NHS
Kent and Medway

Asthma inhaler guidelines (age 12-adult)

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Target audience:	• All employees and contracted staff working on behalf of NHS Kent and Medway (NHSKM), including temporary staff, contractors and seconded staff. • Members and participants of the NHSKM board and its committees. • Third parties acting on behalf of NHSKM, including shared services and other agency staff including local authority. • Any member of the public, including patient representatives and members of the voluntary and community sector completing work on behalf of NHSKM.
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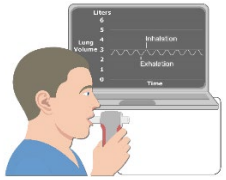
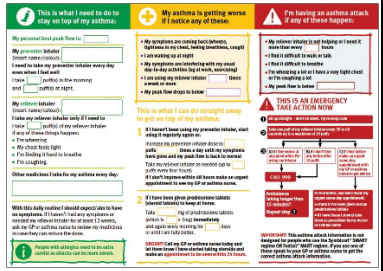
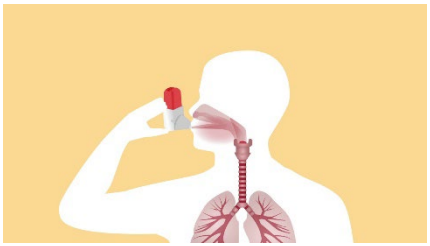
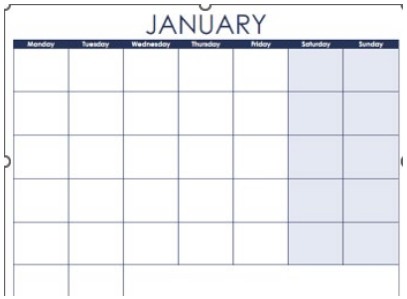
Version	Created by	Date	Main changes/comments
1	Cath Cooksey and Sola Akeremale	9/5/23	New document

Contents

Interventions to be considered for ALL patients at ALL stages

ENSURE DIAGNOSIS IS CORRECT	SMOKING AND VAPING CESSATION	VACCINATION	ASTHMA ACTION PLAN
 			
INHALER TECHNIQUE	**RECORD EXACERBATIONS**	**COMPLIANCE WITH INHALERS**	**OVER-USE OF SABA**
			

Diagnosing Asthma – Ensure diagnosis is confirmed by objective tests including family history, spirometry, symptoms, peak flow and FeNo as appropriate. https://youtu.be/bLEJd_bqeog

Lifestyle advice-
Offer treatment and support for smoking and vaping. (Very Brief Advice training https://www.ncsct.co.uk/publication_very-brief-advice.php) or refer to stop smoking (https://www.kentcht.nhs.uk/service/one-you-kent/one-you-smokefree/ and https://www.medway.gov.uk/info/200221/a_better_medway/441/reducing_smoking).
Offer advice and support for weight loss where BMI is 30+
Discuss **potential trigger** factor avoidance. This could be **pollen, exposure to pets, perfumes, or exercise**, and is individual to each patient. Record on the patient's asthma action plan.

Inhaler choice - When considering the most appropriate inhaler for a patient we need to consider several things:

- Patient's inspiratory flow- Use In-check dial or dummy inhalers to guide.
- Patient usability- Consider using the same type of inhaler as the patient progresses through the asthma pathway. This will improve inhaler technique and concordance.
- Carbon footprint- The NHS has committed to lowering the global warming potential (GWP) for inhalers.

THIS IS NOT INTENDED TO REPLACE ALL POTENTIAL FORMULARY AND SECONDARY CARE INHALER CHOICES, BUT TO SHARE BEST PRACTICE WHEN CONSIDERING PATIENTS JOURNEY THROUGH INHALER PATHWAY. PLEASE PRESCRIBE ALL INHALERS BY BRAND.

MART therapy- GINA 2023 recommends that all patients that are suitable, should be considered for MART therapy (Maintenance and Reliever Therapy). This reduces the risk of mild and moderate exacerbations and reduces hospital admissions, and negates the need for regular SABA. MART therapy should be commenced at a maintenance dose of 1 puff twice a day, and further doses can be taken for wheeze or shortness of breath to **a maximum of between 8-12 inhalations per day, depending on inhaler, used for short periods**. **Refer to inhaler SPC. Patients may still require access to SABA in emergency, or if SABA is required pre-exercise.**

Review- As much as possible all asthma reviews should be completed face to face. Review patients within 8-12 weeks of starting any new therapy to assess efficacy. Review concordance and consider escalation. Inhaler technique, side effects and efficacy (using ACT score) should be assessed at **EVERY** interaction. **Issue a steroid card if high doses of ICS are necessary (see Appendix 1)**
ALL PATIENTS REQUIRE AN ASTHMA MANAGEMENT PLAN Adult: Adult Asthma Action Plan – Asthma + Lung UK (asthmaandlung.org.uk)) Child: Child Asthma Action Plan – Asthma + Lung UK (asthmaandlung.org.uk)

Escalation and de-escalation- Before changing inhaled therapy:

- **Check inhaler concordance and technique and eliminate any trigger factors.**
  - **Review diagnosis if outcomes are unexpectedly poor**
  - **On changing therapy review after 8-12 weeks to assess benefit**
  - **If patient is stable consider reducing ICS dose by 25% and review every 3 months to assess efficacy**

Referral- Check concordance with inhaled therapy, then consider referral to secondary care if:

- **Diagnosis is unclear**
- **The patient has required 2 or more courses of oral corticosteroids in a 12-month period, despite concordance to inhaled therapy**
- **The patient requires regular MART reliever therapy (>8 reliver doses a day)**
- **The patient is still exacerbating despite escalation to maximum inhaled therapy.**

If persistently raised FeNO and eosinophils, consider early referral to specialists to determine eligibility for biologics.

PREFERRED PATHWAY

Key

Carbon footprint

Low

Inspiratory Flow

Medium Med High

Inhaler Type


Turbohaler


Easyhaler

A trial of Montelukast 10mg (5mg for 12-14 year olds), 1 tablet each evening, can be added at any escalation stage. Review after 4-8 weeks and discontinue if no benefit

Note: DPI are not suitable for all patients. Check inspiratory flow.

When using ICS/LABA as reliever therapy, maximum daily doses apply: Symbicort/ Fobumix: No more than 6 prn inhalations on one occasion. Max 8-12 a day.

DRY POWDER INHALER (DPI): Requires MEDIUM- HIGH inspiratory Flow.
Technique: Steady/forceful and deep

At diagnosis: As needed low dose ICS/formoterol

Adult	12-17 years
Medium: Symbicort Turbohaler 200/6, 1 puff prn	Medium: Symbicort Turbohaler 200/6, 1 puff prn

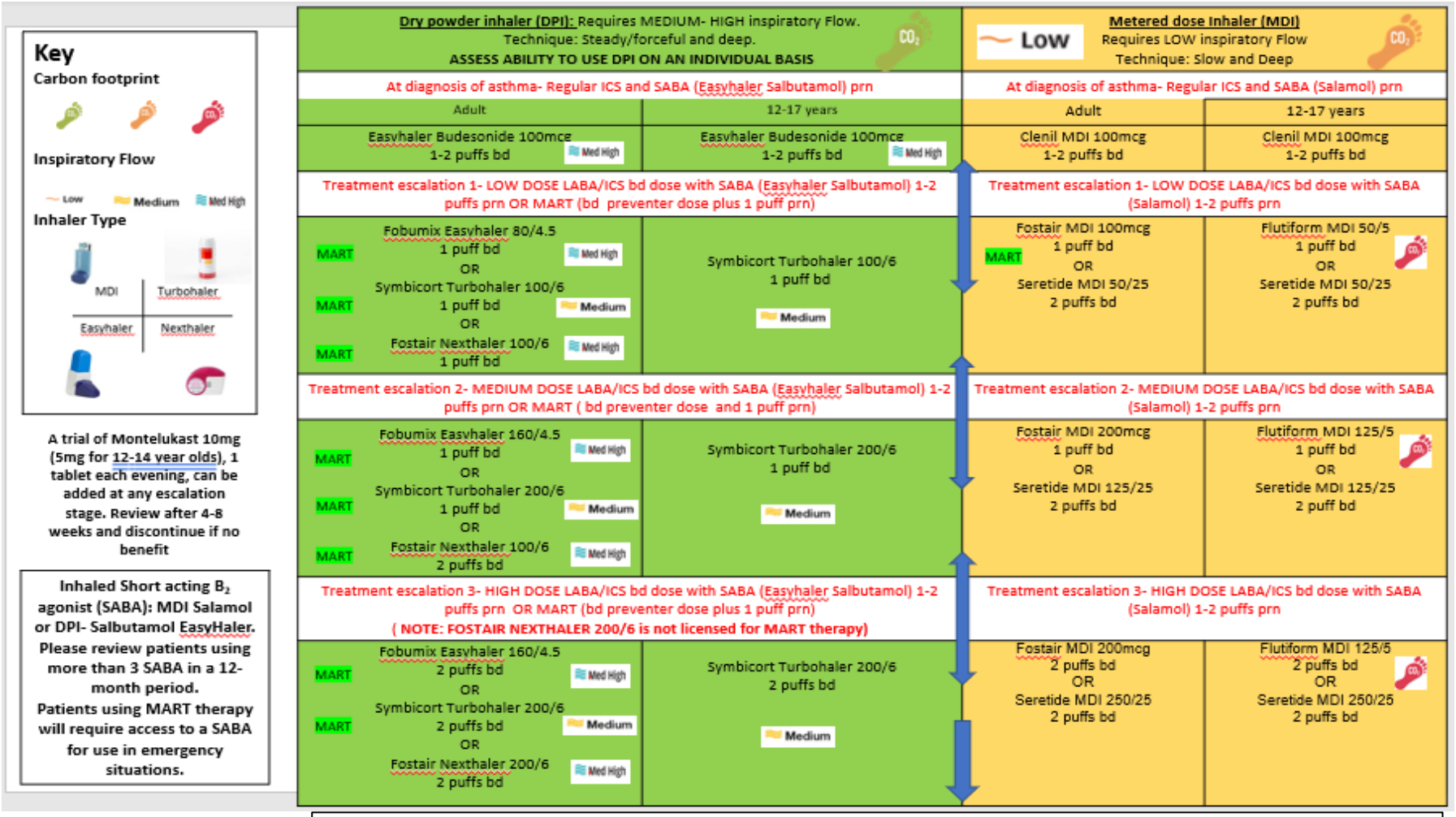
Treatment escalation 2- Medium Dose ICS/formoterol (bd dose PLUS 1 puff prn as reliever)

Adult	12-17 years
Med High: Fobumix Easyhaler 160/4.5, 1 puff bd OR Medium: Symbicort Turbohaler 200/6, 1 puff bd	Medium: Symbicort Turbohaler 200/6, 1 puff bd

Treatment escalation 3- High Dose ICS/formoterol (bd dose PLUS 1 puff prn as reliever)

Adult	12-17 years
Med High: Fobumix Easyhaler 160/4.5, 2 puff bd OR Medium: Symbicort Turbohaler 200/6, 2 puff bd	Medium: Symbicort Turbohaler 200/6, 2 puff bd

REFER if symptoms not improving or if >8 reliever doses are required per day. Secondary care specialist may recommend Spiriva Respimat (2 puffs OD) or Enerzair Breezhaler (1 dose OD - FOR ADULTS ONLY). These maybe continued in primary care. Further referral may be required for consideration of biologic treatment from a specialist centre.



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NOTE: ALTHOUGH MANY 12-17 YEAR OLDS WILL BE ABLE TO USE A DPI SUCCESFULLY, AND SOME ARE LICENSED, SOME MAY PREFER TO USE AN MDI WITH A SPACER. COUNSEL THE CHILD/ADOLESCENT THOROUGHLY WITH NEW INHALER TECHNIQUE.

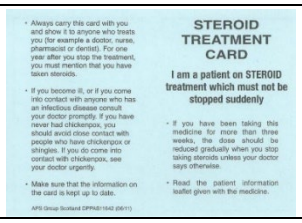
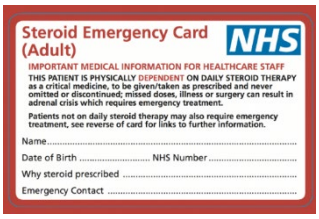
EXACERBATION GUIDELINES- 12+ years

Assess the patient: Check the severity of the exacerbation by assessing presentation as below:		
Moderate	**Severe**	**Life-threatening**
Peak flow (PEFR): > 50-75% of predicted or best **Normal speech**	**Pulse rate: ≥110bpm** **Respiratory rate: >25/min** **O2 saturation on air: at least 92%** **PEFR: 33-50% predicted or best (<50% in children)** **Inability to complete sentences** **Use of accessory muscles**	**PEFR <33% of predicted or best** **O2 saturation on air: <92%** **Drowsy, confused, silent chest, cyanosis, hypotension, cardiac arrythmia**
Start treatment		
SABA: 1 puff every 30-60 secs up to a maximum of 10 puffs. If no improvement repeat after 10-20 mins. **Prednisolone: 40-50mg/day for a minimum of 5 days** **Controlled O2 (if available): Target SAT : 94-98%**	**While waiting for hospital transfer start SABA MDI via spacer and O2 if available.**	
Assess symptoms		
Continue treatment with SABA and assess response at an hour or earlier if patient declines.		
IF NO IMPROVEMENT TRANSFER TO HOSPITAL	**TRANSFER TO HOSPITAL**	

On discharge from hospital/ or post exacerbation:
• Follow up with GP or practice nurse within 48 hours of exacerbation/hospital discharge • Check inhaler technique and concordance • Provide with an asthma self-management plan (Adult: Adult Asthma Action Plan – Asthma + Lung UK (asthmaandlung.org.uk)) Child: (Child Asthma Action Plan – Asthma + Lung UK (asthmaandlung.org.uk) • Advise patient to seek urgent medical assistance if symptoms deteriorate

APPENDIX 1- Steroid cards

Patients who require long term high dose inhaled corticosteroids and those who require repeated courses of oral corticosteroids will need to be issued with a steroid treatment card and a steroid emergency card.

	This is the original card and provides patients with information on why they should not stop steroid treatment suddenly. These can be ordered as below.
	This is the new steroid card, which provides emergency clinicians guidance on what treatment may be required if the patient is at risk of adrenal insufficiency. This card is available to be printed from EMIS (create a document in patients' consultation, and search for "corticosteroid")

When should steroid treatment cards be issued?

- All patients receiving exogenous steroids at a dose of prednisolone 5mg/day or equivalent for 4 weeks or longer and for 12 months after stopping oral steroids.
- Patients taking inhaled beclomethasone >1000mcg/day or equivalent or fluticasone >500mcg/day or equivalent (see below)
- Patients taking more than 40mg prednisolone per day or equivalent for longer than 1 week or repeated short courses of oral doses. e.g. patients on rescue treatment for asthma or COPD.
- Patients taking drugs that affect CYP3A4 (CP450) metabolism with a steroid treatment.

Corticosteroid	Brand	Dose (adult >12 years)
Beclometasone-Standard particle CFC-free inhalers	Clenil	1,200–2,000 micrograms per day in 2 divided doses
Beclometasone-Extra-fine particle CFC-free inhalers	Qvar	500–800 micrograms per day in 2 divided doses
Budesonide-Dry powder inhalers	Pulmicort	1,000–1,600 micrograms per day in 2 divided doses
Fluticasone Propionate-Metered dose and dry powder inhalers	Flixotide/Seretide	600–1,000 micrograms per day in 2 divided doses
Fluticasone Furoate-Dry powder inhaler	Relvar	184 micrograms as a single daily dose

Order cards from:

http://www.nhsforms.co.uk/ or https://secure.pcse.england.nhs.uk/_forms/pc sssignin.aspx

NOTE: Any patient with asthma receiving long term oral corticosteroids, or high dose ICS, will require regular HbA1c and weight monitoring and an osteoporosis risk assessment annually.
Scenario: Corticosteroids | Management | Corticosteroids - oral | CKS | NICE

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12. Scenario: Corticosteroids | Management | Corticosteroids - oral | CKS | NICE