Joined Up Care Derbyshire

NHS Derby and Derbyshire Integrated Care Board

Step-down guidance: Stepping-down combination ICS/LABA asthma inhaler therapy: Adults ≥17yrs

Important

Complete asthma control needs to be achieved for at least 12 weeks before attempting to step patients' down[2,3]. Stepping patients down before 12 weeks of complete asthma control can lead to exacerbations and hospital admissions. Table 1 defines the levels of asthma control.

NICE guidance[2] recommends that clinicians should stop or reduce the dose of medicines in an order that takes into account their clinical effectiveness when introduced, side effects and the patient's preference. This local step-down guidance only refers to inhaled corticosteroid(ICS)/long-acting beta agonist(LABA) inhalers, but other drugs (e.g. montelukast, tiotropium) may be stopped first if deemed appropriate.

When stepping patients down or switching therapy, prescribers should keep device changes to a minimum and consider the beclometasone dipropionate (BDP) equivalence of different inhaled corticosteroids[2,3,4]. Table 2 demonstrates the variation in BDP equivalence across different inhaled corticosteroids. Once stable, consider changing to a dry powder inhaler (DPI) (1st line).

What do the guidelines say about stepping-down inhaled corticosteroids?

Reductions should be considered every three months, but only if patients have complete asthma control[1,2]. When reducing inhaled corticosteroids (ICS) clinicians should remember that patients deteriorate at different rates.

Options for stepping-down:

1. Reduce the ICS by 25-50% whilst continuing the LABA at the same dose
2. Half the daily dose of combination treatment, although this approach is more likely to lead to loss of asthma control as it involves a reduction in the ICS and LABA doses

British Thoracic Society (BTS) guidance advises combination devices may increase adherence to therapy[1]. As LABA monotherapy can increase the risk of asthma-related deaths, prescribers should consider each patient on an individual basis taking into account patient preference, therapeutic need and the likelihood of adherence with all asthma therapy. Any decision should be taken after having a full discussion with the patient covering the potential consequences, such as a reappearance of symptoms and what to do if they occur[1].

If control is maintained after stepping-down, further reductions in the ICS should be attempted. The dose of ICS should be adjusted to achieve the lowest dose required for effective asthma control[2].

Table 1: LEVELS OF ASTHMA CONTROL[1]

Assessment of current clinical control (preferably) over 4 weeks

(Consider using the Asthma control questionnaire (ACQ) or the Asthma control test (ACT) to assess symptom control)

Characteristic	Completely Controlled	Partly Controlled	Uncontrolled
Daytime symptoms more than twice per week	None of these	1-2 of these	3-4 of these
Any activity limitation due to asthma			
Any night waking due to asthma			
Reliever needed more than twice per week			

Table 2: VARIATIONS IN BDP EQUIVALENCE

Inhaled Corticosteroid	Equivalence beclometasone dipropionate (BDP)/day
Beclometasone – Clenil®/Soprobec®	400mcg Clenil®/Soprobec® = 400mcg BDP
Beclometasone – Luforbec®/Fostair®	200mcg Luforbec®/Fostair®= 500mcg BDP
Beclometasone – Kelhale®/Qvar®	200mcg Kelhale®/Qvar® = 400mcg BDP (refer to SPC)
Budesonide – Easyhaler®/Pulmicort®/Fobumix®/WockAIR/DuoResp®/Symbicort®	400mcg budesonide = 400mcg BDP
Fluticasone – Flixotide/Fusacomb/Combisal/Seretide/Fixkoh	200mcg fluticasone propionate = 400mcg BDP
Ciclesonide - Alvesco®	160-240mcg Ciclesonide = 400mcg BDP
Mometasone - Asmanex®	200mcg Mometasone = 400mcg BDP

Instructions: How to step patients down

Ascertain whether the patient has achieved complete asthma control for at least 12 weeks. Does the patient have an up-to-date asthma action plan? Has inhaler technique, smoking status, adherence, trigger factors, medication side-effects and use of rescue medication (if used) been checked?

YES

Does the patient have any exclusion criteria?

- Patient does not agree to step-down
- Exacerbation, oral steroid course, GP/hospital visit due to worsening asthma in past 6 months
- Under respiratory specialist review or pregnant (only step-down if agreed with specialist)
- Significant adverse outcomes from previous step-down attempts. Consider 25% dose reduction if previously unable to step-down by 50%
- Seasonal exacerbations. Reschedule step-down review after season has ended
- Lifestyle considerations where stability crucial e.g., impending exam
- Maintenance and Reliever Therapy (MART) regime

YES

NO

DO NOT step the patient down unless control achieved

- Check inhaler technique
- Check exposure to trigger factors e.g., smoking status, pets, pollen, or stress
- Check adherence to therapy and consider any issues which may affect compliance

If these have been excluded, step-up therapy

NO

Step the patient down

Options for stepping-down:

1. Reduce the ICS by 25-50% whilst continuing the LABA at the same dose
2. Half the daily dose of combination treatment

(Refer to Asthma Step-down Algorithm, page 3)

- Check & reinforce inhaler technique +/- spacer
- Ensure patient has current asthma action plan

Agree a review date for 3 months . If symptoms worsen contact asthma nurse/clinician

YES

Review the patient in 3 months

Has the patient achieved complete asthma control in the last 3 months (see Table 1)?

No

Clinicians should consider:

Patients achieve complete asthma control at different rates. Clinicians should have a discussion with the patient to decide whether to trial the current therapy for longer or to step-up again.

Suggested discussion points with patient:

- Are there any factors affecting adherence to therapy e.g. polypharmacy, social reasons, or beliefs?
- Are there any issues affecting compliance e.g. dexterity?
- Is the patient exposed to trigger factors e.g. smoking, pets, pollen, or stress?
- Are there any lifestyle points to consider where asthma stability is crucial e.g. impending exam
- How long did it take the patient to achieve complete asthma control last time?
- What would be the potential consequences of an exacerbation and does the patient know what to do if this occurs?
- What would the patient prefer to do?

Action:

Clinicians should use their professional judgement to decide whether to continue trialling the current therapy, or to step-up again. If continuing the current therapy for longer, the clinician should advise the patient to monitor their symptoms and short-acting bronchodilator use, and review the patient again in 1 month. Patients should be advised to return to clinic if their symptoms become problematic within this time. ***Refer to a specialist if necessary.***

YES

Step the patient down again, repeat cycle

All patients with asthma should be provided with a short-acting beta$_2$ agonist (Salamol® or terbutaline) to aid in the event of an acute exacerbation

1. British Thoracic Society. Scottish Intercollegiate Guidelines Network. British guideline on the management of asthma. 2019. BTS_SIGN Guideline for the management of asthma 2019.pdf (accessed 21/04/23)
2. NICE guideline NG80: Asthma: Diagnosis, monitoring and chronic asthma management. November 2017 updated March 2021
3. Global Initiative for Asthma. Global Strategy for Asthma Management and Prevention. 2022update. GINA Main Report 2022 Front Cover (ginasthma.org) (accessed 21/04/23)
4. National Institute for Health and Clinical Excellence. Inhaled corticosteroids for the treatment of chronic asthma in adults and in children aged 12 years and over. NICE technology appraisal guidance 138.2008 Mar. http://www.nice.org.uk/TA138

Adapted. Acknowledgement to Devon guidelines.

Asthma Step-down Algorithm

Note: all doses are for asthma maintenance, NOT MART. The below are some formulary choice examples and not exhaustive of step-down plans*.

If patient is at Step 3/4, consider respiratory specialist advice on how to manage step-down process, particularly if a more gradual ICS dose reduction (<50%) is required than the combination devices in the algorithms allow. This may involve using combinations of different inhalers. If under respiratory specialist review - do not attempt step-down without agreement of specialist

BTS/SIGN Step 4/High dose ICS	BTS/SIGN Step 3/Moderate dose ICS	BTS/SIGN Step 2/Low dose ICS
DRY POWDER INHALER (DPI) CHOICES		
Fobumix® 320/9 2 puffs BD** 	Fobumix® 320/9 1 puff BD* or Fobumix® 160/4.5 2 puffs BD*	Fobumix® 160/4.5 1 puff BD* or Fobumix® 80/4.5 2 puffs BD
Fostair NEXThaler® (extrafine particle size) 200/6 2puffs BD 	Fostair NEXThaler® 200/6 1 puff BD* or Fostair NEXThaler® 100/6 2 puffs BD	Fostair NEXThaler® 100/6 1 puff BD*
Symbicort Turbohaler® 400/12 2 puffs BD 	Symbicort Turbohaler® 400/12 1 puff BD* or Symbicort Turbohaler® 200/6 2 puffs BD*	Symbicort Turbohaler®200/6 1 puff BD* or Symbicort Turbohaler® 100/6 2 puffs BD
		Further step-down to low dose ICS monotherapy may be appropriate
PRESSURISED METERED DOSE INHALER (pMDI) CHOICES		
Lufobec®***/Fostair®# 200/6 (extra fine particle size) pMDI 2 puffs 	Consider maintaining current device (or consider DPI if appropriate). Once stable, consider change to DPI Luforbec®/Fostair® 200/6 pMDI 1 puff BD* or Luforbec®/Fostair® 100/6 pMDI 2 puffs BD	Consider maintaining current device (or consider DPI if appropriate). Once stable, consider change to DPI Luforbec®/Fostair® 100/6 pMDI 1 puff BD*
Combisal® /Seretide Evohaler®# 250/25 pMDI 2 puffs BD## 	Combisal® /Seretide Evohaler® 250/25 pMDI 1 puff BD* or Combisal® /Seretide Evohaler® 125/25 pMDI 2 puffs BD##	Combisal® /Seretide Evohaler® 125/25 pMDI 1 puffs BD* or Combisal® /Seretide Evohaler® 50/25 pMDI 2 puffs BD##
		Further step-down to low dose ICS monotherapy may be appropriate

*Refer to DDICB Asthma guidelines for drug content and further information
** Fobumix® 1st line DPI
*** Lufobec pMDI 1st line if requiring MDI
# Fostair pMDI and Seretide pMDI are non-formulary
Fluticasone & Salmeterol combinations (e.g. Combisal®/ Seretide Evohaler®) GREY for adults – limited place in local guideline.

Acknowledgments adapted with permission from guidance provided by Hertfordshire & West Essex ICB

*When step down using same strength inhaler i.e. 2 puffs BD to 1 puff BD – in addition to ICS reduction, LABA dose may also be reduced which may affect control

Carbon Footprint Key:  Low (<35 g CO2e) or  High (≥35 g CO2e) carbon footprint per puff (www.prescqipp.info)