The AHSN Network

ACCELERATED ACCESS COLLABORATIVE

Rapid Uptake Products Asthma Biologics

AAC Consensus Pathway: Management of Uncontrolled Asthma in Adults

June 2022

In Partnership with:

British Thoracic Society

PCRS

ARNS
Association of Respiratory Nurse Specialists

ASTHMA+ LUNG UK

Oxford Academic Health Science Network

Introduction

It is estimated that as many 200,000 patients in the UK suffer with Severe Asthma[1], a condition that means they experience frequent asthma attacks, hospital admissions and daily symptoms despite maximal medical therapy. It is a complex condition which may be driven by different inflammatory pathways, but typically severe asthma patients face a substantial burden of illness and marked reductions in quality of life.

Many with severe asthma live with poor asthma control typified by emergency admissions to hospital and regular courses of oral corticosteroids, drugs which can have devastating side effects on physical and mental health. As a result, severe asthma is associated with very high healthcare costs due to medication use, unscheduled healthcare utilisation and management of steroid-related adverse events. These costs have been shown to be four times higher for uncontrolled severe asthma patients than for those with well-controlled asthma[2].

The advent of biologic therapies for severe asthma and the formalisation of specialised severe asthma services and networks ("Severe Asthma Services in Adults" - commissioning document A14/S/B) has hugely improved outcomes for patients who are able to access these services. It is estimated that in England over 60,000[3] patients currently suffering with severe asthma would benefit from an asthma biologic. However, prescribing data suggests that only ~11,000 of these patients are being treated with biologic therapies.

A recent review of patient journey times to asthma biologics has shown that 60% of patients[4] have uncontrolled asthma for over 2 years prior to reaching specialist severe asthma services. Once reviewed in a severe asthma centre, there is variation in the time taken for biologic therapy to be commenced, influenced by both patient related and centre related factors. During this time, the patient is exposed to increasing doses of oral steroids with the risk and incidence of steroid related side effects accumulating.

Aligned with clinical priorities in the NHS Long Term plan on improving outcomes for patients with respiratory disease, the Accelerated Access Collaborative (AAC) Asthma Biologics Rapid Uptake Programme aims to support improvements in pathways and practices to ensure more patients receive timely specialist care for their severe asthma and access asthma biologics.

A major ambition of the programme has been to bring together the organisations committed to improving severe asthma care and to agree, by consensus, what optimal care should look like across the entire patient journey. We hope the information collated in this consensus pathway will help guide and inspire systems and regions to rethink the care pathways for the uncontrolled and severe asthma patients they care for. Reflecting the objectives of the AAC Asthma Biologics RUP Programme, this pathway focusses on biologic therapy. However, we recognise that the management of patients with uncontrolled and severe asthma may require a range of approaches. This pathway is aimed at supporting the care of adults (age ≥18 years) with uncontrolled and severe asthma.

Importantly, this is not a mandated approach, as pathways for this unique group of patients need to be assessed in the context of wider asthma services at system level. Commissioners are encouraged to take into consideration other factors such as the local patient population, potential sources of health inequalities, workforce and the healthcare landscape. This pathway contains resources and recommendations on how to deliver optimal care for patients with uncontrolled and severe asthma at a local level. We hope that this pathway will be useful whether your role is in clinical care, service management, service administration or commissioning to shape local discussions and redefine asthma pathways.

To complement the adoption and implementation of the Consensus Pathway the AAC have produced a suite of educational resources that will be helpful for clinicians involved in the care of patients with uncontrolled and potentially severe asthma.

1. Slipping through the net, Asthma UK, 2018, and, Living in limbo, Asthma UK, 2019: https://www.asthma.org.uk/globalassets/get-involved/external-affairs-campaigns/publications/severe-asthma-report/auk-severe-asthma-gh-final.pdf / https://www.asthma.org.uk/support-us/campaigns/publications/living-in-limbo/
2. Healthcare resource use and costs of severe, uncontrolled eosinophilic asthma in the UK general population, Overview of attention for article published in Thorax, September 2017: https://thorax.bmj.com/content/73/2/116
3. NHSE BlueTeq data 2021
4. A review of the patient journey to biologic initiation in UK severe asthma centres, written by Lottie Renwick, Asthma UK and the British Lung Foundation, Dr Hitasha Rupani, University Hospital Southampton NHS Foundation Trust and Andrew Cumella, Asthma UK and the British Lung Foundation, December 2021
5. AAC (Accelerate Access Collaborative)

Foreword

The shared ambition of both the AHSN Network and NHS England's Accelerated Access Collaborative (AAC) is to help strengthen NHS support for clinicians and patients in accessing new innovations.

The Asthma Biologics Rapid Uptake Products programme has been a shining example of what can be achieved through effective collaboration between the NHS, industry, third sector partners and people with severe asthma.

Demonstrating the need to look at pathway improvement alongside innovation adoption at pace and scale, this body of work has already delivered a huge range of impactful and valuable improvement resources for those involved in asthma care.

I am thrilled to see the launch of this consensus pathway through the AAC partners, which will further support our NHS partners to improve care for people with uncontrolled and severe asthma. I would like to thank all those who have led this important piece of work – particularly the team at the Oxford AHSN who have taken the lead on behalf of the AHSN Network, those who have been involved in shaping the pathway and all those who will take this forward to improve services.

This pathway is just the start of the journey and there is much work still to do, but we are buoyed by the successes and achievements delivered through the first year of the programme during which more than 2,000 people started biologic therapies. By continuing to work together, we will ensure that more people with severe asthma are able to access high quality care and benefit from life-changing treatment.

Professor Gary Ford
Chief Executive, Oxford Academic Health Science Network
Chair, AHSN Network

I am delighted to endorse this pathway, which has been co-created by health care professionals from primary through to tertiary care, and people with severe asthma.

I have seen from my own clinical experience how biologics can transform the lives of people with severe asthma and this pathway is an important step in optimising access for people who will benefit from them.

This document will iterate over time and should be used in conjunction with other valuable resources such as the Severe Asthma Toolkit.

Professor Andrew Menzies-Gow
National Clinical Director for Respiratory Services
NHS England and NHS Improvement

This ultimate aim of this pathway is to improve outcomes for patients with uncontrolled and severe asthma.

For some patients this involves earlier identification of potentially severe asthma while for other patients streamlined biologic initiation will have the biggest impact on outcomes. We have tried to include all these aspects within the pathway and worked with relevant stakeholders including patients, clinicians and charities to produce a 'consensus pathway'. We also felt it helpful to provide timeframes to help guide best practice and reduce variations in care. We hope that that this pathway will provide a pragmatic guide and be a tool to inform and raise awareness of consensus best practice.

I am hugely thankful to all the members of the working group that have supported the development of this pathway and in particular, the leads of the 3 sub-groups- Steve Holmes, Deepak Subramanian and David Jackson. Their collaborative leadership has steered the detailing within the primary care, secondary care and specialist asthma centres sections of this pathway while ensuring integration to promote an optimised patient journey.

Dr. Hitasha Rupani
Pathway Lead
Clinical Champion Asthma Biologics AAC

Jo's story

Jo's story is an example of the difficult and long journey some patients with uncontrolled asthma currently experience to access the expertise and treatment needed to manage their condition.

Jo had suffered with breathing difficulties for her whole life. Even as a child Jo could recall breathlessness and wheeze affecting her ability to engage with physical activity.

"I think I've always had asthma, but it was never picked up as I avoided doing anything physical such as cycling or running as a youngster because I found my lungs used to burn."

Jo was eventually diagnosed with asthma at the age of 30, when she was admitted to hospital with a pneumonia.

When discharged from hospital, Jo had little follow up with her GP practice and no formal checks to look at adherence or inhaler technique. Over a period of several months, due to increasing symptoms, Jo's asthma medication was altered and increased on several occasions. Sadly, despite increasing inhaled therapies Jo's asthma remained poorly controlled.

"I started to have more and more attacks where I had to be blue-lighted in."

"It was the oral steroids which were the worst. For the 9 years of taking steroids, I gained stones in weight, suffered regular extreme mood swings, and suffered hugely with poor mental health, mainly through anxiety. I still carry the scars of all those steroids I've taken over the years."

Before long Jo received a diagnosis of severe asthma and at the age of 39 after many years of poor asthma control and many courses of oral corticosteroids Jo was started on a biologic for asthma.

"I was really lucky in that my local Trust was a specialist asthma centre."

"The freedom I got from biologic therapies both physically and mentally was amazing and something I struggle to explain to people."

Jo's journey is not untypical and she has shared her story to highlight the the brilliant NHS care she received that she would like to be available to be more commonplace for asthma patients of care for asthma patients. Her proximity to a local specialist asthma centre meant that she was identified through the number of emergency admissions she was suffering.

Our hope is that the consensus pathway described will help more patients like Jo. Focussing on earlier proactive identification of uncontrolled asthma, ensuring systems consider secondary care asthma services in a tiered approach and outlining acceptable journey times for patients should ultimately improve care for patients with uncontrolled and severe asthma.

Acronyms:
GP - General practitioner

1. Indicators of Uncontrolled asthma

1. Over previous 12 months (any of):
   - ≥2 courses OCS for asthma
   - ≥1 hospital admission/ED attendance for asthma
   - ≥6 SABA prescribed
   - Poor symptom control (as assessed by validated questionnaire)
2. On maintenance OCS for asthma

2. Primary care

Identification of patients with uncontrolled asthma

Consider proactive identification using search tools e.g. SPECTRA or similar

Diagnostic confirmation

Clinical optimisation

Review and optimise inhaler technique and adherence

Review biomarkers: blood eosinophil count + FeNO

Step up treatment according to national guidelines

Consider other factors that may impact on symptoms including smoking, mental health disease, physical activity and social influences

Start to identify and manage co-morbidities including rhinitis and gastroeosophageal reflux disease

Recommended maximum time for attempting optimisation: 6 months

To refer patients by 6 months (or sooner) if remain uncontrolled

3. Secondary care

Patients to be reviewed and treatment initiated within 18 weeks of referral

Diagnostic confirmation and pheynotyping

Treatment optimisation

Additional investigations as needed

Identification and management of comorbidities

Agreed referral pathway and diagnostics required pre-referral to SAC

3 levels of secondary care services for severe asthma patients based on resource, capability and local agreements:

Tier 1: all patients referred to and managed by SAC

Tier 2: patients referred to SAC; accept patients back after biologic initiation at SAC

Tier 3: local initiation of biologics after approval by SAC MDT

4. Severe asthma centre

Patients to be reviewed within 8 weeks of referral

Diagnostic confirmation and phenotyping

Comorbidity management through MDT input

Additional investigations as needed

Adherence and Treatment optimisation

Severe asthma multi-disciplinary team meeting

Other treatments, research opportunities

Other specialist input: Psychology, Physiotherapy etc.

Initiation of biologic in Tier 3 sites — 4 weeks

Initiation of biologic treatment in SAC — 4 weeks

Home administration of biologic (within 6 months unless clinical contraindications)

Annual MDT
to review ongoing biologic response

Support patient understanding of condition and therapy plan using shared decision making resources

Consider use of digital patient information resources and leaflets available here

Acronyms:

OCS - Oral costicosteriod
ED - Emergency department
SABA - Short-acting beta-agonist
FeNO - Fractional exhaled nitric oxide
SAC - Severe asthma centre
MDT - Multi-disciplinery team

Consensus Overviews: Primary Care

5. Identifying Uncontrolled Asthma

5.1. Indicators of Uncontrolled Asthma:

- Frequent exacerbations (≥2/year) requiring oral steroids, or serious exacerbations (≥1/year) requiring hospitalisation or ED attendance
- Poor symptom control (frequent symptoms/reliever use, night waking due to asthma, activity limited by asthma), as identified through the use of a validated, objective symptom questionnaire (ACT, ACQ)
- 6 or more SABAs in a 12-month period

5.2. Identifying patients with uncontrolled asthma

Patients can be identified at any time but the 3 main opportunities are:

1. At the time of the annual review
2. Exacerbation visit/ post exacerbation review –
   - Ensure mechanisms in place to support identification and follow up of patients admitted to ED with asthma exacerbations
3. Proactive case-finding through interrogation of electronic patient records: recommend to carry out every 6 months

Consider direct referral to SAC:

- If on maintenance steroids for asthma
  - Maintenance OCS: ≥5mg prednisolone daily (for asthma) for ≥3 months
- Previous admission to intensive care for asthma

5.3. Use search tools to support proactive case finding

A wide selection of case-finding and population health management tools are available to support identification of uncontrolled asthma patients. The AAC has developed some useful resources around this to support local asthma leads. The choice of appropriate tools will be in line with local needs and pathways and will be at the discretion of local leads.

Acronyms:

ED - Emergency department
ACT - Asthma control test
ACQ - Asthma control questionnaire
SABA - Short-acting beta-agonist
SAC - severe asthma centre
OCS - Oral corticosteroid
ICS - Inhaled corticosteroid
LABA - Long-acting beta-agonist
LTRA - Leukotriene receptor antagonist
LAMA - Long-acting muscarinic antagonists
COPD - Chronic obstructive pulmonary disease
MTD - Multi-disciplinary team
GP - General practitioner

6. Elements of Optimisation

6.1. Elements of asthma optimisation in primary care to include:

- Review patient notes to confirm diagnosis (do not necessarily need to repeat all investigations)
- Review and optimize inhaler technique: can also support patients by directing to online videos here and here
- Ensure the patient has a written or digital personalised self-management plan
- Adherence: review medicine possession ratio for ICS containing prescriptions
- Step up treatment to ICS/LABA +/- LTRA + LAMA (as per local and national guidance)
- Consider environmental agenda and shared decision making
- Review history to consider asthma mimics and comorbidities such as allergic rhinitis, COPD, anxiety symptoms and breathing pattern disorders (for example hyperventilation)
- Lifestyle
- Smoking cessation
- Weight management/encourage physical activity
- Consider social and psychological aspects that might be impacting on asthma control and refer as appropriate
- Maintenance OCS should no longer be initiated routinely as part of the asthma treatment pathway given the increased burden of comorbidities associated with these drugs

6.2. An aide memoire designed for clinicians undertaking asthma reviews to help review the indicators for referral to secondary care:
HASTE checklist

High intensity treatment: is the patient already at the high-end of the treatment escalator

Adherence: is the patient taking their medication at the correct dose and frequency

Severe exacerbations: has the patient had ≥2 courses or oral corticosteroids or been hospitalized due to asthma?

Technique: is the patient's inhaler technique correct
Exclude other conditions: manage conditions that mimic or exacerbate asthma

6.3. If patient remains uncontrolled following optimisation, patient should be referred to secondary care within 6 months of initial asthma consultation

7. Integrated care

7.1. Consider local/community/PCN based respiratory MDT meeting:

- Local health care systems should consider personalised model that support local set up and needs
- Two-way discussion with shared decision making
- Members include Respiratory Consultant, specialist nurse, Practice Nurse +/- GP, District nurse, pharmacist

7.2. Aims:

- Diagnostic clarification
- Complex patients' discussions
- Identify patients with potential severe asthma earlier and to 'pull' into the asthma service prior to hospitalisation or formal referral

8. Local recommendations

8.1. Asthma champion:

- A local asthma champion should be considered to provide leadership around improving asthma care
- Local champion roles will likely differ but may include support around: education, case-finding approaches, adherence and inhaler technique checks, asthma action plans and referrals

8.2. Local/ Community Diagnostic Hubs:

- Involve and integrate into local services for diagnostic and management options
- Access to quality assured diagnostic tests

9. Patients with severe asthma

Ensure SNOMED code for severe asthma is applied (once severe asthma diagnosed in SAC)

Consensus Overviews: Secondary care

10. Referral into Secondary Care

Patients with uncontrolled asthma should be seen by a respiratory specialist within 18 weeks of the referral.

Each secondary care centre should have a nominated asthma lead and a dedicated asthma clinic.

11. Integrated care

Secondary care team should consider offering community Respiratory MDTs to include discussion of patients with asthma.

Support patient diagnosis through community diagnostic centres

Specialist support in primary care

Two-way discussion with shared decision making

Identify potential biologics patients earlier and to 'pull' into the asthma service

12. Roles and Responsibilities

12.1 All patients referred to a secondary care with a pre-existing diagnosis of asthma should be assessed to:

- Objectively confirm or reject the diagnosis of asthma
- Phenotype according to biomarkers
- Assess adherence and address suboptimal adherence
- Assess and optimise inhaler technique
- Ensure appropriate level of asthma treatment in accordance with guidelines
- Assess and address relevant comorbidities including psychosocial factors
- Assess oral corticosteroid usage
- Support smoking cessation
- Weight management and physical activity

12.2 All asthma teams to be familiar with NICE indications for biologic prescribing

12.3 Referral to SAC

- Review biomarkers in patients who have had ≥3 exacerbations and consider referral to SAC
- All patients on maintenance oral steroids

12.4 Investigations to consider prior to referral to SAC/ discussion at SAC MDT:

- Full lung function testing
- Objective measure of control e.g. Asthma Control Questionnaire
- HRCT thorax (if indicated)
- Measurement of exhaled nitric oxide
- Peripheral blood eosinophil count
- IgE with specifics to common aeroallergens

13. Service Structure

- Each secondary care centre should have a nominated asthma lead and a dedicated asthma clinic.
- All referring centres will be categorised into one of the follow Tiers based on current multidisciplinary workforce and experience.
- Allocation will be made by the local SAC following discussion with the centre.

13.1. Tier 1
No existing asthma clinic or lead. Minimal engagement with SAC network. Will refer all patients to the SAC

Aim: SACs to encourage sites to have an asthma lead and support plans to develop local services. Referral to SAC should be in line with SAC asthma referral protocols

13.3. Tier 2
Has a designated Asthma lead and currently engaged with SAC network with experience of monitoring biologics

Aim: Spokes to accept patients back for continuation of treatment and monitoring following a positive trial at the SAC. Encouraged to engage in SAC MDT

13.5. Tier 3
A designated asthma lead with job planned time for this role, highly engaged in the SAC network with the experience or capability to initiate biologics. Ability to conduct local asthma MDTs. Access to physiotherapy, SLT and psychology services

Aim: Local initiation and monitoring of biologics after approval at multi-disciplinary meeting with SAC. Patient does not need to be physically seen at the SAC

Acronyms:

SAC - Severe asthma centre
MDT - multi-disciplinary team
HRCT - High-resolution computed tomography
IgE - Immunoglobulin E
SLT - Speech language therapy

Consensus Overviews: Severe asthma centre

14. Roles and Responsibilities

The Severe Asthma Toolkit details biologic choice and assessment of response, MDT processes, adherence assessment and the severe asthma registry

15. MDT Meetings with spoke sites

- SAC to offer minimum of monthly virtual MDT meetings to network tier sites
- Clinicians at tier hospitals able to discuss new or existing patients with severe or complex asthma, and utilize MDT expertise
- Streamline subsequent review at SAC with relevant MDT input
- Opportunity to discuss collaborative asthma research projects

16. Biologic approval and initiation

- Biologic approval as per NICE criteria
- Biologic to be initiated within 4 weeks of MDT approval
- Consider using a validated remote monitoring solution to support monitoring
- Move appropriate patients to home administration of biologic as soon as clinically and practically possible (within 6 months)

17. Monitoring of patients on biologics

17.1. Not on maintenance OCS

- Review 3 to 6 monthly in first year

17.2. On maintenance OCS

- Regular reviews at 4-8 weekly intervals to:
- Guide OCS wean
- Understand any factors contributing to failure to wean
- Assess adrenal function (reviews can be virtual or face to face depending on clinical context)

17.3. Assess response to biologic at 6 months

Indicators of suboptimal response include:

- Minimal symptom improvement (<0.5 improvement in ACQ)
- Failure to significantly reduce mOCS dose (e.g. <50% reduction)
- No significant reduction in exacerbation frequency
- Patient expectations of improvement are not met

Assessment of suboptimal response to include:

- Medication adherence, spirometry, T2 biomarkers, evidence of chronic airway infection
- Consider: Additional imaging (+/- bronchoscopy) if indicated, assessment of comorbidities, sputum induction if available

17.4 Decisions around ongoing management of patients will be determined through SAC MDT

18. Tier-SAC interaction

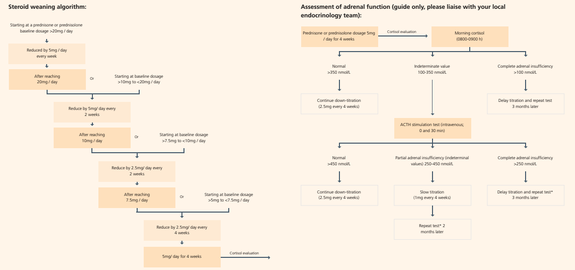
Criteria for discussion with SAC:

- Suboptimal response at 6 months
- >1 severe exacerbation since initiation of biologic or in preceding 12 months
- Annually to review response to biologic and continued use

Ongoing steroid-related toxicity management (e.g. bone mineral clinic) to take place at tier hospitals

19. Steroid weaning (after biologic initiation)

Steroid weaning to begin shortly after biologic initiation- after 1st or 2nd dose
Suggested steroid weaning plan:



Involve local endocrinology team when assessing adrenal function

20. Long-term follow up of patients

- Review 6 monthly by appropriate member of asthma MDT
- Face-to-face review recommended if >1 exacerbation on biologic treatment during the year
- At 12+ months, repatriate 'super-responder' (no OCS for asthma in last 12 months and low symptom score) to spoke hospital
- In general, patients with ongoing OCS requirement to remain under SAC

Acronyms:

MDT - Multi-disciplinary team
SAC - Severe asthma centre
OCS - Oral corticosteroid
mOCS - Maintenance oral corticosteroid
ACQ - Asthma control questionnaire
T2 - Type 2
ACTH - Adrenocorticotropic hormone

'ABC' for all clinicians caring for patients with asthma

Optimising **A**dherence, reviewing **B**iomarkers and addressing **C**omorbidities is relevant to all patients with asthma- across primary care, secondary care and severe asthma centres.

Adherence

- Confirmation of sufficient adherence to prescribed asthma medicines (especially ICS) is essential before any treatment escalation and a prerequisite for biologic eligibility
- Recommended methods to assess adherence include Medicines Possession Ratio Go to: Medication Possession Ratio page (MPR: number of doses prescribed [or issued] divided by the number that would be expected in that time scale and expressed as a percentage)* and where appropriate and available, using electronic monitoring of inhaler use, the FeNO suppression test and prednisolone/cortisol levels (for patients who are on daily steroids)
- If adherence is suboptimal, personalised interventions to support its improvement should be agreed with the patient
- Adherence should be re-checked 3-6 months after the intervention(s)
- For patients on biologics: poor ICS adherence my adversely affect outcomes, so adherence to prescribed therapy should be reviewed annually or if there is a loss of asthma control

Biomarkers

Blood eosinophil count (BEC)

- The BEC is a key biomarker
- As the eosinophil count increases, risk of exacerbation increases and the ability to maintain asthma control decreases
- In general, a BEC ≥0.3 x109 cells/L is considered relevant in asthma
- In addition to reviewing the current BEC, it is also useful to review historical values

FeNO

- FeNO is a key biomarker that is helpful in the diagnosis and management of asthma and in guiding adherence assessment
- A normal FeNO does not exclude asthma
- A raised FeNO may indicate increased airway inflammation and once treatment adherence and inhaler technique have been optimised, stepping-up treatment may be needed
- FeNO can be affected by other conditions such as upper airways disease and also current smoking
- The FeNO Toolkit has additional information and resources

Comorbidities

Look for and address comorbidities and lifestyle factors including (list not exhaustive):

- Sinonasal disease
- Gastro-oesophageal reflux disease
- Breathing pattern disorders
- Laryngeal disorders
- Obstructive sleep apnoea
- Obesity
- Smoking
- Anxiety and depression (and other psychological illnesses)

Acronyms:

ICS - Inhaled corticosteroid
FeNO - Fractional exhaled nitric oxide
BEC - Blood eosinophil count

Identifying Uncontrolled Asthma

5.1. Indicators of Uncontrolled Asthma:

- Frequent exacerbations (≥2/year) requiring oral steroids, or serious exacerbations (≥1/year) requiring hospitalisation or ED attendance
- An exacerbation is defined as the use of systemic steroids for ≥3 consecutive days or an increase in systemic steroids (if on maintenance steroids) for ≥3 consecutive days
- Poor symptom control (frequent symptoms/reliever use, night waking due to asthma, activity limited by asthma), as identified through the use of a validated, objective symptom questionnaire (ACT, ACQ)
- 6 or more SABAs in a 12-month period
  - 6 or more SABAs in 12 months has been demonstrated as an effective predictive marker of future risk for asthma exacerbations

5.2. Identifying patients with uncontrolled asthma

Patients can be identified at any time but the 3 main opportunities are:

1. At the time of the annual review
2. Exacerbation visit/ post exacerbation review –

- Ensure mechanisms in place to support identification and follow up of patients admitted to ED with asthma exacerbations

3. Proactive case-finding through interrogation of electronic patient records: recommend to carry out every 6 months

Consider direct referral to SAC:

- If on maintenance steroids for asthma
- Maintenance OCS: ≥5mg prednisolone daily for ≥3 months
- Ensure NHSE steroid emergency card issued
- Previous admission to intensive care for asthma

5.3. Use search tools to support proactive case finding

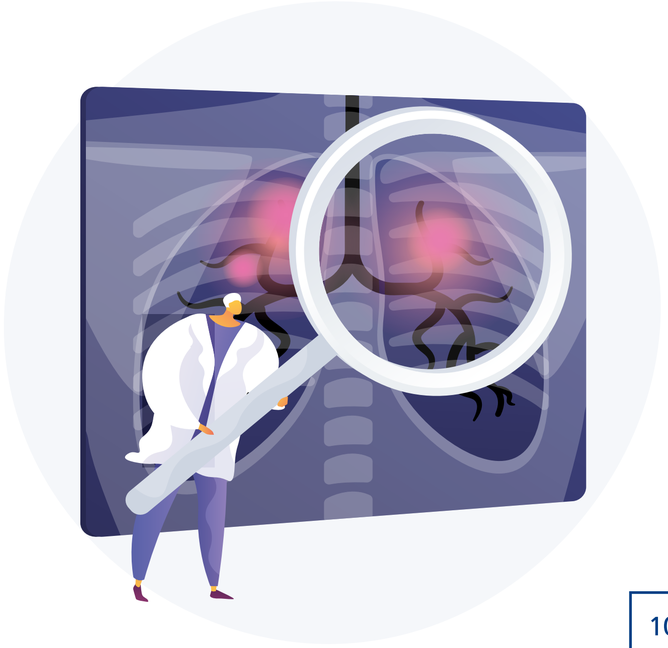
A wide selection of case-finding and population health management tools are available to support identification of uncontrolled asthma patients. The AAC has developed some useful resources around this to support local asthma leads. The choice of appropriate tools will be in line with local needs and pathways and will be at the discretion of local leads

1. SPECTRA (Identification of SusPECted seveRe Asthma)*

- This is a Donated Service Programme funded by AstraZeneca & developed in collaboration with NHS England & Improvement (NHSE&I) and the AAC
- This search tool identifies patients with a coded diagnosis of asthma who are also on (high dose) inhaled steroids and in the last 12 months have had ≥2 courses OCS, ≥1 hospital admission or ED presentation and/or ≥6 SABA inhalers prescribed

2. NHS BSA Respiratory Prednisolone Dashboard EPACT2

- The risk of OCS related side effects is dose dependent
- This dashboard can be used at GP practice level to highlight cumulative dose of prednisolone over 12 months for patients who are also prescribed an inhaler
- Search can be stratified based on amount of prednisolone in the year e.g. 1g, 2g and 3g



Acronyms:

ED - Emergency department
ACT - Asthma control test
ACQ - Asthma control questionnaire
SABA - Short-acting beta-agonist
SAC - Severe asthma centre
OCS - Oral corticosteroid
AAC - Accelerated Access Collaborative
OCS - Oral corticosteroid
ED - Emergency department
SABA - Short-acting beta-agonist
NHS BSA - NHS Business services authority
GP - General practitioner

Elements of optimisation

Once a patient with uncontrolled and/or potentially severe asthma is identified, they should be reviewed in primary care with steps taken to try and improve their asthma control. The review should include a review of repeat and non-prescription medication to clarify OCS/ ICS/ SABA usage.

Review patient notes and discuss with patient to confirm the diagnosis

It is not always necessary to repeat all investigations

Look for evidence of reversible airflow obstruction, peak flow variability

Audible wheeze on auscultation

Evidence of airway inflammation: FeNO* (if available) and blood eosinophil count** (current and historical)

Review and optimize inhaler technique and adherence

Can direct to online resources for further support for inhaler technique here and here.

Review medicine possession ratio (MPR) for ICS containing preparations

Step up treatment and review

Step up treatment to ICS/LABA +/- LTRA +/- LAMA as per local and national guidance

***Maintenance OCS should no longer be initiated routinely as part of the asthma treatment pathway given the increased burden of comorbidities associated with these drugs**

Personalised asthma action plan

Ensure patient has a personalised written or digital self-management plan

Discuss trigger and allergen avoidance (if applicable)

Review history and consider asthma mimics and comorbidities

Breathing pattern disorders e.g. hyperventilation

Sinonasal disease including allergic rhinitis
Psychological comorbidities e.g. anxiety

COPD

Inhaler Choice

Consider environmental agenda and support patients with shared decision making

Discuss lifestyle aspects that may be affecting their overall symptoms

Support smoking cessation

Weight management

Strategies to increase physical activity

Additional considerations

Consider social and psychological aspects that might be affecting asthma symptoms and refer as necessary

Acronyms:

OCS - Oral corticosteroid
ICS - Inhaled corticosteroid
SABA - Short-acting beta-agonist
FeNO - Fractional exhaled nitric oxide
LABA - Long-acting beta-agonist
LTRA - Leukotriene receptor antagonist
LAMA - Long-acting muscarinic antagonists
COPD - Chronic obstructive pulmonary disease

Patient referral

6.2. The AAC have developed an aide memoire designed for clinicians undertaking asthma reviews: HASTE checklist.

If the patient is still experiencing uncontrolled symptoms and the answers to the HASTE questions are 'yes', then please consider referring the patient to secondary care/ your local SAC:

THE HASTE TOOL

H	A	S	T	E
High Intensity Treatment	**Adherence**	**Severe Exacerbations**	**Technique**	**Exclude Other Conditions**
Is the patient already at the high-end of the treatment escalator	Are patients taking their medication at the correct dose and frequency?	Has the patient had ≥2 courses of oral corticosteroids or been hospitalised due to asthma in the last 12 months?	Is the patient's inhaler technique correct?	Are conditions that mimic or exacerbate asthma being managed?

6.3. If patient remains uncontrolled following optimisation, patient should be referred to secondary care within 6 months of initial asthma consultation

- (this is to allow treatment changes to be made and reviewed, other factors to be considered e.g. smoking cessation)
- Consider use of referral template approved by local secondary care or SAC
- An AAC developed primary care referral template is available within SPECTRA tool, which auto-populates the required fields including adherence information from the clinical record

Referral letter to include

- Reason for referral
- Current asthma treatment and previously tried treatment
- Number of courses of steroids (for asthma) in previous 12 months
- Number of ED and hospital admissions for asthma in previous 12 months
- Number of ICS containing inhalers prescribed in previous 12 months
- Any relevant co-morbidities
- Results of relevant investigations -spirometry, PEFR monitoring, blood eosinophil count, FeNO (and date)
- Smoking history and BMI

Acronyms:

SAC - Severe asthma centre
SAC - Severe asthma centre
AAC - Accelerated Access Collaborative
ED - Emergency department
ICS - Inhaled corticosteroid
PERF - peak flow
FeNO - Fractional exhaled nitric oxide
BMI - Body mass index

Integrated care

7.1. Consider local/community/PCN based respiratory MDT meeting:

- Local health care systems should consider personalised model that support local set up and needs
- Helpful for the MDT meeting to link with education to facilitate upskilling
- May wish to group practices together
- Two-way discussion with shared decision making
- Early discussion can help with the co-ordination of relevant investigation and reduce/avoid duplication

Members include Respiratory Consultant, specialist nurse, Practice Nurse +/- GP, District nurse, pharmacist

7.2. Aims:

- Diagnostic clarification
- Complex patients' discussions
- Identify patients with potential severe asthma earlier and to 'pull' into the asthma service prior to hospitalisation or formal referral

Acronyms:

PCN - Primary care network
MDT - multi-disciplinary team
GP - General practitioner

Local recommendations

8.1. Asthma champion:

- A local asthma champion should be considered to provide leadership around improving asthma care
- Local champion roles will likely differ but may include support around: education, case-finding approaches, adherence and inhaler technique checks, asthma action plans and referrals

8.2. Local/ Community Diagnostic Centres:

- Involve and integrate into local services for diagnostic and management options
- Access to additional diagnostic tests

Considerations for patients with severe asthma

Once severe asthma is diagnosed in SAC:

- Ensure SNOMED code for severe asthma is applied (Severe Asthma SNOMED code: 370221004)

Review inhaler technique and optimise adherence at every opportunity

If the patient is on an asthma biologic:

- Add biologic to 'hospital prescribed' part of medical record
- Biologics do not need to be stopped during infections or pre-surgery
- Continue all other asthma treatment unless advised to stop by SAC

Inform SAC team if patient is experiencing exacerbations (and they haven't already informed SAC)

Acronyms:

SAC - Severe asthma centre

Referral into Secondary Care

Patients with uncontrolled asthma should be seen by a respiratory specialist within 18 weeks of the referral.

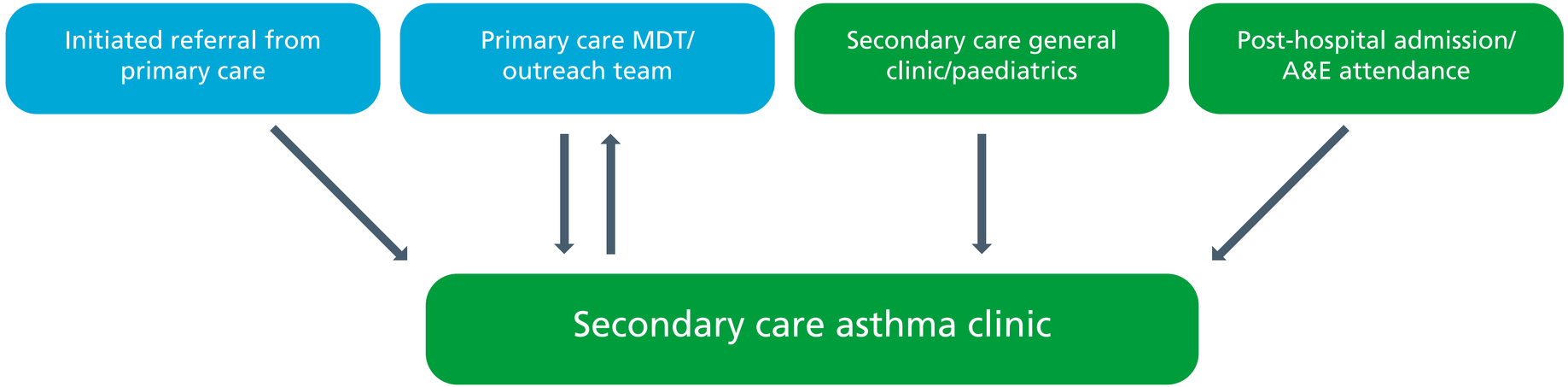
10.1 Pathways to a secondary care asthma clinic should be in place to enable referrals from:

- Primary care
- Secondary care e.g. general respiratory clinic
- Paediatric and adolescent services
- Post hospital admission and A&E attendance (may need additional mechanisms to identify these patients)

10.2 Each secondary care centre should have a nominated asthma lead and a dedicated asthma clinic

- Referrals from primary care should be triaged by the respiratory team
- Necessary investigations (as deemed by the secondary care clinician) should be performed prior to the first appointment to facilitate timely diagnosis and treatment initiation

*if a referral is deemed 'urgent' by the secondary care clinician, the patient should be triaged and reviewed as soon as possible



Acronyms:

MDT - Multi-disciplinary team
A&E - Accident and emergency

Integrated care

11. Integrated care

(please also refer to section 8: Local recommendations above)

Secondary care team should consider offering community Respiratory MDTs to include discussion of patients with asthma

With appropriate data sharing, this enables specialist asthma advice and support to be given to GP practices and ensure appropriate patients are referred to secondary care

Support patient diagnosis and management through engagement in community diagnostic centres/ community hubs

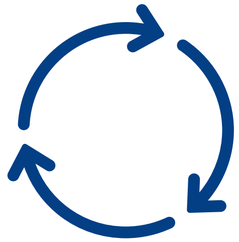
Specialist support in primary care

Two-way discussion with shared-decision making

Identify potential biologics patients earlier and to 'pull' into the asthma service

Diagnostic clarification

Complex patients' discussion



'Pull patients through'

Reduce duplication of investigations

Acronyms:

MDT - multi-disciplinary team
GP - General practitioner

Roles and Responsibilities within Secondary Care

12.1 Assessment and management of all patients referred to secondary care with a pre-existing diagnosis should include:

- Objectively confirm or reject the diagnosis of asthma
- Phenotype according to biomarkers
- Assess adherence and address suboptimal adherence
- Assess and optimise inhaler technique
- Ensure appropriate level of asthma treatment in accordance with guidelines
- Assess and address relevant comorbidities including psychosocial factors
- Assess oral corticosteroid usage
- Sputum microbiology testing (where indicated)
- Support smoking cessation
- Weight management and physical activity

(some of these assessments and interventions may already have been carried out in primary care or community hubs/ intermediate care and do not necessarily need to be repeated)

12.2 All asthma team to be up-to-date with NICE indications for biologic prescribing

- Omalizumab
- Mepolizumab
- Reslizumab
- Benralizumab
- Dupilumab
- Currently licensed asthma biologics

12.3 Referral to SAC

- Review biomarkers in patients who have had ≥3 exacerbations and consider referral to SAC
- All patients on maintenance oral steroids for asthma should be referred to SAC/ have had input from SAC
- Also refer patients to SAC for further diagnostic clarity, MDT input, other specialist input

12.4 Investigations and assessments to consider prior to referral to SAC/ discussion at SAC MDT:

- Full lung function testing including bronchodilator reversibility
- Objective measure of control e.g. Asthma Control Questionnaire
- HRCT thorax (if indicated)
- Measurement of exhaled nitric oxide to quantify airway inflammation
- Peripheral blood eosinophil count (preferably to two decimal places)
- IgE with specifics to common aeroallergens (including fungal-IgE to aspergillus)

Adherence measures:

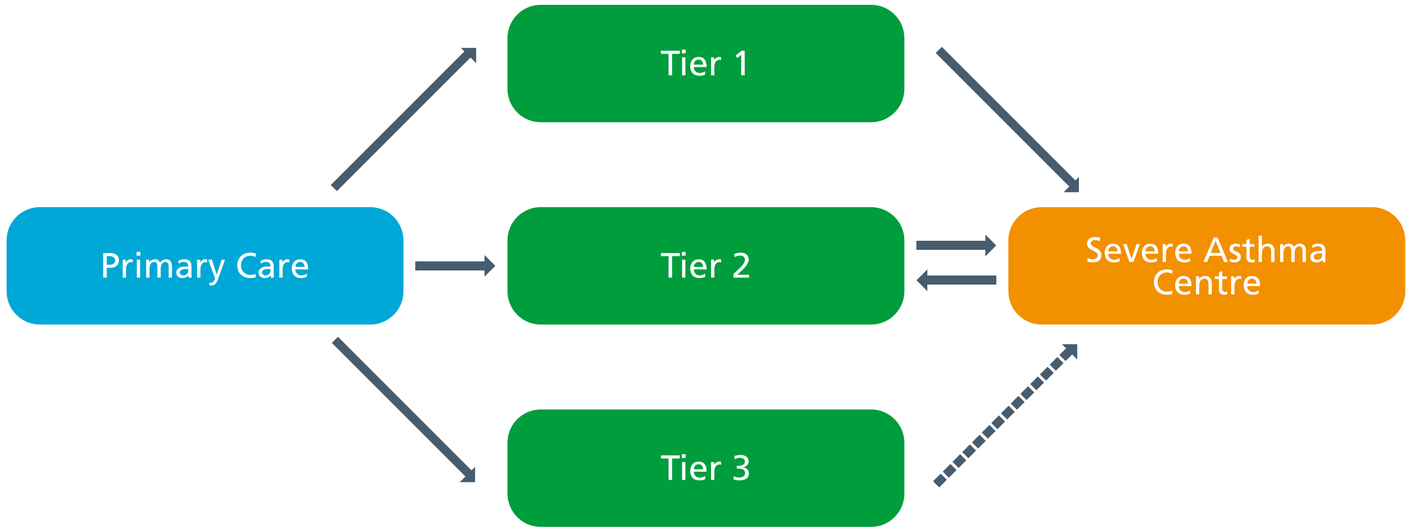
- Review of prescription of ICS containing inhalers (to assess medicine possession ratio)
- E-monitoring (where available)
- Note adherence assessment and management can continue in the SAC; do not delay referral if there is likely to be considerable delay
- Assessment and management of relevant comorbidities

Acronyms:

TA - Technology appraisal
SAC - Severe asthma centre
MDT - Multi-disciplinary team
HRCT - High-resolution computed tomography
IgE - Immunoglobulin E
ICS - Inhaled corticosteroid

Service Structure

- Each secondary care centre should have a nominated asthma lead and a dedicated asthma clinic
- All referring centres will be categorised into one of the follow Tiers based on current multidisciplinary workforce and experience: Tier 1, Tier 2 or Tier 3
- Allocation will be made through discussions at the local level and with involvement of the local SAC
- This should allow us to map out services and expertise across regions and enable us to identify gaps and inequality in healthcare
- It is recognised that there will be some local variation and flexibility



Acronyms:

SAC - Severe asthma centre

Service Structure

Service Structure: TIER 1

Tier 1

- No existing asthma clinic or lead
- Minimal engagement with SAC network
- Will refer all patients to the SAC for assessment and management including initiation and monitoring of biologics
- Once commenced on a biologic, patients will remain under the care of the SAC

Aim:

- To encourage sites to have an asthma lead
- SAC to provide support (as needed) to help develop local services
- Referral to SAC should be in line with SAC asthma referral protocols

Service Structure: TIER 2

Tier 2

- Has a designated Asthma lead
- Currently engaged with SAC network
- Experience of monitoring biologics with necessary clinical expertise
- Do not have expertise or capacity to initiate biologics locally and robustly assess clinical response

Aim:

- Spokes to accept patients back for continuation of treatment and monitoring following a positive trial at the SAC
- Annual biologics MDT to continue at SAC
- Encourage to engage in SAC MDT to support two-way communication
- SAC to provide support (as needed) to help develop local services. This may include pharmacy and specialist nurse support for patients on home care
- Referral to SAC should be in line with SAC asthma referral protocols

Service Structure: TIER 3

Tier 3

- A designated asthma lead with job planned time for this role (GIRFT recommendation)
- Ability to conduct local asthma MDTs with the required governance structure (2 consultants, asthma specialist nurse, dedicated respiratory pharmacist)
- Access to physiotherapy, SLT and psychology services
- Highly engaged in the SAC network with the experience or capability to initiate biologics
- To have a process in place for accepting transition patients
- In general, would not 'accept referral' from other hospitals

Aim:

- Local initiation and monitoring of biologics after approval at multi-disciplinary meeting with SAC
- Patients do not have to be reviewed in SAC
- To work with SAC to ensure similar and robust monitoring of clinical response
- Input data into the national severe asthma registry
- Regular service evaluation to ensure quality

Acronyms:

SAC - Severe asthma centre
MDT - Multi-disciplinary team
GIRFT - Getting it right first time
SLT - Speech and language therapy

MDT meeting with spoke sites

- SAC to offer **minimum of monthly virtual MDT meetings** to network spokes (opportunities to discuss urgent cases at least every 2 weeks)
- Clinicians at spoke hospitals able to discuss new or existing patients with severe or complex asthma, and utilise MDT expertise. This will also help reduce duplication of investigations (and the associated travel to SAC)
- Streamline subsequent review at SAC with relevant MDT input (e.g. asthma physiotherapist, respiratory pharmacist, SLT, clinical psychologist)
- Opportunity to discuss collaborative asthma research projects
- Upskill: newer investigations and emerging treatments as they become available

Acronyms:

SAC - Severe asthma centre
MDT - Multi-disciplinary team
SLT - Speech and language therapist

Biologic Approval and Initiation

Biologic approval as per criteria set by NICE Technology Appraisal Guidance

Omalizumab
Benralizumab
Mepolizumab
Dupilumab
Reslizumab

Centres and Tier 3 sites that initiate biologics should complete the BlueTeq form prior to initiation

Biologic to be initiated within 4 weeks of MDT approval

Move patients to home administration of biologic as soon as clinically and practically possible (ideally after 2nd or 3rd dose, but within 6 months)

Consider using a digital monitoring solution to support patients who are on 'homecare'

Acronyms:

MDT - Multi-disciplinary team

Monitoring of patients on biologics: Year 1

(In SAC or Tier 3 site)

1. Not on maintenance OCS

Review 3 - 6 monthly in first year

2. On maintenance OCS

Regular reviews at 4-8 weekly intervals to:

- Guide OCS wean
- Understand factors contributing to failure to wean OCS
- Assess adrenal function

(reviews can be virtual or face to face depending on clinical context)

*If patients are on maintenance OCS, ensure NHSE steroid emergency card is issued

Assess response to biologic at 6 months

Indicators of **suboptimal response** include:

- Minimal symptom improvement (<0.5 improvement in ACQ)
- Failure to significantly reduce mOCS dose (e.g. <50% reduction)
- No significant reduction in exacerbation frequency
- Patient expectations of improvement are not met

Assessment of suboptimal response to include:

Medication **adherence**, spirometry, **T2** biomarkers, look for evidence of chronic airway **infection**

Consider: Repeat imaging, bronchoscopy (if indicated), further assessment of comorbidities, sputum induction if available

Acronyms:

SAC - Severe asthma centre
OCS - Oral corticosteroid
mOCS - Maintenance oral corticosteroid
MDT - Multi-disciplinary team
ACQ - Asthma control questionnaire
T2 - Type 2

Long-term follow up of patients on biologics

At 12+ months since biologic initiation

At 12+ months, repatriate 'super-responders' from SAC to Tier 2 hospital. Super response is defined if:

- No OCS for asthma exacerbations since commencing biologic
- Off all mOCS (patients with mOCS for adrenal replacement only do not need to remain under SAC)
- Low symptom score
- Patients with ongoing OCS requirement to remain under SAC

Patients to be referred back to SAC/ early discussion with SAC if they lose asthma control

In general, patients with ongoing OCS requirement to remain under SAC; however, there may be variations based on local needs and capability

Ongoing review

(For all patients- SAC, Tier 2 and Tier 3)

Review 6 monthly by appropriate member of asthma MDT (doctor, asthma CNS, asthma pharmacist)

Face-to-face review recommended if >1 exacerbation on biologic treatment during the year or increase in mOCS dose (above AI dose)

Annual SAC MDT

Annual SAC MDT to assess ongoing biologic response and continued biologic use

Acronyms:

SAC - Severe asthma centre
OCS - Oral corticosteroid
mOCS - Maintenance oral corticosteroid
MDT - Multi-disciplinary team
CNS - Clinical nurse specialist

Tier 2 and 3-SAC interaction for patients on biologics

Tier 2

Patients repatriated from SAC at 12+ months for ongoing review and monitoring

Annual MDT with SAC

Annual face to face review at SAC depending on local set up, capability and capacity

Tier 3

Patients who have biologics initiated at Tier 3 sites will be monitored by the Tier 3 MDT

At 12 months, patients to be discussed at joint MDT between Tier 3 site and SAC to assess biologic response and continued use

Annual MDT with SAC

Criteria for discussion with SAC include:

- Suboptimal response to biologic at 6 months (for patients in Tier 3 sites)
- >1 severe exacerbation in preceding 12 months

Patients should be reviewed face-to-face by Tier hospital prior to discussion with SAC

Ongoing steroid-related toxicity management (e.g., bone mineral clinic) to take place at spoke hospitals

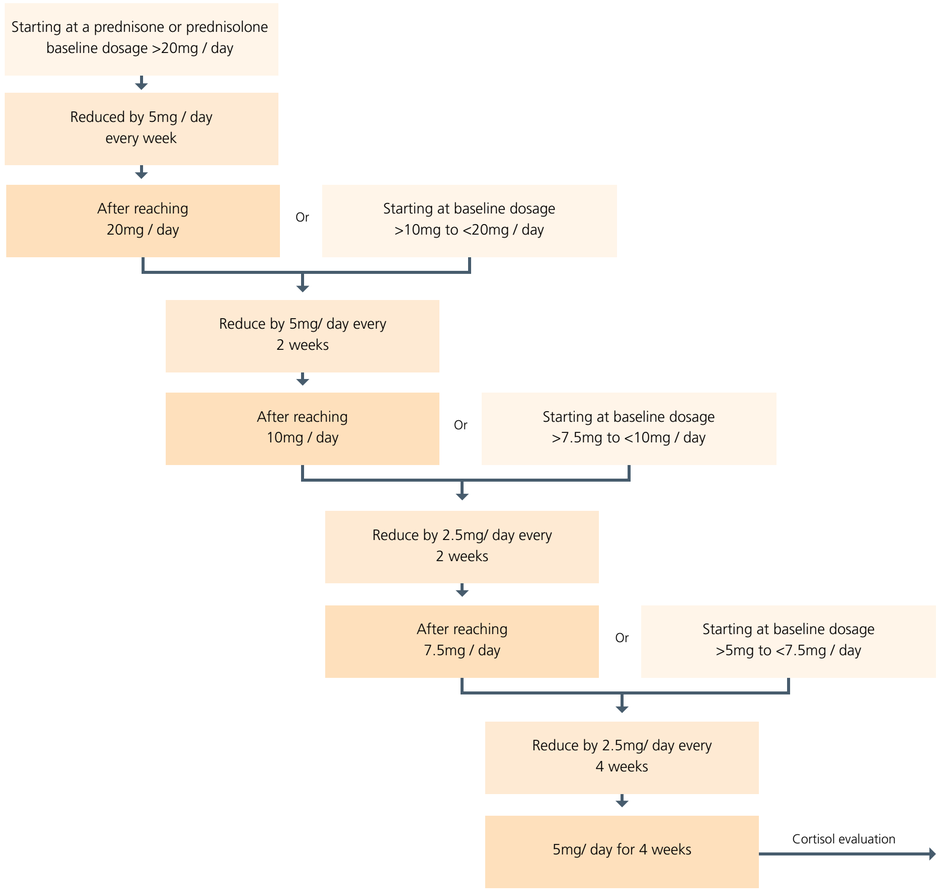
Acronyms:

SAC - Severe asthma centre
MDT - Multi-disciplinary team

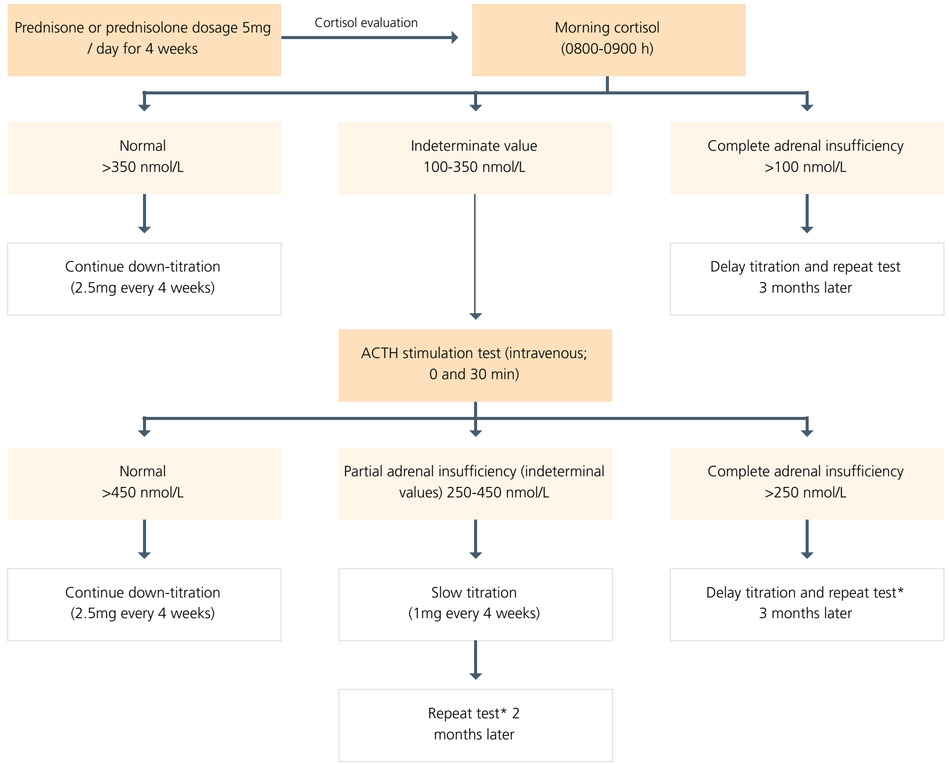
Steroid weaning and assessment of adrenal function (after biologic initiation)

- Steroid weaning to begin shortly after biologic initiation (after 1st or 2nd dose depending on biologic mode of action)
- **Different approaches and protocols will be appropriate for centres with varying configurations**. An effective and evidence-based approach is presented here (taken from the PONENTE study of benralizumab in severe asthma, Menzies-Gow et al)
- **Involvement of local endocrinology teams is recommended** to guide assessment of adrenal function and management of adrenal insufficiency (flowchart presented below is only a guide)

Steroid weaning algorithm:

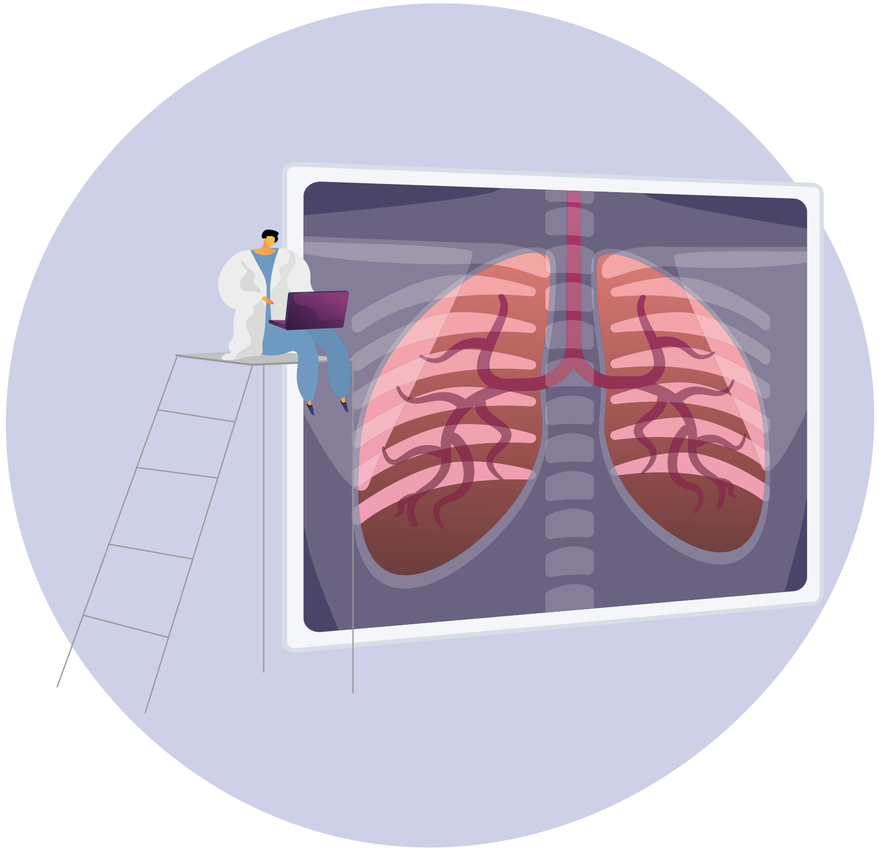


Assessment of adrenal function (guide only, please liaise with your local endocrinology team):



Next Steps

- This AAC consensus pathway has been developed to provide a set of standards for the care of people with uncontrolled and severe asthma based on agreed best practice. This pathway is an output of the AAC Asthma Biologics Programme
- The AAC Asthma Biologics programme will continue until April 2023, fully supported by the 15 Academic Health Science Networks across England. One of the areas of focus for the next year of the programme will be to support systems and networks to embed areas of the pathway that would most benefit their local needs, using the AHSN Network's expertise in the spread and adoption of innovative practice
- The programme has bought together numerous resources and tools to help those involved in asthma care build the case for change to improve existing services. We hope that through rethinking and re-designing care provision for uncontrolled and severe asthma patients we will see increases in the number of appropriate patients identified, optimised and where necessary referred to specialised care. We hope, in turn, this will lead to faster access to the care and medicines these patients need, such as biologic medicines
- We recommend that stakeholders involved in regional and system asthma care work, understand how the standards described in this pathway compare with current practice as a means to drive future improvement
- As integration continues across commissioning and healthcare delivery, we hope this pathway will be seen as a blueprint for joining up asthma care. We know that this is the start of a long journey but are optimistic that this important best practice pathway can and will lead to real improvements for people with uncontrolled and severe asthma
- For more information on the AAC Asthma Biologics programme and the tools and resources available please visit https://www.oxfordahsn.org/our-work/asthma-biologics-toolkit/



Acronyms:

AAC - Accelerated Access Collaborative

Appendix 1: SPECTRA

SPECTRA – Identification of SusPECted seveRe Asthma

SPECTRA

Running the search:

- No external software is needed; pre-created downloadable searches that can be deployed via Vision+ for Vision sites, EMIS Web and SystmOne

Search criteria:

- Patients with a diagnosis of asthma and on (high dose) ICS
- ≥2 exacerbations requiring OCS
- ≥ 1 serious exacerbations (hospital admission)
- ≥6 SABAs in 12 months

The search generates easy to access patient lists for review that are prioritised based on number of courses of steroids and also ICS dose

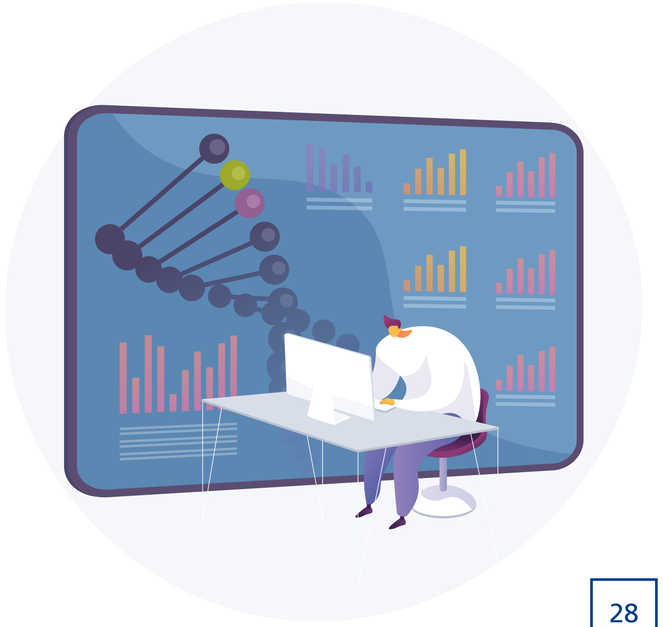
- Integrated 'alert' that can pop up to prompt a review of the patient record
- Once the search is run, we recommend a review of the patients' electronic patient records to clarify if the prescribed courses of OCS were for asthma or another condition (a suggested checklist is available on the website)
- Refer patients who have had attempts made at improving their asthma control but remain symptomatic, who are on maintenance daily steroids for asthma or if there is another clinical concern

SPECTRA Referral template

Coded file that pulls through key data and medication in one document for onward referral

- Auto-populates from EMIS, SystmOne and Vision
- Relevant comorbidities highlighted
- Investigations pulled through- blood eosinophil, spirometry
- Courses of steroids
- Number of ICS containing inhalers in the last 12 months
- Number of SABAs in the last 12 months
- Number of OCS in the last 12 months

Can be edited, updated and saved into the patient record



Appendix 2: Currently licensed asthma biologics

Drug	Administration route	Dosage	Criteria for use
Omalizumab Anti-IgE 'Xolair'	Subcutaneous	Every 2 weeks or every 4 weeks (Based on IgE and weight)	• Sensitisation to perennial aeroallergen e.g. dust mite, mould AND • IgE in dosing range AND • ≥4 exacerbations in previous 12 months OR continuous OCS use
Mepolizumab Anti-IL5 'Nucala'	Subcutaneous	Every 4 weeks	• BEC ≥ 0.3 x109 cells/L AND ≥ 4 exacerbations in preceding 12 months OR • BEC ≥0.3 x109 cells/L AND continuous OCS use OR • BEC ≥0.4 x109 cells/L AND ≥3 exacerbations in preceding 12 months
Benralizumab Anti-IL5R 'Fasenra'	Subcutaneous	Every 4 weeks for the first 3 doses, then every 8 weeks	
Reslizumab 'Cinqaero'	Intravenous	Every 4 weeks	• BEC ≥0.4 x109 cells/L AND ≥3 exacerbations in preceding 12 months
Dupilumab Anti-IL4R 'Dupixent'	Subcutaneous	Every 2 weeks	• BEC ≥0.15 x109 cells/L AND FeNO ≥25ppb AND ≥4 exacerbations in preceding 12 months AND • Failed other biologic OR does not fulfil criteria for other biologic AND • Not on daily OCS for asthma

Acronyms:

IgE - Immunoglobulin E
BEC - Blood eosinophil count
OCS - Oral corticosteroid

Appendix 3: Medicines possession ratio

Data from prescription issues or pharmacy refills allow calculation of the MPR

It is the number of doses prescribed (or issued) divided by the number that would be expected in that time scale and expressed as a percentage

Data for the preceding year is normally considered

MPR assumes all doses are taken; can be an overestimate of adherence

$$\text{MPR (\%)} = \frac{\text{Number of doses prescribed (in the interval)}}{\text{Number of doses expected (in the interval)}} \times 100$$

Adherent
MPR ≥75%

Sub-optimal
MPR 50-74%

Poor
MPR <50%

Using the example of a device that contains 30 doses, taken as 1 actuation daily and lasts 30 days: over a 12-month period, daily use would use 12 inhalers. If the patient is issued 10 inhalers, this is an MPR of 83%

$$\text{MPR (\%)} = \frac{10 \times 30}{12 \times 30} \times 100 = 83\%$$

Acronyms:

MPR - Medicine possession ratio

Appendix 4: Building Consensus

Supported by Oxford AHSN and chaired by Hitasha Rupani the group was established

Pathway specifications were developed and sub-group leads appointed. Through a series of collaborative meetings the 'Draft Consensus Pathway' was created.

28-day consultation with engagement from relevant stakeholders and networks. Feedback reviewed and actioned as necessary and the pathway was shaped further with input from the working group.

Pathway was launched at a national webinar with the final interactive PDF published in June 2022

NHS England and NHS Improvement

Developed with

British Thoracic Society · PCRS · ARNS Association of Respiratory Nurse Specialists · Asthma+Lung UK · Oxford Academic Health Science Network · Accelerated Access Collaborative · NHS

Appendix 5: Partner Organisations

The AAC is a unique partnership between patient groups, government bodies, industry and NHS bodies, all working together to streamline the adoption of new innovations in healthcare

Our Endorsing Partner Organisations are listed here:

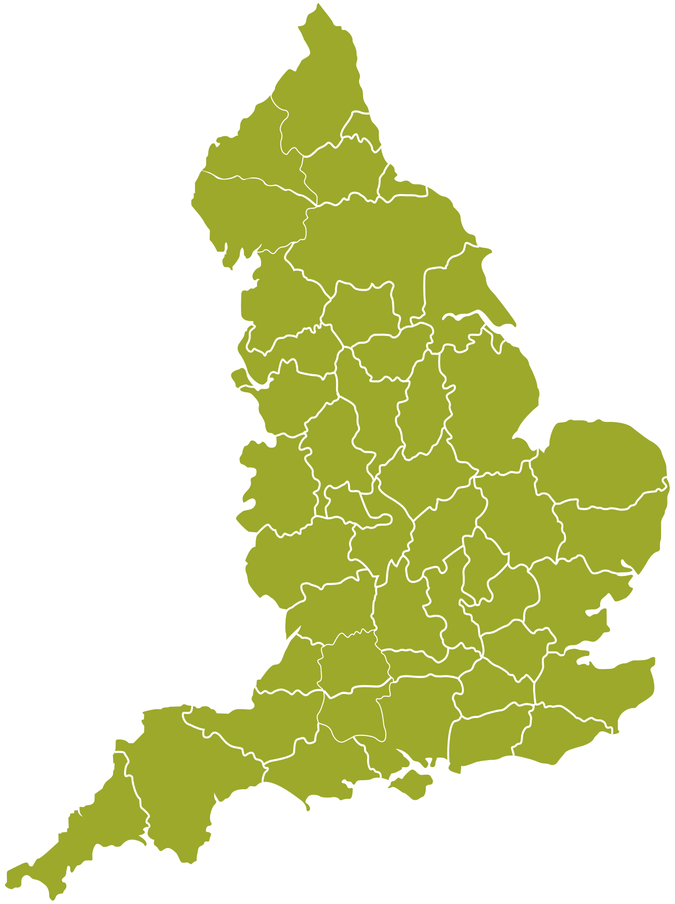
The British Thoracic Society - leading on improving standards of care for people who have respiratory diseases and supporting those who provide that care

The Asthma and Lung UK – national charity improving lung health for all

The Primary Care Respiratory Society - inspiring best practice in respiratory care

The Association of Respiratory Nurse Specialists - promoting excellence in practice, and influence respiratory health policy

Appendix 6: Current Severe Asthma Centres



Severe Asthma Centres

Cambridge

Leicester

Nottingham

Manchester/ Liverpool/ Preston (NW Network)

Guy's and St Thomas'

Royal Brompton

Newcastle upon Tyne

Oxford

North Bristol/ Royal Devon/ Exeter/ Taunton/ Plymouth (SW Network)

Barts Health

Southampton and Portsmouth (Wessex Network)

Birmingham (Heart of England)

Leeds Teaching/ Sheffield Teaching/ Hull (Yorkshire Network)

Appendix 7: List of available resources

SPECTRA Clinical Audit Tool

Is available here through this website. A Data Protection Impact Assessment DPIA Template is also available here.

ePACT2 Prednisolone Dashboard

Working with NHSBSA a prednisolone dashboard has been developed - accessible here

Homecare Dashboard

Supporting prescribing sites to take advantage of the opportunity available provided by biologics homecare – accessible here

Case Studies

5 case studies around improving asthma pathways featured here on the toolkit

Uncontrolled Asthma Training Package

Available on Pulse and here on the Asthma Biologics toolkit

Pharmacy Enhanced Roles Toolkit

Includes business case and job description templates. Will be available here once published.

HASTE Resources and Podcast

Haste resources and podcast published on PULSE online available here

Patient Resources

Can be accessed on the AAC website here. Also available in multiple languages.

Toolkit available at: https://www.oxfordahsn.org/our-work/asthma-biologics-toolkit/

Appendix 8: List of links, external links and resources

Asthma Biologics Tool: https://www.oxfordahsn.org/our-work/asthma-biologics-toolkit/

Uncontrolled Asthma Training Package hosted on GP PULSE: https://www.pulsetoday.co.uk/nhs-england/identification-and-management-of-severe-asthma/

NHS BSA Respiratory Prednisolone Dashboard EPACT2: https://www.nhsbsa.nhs.uk/access-our-data-products/catalyst

SPECTRA tool: https://suspected-severe-asthma.co.uk/

HASTE poster: https://www.oxfordahsn.org/our-work/asthma-biologics-toolkit/educational-resources/

FeNO Toolkit: https://wessexahsn.org.uk/programmes/56/feno-fractional-exhaled-nitric-oxide-for-the-diagnosis-and-management-of-asthma#

Severe Asthma Services in Adults - commissioning document A14/S/B: https://www.engage.england.nhs.uk/consultation/clinical-commissioning-wave4/user_uploads/drft-severe-asthma-serv-spec.pdf

NHS Long Term plan around improving outcomes for patients with respiratory disease. Published January 2019: https://www.longtermplan.nhs.uk/online-version/chapter-3-further-progress-on-care-quality-and-outcomes/better-care-for-major-health-conditions/respiratory-disease/

Asthma and Lung UK How to use your inhaler: https://www.asthma.org.uk/advice/inhaler-videos/ and https://www.rightbreathe.com

SIGN158 British guideline on the management of asthma. Revised edition published July 2019: https://www.brit-thoracic.org.uk/document-library/guidelines/asthma/btssign-guideline-for-the-management-of-asthma-2019/

NICE Patient Decision Aid – Inhalers for Asthma. Published May 2019: https://www.nice.org.uk/guidance/ng80/resources/inhalers-for-asthma-patient-decision-aid-pdf-6727144573

NHSE steroid emergency card. Published August 2020: https://www.england.nhs.uk/wp-content/uploads/2020/08/NPSA-Emergency-Steroid-Card-FINAL-2.3.pdf

Your Asthma Action Plan. Last updated May 2020: https://www.asthma.org.uk/ac76e7a2/globalassets/health-advice/resources/adults/asthma-action-plan-adult-2021.pdf

Physiotherapy for Breathing Pattern Disorders: https://www.physiotherapyforbpd.org.uk

NICE Guideline NG209. Published November 2021: Tobacco: preventing uptake, promoting quitting and treating dependence: https://www.nice.org.uk/guidance/ng209

NICE TA278 Omalizumab. Published April 2013: https://www.nice.org.uk/guidance/ta278

NICE TA671 Mepolizumab. Published February 2021: https://www.nice.org.uk/guidance/ta671

NICE TA479 Reslizumab. Published October 2017: https://www.nice.org.uk/guidance/ta479

NICE TA565 Benralizumab. Published March 2019. Last updated September 2019: https://www.nice.org.uk/guidance/ta565

NICE TA751 Dupilumab. Published December 2021: https://www.nice.org.uk/guidance/ta751

The GIRFT national report on respiratory medicine: the overview and recommendations: https://www.gettingitrightfirsttime.co.uk/wp-content/uploads/2021/11/respiratory-medicine-overview.pdf

Severe Asthma Optimal Pathway of Care: https://www.oxfordahsn.org/wp-content/uploads/2022/01/SA-Toolkit.pdf

Corticosteroid tapering with benralizumab treatment for eosinophilic asthma: PONENTE Trial. September 2019: https://pubmed.ncbi.nlm.nih.gov/31579676/

Appendix 9: Abbreviations used in this document

ACQ: Asthma control questionnaire

FBC: Full blood count

F2F: Face-to-face

ICS: Inhaled corticosteroid

LABA: Long-acting beta-agonist

LTRA: Leukotriene receptor antagonist

MDT: Multi-disciplinary team

OCS: Oral corticosteroid

mOCS: Maintenance oral corticosteroids

SABA: Short-acting beta-agonist

SAC: Severe asthma centre

SLT: Speech and language therapist

FeNO: Fractional exhaled nitric oxide

ACT: Asthma control test

LAMA: Long-acting muscarinic antagonists

COPD: Chronic obstructive pulmonary disease

MPR: Medicine possession ratio

BMI: Body mass index

PEFR: Peak expiratory flow rate

PCN: Primary care network

HRCT: High-resolution computed tomography

IgE: Immunoglobulin E

GP: General practitioner

TA: Technology appraisal

BEC: Blood eosinophil count

GIRFT: Getting it right first time

CNS: Clinical Nurse Specialist

ACTH - Adrenocorticotropic hormone

Appendix 10: Acknowledgements: Members of working party

We would like to thank the following individuals for their engagement and enthusiasm with the collaborative approach and their commitment and hard work to develop the AAC Consensus Pathway and deliver the aspirations of the AAC Asthma Biologics Rapid Uptake Programme 2021 -22

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Robin Gore
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Marianna Lepetyukh (SECRETARIAT)

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