

Debate Pack

Number 185
By Aaron Kulakiewicz,
Thomas Powell,
Elizabeth Rough,
Carl Baker
3 December 2021

Improving asthma outcomes in the UK

1	Background	2
1.1	What is asthma?	2
	Common symptoms of asthma	2
	Causes of asthma	3
1.2	Statistics	4
2	Improving asthma outcomes	5
3	Parliamentary Material	9
3.1	Parliamentary Questions	9
3.2	House of Commons Library	12
4	Press Material	13
5	Further Reading	15
5.1	Reports and fact sheets	15
5.2	Websites	15

1 Background

1.1 What is asthma?

Asthma is a common, chronic, noncommunicable disease found in both adults and children. It affects the airways (the trachea, bronchi, and bronchioles), which carry air in and out of the lungs. In asthmatics, the airways can become narrow, due to a tightening of the muscles around the small airways, and inflamed, which can lead to serious breathing difficulties.¹

The National Institute for Health and Care Excellence (NICE) reports that, every day, “185 people in the UK are admitted to hospital with an asthma attack, and 5.4 million people are using treatments for asthma”.² The most recent figures for England indicate that, in 2020/21, there were 41,150 hospital admissions where the primary diagnosis was asthma, with an average age of 41, while in 2019/20 it was estimated that 6.5% of GP patients in England (one in fifteen) had asthma and had been prescribed asthma-related drugs within the past year.³ In some instances asthma can be fatal; in 2020 there were 1,335 deaths registered in England and Wales where the underlying cause was recorded as asthma. Of these, 61% were among people aged 80 or above.⁴

The Commons Library’s [health conditions interactive dashboard](#) contains constituency-level data and maps on this and other health conditions. This is based on [NHS Digital data](#).

Common symptoms of asthma

Common symptoms of asthma include:

- a whistling sound when breathing (wheezing);
- breathlessness;
- a tight chest, which may feel like a band is tightening around it;
- coughing.⁵

¹ World Health Organization, [Fact sheet: Asthma](#), 3 May 2021

² NICE, Asthma: diagnosis, monitoring and chronic asthma management, NICE guideline [NG80], [Information for the public](#), Last updated: 22 March 2021

³ NHS Digital, [Hospital Admitted Patient Care Activity](#)

⁴ NOMIS, [Mortality Statistics](#)

⁵ NHS, [Overview: asthma](#), 19 April 2021

The NHS emphasises that other conditions can cause the same symptoms as asthma. The pattern of symptoms in people who do have asthma, however, tend to display some of the following characteristics:

- They start or get worse with viral infections, such as a cold.
- They are triggered by exercise, allergies, cold air, or hyperventilation from laughing or crying.
- They are worse at night or in the morning.⁶
- They happen often and keep coming back.⁷

Asthma can be very variable; some people may have mild symptoms while in others they be more severe and unrelenting. Equally, some people may experience the disease intermittently, for a limited period, and then have extended periods that are symptom-free.⁸

An asthma diagnosis is based on a person's medical history, symptoms and diagnostic tests. More detailed information can be found in the NICE's guideline on [Asthma: diagnosis, monitoring and chronic asthma management](#) (last updated in March 2021). NICE reports that over 8 million people in the UK – approximately 12% of the population – have been diagnosed with asthma (though some may have since 'grown out' of the condition).⁹

Currently, there is no cure for asthma but it is possible to manage the condition so that the symptoms remain under control. Patients typically rely on inhalers, though the exact medicines prescribed will depend on multiple factors, including the type and severity of symptoms. The World Health Organization (WHO) notes that there are two main types of inhaler:

- bronchodilators (such as salbutamol), that open the air passages and relieve symptoms; and
- steroids (such as beclometasone), that reduce inflammation in the air passages. This improves asthma symptoms and reduces the risk of severe asthma attacks and death.¹⁰

Causes of asthma

The exact cause of asthma is not known; the National Heart, Lung and Blood Institute in the United States notes that “the causes may vary from person to

⁶ US National Heart, Lung and Blood Institute, [Asthma - Signs, Symptoms, and Complications](#), 3 December 2020

⁷ NHS, [Symptoms-Asthma](#), 19 April 2021

⁸ University of Iowa Children's Hospital, [Overview of asthma](#), not dated

⁹ NICE, [Asthma: What is the prevalence of asthma?](#) Last revised May 2021

¹⁰ World Health Organization, [Fact sheet: Asthma](#), 3 May 2021

person”.¹¹ There are, however, factors that can make a person more predisposed to asthma, including their environment, job, family history or genes, and other medical conditions, such as having an allergy-related condition like eczema or hay fever.¹²

Asthma symptoms can occur in response to a ‘trigger’, with common triggers including:

- Viral (but not bacterial) respiratory infections (common colds).
- Inhaled irritants (cigarette smoke, wood burning stoves and fireplaces, strong odours, chemical fumes).
- Inhaled allergens (pollens, dusts, moulds, animal danders – flecks of skin shed by pets).
- Cold air / sudden changes in the weather.
- Exercise.
- Occasional ingested substances (aspirin, sulfite preservatives, specific foods).¹³

“Asthma attacks” describe an episode when symptoms get much worse and may be life threatening. This can take place very suddenly or over several days.¹⁴

1.2

Statistics

In 2019/20 it was estimated that 6.5% of GP patients in England (one in fifteen) had asthma and had been prescribed asthma-related drugs within the past year. The Library’s [health conditions interactive dashboard](#) contains constituency-level data and maps on this and other health conditions. This is based on [NHS Digital data](#).

¹¹ US National Heart, Lung and Blood Institute, [Asthma - causes](#), 3 December 2020

¹² World Health Organization, [Fact sheet: Asthma](#), 3 May 2021;

¹³ University of Iowa Children’s Hospital, [Overview of asthma](#), not dated

¹⁴ Asthma UK, [Asthma attacks](#), not dated; NHS, [Asthma attacks](#), 19 April 2021

2

Improving asthma outcomes

As noted by the All Party Parliamentary Group for Respiratory Health, chaired by Jim Shannon, there are several asthma guidelines used throughout the UK.¹⁵ These include the guidelines created by the British Thoracic Society (BTS), Scottish Intercollegiate Guidelines Network (SIGN) and the National Institute for Health and Care Excellence (NICE)¹⁶, as well as locally-developed guidelines. NICE, SIGN and BTS have begun work to develop a joint guideline relating to asthma care, with a likely publication date is 2023. The APPG has noted the widespread welcome for the planned UK-wide guidelines, and other moves being made to rationalise the various guidelines.¹⁷ The APPG commended the positive steps taken to improve asthma outcomes but noted that UK Government plans often included asthma in wider respiratory health policy rather than as stand-alone initiatives. The APPG have also commented that there “...is little, if any, differentiation between asthma and severe asthma within the government’s policies and initiatives.”¹⁸

In England, the [NHS Long Term Plan](#) (January 2019) included respiratory disease as a national clinical priority, with the overarching objective of improving outcomes for people with respiratory disease, including asthma.¹⁹ The Long Term Plan included commitments to:

- Earlier detection and diagnosis for respiratory problems like asthma, providing the opportunity for better management, and to help prevent exacerbations and avoidable emergency admissions to hospital.
- Support those with respiratory disease to receive and use the right medication. The Plan noted that 90% of NHS spend on asthma goes on medicines, but “...incorrect use of medication can also contribute to poorer health outcomes and increased risk of exacerbations, or even admission.”²⁰

The NHS Long Term Plan provided the following on how the NHS would support the best use of inhalers:

“Pharmacists in primary care networks will undertake a range of medicine reviews, including educating patients on the correct use of inhalers and contributing to multidisciplinary working. As part of this work, they can

¹⁵ APPG for Respiratory Health, [Improving Asthma Outcomes In The UK \(2.4MB, PDF\)](#) (November 2020), p31

¹⁶ BTS/SIGN/NICE, British Guideline on the Management of Asthma: Quick Reference Guide (July 2019). See also NICE [NG80], [Asthma: Diagnosis, Monitoring and Chronic Asthma Management: NICE Guideline](#) (November 2017, updated February 2020)

¹⁷ APPG for Respiratory Health, [Improving Asthma Outcomes In The UK\(2.4MB, PDF\)](#) (November 2020), p31

¹⁸ Ibid, p15

¹⁹ [NHS Long Term Plan: Respiratory disease](#) (January 2019)

²⁰ Ibid

also support patients to reduce the use of short acting bronchodilator inhalers and switch to dry powder inhalers where clinically appropriate, which use significantly less fluorinated gases than traditional metered dose inhalers. Pharmacists can also support uptake of new smart inhalers, as clinically indicated.”²¹

A response to a Parliamentary Question in the Lords in January 2021 set out some recent steps being taken to improve asthma outcomes:

“NHS England and NHS Improvement have established 13 respiratory clinical networks across the country, to provide clinical leadership of respiratory services. One of their objectives focuses on improving clinical pathways for asthma. The Quality Outcomes Framework (QOF) ensures all general practitioner (GP) practices establish and maintain a register of patients with an asthma diagnosis in accordance with the National Institute for Health and Clinical Excellence’s guidance. An update to the GP Contract for 2020/21-2023/24 to be implemented in 2021 includes an improved QOF asthma domain. The content of the asthma review has been amended to incorporate aspects of care positively associated with better patient outcomes and self-management, including a review of inhaler technique and record of exacerbations.”²²

The National Institute for Health and Care Excellence provides further information on Indicators from the Quality and Outcomes Framework (QOF) for asthma in the General Medical Services (GMS) contract.²³

In January 2021 Professor Andrew Menzies-Gow, NHS England's National Clinical Director for Respiratory wrote a blog on the progress of the NHS Long Term Plan in 2020, which explained how the NHS has been working to help those with lung disease through the pandemic.²⁴

The Royal College of Physician’s website provides information on the National Asthma and COPD Audit Programme (NACAP) for England and Wales, which aims to improve the quality of care, services and clinical outcomes for patients with asthma and chronic obstructive pulmonary disease (COPD).²⁵

In 2020 the Taskforce for Lung Health produced an update on their 2018 [national plan](#) to improve the nation’s lung health.²⁶

²¹ Ibid

²² [PQ 11648, 15 January 2021](#)

²³ NICE Clinical Knowledge Summaries, [QOF indicators: Goals and outcome measures: Asthma](#)

²⁴ British Lung Foundation, [blog on the progress of the NHS Long Term Plan in 2020 by Professor Andrew Menzies-Gow, NHS England National Clinical Director for Respiratory](#) (January 2021)

²⁵ RCP London, [National Asthma and COPD Audit Programme \(NACAP\)](#)

²⁶ [Taskforce for Lung Health national plan: two years on](#) (2020). The Taskforce for Lung Health is comprised of its [members](#), with a website hosted and managed on their behalf by the Asthma UK and British Lung Foundation Partnership, which provides the secretariat to the Taskforce.

In November 2020 the APPG for Respiratory Health produced a report on improving asthma outcomes in the UK.²⁷ The report was the result of a six month inquiry into “why improvements in asthma outcomes are stagnating in the UK” and to recommend policy solutions for the NHS “...to reverse the upward trend in asthma mortality.” The APPG made a number of recommendations to improve the lives and treatment of asthma patients. These included that the guideline discussions between NICE, BTS and SIGN should consider elements of the BTS “care bundle” and “other patient-centric best practice”, with a view to incorporating these into routine clinical practice.²⁸ Other recommendations included the following:

- We recommend that when clinically agreed thresholds have been reached on repeat prescriptions and on the use of relief inhalers and courses of OCS [systemic oral corticosteroids], health records should be used as an automatic trigger for reviews, follow up appointments and referrals.
- We recommend that QOF should be used to incentivise high quality outcomes for asthma, both in terms of improved quality of life as well as reduced asthma attacks, admissions and deaths.
- We recommend that the Government looks more fully into the possibilities of NHS data being made more widely available and allowing them to be interpreted by clinicians to improve asthma outcomes in clinical practice.
- We recommend that the Government adopts a consistent and practical electronic health record for asthma, which can be shared across primary and secondary care, including urgent care. We also recommend that the NHS undertakes a specific assessment of innovative technologies that may be of most help to asthma patients.
- We recommend that the clinical bodies responsible for the upcoming revised guidelines take into account the need for greater awareness for patients on the correct use of inhalers and that the government and its executive agencies... run an information campaign designed to remind patients on the appropriate use of inhalers...
- We recommend that the government drives and monitors greater uniformity and consistency in the asthma guidelines and that they undertake a 12 monthly review of the new revised guidelines which are expected from the NICE/BTS/SIGN discussions in 2021...

²⁷ APPG for Respiratory Health, [Improving Asthma Outcomes In The UK \(2.4MB, PDF\)](#) (November 2020)

²⁸ Ibid, p5

- We recommend that an appropriate clinical code needs to be created for severe asthma, to give certainty to patients and clinicians.
- We recommend that the Government puts in place the necessary steps for the creation and roll out of diagnostic hubs for respiratory illnesses, including asthma, throughout primary care.
- We recommend that clinicians be supported in their choice to prescribe biologics to severe asthma patients with adequate funding to support biologics services and wider education on the benefits of this form of treatment.²⁹

Asthma UK publish an annual Asthma Survey, the reports of which are available on its website. Based on the experience of over 12,000 people with asthma, the two most recent reports have considered the impact of the coronavirus pandemic, and geographical and socio-economic inequalities, on care:

- [The Annual Asthma Survey 2019, The Great Asthma Divide](#)
- [The Annual Asthma Survey 2020, Asthma Care In Crisis](#)

²⁹ Ibid, pp5-8

3

Parliamentary Material

3.1

Parliamentary Questions

Asthma: Coronavirus

29 Nov 2021 | 78394

Asked by: Julian Sturdy

To ask the Secretary of State for Health and Social Care, what steps his Department is taking to help protect asthmatics from covid-19.

Answering member: Maggie Throup | Department: Department of Health and Social Care (DHSC)

Individuals aged 12 years old and over with ‘poorly controlled asthma’, as defined in the Green Book, are eligible for the COVID-19 vaccine primary course. Those aged 16 years old and above with poorly controlled asthma have now been offered a booster vaccine.

Individuals whose asthma is controlled are offered COVID-19 vaccination in line with their age cohort. People over the age of 16 years old not in a risk group have been offered two doses of the COVID-19 vaccine and children aged 12 to 15 years old not in a risk group have been offered a first dose. All adults over the age of 40 years old have now been offered a booster dose. The Joint Committee on Vaccination and Immunisation will continue to update its advice as new data emerges.

Asthma: Community Diagnostic Centres

28 Jul 2021 | 36615

Asked by: Yvonne Fovargue

To ask the Secretary of State for Health and Social Care, what progress he has made on the roll out of asthma diagnostic hubs, set out in NICE Guidance NG80.

Answering member: Jo Churchill | Department: DHSC

Community Diagnostic Hubs (CDHs), which diagnose a number of conditions, will be launched in place of asthma diagnostic hubs. Diagnostics for respiratory conditions are part of the proposed ‘core’ services to be provided by CDHs. A review of diagnostics in the NHS Long Term Plan, highlighted that patients with respiratory symptoms would benefit from this facility due to the number of diagnostic tests that they use.

In 2021/22, £325 million has been allocated for diagnostic services. Discussions on how funding will be allocated are ongoing. Plans for mobilisation of CDHs from across England are currently under review. NHS England and NHS Improvement have approved the mobilisation of some early adopter sites from summer 2021 with more CDHs opening from autumn 2021.

Air Pollution: Asthma

16 Jul 2021 | 28959

Asked by: Mr Barry Sheerman

To ask the Secretary of State for Environment, Food and Rural Affairs, what steps he is taking to ensure that people with long-term asthma are not impacted by high levels of air pollution.

Answering member: Rebecca Pow | Department: Department for Environment, Food and Rural Affairs

We know air pollution is a particular threat to vulnerable groups, including the elderly, the very young and those with existing health conditions such as asthma. Our Clean Air Strategy sets out an ambitious programme of action to reduce air pollution from a wide range of sources.

The Environment Bill will establish a duty to set two legally binding targets on PM_{2.5}: a minimum concentration limit and a new population exposure reduction target. We will consult on these targets in early 2022. These two targets will drive action at the local level, as well as nationally, to improve air quality for everyone.

In addition, we have committed to reviewing the National Air Quality Strategy (including the Local Air Quality Management Framework) with a key objective of promoting and supporting greater local action to identify and address air pollution inequalities, targeting action at vulnerable groups and communities.

The Government is also committed to improving public awareness of air pollution and to improve the provision of air quality data and information on the UK Air website. We have started a comprehensive review of the Daily Air Quality Index, to enhance the advice when pollution levels are elevated.

The Department of Health and Social Care continues to engage with organisations such as Health Education England and the Royal Colleges to ensure that healthcare professionals are equipped to provide information and advice to those vulnerable to the health impacts of air pollution. This will allow patients and their carers to take steps to reduce their exposure to air pollution and give them greater power to manage their condition. The Chief Medical Officer has also discussed this matter with the Royal Colleges. Furthermore, the NHS has a Long Term Plan to improve asthma outcomes for children and young people. The Children and Young People's Transformation

Programme has asked local systems to prioritise local improvements in asthma care. This will include supporting clinicians to discuss the short- and long-term adverse effects of air pollution on children with asthma and any mitigation strategies.

[Asthma: Health Services](#)

07 Jul 2021 | 13942

Asked by: Jim Shannon

To ask the Secretary of State for Health and Social Care, what assessment he has made of the impact of the covid-19 outbreak on referrals to secondary care and specialist asthma centres for people with asthma.

Answering member: Jo Churchill | Department: DHSC

Specialist respiratory services for severe asthma have continued during the COVID-19 outbreak. In most cases people with severe asthma have been supported through remote consultations and biologic medication has been delivered at home. We have made £1 billion available to the National Health Service in 2021/22 to support the recovery of elective services, including referrals for patients with asthma. In secondary care, average waiting times have reduced by more than 40% since July 2020.

[Asthma](#)

18 Jun 2021 | 13925

Asked by: Yvonne Fovargue

To ask the Secretary of State for Health and Social Care, what his Department's timescale is for the publication of the joint asthma guideline from NICE/BTS/SIGN.

Answering member: Jo Churchill | Department: DHSC

The British Thoracic Society, Scottish Intercollegiate Guidelines Network and the National Institute for Health and Care Excellence have begun work to develop a joint guideline relating to asthma care. The recruitment process for the roles of guideline group co-chair and topic expert is underway, with the first scoping workshop due to take place on 6 August 2021. The likely publication date is 2023.

[Asthma: Health Services](#)

03 Jun 2021 | HL368

Asked by: Baroness Masham of Ilton

To ask Her Majesty's Government, further to the report by Asthma UK Asthma Care in a Crisis, published on 5 May, what plans they have to ensure that people who are most at risk of having an asthma attack are (1) prioritised, and (2) seen face-to-face, when clinically necessary.

Answering member: Lord Bethell | Department: DHSC

The National Institute for Health and Care Excellence's rapid guidance, on severe asthma during the pandemic recommends using technology to reduce in-person appointments. However, guidance on face-to-face appointments throughout the pandemic has been in line with clinical need.

Work is continuing to recover primary care services, including services for asthma patients, to an appropriate level balance between phone/online and face to face appointments. NHS England and NHS Improvement's updated practice on standard operating procedures for patient consultations states that although the use of video and remote consultations may be suitable for some people, face to face appointments will be offered.

3.2

House of Commons Library

House of Commons Library, Debate pack: [E-petition debate on access to emergency asthma treatment in commercial kitchens](#), 26 November 2021

4 Press Material

The following is a selection of news and media articles relevant to this debate.

Please note: the Library is not responsible for either the views or the accuracy of external content.

[How to handle asthma during the winter months](#)

Patient

15 November 2021

[The flu and Covid 'twindemic' is coming: how to breathe easily this winter](#)

The Times

2 November 2021

[UK's first 'asthma bus' to support NHS respiratory service](#)

PharmaTimes

6 October 2021

[Expanded ultra low emission zone in London will help 130,000 asthmatics](#)

The Times

16 July 2021

[Air pollution linked to 'huge' rise in child asthma GP visits](#)

The Guardian

18 May 2021

[Children's lives at risk from failures in asthma care, warns safety watchdog](#)

The Independent

5 May 2021

[Uncontrolled asthma: assessment and management](#)

The Pharmaceutical Journal

7 April 2021

[New hope for people with severe asthma as trial finds new drug reduces attacks by more than half](#)

I news

26 February 2021

[Toxic air puts six million at risk of lung damage](#)

BBC

11 February 2021

5 Further Reading

5.1 Reports and fact sheets

NICE, [Asthma: What is the prevalence of asthma?](#) Last revised May 2021

World Health Organization, [Fact sheet: Asthma](#), 3 May 2021

Asthma UK, [Do no harm: safer and better treatment options for people with asthma](#), 2020

Asthma UK, [Asthma still kills](#), 2019

Asthma UK, [Difficult and severe asthma](#), July 2018

Global Asthma Network, [The Global Asthma Report 2018](#), 2018

5.2 Websites

[Asthma UK](#)

[British Lung Foundation: Asthma statistics](#)

[NHS: Asthma](#)

[World Health Organization: Asthma](#)

[Start main body copy here]

Disclaimer

The Commons Library does not intend the information in our research publications and briefings to address the specific circumstances of any particular individual. We have published it to support the work of MPs. You should not rely upon it as legal or professional advice, or as a substitute for it. We do not accept any liability whatsoever for any errors, omissions or misstatements contained herein. You should consult a suitably qualified professional if you require specific advice or information. Read our briefing '[Legal help: where to go and how to pay](#)' for further information about sources of legal advice and help. This information is provided subject to the conditions of the Open Parliament Licence.

Feedback

Every effort is made to ensure that the information contained in these publicly available briefings is correct at the time of publication. Readers should be aware however that briefings are not necessarily updated to reflect subsequent changes.

If you have any comments on our briefings please email papers@parliament.uk. Please note that authors are not always able to engage in discussions with members of the public who express opinions about the content of our research, although we will carefully consider and correct any factual errors.

You can read our feedback and complaints policy and our editorial policy at commonslibrary.parliament.uk. If you have general questions about the work of the House of Commons email hcenquiries@parliament.uk.

The House of Commons Library is a research and information service based in the UK Parliament. Our impartial analysis, statistical research and resources help MPs and their staff scrutinise legislation, develop policy, and support constituents.

Our published material is available to everyone on commonslibrary.parliament.uk.

Get our latest research delivered straight to your inbox. Subscribe at commonslibrary.parliament.uk/subscribe or scan the code below:



 commonslibrary.parliament.uk

 [@commonslibrary](https://twitter.com/commonslibrary)