Asthma in adults

16 years and over

A guide for South East London General Practice©

Key Messages

- Treat all patients with an inhaled corticosteroid (ICS) to reduce airway inflammation[1].
- Use the Short Acting Beta Agonist (SABA)-**Free** Pathway to reduce exacerbations and prevent SABA overuse[2].
- Check adherence, inhaler technique and update personal asthma action plan (PAAP) at least annually[3].
- Document your reasons for diagnosing asthma or suspected asthma[1].

CESEL Children and Young People's Asthma Guide **here**.

Always work within your knowledge and competency

July 2025 (review within 18 months of publication, or earlier if required)

CONTENTS

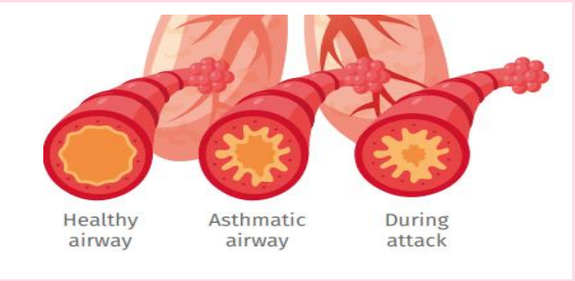
This guide covers the care of adults with asthma or suspected asthma.
Use the links on this contents page to help you navigate to the section you need. Links throughout the guide interconnect sections of the guide and supporting information.
A separate children and young people's asthma guide can be. found **here.**

Why focus on Asthma?[1]

The South East London picture

Diagnosis can be improved

Asthma is a high prevalence condition in South East London (SEL)[1]
Incorrect diagnosis of asthma is common[2] and may lead to unnecessary treatment.



Asthma is not evenly spread, with higher rates in[3]:

- African, Caribbean, South Asian and Irish families,
- People living in deprivation,
- People living close to major roads.

Asthma is dangerous

Every year there are asthma deaths in SEL, including adults and children and young people, and many more near misses.

Asthma deaths[2, 5]

- are largely attributable to avoidable factors.
- often occur before hospital admission.
- 30% occur in patients who report infrequent symptoms.
- have adverse psychosocial factors recorded in most cases.

What's new in asthma care?

Dangers of prescribing SABA without an ICS [2,5]

Using SABA alone increases the risk of exacerbations, mortality, and can lead to an overuse cycle. Using more than 2 SABA inhalers per year is associated with increased exacerbation risk.
See the recommended SABA-free treatment pathway on page 8.
MHRA alert

All patients should be on an ICS to treat their airway inflammation, to reduce symptoms and reduce the risk of exacerbation[6].

The Climate Emergency

Look out for the **green leaf** throughout this guide to support environmentally friendly asthma care.

Why do we need this guide?

A one-stop guide for busy clinicians, summarising key points from evidence-based asthma guidelines and local pathways (e.g. NICE, PCRS, GINA).

This guide aligns with SEL medicines guidance and will be updated when new guidance and new local services become available.

The guide is a foundation tool for integrated neighbourhood teams to deliver holistic asthma care to improve outcomes in their communities.

The question mark icon throughout the guide reminds us to ask for help when we are not sure.

Asthma diagnosis[1,2]

Do not confirm asthma without a suggestive clinical history and a supportive objective test. Code as suspected asthma until diagnosis is confirmed.
Treatment should not be delayed if objective tests are not available or there is a wait.

History suggestive of asthma

- Reported wheeze, noisy breathing, cough, breathlessness, chest tightness.
- Variation: worse during night or early morning, or seasonal.
- Personal and/or family history of asthma or allergic rhinitis.
- Triggers: e.g. exercise, URTI, laughter, crying, smoke, NSAID, beta blockers

No → Consider alternative diagnoses

Yes

Examine and document any wheeze
Code as **suspected asthma**

Arrange OBJECTIVE TESTS – in this order - see page 5 for details and interpretation

? NOT SURE?
Seek advice from asthma specialist GP, pharmacist or nurse, use Consultant Connect, or Advice and Guidance on ERS or refer to integrated/community or secondary care team.

1 **Blood eosinophil raised AND/OR FeNO ≥ 50ppb (if available)?**

No or not available → **2** **Positive quality assured (QA) spirometry with bronchodilator reversibility?** Is there reversible airflow obstruction of ≥ 200mls and ≥ 12% from baseline or ≥10% or more of predicted normal?

No → **3** **Peak Expiratory Flow Rate (PEFR) variability?** Is amplitude percentage mean ≥20%?

No → **4** **Bronchial Challenge Test Positive?** Only available in specialist centres.

No → Consider alternative diagnoses

Yes (1) / Yes (2) / Yes (3) / Yes (4)

DIAGNOSE AND CODE AS ASTHMA – use Ardens template Asthma Review

Confirm diagnosis with patient. Ensure understanding.	Record basis on which diagnosis has been made. Agree on a management/asthma action plan with patient and review date.

Suspected asthma

Offer the same level of care for suspected asthma as confirmed asthma, with appropriate treatment and at least annual review. Consider objective tests again or when available, especially if symptomatic. Use Ardens template Suspected Asthma.

Poor response to treatment or atypical features?

Check adherence and inhaler technique, review diagnosis, and consider referral.

Offer treatment for people acutely unwell at presentation

Be aware that ICS can impact on FeNO and spirometry results.

Occupational asthma

Symptoms worse at work? Possible occupational asthma? REFER

QOF – use Ardens Asthma Review Template

Indicator: AST012
Focus: New asthma diagnoses on or after 1.4.25
Requirement: a record of an objective test (e.g., spirometry)
Timing of Test: 3 months before or 3 months after new asthma diagnosis
Target: 45-80% of patients
Points: 15 points
Ardens asthma templates support accurate coding.
Tests not available: use exception reporting on Ardens Asthma Review Template – FeNo and/or spirometry not available

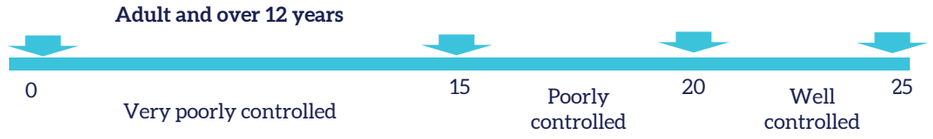
Objective tests for asthma for 16+ years of age[1]

Objective test Click on links for patient information	Blood eosinophils	Fractional exhaled nitric oxide (FeNO)	Quality Assured Spirometry with bronchodilator reversibility (BDR)	Peak Expiratory Flow Rate (PEFR) monitoring	Direct bronchial challenge test (DBC)
What does it test?	Inflammation	Inflammation	Obstruction and reversibility	Variability and reversibility	Bronchial responsiveness & hyperresponsiveness
Where is it done?	Full blood count blood test available in general practice.	Can be offered in primary care if equipment is available.	Offered by community respiratory hub, diagnostic centre or secondary care Spirometry should only be done by those on National Register of Certified Professionals and Operators (ARTP Spirometry)	GP Teams	Specialist settings only
Positive threshold for diagnosis	> 0.4 x 10^9 per litre	≥50ppb	Reversible airflow obstruction ≥200mls and ≥12% from baseline or ≥10% of predicted normal.	Amplitude percentage mean ≥20%	
Notes	Can be elevated for other reasons e.g. other allergic diseases. Ideally, test eosinophil levels while the patient is symptomatic. History of raised eosinophils supports as asthma diagnosis.	Prior to FeNO testing avoid: -exertion, smoking, hot drinks, caffeine and within 1 hour of testing. -leafy green vegetables and beetroot within 3 hours of testing Raised FeNO in uncontrolled asthma may indicate poor adherence or the need for an increased ICS dose. NHSE FeNO explained	Prior to spirometry testing avoid: - Smoking on the day - Alcohol within 4 hours - Heavy meal within 2 hours - Vigorous exercise within 30 mins Wear loose clothing. Refrain from using bronchodilators unless instructed to do so *see table below for bronchodilator 'wash-out' period. Some patients will need a SABA prescribed for the reversibility testing only. This should not be confused with ongoing management. **Normal spirometry result does not exclude asthma** More details including contraindications	Twice daily for 2 weeks Instructions for patients Use charts and check patient can plot correctly. Available from: Asthma and Lung UK. Watch this short video for help calculating PEFR variability or use this calculator Primary Care Respiratory Society Statement on PEFR calculation	Performed by giving small increments of a broncho-constrictor and measuring the FEV1 after each dose until it falls by the pre-determined amount (usually 20% from baseline).

Both symptoms and objective tests have significant false positive and false negative rates. Tests are more likely to be positive when a patient is symptomatic.
Ideally objective tests for asthma should be done before ICS treatment is started as this may impact on results, but do not delay treatment in symptomatic patients if objective tests are not available or there is a long wait.

ASTHMA CONTROL TEST[3]

ACT™ takes time, and can be done ahead of appointments via text, email or filling in a paper questionnaire which can be obtained on the GSK supported website



Recommended timeframes for withholding inhaler treatment prior to spirometry and BDR	Withholding timeframe
SABA (e.g. Salbutamol/Salamol/Airomir/Bricanyl)	4-6 hours
SAMA (e.g. Ipratropium/Atrovent)	12 hours
ICS/LABAs (e.g. Fostair, Symbicort) ICS/LABA/LAMA (e.g. Trimbow)	24 hours
Ultra-LABAs as combination inhalers (e.g. Relvar)	36 hours

Self-care

Education

Help patients understand their condition and treatment (see here for patient resources).

Personalised asthma action plans (PAAP)

Collaboratively agree a PAAP and update regularly.
PAAP can be uploaded into Digital Health Passport – Digital Health Passport.

Smoking, passive smoking and e-cigarettes/vaping

Offer tobacco dependence advice and treatment for those with asthma, including asking about vaping. Nicorette is licensed for vaping see How to quit vaping - Better Health – NHS

Adherence and technique

Non-adherence plays a large role in poorly controlled asthma and exacerbations.

Exercise

Good asthma control is important to ensure patients can benefit from regular exercise
.

> 'Asthma is not just an acute condition that only needs treating when it's bad. It's a long-term chronic condition that needs to be treated even when it's ok and patients feel good.'
>
> Nurse specialist, south London.

Comorbidities

Obesity

Weight management support for overweight patients will support good asthma control.

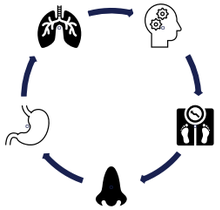
Atopic conditions

Hay fever and rhinitis: Use low dose steroid nasal spray and ensure correct technique. Optimise eczema care.

Disordered breathing and sleep apnoea

Acid reflux and heartburn

Managing co-morbidities is an important aspect of asthma care.



Depression and anxiety

Adverse asthma outcomes are associated with depression and panic disorder. Always ask, consider treatment and signpost to support.

COPD

COPD may overlap with asthma and is best managed with specialist input.

Access to healthcare

General Practice regular review

Patients should be reviewed in general practice at least annually, after dose changes and exacerbations to optimise control and reduce exacerbation risk.

Continuity

Continuity within a practice team helps build relationships and trust and improve asthma care.

Vaccination

Offer flu vaccination annually + other vaccinations as required e.g. COVID.

Emergency care

PAAP should include details of when and where to access urgent care. Review in general practice or with community asthma team within 48 hours of an A&E visit or hospital discharge.

Specialist care

Specialist referral is indicated when

- ≥2 or more attacks/year
- asthma is not controlled despite treatment
- asthma is worse at work
- asthma **and** COPD overlap

Environment

Asthma control

Well controlled asthma has the lowest carbon footprint.

Outdoor Pollution

Avoid busy roads and vigorous outdoor exercise on high pollution days.

Indoor pollution

Electricity is the cleanest home energy source.
Damp and mould issues, burning wood, candles and incense adversely affect asthma. A 'Chemical free' or 'allergy friendly' household and personal products reduce asthma triggers.

Triggers

Triggers include pollen, cigarettes, emotion, weather changes and pets.

Inhalers

Correct use of inhalers reduces waste, improves control and reduces need for unplanned medical care.
Non-propellant (NP) inhalers such as DPIs, have a lower carbon footprint and can be used effectively by most people.
Used inhalers should be returned to the pharmacy to be recycled or environmentally friendly disposal.

Occupational asthma

If symptoms are worse at work refer for specialist review

Asthma and suspected asthma review [1,2,3]

For abbreviations see here

A general practice asthma review should be offered at least once a year (QOF), after dose changes and within 48 hours of a hospital attendance or admission.

Asthma reviews should be undertaken by a clinician with expertise in asthma care.

Review planning at practice/PCN level	**Call/recall planning:** include all patients coded for asthma or suspected asthma. Review notes of patients prescribed inhalers without a diagnosis of asthma or COPD as this may be uncoded asthma. **Consultations type:** telephone consultations may be helpful for low-risk patients and those who find it difficult to attend the practice. Face-to-face contacts better suit a personalised care approach, allowing for checking and demonstrating inhaler technique, are more suitable for patients with poor control and/or complex needs, and when changing treatment or after exacerbations. Patients value being offered a range of appointment types and times, including outside of work hours.	Contact CESEL team for advice and information on searches and quality improvement support
Pre-patient review	The ACT™ and exacerbation recording can be done before the review. Ask patients to bring all inhalers and spacer devices to their review appointment.	Text/email /AccurxFlorey /ACT™
Aims of the review	• **To improve quality of life:** NO daytime symptoms or limitations on activity, NO disturbed sleep, MINIMAL side effects from medication. • **To minimise the risk of exacerbations**: optimal control, recognising and mitigating triggers, recognising and managing exacerbations and referring those at high risk.	
1. ASSESS CONTROL AND SEVERITY		Use Ardens asthma review template to ensure correct coding. **In addition consider creating/using EMIS hashtag proformas** to add to asthma review to ensure information given and recorded e.g. **1 – ICS – patient informed** • ICS treats underlying airway inflammation as opposed to the blue inhaler only rescue/short-term opens the airways. • ICS takes 4-8 weeks to start working, up to 12 weeks for full effect. • Overuse of SABA and its effects discussed e.g. increases risk of exacerbations, fixed airways disease. • If, after 8-12 weeks of using the preventer inhaler, still symptomatic/waking at night/using the blue inhaler 3x per week this is a sign of poor asthma control and increased risk of an asthma attack and needs review. **2 – Spacers – patient informed** • Importance of spacer for drug delivery to the airways. • SMS sent with link to video on correct spacer technique. • Discussed spacer care and replacement. • If hears spacer whistle when breathing in is breathing in too fast and needs to breathe more slowly so no whistle is heard. • Leave 30-60s between each puff. • Rince mouth after ICS. **To create EMIS hashtag proformas**: (video here) Go to 'CR configuration' on the tap at the top → click on 'Quick codes and test' under 'Organisation Options' (top left) → click 'Add' → Give the item a name → type in the text above e.g. #asthmareview Asthma and Lung UK Training Videos Encourage your patients to use Digital Health Passport – Digital Health Passport
Control test (QOF)	Review and record the validated ACT™ result with patient to help inform management.	
Inhaler ratio	Review how many inhalers have been ordered and ask how many have been used. Patients should have at least 75% of their expected ICS use (except for patients on AIR- see page 8). Use Test of Adherence to Inhalers to support conversations with your patients who may be poorly adherent to ICS. If fewer than 4 ICS (suboptimal adherence) or ICS/LABA inhalers, or more than 3 SABA (SABA over reliance) in a 12-month period – this suggests poor adherence or control.	
Exacerbations: reduce risk (QOF)	Optimise disease control, avoid triggers, appropriate management of exacerbations and identifying and referring those at high risk into specialist care, to specialist services within your borough.	
PEFR	Review PEFR measurements if available. Record PEFR, document best PEFR and include in notes and action plan (PAAP). Record height and weight to support calculating the predicted peak flow rate.	
2. REVIEW		
Diagnosis	Ensure the reason for asthma or suspected asthma diagnosis is recorded in the notes. If any uncertainty revisit diagnostic page and refer for objective tests as appropriate/where available.	
Understanding	Check patient's understanding of what asthma is and how it is treated.	
Inhaler technique (QOF)	Suboptimal inhaler technique is linked to poorer asthma outcomes. Check inhaler and spacer technique at every review and reinforce correct technique, offer inhaler specific training videos. If a spacer is being used, reinforce the benefits for drug delivery, importance of technique, spacer care and when to replace. More information on page. 11.	
Adherence	Poor ICS adherence may explain poor control, ask about inhaler use and address any adherence issues. Patients should have at least 75% of their expected ICS use (except for patients on AIR- see page 8). Use Test of Adherence to Inhalers to support conversations with your patients who may be poorly adherent to ICS.	
Smoking status (QOF)	Offer tobacco dependance support for patients and carers. NCSCT Very Brief Advice training module. Smokers may need higher dose ICS due to impact of smoking on ICS efficacy.	
Triggers	Identify triggers, including indoor triggers such as mould, and consider ways to reduce and mitigate exposure. Consider a housing letter or referral to Social Prescribing Link Worker for support. If asthma is worse at work, refer to secondary care for suspected occupational asthma.	
Co-morbidities	Identify and manage co-morbidities. This includes exploring low mood and anxiety and signposting to support, and optimising hay fever treatment.	
Medication	If asthma is poorly controlled despite good ICS adherence and technique, consider a step up in their management. If stable for 3 or more months and low risk of exacerbations, consider a step down in treatment. Give your patients the option of switching to a lower carbon inhaler where appropriate. Check and address any SABA over reliance. Provide written material and signpost to training videos. Update asthma medication review in notes. Check patients know how to use the NHS App to order repeat prescriptions.	
Vaccination	Review vaccination status and offer flu and COVID vaccinations as appropriate.	
3. COLLABORATE: Explore ideas, concerns and expectations, share relevant information, discuss risks and benefits of treatment and importance of self-management.		
PAAP (QOF)	Co-create a personalised asthma management plan in collaboration with the patient to support self-management. Update annually. Use the link in the Ardens template or here.	
Goals	Review previous goals and consider new goals e.g. weight loss, reduce SABA use.	

Follow up: At least annually and 8-12 weeks after any medication changes. More frequent follow ups may be necessary for patients with poor disease control or those with severe asthma.
There is lots of information to share in an asthma review and shorter and more frequent appointments may reduce the risk of information overload. Consider group consultations.

Managing asthma in adults[1, 2] local specialist input

Traditional SABA pathway with suggested inhalers
(use links for more detail)

Recommend patients to move to SABA-free pathway

Only use SABA in combination with ICS. See MHRA alert

If taking SABA only, move to SABA-free Pathway – AIR

Recommeded inhalers for as needed SABA in combination with ICS

DPI	pMDI with spacer
Ventolin 200 Accuhaler	Salamol pMDI 100
Bricanyl 500 Turbohaler	Airomir pMDI 100
Salbutamol Easyhaler	

MOVE

REGULAR LOW DOSE ICS

DPI	pMDI with spacer
Pulmicort 200 turbohaler 1 puff twice a day	QVAR 100 1 puff twice a day
Easyhaler Beclometasone 200 1 puffs twice a day	Clenil 100 2 puffs twice a day

If using as needed SABA more than 3 times a week step up.

Recommended

REGULAR MODERATE DOSE ICS/LABA

DPI	pMDI with spacer
Symbicort Turbohaler 200/6 2 puffs twice a day	Fostair pMDI 100/6 2 puffs twice a day
Fostair nexthaler 100/6 2 puffs twice a day	(or another cost-effective branded beclomethasone/ formoterol MDI)
Relvar Ellipta 92/22 1 puff once a day	

If using as needed SABA more than 3 times a week step up.

Recommended

Symptoms not controlled

Improving symptoms & no exacerbations

Worsening symptoms or exacerbations

Review after 8-12 weeks after treatment changes

SABA-free pathway with suggested inhalers – use links for more detail

For all newly diagnosed patients – combined ICS with rapid acting LABA (formoterol)

AIR
As needed combination low dose ICS with rapid acting LABA. No regular inhaler.

DPI	pMDI: with spacer	
Symbicort Turbohaler 200/6 : 1 puff as needed.	Fostair 100/6* 1 puff as needed	(or another cost-effective branded beclomethasone/formoterol MDI)
Rescue: 6 puffs on single occasion, 12 puffs daily for short periods only.	Max 8 puffs daily	

MART
Regular combination low dose ICS + rapid-acting LABA

DPI			pMDI: with spacer	
Symbicort Turbohaler 200/6 1 puff twice a day **and** as needed	Symbicort Turbohaler 100/6 1-2 puffs twice a day **and** as needed	Fostair Nexthaler 100/6 1 puff twice daily **and** as needed	Fostair 100/6 1 puff twice daily **and** as needed	(or another cost-effective branded beclomethasone/ formoterol MDI)
Rescue: 6 puffs on single occasion, 12 puffs a day for short periods only		Max 8 puffs a day	Max 8 puffs daily	

MART
Regular moderate-dose ICS + rapid acting LABA

DPI		pMDI: with spacer	
Fostair Nexthaler 100/6 2 puffs twice a day **and** 1 as needed	Symbicort Turbohaler 200/6 2 puffs twice daily **and** 1 as needed	Fostair 100/6* 2 puffs twice daily **and** 1 as needed	(or another cost-effective branded beclomethasone/ formoterol MDI)
Max 8 puffs/day	Rescue: 6 puffs on single occasion, 12 puffs daily for short periods only	Max 8 puffs daily	

Symptoms not controlled despite good ICS adherence and technique?
Check for inflammation with either raised eosinophils or FeNO

Raised eosinophils +/- Raised FeNO suggests persistent inflammation. These patients are high risk and are likely to benefit from increased ICS dose.

Normal eosinophils +/- **Normal FeNO** – suggests no persistent inflammation

- No allergic rhinitis → Add LAMA - Spiriva Respimat 2 puffs once a day for 8 week trial
- Allergic rhinitis → Consider adding montelukast (LTRA) 10mg in evening for 8 week trial.

Good response: continue treatment and plan review	Partial response: add in the other medicines i.e. Spiriva or montelukast together	No response: change to the other medicines i.e. Spiriva to montelukast or vice versa

If response to adding Spiriva has been good consider changing to triple therapy inhaler ICS/LABA/LAMA
*Trimbow Nexthaler 88/5/9 - 2 puffs twice a day
PLUS as needed salbutamol inhaler

Seek advice from asthma specialist GP, pharmacist or nurse, or referral to integrated/community or secondary care team . Consider moving to step 3 if delay in specialist input/referral – see next page

Step 1: Low Dose ICS

Step 2: Moderate Dose ICS

Consider LRTA and/or LAMA

SABA: short-acting beta agonist
LABA – long-acting beta agonist
ICS – inhaler corticosteroid
DPI – dry powder inhaler
pMDI – pressurised metered dose inhaler
AIR – anti-inflammatory reliever therapy
MART – maintenance and reliever therapy
LAMA – long-acting muscarinic antagonist
LTRA – leukotriene receptor antagonist

*Off license indication
Support for prescribing off license

Medium or high dose steroid?
Issue steroid card
SEL Guidance PIL

? NOT SURE?
Seek advice

SABA-free pathway is the recommended pathway in SEL. It is associated with 64% reduction in exacerbations compared to the traditional pathway[2]

Dry Power Inhalers (DPI) and Soft Mist Inhalers (SMI) have a lower carbon footprint than pMDI and are suitable for most adults and young people.

Uncontrolled asthma=
- exacerbation requiring oral corticosteroids OR
- frequent regular symptoms e.g. reliver use ≥3 a week or nighttime waking ≥1 a week

PREGNANCY
SABA, LABA, and ICS should be used as normal in pregnancy. Oral corticosteroids may be required for exacerbations. Montelukast and LAMA should not be stopped if needed for control.
BUMPS is a useful resources for medicines in pregnancy.

Continue specialist-initiated management plans which may differ from this guide

Montelukast alert.
Montelukast is useful especially for those with atopy and allergic rhinitis. Weigh benefits against neuropsychiatric risk e.g. sleep disorders, hallucinations, anxiety, depression, behaviour changes..
Montelukast: risk of neuropsychiatric reactions - GOV.Uk

When to seek advice and/or refer?[1,2,3,4]

Refer in an emergency

Asthma action plans should include details of when and where to seek urgent help. See here for emergency management of asthma and when to call 999/refer to A&E.

Refer Worrying Symptoms/'Red Flags'[3]

- Prominent systemic features e.g. weight loss, fevers, night sweats
- Haemoptysis
- Unexpected clinical finding e.g. crackles, cardiac disease, clubbing, cyanosis, monophonic wheeze, stridor
- Persistent, non-variable breathlessness
- Chronic sputum production
- Unexplained restrictive spirometry
- CXR shadowing
- Marked eosinophilia - > 1.5 x 10^9/L

Patients under specialist care

Patients with asthma under specialist care including those receiving biologics, should receive the same level and access to general practice care as all patients with asthma or suspected asthma – this includes an annual review. Do not reduce or stop ICS without consulting specialist.

Patients on biologics are not immunocompromised and do not have additional monitoring requirements, record these medications in EMIS as hospital drug. Inhaled medication dose change should only be made in consultation with specialist. More information

Azithromycin to prevent exacerbations may be initiated in secondary care for a small cohort of patients and GPs asked to continue the prescription under an 'Amber 2 category'. Please refer to the SEL formulary.

Communication between primary, secondary and community services is key to ensure patients receive consistent advice and support and have clear oversite of their care.

Refer complexity

Asthma – COPD dual diagnosis
Occupational asthma
Complex co-morbidity

Refer for diagnostic uncertainty

Poor response to treatment or diagnostic uncertainty.

Refer for uncontrolled asthma[4]

It is important to distinguish between poorly controlled asthma and severe asthma. Patients with uncontrolled symptoms or ≥ 2 exacerbations in 12 months, despite optimal treatment, should be referred. Before referring ensure the following have been optimised.

Adherence?
Ask the patient if they are taking inhalers as prescribed. Check adherence using expected usage compared to actual usage. Poor adherence is defined as using less than 75% of the expected ICS.

Inhaler technique
Does the patient have good inhaler technique? If not consider changing inhalers to best suit the patient.

Has treatment been optimised?
Are they at the high-end of treatment escalation according treatment algorithm?

Exclude other conditions
Are comorbidities being managed?

Psychosocial factors

Adverse asthma outcomes are associated with depression, anxiety, panic disorder and low socioeconomic status. Consider referring for support for patients or their primary carers to mental health workers, talking therapy, Social Prescribing Link Worker, community support and to community asthma nurses. See CESEL Depression and Anxiety Guide.

For inhaler technique and medicines advice

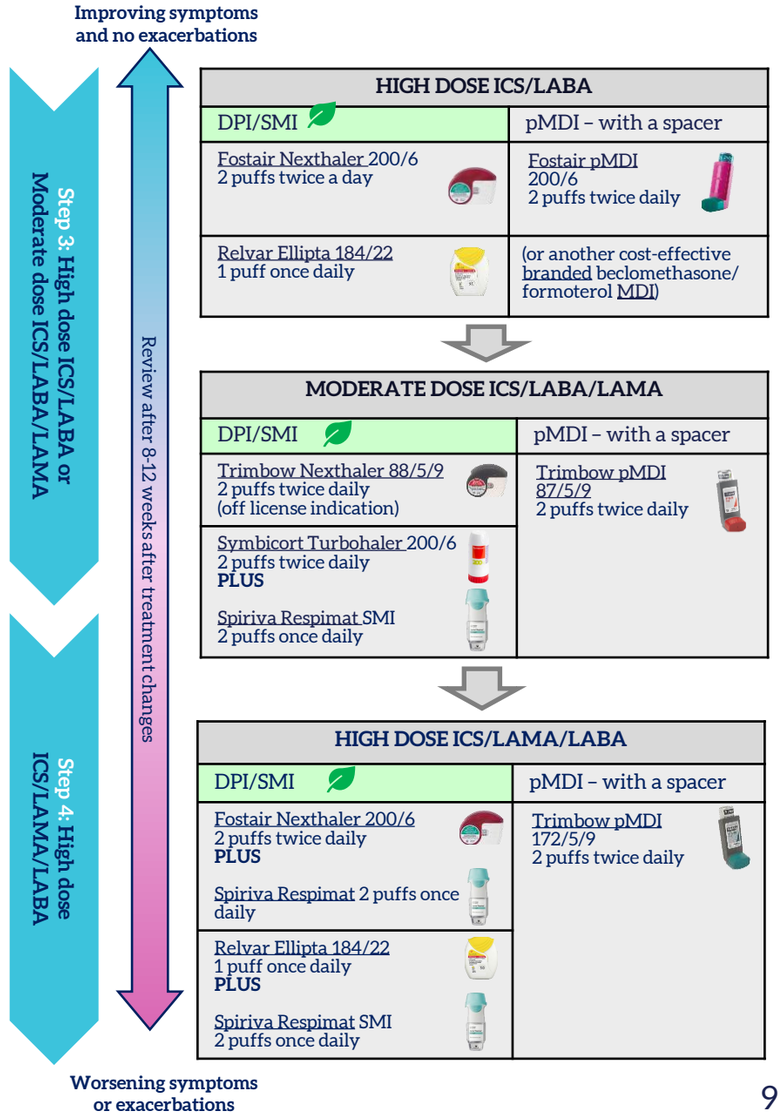
Refer to community pharmacy for support, as for a New Medicines Review when starting new inhalers.

If in doubt..

1. Discuss with a clinician with interest in respiratory within your primary care team or PCN.
2. Seek specialist advice via Consultant Connect or Advice & Guidance
3. Refer to integrated/community or secondary care team.

Delay in specialist advice/care?

Consider stepping up to step 3/4 if there is a delay in accessing specialist advice, ideally agree management plans through e.g. advice and guidance while waiting for specialist assessment. Steps 3 and 4 are traditional pathway with SABA as needed. Most patients in primary care can be successfully managed with the pathway on page 8.



Suggested inhalers for adults

Links to Rightbreathe for more information

Training videos: click on the title links

For abbreviations see here

Aim to use one type of inhaler only to reduce risk of confusion

Non-propellant inhalers

Propellant containing metered dose inhalers

How to use an pMDI

SABA
Short acting beta agonist
RESCUE Treatment

Bricanyl Turbohaler 500

Terbutaline 500 micrograms/dose

Ventolin Accuhaler

Salbutamol 200micrograms/dose

Salbutamol Easyhaler

Salbutamol 100 micrograms/dose

Salamol pMDI

Salbutamol 100 micrograms/dose

Airomir pMDI

Salbutamol 100 micrograms/dose

ICS
Inhaled corticosteroid

Beclometasone 200 Easyhaler

Beclometasone 200micrgrams/dose

Pulmicort 100 Turbohaler

Budesonide 100 micrograms/dose

Clenil Modulite 100 pMDI

Beclomethasone 100 micrograms/dose

QVAR pMDI

Beclometasone 100micrograms/dose

ICS/LABA
Combined ICS + long-acting beta agonist
(see: NICE educational aid on ICS doses)

Rapid-release LABA (formoterol)

Symbicort 200/6 Turbohaler

Budesonide 200micrograms/dose
Formoterol 6 micrograms/dose

Fostair Nexthaler 100/6

Beclometasone 100micrograms/dose
Formoterol 6micrograms/dose

Fostair Nexthaler 200/6

Beclometasone 200micrograms/dose
Formoterol 6micrograms/dose

NOT rapid-release LABA

Relvar Ellipta

Fluticasone furoate 92 micrograms/dose
Vilanterol 22micrograms/dose

Relvar Ellipta

Fluticasone furoate 184 micrograms/dose
Vilanterol 22micrograms/dose

Rapid-release LABA (formoterol

Fostair 100/6 pMDI

Beclometasone 100micrograms/dose
Formoterol 6micrograms/dose

Fostair 200/6 pMDI

Beclometasone 200micrograms/ dose
Formoterol 6micrograms/dose

OR:
another cost-effective branded beclomethasone/ formoterol MDI

ICS/LABA/LAMA
Combined ICS/LABA + long acting muscarinic antagonist

Trimbow Nexthaler 88/5/9

Beclometasone 88micrograms / dose
Formoterol 5micrograms / dose
Glycopyrronium 9micrograms / dose

Trimbow pMDI 87/5/9
Beclometasone 87micrograms / dose
Formoterol 5micrograms / dose
Glycopyrronium 9micrograms / dose

Trimbow pMDI 172/5/9
Beclometasone 172micrograms / dose
Formoterol 5micrograms / dose
Glycopyrronium 9micrograms / dose

LAMA
long acting muscarinic antagonist

Spiriva Respimat

Tiotropium bromide 2.5 micrograms/dose

SPACERS with pMDI
All pMDIs must be used with a compatible spacer device.
Use Rightbreathe or links on the 'Inhaler and Spacers' page for compatible spacer devices for each inhaler.

Inhalers and Spacers

For abbreviations see here

Inhaler Choice: prescribe by brand – Aim to use one type of inhaler only to reduce risk of confusion

	DPI	Soft Mist	pMDI
Inspiratory technique	Quick and deep inhalation over 2-3 seconds	Slow and gentle inhalation	Slow and steady inhalation over 3-5 seconds
Spacer	Spacer not required	Can be used via spacer (off-label)	Must be used with a spacer
Inspiratory effort	Some people may not have sufficient inspiratory effort to use DPIs effectively	Minimal respiratory effort	Minimal inspiratory effort
Dexterity	Most patients find DPIs easy to use	May not be suitable for those with dexterity issues	pMDI plus spacer may be more appropriate for those with dexterity/co-ordination problems
Dose counter	Built-in dose-counter	Built-in dose-counter	May not have a built-in dose counter
Carbon footprint	Low	Low,refillable cartridges	High
Taste	Strong after-taste (mitigated by advising patient to rinse mouth after use)	Slow moving mist more likely to irritate throat or cause cough	
Lactose	Most DPIs contain lactose – care with lactose intolerance		

Inspiratory technique required by patient when using inhaler device

pMDI — **DPI**

Slow and steady — **Fast and deep**

Prescribing tips

- Prescribe the same device type for preventer and reliever to prevent confusion.
- Prescribe combination inhalers wherever possible.
- Inhalers should be prescribed by brand name as devices are not interchangeable.

Inhaler technique

There are seven steps in common with all inhaler/spacer devices:

1. Prepare the inhaler/spacer device.
2. Prepare or load the dose.
3. Breathe out, fully and gently, but not into the inhaler/spacer.
4. Tilt the chin up slightly and place the inhaler/spacer mouthpiece in the mouth, sealing the lips around the mouthpiece.
5. Breathe in:
   - Aerosol e.g. pMDI via spacer = slow and steady
   - SMI = slow and steady
   - DPI = quick and deep
6. Remove inhaler from the mouth and hold the breath for up to 10 seconds.
7. Wait for a few seconds then repeat as necessary.

USEFUL QUESTIONS TO ASK

- What has your previous experience with inhalers been?
- Do you prefer once or twice daily regime?
- Can you take a quick, deep breath in?

Refer patients to Community Pharmacist for New Medicines Service when starting a new inhaler to reinforce inhaler technique & to support adherence

Choose inhaler based on:

- Patient's ability to use the device, their preferences, lifestyle and circumstances.
- Shared decision making
- Use Rightbreathe and How to use your inhaler | Asthma + Lung UK resources to support inhaler and spacer choice, technique and care.
- Environmental impact of the device
- Incheck© or placebo devices can help inform inhalers choice

Looking after spacers

- Soak in warm water for 15 minutes and gently clean using a detergent (e.g. washing up liquid).
- Not all dishwasher safe.
- Do not scrub the inside, okay to scrub mouthpiece and outside.
- Air-dry and store in a safe place.
- Replace at least annually if used daily, or when opaque.

Looking after inhalers

Follow instructions in the box of inhaler

- **MDI (Aerosol) -** wipe mouthpiece weekly with dry cloth.
- **DPI -** wipe mouthpiece weekly with dry cloth. Never use water on a DPI.
- Keep cap on when not using/storing.

How do I know if my inhaler is empty?

Using an empty inhaler is a risk, especially during exacerbations.
Most DPIs have a dose counter.
pMDI usually do not have a dose counter and difficult to know if empty as continue to expel propellant when active medicine is finished. Encourage patients to count numbers of puffs used, not have too many inhalers as difficult to keep track.
Always check expiry date, especially if used infrequently.

Sustainability[2]

The issues

- Well controlled asthma has the lowest carbon footprint.
- The UK has a high carbon footprint from inhalers due to an over-reliance on pMDIs, both for rescue and ICS treatment.
- Non-propellent DPI and SMI have a substantially lower carbon footprint than pMDI, as they do not contain hydrofluorocarbons. DPIs may be challenging for patients who have difficulty with the inspiratory technique required. DPIs may be more expensive than some pMDIs.
- Reduced use of pMDIs supports sustainability as well as clinical outcomes.
- SEL Position Statement: Environmental Impact of Inhalers

The solutions

- SEL support for prescribing sustainably
- Ensure asthma diagnosis is correct.
- Provide information to support low carbon alternatives whenever possible and suitable.

  Environmental Impact of Inhalers: Patient Information SEL

  Asthma inhalers and climate change: Patient decision aid
- Look out for SABA over reliance.
- Optimise inhaler technique.
- Prescribe refills when available e.g. Respimat.
- Encourage patients to return used inhalers to their pharmacy for recycling or environmentally friendly disposal. SEL inhaler recycling scheme.
- Encourage patient to use inhalers until they are finished, this is easier with inhalers with dose counters.
- Ensure patients are not reducing their inhaler use due to environmental concerns, address any concerns and share the decisions on the most environmentally friendly treatment regime that suits them as an individual.

Practice Resources: Placebo Inhalers

Placebo inhalers can be ordered for your practice from individual pharmaceutical manufactures.

Management of acute asthma in adults[1, 2]

Many asthma deaths are preventable. Treatment delays can be fatal. Patients with life-threatening acute asthma may not be distressed.
Include management of exacerbations and when to seek advice in all action plans.
What to do in an asthma attack – patient resource.

Arrange follow up within 48 hours in general practice or with community asthma team for all patients who have been seen in an emergency setting for an asthma attack.
Review should include:
- Check asthma is responding to treatment
- Continue oral prednisolone – 5-7 days
- Address avoidable triggers and risk factors
- Ensure correct treatment is prescribed – including ICS, adhered to and correct technique, arrange follow up
- Update PAAP
- Code all asthma attacks managed in general practice and hospital settings using Ardens template Asthma Exacerbation page- ≥ 2 exacerbations in 12 months – refer.
- Exacerbations are an opportunity for objective tests if available to help confirm an asthma diagnosis.

	Moderate acute	Severe acute	Life-threatening
Speak in sentences	Yes	No	No
$Sp0_2$ on air	SpO_2 ≥92%	SpO_2 <92%	<92%
PEFR best or predicted only use precited if best PEFR within last 2 years is unknown	>50	33-50%	<33%
HR **Beats per minute**	HR < 110	HR ≥ 110	Silent chest, cyanosis, poor respiratory effort, arrhythmia, exhaustion, hypotension, confusion
RR/minute	RR < 25	RR ≥ 25	
Where to manage?	Manage at home or in primary care if there is a good response to treatment and symptoms have improved, PEFR is improving to > 60-80% of best or predicted, oxygen saturation is >94% and patient is able to manage at home. Admit to hospital is life-threatening features, previous near fatal asthma, getting worse. Lower threshold if late in the day, previous severe attacks, concern re social circumstances.	**Consider admission if no response to treatment.** Stay with patient until ambulance arrives.	**Arrange immediate admission** Stay with patient until ambulance arrives.
Treatment			
SABA pathway $ß_2$ BRONCHODILATOR: Use short acting beta agonist i.e. salbutamol SABA pMDI via spacer – if no improvement via nebuliser.	**Via spacer** = one puff at a time, inhaled separately using tidal breathing, one puff every 60 seconds, up to 10 puffs. **Via nebuliser** – salbutamol 5mg ideally oxygen driven. If symptoms not controlled using pMDI SABA via large spacer device one dose every 30-60 seconds up to 10 puffs, repeated after 10 mins, call 999.	All patient should be offered salbutamol for severe acute and life-threatening asthma.	Salbutamol via nebuliser, spacer if not available. **Via spacer** = one puff at a time, inhaled separately using tidal breathing, one puff every 60 seconds, up to 10 puffs. **Via nebuliser** – salbutamol 5mg ideally oxygen driven. **Via spacer** = one puff at a time, inhaled separately using tidal breathing, one puff every 60 seconds, up to 10 puffs. **Via nebuliser** – salbutamol 5mg ideally oxygen driven.	Salbutamol via nebuliser – Salbutamol 5mg and nebulised ipratropium 0.5mg if symptoms not responding – ideally via oxygen driven nebuliser. - via spacer if nebuliser not available. Repeat nebulised salbutamol every 20-30 minutes if inadequate response.
SABA-free pathway $ß_2$ BRONCHODILATOR: Use combination LABA (formoterol)+ ICS (AIR/MART)	ICS/LABA (formoterol): one puff as needed up to a max 8 puffs in 24hrs – seek medical advice if using this much. Can use up to 12 puffs in 24 hours as a temporary measure. If symptoms not controlled on one puffs every 1-3 minutes, up to 6 puffs, call 999. Continue with maintenance dose and can use up to 2 puffs four times daily to manage exacerbation.			
STEROID ICS or oral prednisolone Use plain, white prednisolone, this can be CRUSHED and DISSOLVED in water. Soluble prednisolone is expensive and confers no added benefit. Taken in the morning with or after food.	Consider quadrupling ICS dose for up to 7 days if on traditional pathway (SABA pathway) or 40-50mg daily for 5-7 days.	Prednisolone 40-50mg (or IM methylprednisolone 160mg or IV hydrocortisone 100mg)	Oral prednisolone 40-50mg – if not possible IM methylprednisolone 160mg or IV hydrocortisone 100mg.
OXYGEN: if available, do not delay oxygen if pulse oximeter not available	To maintain SpO_2 94-98%	To maintain SpO_2 94-98%	To maintain SpO_2 94-98%

Bexley

Bromley

Greenwich

Lambeth

Lewisham

Southwark

Before referring to secondary care:

- Check **adherence** & inhaler **technique**
- Look at 'when to refer' page
- Ask – is there a clinician with interest in respiratory within your primary care team or PCN?
- Consider **Advice & Guidance** via eRS or **Consultant Connect**

Health warning:
Services are constantly changing.
Work is underway to improve provision of community respiratory hubs across SEL.
If you know of a new service, or a service listed is not correct, please let us know and we will update this information:
clinicaleffectiveness@selondonics.nhs.uk

Bexley and Greenwich

Service	Objective Testing	Diagnostic & management Support	Referral criteria	How to refer
SEL (LGT, Oxleas, KCH, GSTT) Integrated Respiratory Diagnostic Service	Yes	No	Aged 18+ Registered with a Bexley or Greenwich GP Has had a CXR in the past 6 months Given a Salbutamol MDI for reversibility testing	Fill in the form **'SEL Adult Quality Assured Diagnostic Spirometry & FeNO referral form'** found on DXS → email to **pulm.rehab@nhs.net**
Darenth Valley Hospital (Dartford & Gravesham NHS Trust): Adults	No	Yes	Aged 16+	Referral letter → eRS → Respiratory General – Thoracic Medicine – Dartford & Gravesham NHS Trust – RN7
Queen Mary's Hospital (Dartford & Gravesham NHS Trust): Adults	No	Yes	Aged 16+	Referral letter → eRS → Respiratory General – Planned Care Centre, Queen Mary's Hospital, Sidcup RN7
Queen Elizabeth Hospital - Lewisham and Greenwich NHS Trust: Adults	No	Yes	Aged 16+	Referral letter → eRS → Respiratory General - RAS @ Queen Elizabeth Woolwich for Lewisham & Greenwich Trust - RJ2

Bromley

Service	Objective Testing	Diagnostic & Management support	Referral criteria	How to refer
Princess Royal University Hospital (PRUH): Adults	No	Yes	Aged 16+	Referrals Optimisation Protocol → Respiratory Referral Menu→ Hospital referral form Book via eRS → Respiratory Medicine – General Thoracic Service for Kings @ PRUH – RJZ30
Bromley Respiratory Diagnostic Service	Yes	No	Aged 16 +	Referrals Optimisation Protocol → Respiratory Referral Menu → Spirometry → Bromley respiratory Diagnostic Service Form Book via eRS → Diagnostic Physiological Measurement→ Respiratory – Full Lung Function → Community Lung Function Test – Referral Assessment Service (R)@PRUH for Kings College Hospital – RJZ30

Lewisham

Service	Objective Testing	Diagnostic & Management support	Referral criteria	How to refer
Community Respiratory Team (Lewisham and Greenwich NHS Trust): Adults	Yes	Yes	Registered with a Lewisham GP Aged 16+ Possible new diagnosis of asthma Deterioration of symptoms despite optimal treatment; unstable or difficult to control	Referral 'Spirometry and COPD Generic Referral Form' on DXS → email lg.respiratorynursingteam@nhs.net
University Hospital Lewisham (Lewisham and Greenwich NHS Trust): Adults	No	Yes	Aged 16+ Relevant blood tests and CXR (attach report)	Referral letter → eRS → Respiratory General RAS @ Lewisham Hospital for Lewisham & Greenwich Trust - RJ2

Lambeth & Southwark

Service	Objective Testing	Diagnostic & management support	Referral criteria	How to refer
Integrated Respiratory Team (IRT): Community Lung Function service:	Yes	No	16+ years New symptoms of asthma and/or COPD, or Old spirometry not meeting quality standards/results do not support current diagnosis Referring Clinician must authorise Bronchodilator use	Complete IRT referral form Book via eRS → Diagnostic Physiological Measurement → Respiratory – Full Lung Function → Community Lung Function Test DH Chest Unit Cheyne Wing- DH@ Kings College Hospital To refer children, email the Diagnostic Community Spirometry form to KCH - tr.chestunitadmin@nhs.net Other queries: Please contact Chest Unit Service Manager on 020 3299 3364.
Integrated Respiratory Team (IRT) Hospital Chest Clinic Kings College Hospital (KCH) & Guys and St Thomas' Hospital (GSTT)	No	Yes	Aged 16+ Routine out-patient clinics for respiratory disease and symptoms. Please review local Breathlessness, Cough, COPD and Asthma algorithms before referral. Please ensure patients have had diagnostic tests provided by the Community Lung Function (above) if indicated	Complete IRT referral form Directly bookable service at KCH OR GSTT. Book via eRS →'Respiratory Medicine → Asthma: Options: Asthma, Guy's site – Respiratory Medicine – Guy's & St Thomas' – RJ1 Chest, Guy's site – Respiratory Medicine – Guy's & St Thomas' – RJ1 Chest, St Thomas' site – Respiratory Medicine- RJ1
Adult advice			16 years and over	If your enquiry is URGENT King's TALK service includes acute medicine: 020 3299 6613 Monday-Friday 8.30am – midnight, weekends 8.30am-8pm. GSTT GP Direct Line: 020 7188 4488
Acute Medicine (Ambulatory Care Unit) Referrals from GP to King's College Hospital			Any unwell patient with a medical illness or diagnosis	Call Consultant Connect phone 020 3299 6613 - option 2 , 7 days a week 0800 - 20:00 (last referral being accepted at 18:00) - Talk to Acute Medicine Consultant/Medical Registrar - Outcomes: Advice only - Same day Review - Review another day For general enquiries please email: viveksharma@nhs.net (Clinical Lead Acute Medicine)

Asthma resources

For clinicians

GENERAL

Asthma and Lung UK health professional resources
Asthma Right Care (ARC) | Primary Care Respiratory Society (pcrs-uk.org)
RightBreathe: Information and practical tips with videos on inhalers & spacers, for professionals and patients
Primary Care Respiratory Society – resources include best practices and educational materials
Oxford Academic Health Science Network: Asthma – includes toolkits, medication review templates

EDUCATIONAL

e-Learning for Health: the Asthma programme. A range of free e-Learning modules on different aspects of asthma care.
Very Brief Advice training module (ncsct.co.uk) free e-Learning resource for smoking cessation advice

ENVIRONMENT

SEL support for prescribing sustainably
Greener Practice Asthma Care - clinician led network
Clean Air Information Hub: Health
Daily Air Quality Index - Defra, UK
Blog: Delivering high quality, low carbon respiratory care
London: Top Tips for Respiratory Prescribing and Sustainability
'Greener' asthma treatment: a golden opportunity or red flag? Free Open Access Medical Education
The London Damp and Mould Checklist
Global Action Knowledge Hub: Resources on clean air for Health Professionals

GUIDELINES

Global Initiative for Asthma (GINA)-2025-Whats-New-Slides
GINA Global Strategy for asthma management and prevention
NICE Asthma diagnosis, monitoring and chronic asthma management. NG245
NICE Asthma, acute. Treatment Summary.

For patients and carers

GENERAL

Asthma Right Care (ARC) | Primary Care Respiratory Society (pcrs-uk.org)
Rightbreathe – how to use and look after inhalers and spacers, including videos
Asthma + Lung UK:

- Inhaler choices (asthma.org.uk) – in multiple languages
- How to use your inhalers (videos)
- Peak flow Diary
- Groups + Support

ASTHMA ATTACKS

Asthma UK attack recovery plan

POLLUTION

British Lung Foundation: Air pollution and your lungs
Asthma + Lung UK: Air pollution

STAYING HEALTHY WITH ASTHMA

Asthma + Lung UK: Keeping active with a lung condition
Digital Health Passport – Digital Health Passport

YOU TUBE EDUCATION VIDEOS

Asthma + Lung UK – YouTube

References:

Page no	Ref no	
1	1	Overview | Asthma: diagnosis, monitoring and chronic asthma management (BTS, NICE, SIGN) | Guidance | NICE
	2	Short-Acting Beta-2-Agonist Exposure and Severe Asthma Exacerbations: SABINA Findings From Europe and North America, 2022
	3	Quality Outcomes Framework 2025/26
3	1	Fingertips | Department of Health and Social Care
	2	GINA-2025-Whats-New-Slides.pptx
	3	Report template - NHSI website
	4	National Review of Asthma Deaths
	5	Short-Acting Beta-2-Agonist Exposure and Severe Asthma Exacerbations: SABINA Findings From Europe and North America, 2022
	6	Overview | Asthma: diagnosis, monitoring and chronic asthma management (BTS, NICE, SIGN) | Guidance | NICE
4	1	Overview | Asthma: diagnosis, monitoring and chronic asthma management (BTS, NICE, SIGN) | Guidance | NICE
	2	Quality Outcomes Framework 2025/26
5	1	Overview | Asthma: diagnosis, monitoring and chronic asthma management (BTS, NICE, SIGN) | Guidance | NICE
	2	Synnovis Pathology Reference ranges
	3	GSK Asthma Control Test GSK
7	1	Quality Outcomes Framework 2025/26
	2	The building blocks of a good asthma review in adults Primary Care Respiratory Society 15.
	3	Asthma reviews: an essential part of good care Practice Nursing 2022
8	1	Overview | Asthma: diagnosis, monitoring and chronic asthma management (BTS, NICE, SIGN) | Guidance | NICE
	2	Short-Acting Beta-2-Agonist Exposure and Severe Asthma Exacerbations: SABINA Findings From Europe and North America, 2022
9	1	Poorly controlled and severe asthma: triggers for referral for adult or paediatric specialist care – a PCRS pragmatic guide
	2	NHS Recognising uncontrolled asthma in primary care
	3	British Thoracic Society, Scottish Intercollegiate Guidelines Network, British guideline on the management of asthma.
11	1	UK Inhaler Group: Inhaler Standards and Competency Document
	2	Towards net zero: asthma care, BMJ 2023
12	1	NICE, Clinical Knowledge Summaries, Acute Exacerbation of Asthma
	2	GINA: Global Strategy for Asthma Management and Prevention, 2025
	3	Asthma, acute | Treatment summaries | BNF | NICE

CESEL guides are co-developed by SEL primary care clinicians and SEL experts.

The guides go through a formal approval process including SEL Integrated Medicines Optimisation Committee (IMOC) for the medicines content. CESEL would like to thank all our colleagues who participated and fed-back during the guide development and consultation process.

Abbreviations

A&E	Accident and Emergency
AIR	Anti-inflammatory reliever
ACT™	Asthma control test™
BD	Twice daily
BDR	Bronchodilator reversibility
BTS	British Thoracic Society
COPD	Chronic obstructive pulmonary disease
CXR	Chest X-ray
CYP	Children and Young People
DBC	Direct bronchial challenge
DPI	Dry powder inhaler
eRS	Electronic referral system
FeNO	Fractioned exhaled nitric oxide
FEV_1	Forced expiratory volume in one second
FH	Family history
FVC	Full vital capacity
HR	Heart rate
ICS	Inhaled corticosteroid
LABA	Long acting β agonist
LAMA	Long-acting muscarinic antagonist
LTRA	Leuokotriene receptor antagonist
MART	Maintenance and reliever therapy
MDI	Metered dose inhaler
NSAID	Non-Steroidal Anti Inflammatory
NICE	National Institute for Health and Care Excellence
OD	Once daily
PAAP	Personalised asthma action plan
PCN	Primary care network
PEFR	Peak expiratory flow rate
PIL	Patient information leaflet
pMDI	Powdered metered dose inhalers
PO	By mouth
QOF	Quality and outcomes framework
RCP	Royal College of Physicians
RR	Respiratory rate
SABA	Short acting β agonist
SIGN	Scottish Intercollegiate Guidelines Network
SMI	Soft mist inhaler
$Sp0_2$	Peripheral capillary oxygen saturation
URTI	Upper respiratory tract infection
VBA	Very brief advice