

A practical guide to improve difficult-to-manage asthma in primary care

Difficult-to-manage asthma occurs either when the person or their clinician finds control and treatment challenging, despite the (apparent) best possible treatment. This leads to the person facing difficulties dealing with some of the following:

- Daytime asthma symptoms, more than twice/week
- Any night awakening due to asthma-related symptoms
- More than two exacerbations per year requiring rescue systemic corticosteroids¹
- Frequent use of SABA (≥ 3 canisters per year or ≥ 3 times per week)
- Poor control despite prescription of high-dose ICS often in combination with LABA/LAMA or use of OCS¹
- Frequent primary care out-of-hours contacts (one or more per month).

ICS Inhaled corticosteroid, SABA short-acting beta-agonist, LABA long-acting beta-agonist, LAMA long-acting muscarinic antagonist, OCS oral corticosteroid

ASTHMA: A PROBLEM THAT CAN BE MANAGED

Studies estimate that in primary care about one out of every six people living with asthma have difficult-to-manage asthma, and of those, between a quarter and a half will have severe asthma.^{2,3} Having difficult-to-manage asthma puts people at higher risk of exacerbations and even death, which are preventable with effective management. Similarly, they are at greater risk of steroid-related adverse effects (if treated with high-dose ICS or avoidable courses of OCS or low-dose OCS over a period of time), and their morbidity and health costs are disproportionately higher. People with well-controlled asthma have a better quality of life, reduced symptoms and exacerbations, reduced hospital visits and admissions and lower risk of premature death.⁴⁻⁷ But most importantly, difficult-to-manage asthma can be managed using a structured approach.⁸

People with asthma and clinicians should collaborate to improve asthma control, especially those with difficult-to-manage asthma, supporting the individual to take an active role in setting goals and targets, self-monitoring, and adopting a healthier lifestyle. This guide provides practical support to primary care and other community healthcare professionals to improve the care of people with difficult-to-manage asthma and to avoid unnecessary referrals of patients who could be better managed in primary care.

HOW TO IDENTIFY A PERSON WITH DIFFICULT-TO-MANAGE ASTHMA?

Ensure that the diagnosis is correct

Over one-third of people living with asthma have an incorrect diagnosis.⁹⁻¹³ Confirm that the person really has asthma before stepping up treatment as a surprising number of people diagnosed and treated for asthma (from 12 to 50%)¹⁴ either do not

have the disease or have it in association with other conditions causing persistent symptoms (see below).^{15,16}

Potential confounding factors for the diagnosis of asthma or its severity are dysfunctional breathing, anxiety, exercise-induced laryngeal obstruction (EILO), vocal cord dysfunction (VCD), obesity and low level of fitness (deconditioning) (Figure 1). All of which may also co-exist with asthma.

Diagnosis can be achieved by reviewing clinical history; the diagnostic probability is significantly increased using a lung function

More information on diagnosis

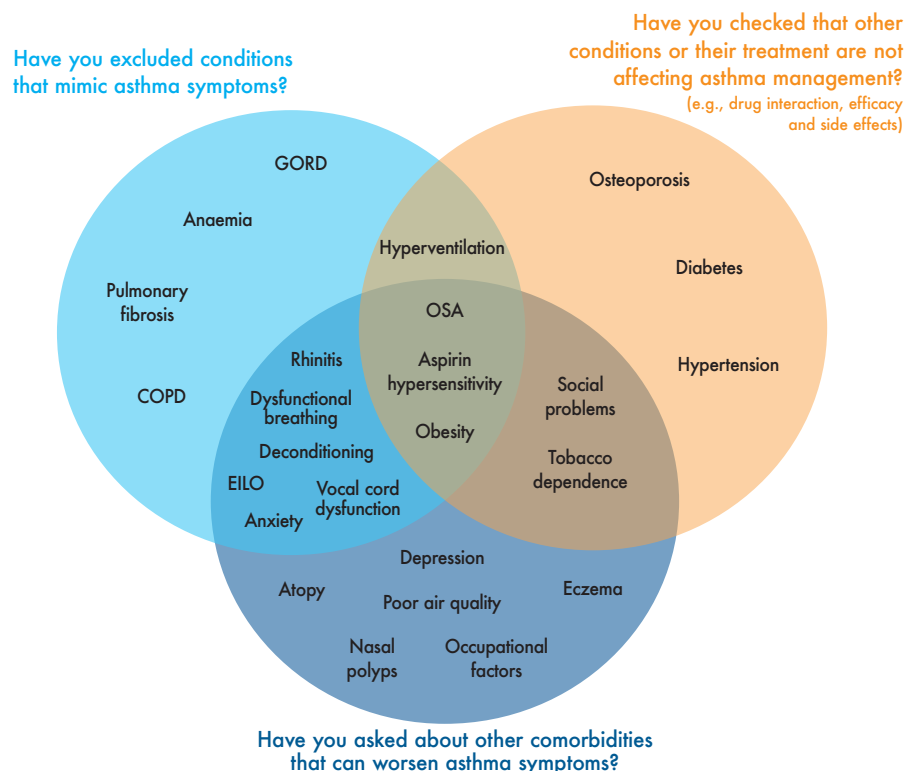
[DH 15 - The 'jigsaw puzzle' approach to building a diagnostic picture of asthma in primary care over time](#)

[DH 14 - Quick guide to spirometry](#)

[Spirometry Simplified \(pilot\)](#)



Figure 1 – Potential confounding factors for the diagnosis of asthma or its severity: reflection points



Footnote: these are some more common examples and not a comprehensive list. Social problems include economic problems (poverty, unemployment), poor housing, gender or ethnic discrimination, low literacy, etc.

◀ test (DH15). Testing for biomarkers of inflammation such as blood eosinophils, specific IgE and/or FeNO, where available, may assist in making the diagnosis and predicting response to ICS.

Find and manage comorbidities

In people with daily symptoms and/or two or more exacerbations per year, investigate whether these symptoms are caused by asthma alone or if there are comorbidities causing similar symptoms, potentially leading to an incorrect diagnosis of asthma or aggravating their asthma. Identifying and managing these comorbid conditions may also improve asthma symptom control. The interaction between asthma and its

comorbidities is bidirectional, with the potential to exacerbate or alleviate the clinical manifestations and treatment responses of both. If needed, refer for further evaluation or treatment of these conditions.

A regular and planned structured review^{22,23} is the only way to improve the detection and care of people living with difficult-to-manage asthma. Review periodically, depending on level of control and the person's needs and preferences, until control and treatment goals are achieved. Review patients in community-based clinics through remote telephone or video consultations if face-to-face review is not possible.

More information on comorbidities

[Control of Allergic Rhinitis and Asthma Test \[questionnaire\]](#)




[Comorbidities in severe asthma \(Severe Asthma Toolkit\)](#)

[CARAT: dissemination and applications in primary care](#)

[Impact of comorbid conditions on asthmatic adults and children](#)







WHAT SHOULD YOU CHECK WHEN CONDUCTING A STRUCTURED REVIEW?

CONTROL OF ASTHMA	+ INFORMATION & RESOURCES
<p>ASK THE PERSON WITH ASTHMA (in the past 4 weeks...)</p> <ul style="list-style-type: none"> • Have you had daytime asthma symptoms more than twice a week? • Have you had any night awakening due to asthma? • Have you used SABA reliever for symptoms more than twice a week? • Have you had any limitation of activities due to asthma? <p>No to all questions – well controlled; Yes to 1 or 2 – partly controlled; Yes to 3 to 4 uncontrolled (GINA Box 2.2, p38²⁴).</p> <p>REMEMBER</p> <ul style="list-style-type: none"> • Monitoring asthma control regularly is crucial to ensuring optimal outcomes. • Use a validated questionnaire to assess asthma control: ACT, RCP3 or CARAT. 	<ul style="list-style-type: none"> • Global Strategy for Asthma Management and Prevention (GINA) • What does good quality asthma care look like? • ACQ • ACT • cACT for children • CARAT²⁵ • CARAT: dissemination and applications in primary care • DH9 Personalised care: adults with asthma • RCP3 
<p>TOBACCO DEPENDENCE</p> <p>ASK THE PERSON WITH ASTHMA</p> <ul style="list-style-type: none"> • Have you used tobacco at all in the last year? • Are you exposed to tobacco smoke at home or at work? • Are you aware of the best way of stopping using tobacco or reducing its harm? • Would you like to talk about the options available to help with your tobacco use today? <p>REMEMBER</p> <ul style="list-style-type: none"> • Tobacco dependence is a long term and relapsing condition that often begins in childhood and that can be treated. • Smokers are almost 50% more likely than non-smokers to be hospitalised for their asthma over a 12-month period.^{26,27} • Consider alternative therapy to ICS for those that cannot quit because smokers do not respond as well to ICS as nonsmokers. 	<ul style="list-style-type: none"> • DH4 Helping patients quit tobacco • Tobacco dependence • Smokefree.gov • Supporting tobacco cessation and the treatment of tobacco dependence A handbook for pharmacists • A companion to the FIP Supporting tobacco cessation and the treatment of tobacco dependence handbook for pharmacists 
<p>PATIENT EDUCATION AND SELF-MONITORING</p> <p>ASK THE PERSON WITH ASTHMA</p> <ul style="list-style-type: none"> • What do you know about asthma? • How does your asthma affect your daily life and how would you like to change that? • Has anything changed recently that may affect your asthma: e.g., allergen exposure, viral infection, new occupation/hobby/sport? <p>REMEMBER</p> <ul style="list-style-type: none"> • Agree with patients on a checklist of topics to cover at each visit to help them prepare and plan what they want to discuss (e.g., symptoms, peak flow readings). • Help patients to self-monitor their symptoms and adjust treatment (MART).²⁸ • Encourage those who struggle to monitor their symptoms to use peak flow readings (if they can afford it or have one) to guide treatment adjustments. • Provide a personalised asthma action plan to encourage self-monitoring. The action plan informs patients what they should do if their asthma control deteriorates, especially in a case of emergency or if their symptoms are not getting better. In the case of children and adolescents, also involve their caregivers. • Suggest breathing training to improve functional breathing patterns and reduce symptoms. • Prescribe high intensity physical activity as a treatment (2-3 times per week) if the person is sedentary and/or reconditioning is a factor. 	<ul style="list-style-type: none"> • Reliever Reliance Test • Personal Asthma Action Plans • Peak Flow videos • How we breathe video • DH 11 - Remote Consultations • Breathing pattern disorders • Questionnaire for breathing • A PCRS consensus on how to calculate and interpret peak expiratory flow rate variability and reversibility for asthma diagnosis 

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◀ **WHAT SHOULD YOU CHECK WHEN CONDUCTING A STRUCTURED REVIEW?** *continued from previous page*

AGGRAVATING FACTORS AND TRIGGERS	+ INFORMATION & RESOURCES
<p>ASK THE PERSON WITH ASTHMA</p> <ul style="list-style-type: none"> • Have you noticed anything that makes your asthma worse (outside of or at home)? • Have you noticed a pattern before your asthma gets worse (e.g. pets, work, exercise)? • Does your asthma get better or worse at the weekends, or stays the same? • What hobbies do you have? • Is it possible that you are exposed to moulds, house dust mites or cockroaches?²⁹ <p>REMEMBER</p> <ul style="list-style-type: none"> • Asthma can be aggravated by a variety of triggers or allergens. Factors that can be avoided/eliminated: indoor air pollution (moulds, house dust mite, biomass fuel combustion) and outdoor air pollution (chemical fumes, gases, and dust). • In young children, atopy and infections are important triggers to consider. 	<ul style="list-style-type: none"> • CARAT • Paediatric Allergic Rhinitis Pocket Guide (EUFOREA) • IPCRG and Climate change • Personal Asthma Action Plan • Your asthma action plan 
<p>PHARMACOTHERAPY</p>	
<p>ASK THE PERSON WITH ASTHMA</p> <ul style="list-style-type: none"> • How do you feel about your asthma medication at the moment? Show me how you take it? • Do you understand how and when you should take your medication? And its purpose? • Have you experienced any side effects from your medication? • Are you taking any other medication or using any alternative therapies? <p>REMEMBER</p> <ul style="list-style-type: none"> • Check prescription records for asthma for the last six months at every visit (e.g. inhalers prescribed in the last year, and/or how many puffs per day, plasma cortisol or prednisolone level), if available. • Assess the response to current therapy and determine if it needs to be adjusted. • Non-steroidal anti-inflammatory drugs, aspirin and beta-blockers (including eye drops) can exacerbate asthma.³⁰⁻³² • If patients are not controlled on their current treatment, before stepping up therapy ensure correct inhaler technique and adherence, and that they are avoiding asthma triggers and allergens. • Inhaler technique for MDIs and DPIs differs. Avoid mixing device types as this causes confusion and leads to poor asthma control.³³ • Recommend vaccination for influenza and COVID-19. • By specialist referral and where available, biological medications (monoclonal antibodies) may greatly improve asthma control and quality of life of those patients. However, the success of these targeted therapies is dependent on individual phenotyping.³⁴ 	<ul style="list-style-type: none"> • Asthma slide rule • Global Strategy for Asthma Management and Prevention (GINA) • What does good quality asthma care look like? • ACQ • ACT • cACT for children • CARAT • RCP3 
<p>ADHERENCE AND INHALER TECHNIQUE</p>	
<p>ASK THE PERSON WITH ASTHMA</p> <ul style="list-style-type: none"> • Is there anything stopping you from taking your medication (e.g., lack of knowledge, fear of steroids, financial concerns)? • What is important for you about an inhaler (e.g. how portable it is)? • Do you usually take your inhaler out and about? • How do you know if there is medication left in your inhaler? <p>REMEMBER</p> <ul style="list-style-type: none"> • Around 20% of people don't collect their first prescription for controller medications for asthma.³⁵ • Problems with inhaler technique are very common in clinical practice^{36,37} – up to 8 out of 10 – and can lead to poor asthma control.^{38,39} • Over 80% of people do not take their ICS inhaler consistently, either because they forget or because they stop taking it when they feel better.⁴⁰ • Assess if the person has the appropriate inhaler for their needs. • Observe the person using their inhalers to ensure correct technique and encourage them to check their own inhaler technique by reviewing the device instructions. • When possible, prescribe only one type of inhaler (dry powder⁴¹ or metered dose inhaler) to minimise doubts about different inhaling techniques.⁴² 	<ul style="list-style-type: none"> • 7 Steps for good inhaler technique • Inhaler Technique Videos • How to use inhalers • Right Breathe • Asthma inhalers and climate change • Inhaler Standards and Competency Document • Do healthcare professionals have sufficient knowledge of inhaler techniques in order to educate their patients effectively in their use? 
<p>OBESITY</p>	
<p>ASK THE PERSON WITH ASTHMA</p> <ul style="list-style-type: none"> • What type of physical activities would you like to be able to do? • Do you know that losing weight can help improve your asthma? • Would you like to talk about the options available to help with losing weight? <p>REMEMBER⁴³</p> <ul style="list-style-type: none"> • Being overweight or obese can increase the risk of asthma by 50%. • Losing weight contributes to improving asthma control and quality of life. • Guidelines recommend multimodal interventions to promote weight loss delivered by a multidisciplinary team including improving diet (avoiding energy-dense food, and increasing intake of dietary fibre, fruits, and vegetables), increasing physical activity and 6-12 months behaviour change support. These can be delivered face-to-face or digitally, as long as the digital solution supports multimodal rather than single function programmes and the person is open to the use of apps.⁴⁴⁻⁴⁸ 	<ul style="list-style-type: none"> • Physical activity fact sheet (WHO) • A systematic review of the characteristics of interventions that promote physical activity in adults with asthma • Choosing what exercise to do • Exercise (NHS) • Obesity: identification, assessment and management 

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PSYCHOLOGICAL SUPPORT						+ INFORMATION & RESOURCES
ASK THE PERSON WITH ASTHMA						<ul style="list-style-type: none"> • Depression in adults: treatment and management • Anxiety & Depression • Asthma, anxiety and depression • European Lung Foundation • European Federation of Allergy and Airways Diseases Patients' Associations (EFA) • PAQLQ Paediatric asthma quality of life questionnaire
Over the last two weeks, how often have you been bothered by the following problems?	Not at all	Several days	More than half the days	Nearly every day		
Feeling nervous, anxious or on edge	0	1	2	3	Anxiety subscale	
Not being able to stop or control worrying	0	1	2	3		
Little interest or pleasure in doing things	0	1	2	3	Depression Subscale	
Feeling down, depressed, or hopeless	0	1	2	3		
TOTAL						
<p>PHQ-4: Validated Screening Tool for Anxiety and Depression</p> <ul style="list-style-type: none"> • Do you have any friends or family who could help remind you to take your inhaler(s) or check that your technique stays good? <p>REMEMBER</p> <ul style="list-style-type: none"> • Anxiety and depression can worsen asthma control and adherence to treatment.⁴⁹ • Counselling/support may be appropriate in people where psychological factors are affecting their asthma control. • Patients' associations can provide an opportunity to connect with others with asthma who understand what they are going through. • For people who are always or often fatigued, consider other diagnostic possibilities. 						
REFERRAL FOR SPECIALIST ASSESSMENT						
<p>REMEMBER</p> <ul style="list-style-type: none"> • All people struggling with difficult-to-manage asthma should have a structured review before being considered for referral to secondary care. • If patients continue to struggle with difficult-to-manage asthma after: (1) a review or succession of reviews; (2) taking the steps to reduce all possible causes/triggers; or (3) being on guideline-based treatment; they should be considered for referral to a specialist clinic with experience in difficult-to-manage asthma and severe asthma. • Transitioning from paediatric to adult healthcare between ages 16 to 18 years is a significant transition that primary care clinicians can assist with, although approaches may differ across countries.⁵⁰ <p>WHAT TO INCLUDE IN A REFERRAL LETTER?⁵¹</p> <ul style="list-style-type: none"> • Main symptoms and level of asthma control. • Number of exacerbations in the last 12 months. • Current pharmacological and non-pharmacological treatment. • OCS use recorded and quantified. • Inhalation technique checked and corrected (if needed). • Treatment adherence assessed and acceptable (≥80% of planned dose). • Exposure information (occupation, ongoing allergen exposure, other exposures). • Comorbidities: especially rhinitis, obesity, dysfunctional breathing. • Information about and lung function tests, lab data (eosinophils, neutrophils, specific IgE), chest X-ray. • Information about known allergies. • Tobacco use. 						<ul style="list-style-type: none"> • Referral letter for difficult to manage asthma (UK version) • Referral letter for difficult to manage asthma (outside UK)

References

Additional resources and full references can be accessed via the online version of the Desktop Helper www.ipcr.org/dth2

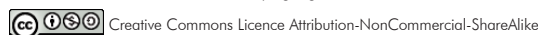


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