



PCRS Position Statement

Risk stratification to prevent poor asthma outcomes

July 2026

Introduction and summary of PCRS position

Asthma remains a major cause of preventable morbidity and mortality in the UK, despite being a treatable condition. Many people with asthma do not receive basic recommended care, and persistent gaps in disease monitoring, inhaler technique assessment and personalised action planning contribute to avoidable harm. Risk stratification – the systematic identification of individuals at increased risk of severe attacks (exacerbations), hospitalisation or death – enables primary care teams to provide targeted, proactive and equitable management. This position statement outlines the rationale, core principles and practical steps for implementing risk-stratified asthma care across UK primary care, ensuring patients at medium and high risk receive timely review, optimisation of therapy and personalised support to reduce future risk.

In summary, the position of the Primary Care Respiratory Society (PCRS) is that:

1. Primary care teams should systematically identify adults, young people and children at increased risk of asthma attacks using evidence-based risk factors.
2. All people with asthma should receive a comprehensive annual asthma review, with more frequent follow-up for those with poor control, conducted face-to-face by healthcare professionals with appropriate respiratory training.
3. Inhaler technique, adherence and choice must be assessed and optimised at every review, ensuring treatment follows national and local prescribing guidance.

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4. Anyone flagged should have an up-to-date personalised asthma action plan (PAAP), with accessible formats and patient/carer involvement.
5. Modifiable risk factors should be actively identified and addressed.
6. Risk stratification approaches must explicitly consider health inequalities.
7. Practices should maintain a coded risk register, supported by electronic alerts and recall systems, to ensure timely review and action for high-risk patients.

Introduction

Risk stratification in asthma refers to the systematic identification of people who are at increased risk of future asthma attacks (exacerbations), hospitalisation or death so that their care can be tailored to reduce these risks. PCRS recommends that primary care services routinely implement risk stratification of their registered asthma populations, supported by practice systems and multidisciplinary teams, with clinicians using stratification outputs to prioritise targeted, proportionate reviews and interventions. People with good symptom control, fewer than three short-acting β_2 -agonist (SABA) inhalers in the previous 12 months, and no courses of oral corticosteroids (OCS) over the same period can be considered low risk. The low-risk group needs to be monitored annually as current guidelines advise; medium- and high-risk groups require additional focused attention, as individuals within these groups account for the majority of avoidable harm.

Background

Asthma affects more than 7.2 million people in the UK and remains a significant cause of preventable morbidity and mortality.¹ Despite being a treatable chronic inflammatory airway condition, avoidable asthma deaths persist. The National Review of Asthma Deaths (NRAD) highlighted that over half of asthma deaths occurred in people previously classified as having mild (9%) or moderate (52%) asthma, with contributing factors including limited use of written personalised asthma action plans (PAAPs), poor attendance at reviews, high SABA use and incomplete trigger documentation.² Subsequent reporting shows little improvement over the past decade, with more than 12,000 asthma deaths recorded between 2014 and 2022.³ Recent national child mortality data also highlight inequalities, with children living in deprivation experiencing four times higher asthma-related mortality, reinforcing the importance of risk stratification that explicitly considers social and environmental factors.^{4,5}

The UK continues to have one of the highest asthma mortality rates in Europe. Up to 69% of people with asthma are not receiving basic recommended asthma care, such as an annual review, inhaler technique checks and a written asthma action plan.⁶ These persistent gaps in basic recommended asthma care underscore the need for systematic risk identification and consistent implementation of risk-stratified care to prevent avoidable harm.

Updated national guidance reinforces the importance of using risk-stratified approaches to personalise care, optimise monitoring and guide treatment decisions.⁷ Primary care teams are well placed to deliver this consistently, supported by existing Electronic Health Records, established workflows and community networks.

Risk stratification: purpose and principles

Risk stratification in asthma enables timely identification of individuals at increased risk of severe asthma attacks or death. It should be a proactive, continuous process rather than a one-off label. Effective stratification combines objective clinical indicators, patient-reported symptoms and modifiable risk factors. It supports shared decision-making, personalised self-management and equitable access to care.

This PCRS position is fully aligned with NICE/BTS/SIGN guidance and complements it by providing practical, primary care-focused recommendations on how asthma risk stratification can be implemented systematically in routine practice.⁷

Risk stratification is intended to supplement – not replace – standard asthma care. Those at low risk should continue to receive routine annual reviews, while those at medium or high risk may require more frequent proactive follow-up.

Core principles include:

- **Systematic population-level identification** of people at increased risk using Electronic Health Records searches and registers, alongside opportunistic identification during clinical reviews, using evidence-based risk factors. Online screening tools should only be used to inform face to face review processes, and should not be used as a substitute for them.
- **Patient-centred** approach that supports shared decision-making, PAAP and equitable access to care.
- **Use objective measures** such as spirometry and fractional exhaled nitric oxide (FeNO), where available, to identify those with low lung function or elevated type 2 inflammation, which are both independently associated with an increased risk of exacerbations.
- **Identification and documentation of modifiable risk factors ('treatable traits')** such as smoking, poor adherence and incorrect inhaler technique, with targeted interventions.
- **Consideration of social determinants of health and wider inequalities**, including deprivation and ethnicity, as these influence exacerbation risk in UK populations. Risk stratification approaches must explicitly consider health inequalities and be implemented in ways that do not disadvantage people through language barriers, digital exclusion, disability or socioeconomic circumstances.
- **Referral to specialist care** for those with persistent poor control or frequent exacerbations despite optimised therapy, for further assessment, support and consideration of advanced therapies.⁸
- **Integration of stratification tools into primary care workflows and Electronic Health Records (EHRs)** ensuring it is clear that online screening tools should only inform face to face review processes.

Evidence-based risk factors

In line with NICE/BTS/SIGN guidance and the GINA report, the following factors are associated with an increased risk of asthma attacks.^{7,9}

N.B. Not all are recommended as routine measurements in every primary care review. Clinical judgement and local resources should guide their use.

- Poor symptom control, regardless of baseline disease severity.

- Poor adherence to prescribed therapy.
- History of at least one exacerbation requiring a course of OCS in the previous year.
- High SABA use (3 or more SABA inhalers per year, or more than daily use).
 - Please refer to the PCRS Online Asthma Slide Rule for advice and guidance on this: <https://www.pcrs-uk.org/online-asthma-slide-rule>.
- Inadequate inhaled corticosteroid (ICS) therapy (not being prescribed ICS, poor adherence or incorrect inhaler technique).
- Low lung function (forced expiratory volume in 1 second) FEV₁ <60% predicted and/or persistently reduced peak expiratory flow rate
- Type 2 inflammatory markers (elevated blood eosinophils and high FeNO).
- Pregnancy and comorbidities such as obesity, chronic rhinosinusitis, gastro-oesophageal reflux disease and confirmed food allergy.
- Environmental exposures such as smoking, e-cigarette use, allergen exposure (if sensitised), air pollution, occupational pollution such as dust, gases and biological agents, and viral respiratory infections.
- Major psychological or socioeconomic problems such as anxiety, depression and poor living conditions.
- Lifetime history of intubation or intensive care unit admission for asthma.

Recommended actions once a patient is flagged

A desktop review should be used to provisionally assess risk status and current management. Where gaps or risk modifiers are identified, a structured clinical review (preferably face-to-face) should address the following:

- Prescribing review, including high SABA use with minimal or no ICS use, continued high SABA use despite correct use of ICS treatment and timely follow-up after any treatment change.
- Inhaler technique, device and dose suitability and adherence (recognising that prescription records and/or dispensing data do not confirm use).
- Identification and management of modifiable contributors such as smoking/vaping, comorbidities, vaccination status and environmental exposures.

- Provision or updating of a PAAP, including advice on reducing exposure to asthma triggers.
- Assessment of symptom control using validated tools (e.g. Asthma Control Test; ACT).
- Assessment of social and practical support needs including ability to access prescriptions, health literacy, safeguarding concerns and the need for referral to social care, community or voluntary sector services where appropriate.
- Engagement with schools for children and young people with asthma.
- Recommendation of asthma adherence and management support tools, including NICE-approved apps where appropriate and available.
- Environmental impact of inhaler choice should be considered, ensuring that lower-carbon options are used when clinically appropriate.
- Clear safety-netting advice and rapid access routes for deterioration.
- Referral to specialist services where poor control persists despite treatment optimisation.

System requirements

Practices should maintain a coded asthma risk register using existing asthma and respiratory SNOMED codes, supported by automated searches and recall systems. Electronic alerts can help identify patients who meet high-risk criteria. Monitoring should include review timelines, coverage of PAAPs and SABA-to-ICS ratios.

Multidisciplinary involvement, respiratory networks and implementation of electronic stratification tools can strengthen delivery of timely and targeted asthma care.

Patient engagement and equity

People with asthma should be active partners in decision-making, using accessible and co-produced PAAPs including easy read, translated and non-digital formats to mitigate digital exclusion. Equity considerations are essential to ensure risk stratification systems do not widen inequalities. Practices should monitor access to reviews and support by deprivation and ethnicity to identify and address disparities. Collaboration with voluntary sector organisations, including Asthma & Lung

UK and local Breathe Easy groups, can complement primary care support and extend education and peer support opportunities.

Audit, evaluation and research

Regular auditing should assess accuracy, timeliness and outcomes of risk identification. Research priorities include validating pragmatic electronic stratification algorithms in primary care populations, evaluating equity impacts and conducting cost-effectiveness studies.

Audit and evaluation should consider both intended and unintended consequences of asthma risk stratification, including the persons understanding of risk status, whether risk status causes anxiety or provides reassurance, and whether impacts differ across population groups.

PCRS position

1. Primary care teams should systematically identify adults, young people and children at increased risk of asthma attacks using evidence-based risk factors.
2. All people with asthma should receive a comprehensive annual asthma review, with more frequent follow-up for those with poor control, conducted face-to-face by healthcare professionals with appropriate respiratory training. Longer appointment times may be necessary for those who require support with communication, have limited understanding of asthma, or need practical inhaler-technique education at each review due to memory difficulties, reduced dexterity or low literacy.
3. Inhaler technique, adherence and choice must be assessed and optimised at every review, ensuring treatment follows national and local prescribing guidance.
4. All those flagged should have an up-to-date personalised asthma action plan, with accessible formats and patient/carer involvement.
5. Modifiable risk factors should be actively identified and addressed.
6. Risk stratification approaches must explicitly consider health inequalities.
7. Practices should maintain a coded risk register, supported by electronic alerts and recall systems, to ensure timely review and action for high-risk patients.

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