using ICS consider total daily steroid load (including intranasal, topical, and oral steroids). Issue a steroid emergency card to patients as per guidance.
- A spacer device is mandatory when using a metered dose inhaler (MDI) for **all** ages.
- **All people should receive education and a written personalised Asthma Action Plans** [your-asthma-plan-a4-trifold-digital-july22.pdf](#) {available in GP clinical systems, access through Asthma Checklist Template).
- Check inhaler technique and adherence to medicine regimen (check prescription issues) at each appointment and/or before any change in treatment. Consider referring patients to the community pharmacist for a New Medicine Service review.
- Ensure your patient has had the annual flu vaccination, Covid-19 vaccination.
- Check for occupational asthma “Does your breathing get better during weekends/holidays?”
- All patients still smoking, should be encouraged to stop, and offered help to do so at every opportunity.

2. Primary Care

- Identification of patients with uncontrolled asthma
- Diagnostic confirmation
- Clinical optimisation
- Review and optimise inhaler technique and adherence
- Review biomarkers: blood eosinophil count
- Step up/down treatment as above
- Consider other factors including **smoking**, mental health disease, physical activity, weight management, social influences
- Identify and manage co-morbidities including nasal symptoms (rhinorrhoea, post nasal drip, nasal blockage, loss of taste and smell), GORD
- Refer patients by 6 months (or sooner) if remain uncontrolled

3. Secondary Care

- Diagnostic confirmation and phenotyping
- Treatment optimisation
- Additional investigations as needed
- Identification and management of co-morbidities (e.g. breathing pattern disorder, vocal cord dysfunction (ILO), deconditioning and obesity and other pathologies i.e. bronchiectasis, sarcoid, smoking-related COPD, hypersensitivity pneumonitis etc.
- Referral to Leicester Severe Asthma Service

4. Severe Asthma Service

Severe Asthma is currently defined by the level of treatment intensity, and applies to anyone receiving high dose ICS/LABA therapy, once other co-factors/co-morbidities have been addressed and optimised

- Diagnostic confirmation and phenotyping
- Co-morbidity management through MDT (including SALT, psychologist)
- Adherence support and treatment optimisation (including initiation of biologic medicines if appropriate)