Management of Chronic Asthma in Adults

(Diagnosis is not covered by this guidance) Refer to BTS/SIGN 2016 and NICE NG80 Guidance

NHS West Essex Clinical Commissioning Group

Key principles of treatment:

- Start treatment at level most appropriate to initial severity
- Achieve early control and maintain at lowest inhaled steroid dose
- Maintain control by increasing treatment as necessary and decreasing treatment when control is good.

Royal College of Physicians (RCP) 3 questions (YES to any question = UNCONTROLLED ASTHMA)

In the last month:

1. **Have you had difficulty sleeping because of your asthma symptoms (including cough)?**
   (Good control = No nocturnal symptoms)
2. **Have you had your usual asthma symptoms during the day (cough, wheeze, chest tightness, or breathlessness)?**
   (Good control = No daytime symptoms, no asthma attacks, no need for rescue medication)
3. **Has your asthma interfered with your usual activities (e.g. housework, work/school, etc)?**
   (Good control = No limitation on activity including exercise)

The above should be in combination with minimal side effects from treatment.

Ensure routine clinical review at least annually. Review after 4-8 weeks at each step up/down. If asthma uncontrolled, check diagnosis, inhaler technique (and correct if necessary), adherence, use of rescue medication, lung function, exposure to smoking & triggers, side effects and suitability of treatment.

Use of SABA alone: Many patients with asthma will require a low dose ICS at diagnosis. However, use of SABA alone may be appropriate for those with infrequent, short-lived wheeze and normal lung function

STEP 1

LOW DOSE ICS (see 'Use of SABA alone' box)

With SABA for symptom relief MDI: Salbutamol (Ventolin) Inhaler OR DPI: Salbutamol Easyhaler

STEP 2

Is there evidence of mild asthma with normal lung function and an association with any of the following?

1. Allergy or atopic disease with sensitivity to environmental or occupational triggers e.g. Pollen, pets or dust
2. Eczema
3. Allergic rhinitis
4. Aspirin induced asthma
5. Exercise induced bronchoconstriction

YES → **Add LTRA (montelukast) to low dose ICS**

With SABA for symptom relief

NO → **Add LABA to low dose ICS as a combination inhaler**

IMPORTANT Review 4-8 weeks

If symptoms uncontrolled STOP LTRA and switch to LABA. (LTRA may continue with ICS/LABA if there has been a reasonable response)

MART – Fostair®/Duoresp Spiromax®/Symbicort®) Appropriate for patients on **Step 2 (Low dose ICS) or 3 (medium dose ICS)** with a Personal Asthma Action Plan (PAAP), able to self-manage and are compliant with their own treatment and whose symptoms are uncontrolled on maintenance only treatment with ICS/LABA using SABA as reliever. **Click here for licensed regimes**

STEP 3

(a) If no response to LABA, stop and increase to medium dose ICS
(b) If benefit from LABA but control still inadequate, continue LABA and increase to medium dose ICS.
(c) If benefit from LABA but control still inadequate, continue LABA and ICS and consider trial of add-on therapy LTRA, SR Theophylline, LAMA (Specialist initiation ONLY)

CONSIDER REFERRAL TO COMMUNITY RESPIRATORY SERVICE

With SABA for symptom relief

STEP 4

Consider trial of increasing ICS upto high dose

SIMULTANEOUS REFERRAL TO COMMUNITY RESPIRATORY SERVICE FOR SPECIALIST CARE

Consider adding 4th drug: LTRA, SR Theophylline, β_2 agonist, LAMA

With SABA for symptom relief

STEP 5

Continuous or frequent use of oral steroids

With SABA for symptom relief

SABA as required at all steps - Consider stepping up treatment if using ≥THREE DOSES A WEEK (ONE DOSE = 2 puffs)
URGENT intervention required if ≥ 3 SABA inhalers are used over a 12 month period. Frequent use = POOR CONTROL

Step up to improve control as needed AND Step down to find and maintain lowest controlling therapy
Follow link to Step Down guidance

Abbreviations

SABA – Short-acting beta$_2$ agonist
ICS – Inhaled corticosteroid
LTRA – Leukotriene receptor antagonist
LABA – Long acting beta agonist
LAMA – Long acting muscarinic antagonists
MART – Maintenance and reliever

Click here for formulary product choices (choices bolded)

Preventative measures

Ensure administration of annual influenza vaccination

Offer stop smoking support and reinforce benefits

Consider weight loss interventions for overweight adults

Patient Safety

Inhaled Corticosteroid Safety

- ICS safety is of crucial importance. Assess benefits versus risks for each individuals needs
- Consider **total daily steroid load**, including intranasal, topical and oral, and assess systemic risk.
- Ensure patient is aware of benefits and risks of ICS
- Patients should be maintained at the lowest possible dose of inhaled corticosteroid.
- Steroid cards should be issued to patients on high dose ICS (≥ 1000mcg beclomethasone dipropionate (BDP)equivalent daily)
- Local side effects: dysphonia & oral candidiasis - Minimised by use of spacer with MDI followed by rinsing mouth after inhalation. Systemic side effects of high dose includes adrenal suppression, diabetes, skin thinning, bruising, osteoporosis and tuberculosis
- Smoking reduces the effects of ICS; higher doses may be required in smokers and ex-smokers
- Raise concerns if <12 ICS inhalers are collected per year.

Use of Combinations LABA/ICS Inhalers

- Use a **combination** ICS/LABA in clinical practice to improve adherence and guarantee that LABA is not taken without the ICS.
- Choice of preparation is based upon severity of asthma, device assessment and cost
- Prescribe by BRAND

Step UP and Step DOWN

Use the RCP or ACT questions https://www.asthma.com/additional-resources/asthma-control-test.html to assess asthma control.

If asthma is uncontrolled, consider STEPPING UP **Think TTT**	If asthma has been controlled for at least 3 months consider STEPPING DOWN
Before initiating new treatment or stepping up, review: • Asthma diagnosis • Compliance /adherence with existing Therapy • Inhaler Technique • Eliminate Trigger factors (smoke, dust, mites, pets etc)	See **Guidelines on Stepping Down ICS in Asthma** • Inhaled steroids can be reduced slowly by 25-50% every 3 months for stable patients. Patients deteriorate at different rates • Review every 4-8 weeks. Step patient up again if symptomatic. • High dose ICS may cause long-term harm. Review regularly. • Stepping down should be explained to patient and be part of PAAP

Patient Education

Personalised Asthma Action Plans (PAAP)

All diagnosed asthma patients should be provided individual, self-management written guidance in the form of a PAAP. **Examples from Asthma UK**

Should contain:

- Current treatment regime and good inhaler technique
- Symptom triggers and what to avoid to maintain good control.
- Recognising poor control/exacerbations/asthma attacks
- How to increase reliever and maintenance therapy or MART with worsening symptoms and when to start steroids and seek (urgent) medical attention.
- Best PEFR, how to recognise decline and adjust treatment

  PEF >80% best: good control

  PEF 40-60% best: urgent action: commence oral steroids and seek medical advice

  PEF <40%: call 999

Inhaler Technique

- Provide training on the use of the device and ensure good technique. Consider use of placebo inhaler for training.
- pMDI with spacer is as effective as any DPI but choice should be based upon patient preference and assessment of correct use.
- Be consistent with device choice (DPI or MDI); prescribing mixed inhaler can lead to confusion and increased errors
- Consider use of inhaler training tool (Incheck®) to correct inspiratory flow rate
- Asthma UK OR RightBreathe.com for training videos for inhaler technique.
- Use community pharmacy New Medicines Service (NMS) and Medicines Use Review (MUR) at each review
- Check adherence with therapy at every opportunity.
- Choose an alternative device if technique remains a problem

Drug delivery

Spacers

- Improves lung deposition, aids co-ordination, reduces orpharyngeal deposition and local side effects
- Should be compatible with the MDI being used:

pMDI	Compatible with……	
	Volumatic®	AeroChamber Plus®
AirFlusal®	✓	✓
Clenil®	✓	×
Flutiform®	×	✓
Fostair®	×	✓
QVAR®	×	✓
*Sereflo®	✓	✓
Sirdupla®	×	✓
Ventolin®	✓	✓

*The 125/25mcg device is not licensed but is exactly the same as the 250/25mcg strength and hence fits both spacers.

- Should be replaced at least every 12 months
- Should be washed monthly in detergent and allow to air dry.
- Patients should use the same make of spacer device as switching between spacer devices can result in changes in the dose delivered to the lungs

MART (Maintenance and reliever therapy) Regime (LINK)

Treatment in which a single inhaler, containing both ICS and a fast-acting LABA, is used for both daily maintenance therapy and the relief of symptoms as required.

- The total regular dose of ICS should not be decreased
- Patients taking regular (once a day or more), rescue doses of their combination inhaler should have their treatment reviewed
- The use of a separate reliever inhaler (SABA) is not required.
- **Careful education of patients about the specific issues around this management strategy is required.**

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