

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Guideline scope

Asthma: The management of asthma

Short title

Asthma management

Topic

The Department of Health in England has asked NICE to develop a clinical guideline on the management of asthma.

This guideline will be used to update the NICE quality standard for asthma.

Who the guideline is for

- People using services, families and carers and the public.
- Healthcare professionals in primary care.
- Healthcare professionals in secondary care.
- Healthcare professionals in tertiary care.
- Healthcare professionals in community care (including pharmacists).
- Local authorities.
- Commissioners of asthma clinics.
- Providers of asthma clinics.

It may also be relevant for:

- Private sector or voluntary organisations commissioned to provide services for the NHS or local authorities.
- People working in related services.

NICE guidelines cover health and care in England. Decisions on how they apply in other UK countries are made by ministers in the [Welsh Government](#), [Scottish Government](#), and [Northern Ireland Executive](#).

27 ***Equality considerations***

28 NICE has carried out [an equality impact assessment](#) during scoping. The
29 assessment:

- 30 • lists equality issues identified, and how they have been addressed
- 31 • explains why any groups are excluded from the scope, if this was done.

32 **1 What the guideline is about**

33 **1.1 Who is the focus?**

34 **Groups that will be covered**

- 35 • Adults, children and young people with a diagnosis of asthma.
- 36 • Specific consideration will be given to subgroups based on age, with
37 proposed banding of children under 5 years; children aged 5-16; and adults
38 and young people over 16 years of age. However, the age division may be
39 adjusted for specific reviews according to the most appropriate age
40 groupings to make different recommendations for the intervention in
41 question.

42 **1.2 Settings**

43 **Settings that will be covered**

- 44 • All settings where NHS healthcare is provided or commissioned.

45 **1.3 Activities, services or aspects of care**

46 **Key areas that will be covered**

- 47 1 Pharmacological management of chronic asthma.
48 Note that guideline recommendations will normally fall within licensed
49 indications; exceptionally, and only if clearly supported by evidence, use
50 outside a licensed indication may be recommended. The guideline will assume
51 that prescribers will use a medicine's summary of product characteristics to
52 inform decisions made with individual patients.
- 53 2 Review of pharmacological therapy.
- 54 3 Non-pharmacological management of asthma (adherence, risk stratification,
55 supported self-management and breathing exercises only).

56 **Areas that will not be covered**

- 57 1 Non-pharmacological management of asthma (except as specified: adherence,
58 risk stratification, supported self-management and breathing exercises)
- 59 2 Biologics (for example Omalizumab)
- 60 3 Comparison of drug-delivery devices (inhalers)
- 61 4 Bronchial thermoplasty
- 62 5 Management of acute asthma attacks by a healthcare professional
- 63 6 Service delivery for acute asthma attacks

64 **1.4 Economic aspects**

65 We will take economic aspects into account when making recommendations. We will
66 develop an economic plan that states for each review question (or key area in the
67 scope) whether economic considerations are relevant, and if so whether this is an
68 area that should be prioritised for economic modelling and analysis. We will review
69 the economic evidence and carry out economic analyses, using an NHS and a
70 personal social services (PSS) perspective, as appropriate.

71 **1.5 Key issues and questions**

72 While writing this scope, we have identified the following key issues, and key
73 questions related to them:

74 **Pharmacological management of chronic asthma**

75 ***People with asthma who are treatment-naive***

- 76 1 What is the most clinically and cost effective drug class or combination of drug
77 classes for the management of people with asthma who are not taking
78 treatment for asthma?

79 ***People with asthma currently on an optimal single preventer (see 80 previous question) (BTS/SIGN step 2)***

- 81 1 What is the most clinically and cost effective sequence in which to introduce
82 additional drugs or combination of drugs for the management of people with
83 asthma who are currently taking an optimal single preventer (see previous
84 question) (BTS/SIGN step 2) when this fails to provide adequate control?

85 **Review of pharmacological therapy**

- 86 1 What are the clinical features (symptoms and/or objective measurements)
87 which indicate that a step down in treatment is appropriate?

88 **Non-pharmacological management of chronic asthma**

89 ***Adherence to pharmacological therapy***

- 90 1 What are the most clinically and cost effective strategies to improve medicines
91 adherence in people with asthma?

92 ***Stratification of asthma management according to risk of asthma attack***

- 93 1 What is the clinical and cost effectiveness of delivering asthma care stratified
94 according to risk of asthma attacks to improve outcomes for people with
95 asthma?

96 ***Supported self-management***

- 97 1 What is the clinical and cost effectiveness of supported self-management for
98 improving outcomes for people with asthma?
99 2 What is the optimal increase in preventer therapy within supported self-
100 management when control is lost?

101 ***Breathing exercises***

- 102 1 What is the value of breathing exercises in improving outcomes in people with
103 asthma?

104 The key questions may be used to develop more detailed review questions, which
105 guide the systematic review of the literature.

106 **1.6 Main outcomes**

107 The main outcomes that will be considered when searching for and assessing the
108 evidence are:

- 109 1 Health-related quality of life
110 2 Asthma control assessed by a validated questionnaire (for example the Asthma
111 Control Questionnaire)
112 3 Asthma attacks
113 4 Adverse events
114 5 Hospital admissions

115 6 Unscheduled healthcare utilisation

116 7 Mortality

117 2 **Links with other NICE guidance and NICE Pathways**

118 2.1 ***NICE guidance***

119 **NICE guidance that will be updated by this guideline**

- 120 • [Quality standard for asthma](#) (2013) NICE quality standard QS25

121 **Related NICE guidance**

- 122 • [Guidance on the use of inhaler systems \(devices\) in children under the age of 5](#)
123 [years with chronic asthma](#) (2000) NICE technology appraisal guidance TA10
- 124 • [Inhaled corticosteroids for the treatment of chronic asthma in adults and in](#)
125 [children aged 12 years and over](#) (2008) NICE technology appraisal guidance
126 TA138
- 127 • [Inhaled corticosteroids for the treatment of chronic asthma in children under the](#)
128 [age of 12 years](#) (2007) NICE technology appraisal guidance TA131
- 129 • [Inhaler devices for routine treatment of chronic asthma in older children \(aged 5-](#)
130 [15 years\)](#) (2002) NICE technology appraisal guidance TA38
- 131 • [Omalizumab for treating severe persistent allergic asthma](#) (2013) NICE
132 technology appraisal guidance TA278
- 133 • [Bronchial thermoplasty for severe asthma](#) (2012) NICE interventional procedure
134 guidance IPG419
- 135 • [Measuring fractional exhaled nitric oxide concentration in asthma: NIOX](#)
136 [MINO, NIOX VERO and NObreath](#) (2014) NICE diagnostics guidance
137 DG12

138 **Related NICE advice**

- 139 • [Asthma: tiotropium \(Spiriva Respimat\)](#) (2015) NICE advice ESNM55
- 140 • [Asthma in adults: beclometasone/formoterol dry powder inhaler \(Fostair](#)
141 [NEXThaler\)](#) (2015) NICE advice ESNM53
- 142 • [Asthma: beclometasone/formoterol \(Fostair\) for maintenance and reliever](#)
143 [treatment](#) (2013) NICE advice ESNM22
- 144 • [Asthma: fluticasone furoate/vilanterol \(Relvar Ellipta\) combination inhaler](#) (2014)
145 NICE advice ESNM34

- 146 • [Asthma: fluticasone/formoterol \(Flutiform\) combination inhaler](#) (2012) NICE advice
147 ESNM3
- 148 • [High-dose inhaled corticosteroids in asthma](#) (2015) NICE advice KTT5
- 149 • [The Airsonett temperature-controlled laminar airflow device for persistent](#)
150 [allergic asthma](#) (2014) NICE advice MIB8

151 **NICE guidance about the experience of people using NHS services**

152 NICE has produced the following guidance on the experience of people using the
153 NHS. This guideline will not include additional recommendations on these topics
154 unless there are specific issues related to asthma:

- 155 • [Medicines optimisation: the safe and effective use of medicines to enable the best](#)
156 [possible outcomes](#) (2015) NICE guideline NG5
- 157 • [Patient experience in adult NHS services](#) (2012) NICE guideline CG138
- 158 • [Service user experience in adult mental health](#) (2011) NICE guideline CG136
- 159 • [Medicines adherence](#) (2009) NICE guideline CG76

160 **NICE guidance in development that is closely related to this guideline**

161 NICE is currently developing the following guidance that is closely related to this
162 guideline:

- 163 • [Asthma diagnosis and monitoring](#) NICE guideline. Publication expected July 2015.
- 164 • [Acute medical emergencies](#) NICE guideline. Publication expected
165 November 2016.

166 **2.2 NICE Pathways**

167 When this guideline is published, the recommendations will be added to [NICE](#)
168 [Pathways](#). NICE Pathways bring together all related NICE guidance and associated
169 products on a topic in an interactive topic-based flow chart.

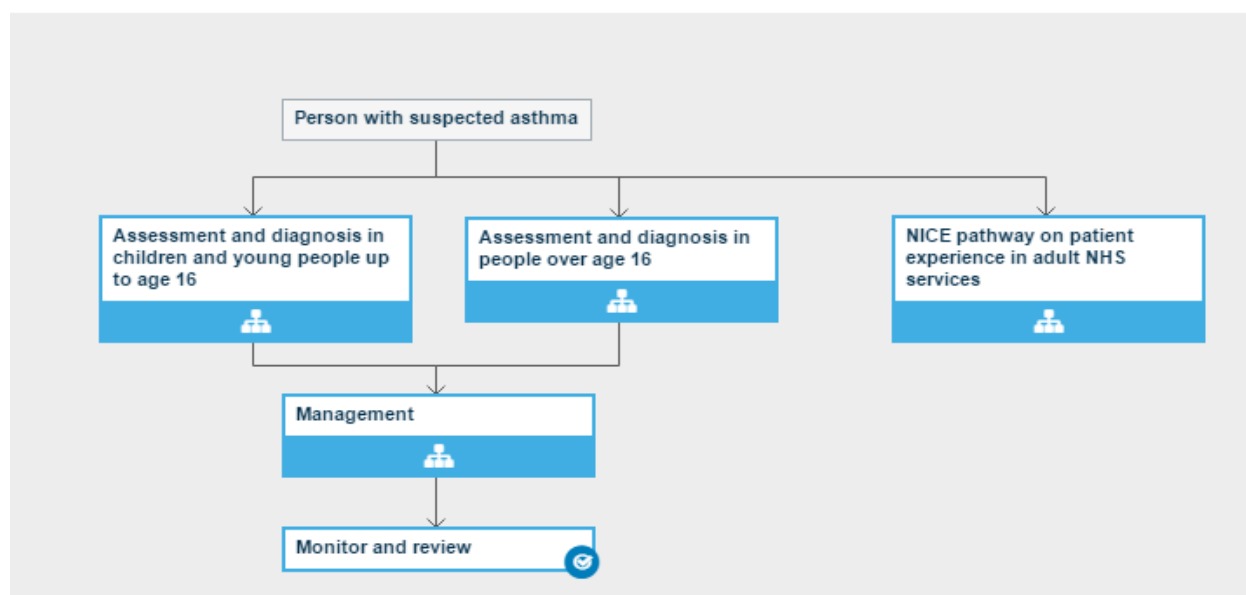
170 A draft pathway outline on asthma is included below – the recommendations from
171 this guideline will be added to the ‘management’ section of the pathway. It will be
172 adapted and more detail added as the recommendations are written during guideline
173 development.

174 The guideline will overlap with the existing NICE guideline on asthma diagnosis and
 175 monitoring. The NICE Pathway will integrate the recommendations from both
 176 guidelines, showing clearly how they fit together.

177 Other relevant NICE guidance included in the NICE pathway on asthma:

- 178 • [Omalizumab for treating severe persistent allergic asthma](#). NICE technology
 179 appraisal guidance 278 (2013)
- 180 • [Inhaled corticosteroids for the treatment of chronic asthma in adults and in
 181 children aged 12 years and over](#). NICE technology appraisal guidance 138 (2008)
- 182 • [Inhaled corticosteroids for the treatment of chronic asthma in children under the
 183 age of 12 years](#). NICE technology appraisal guidance 131 (2008)
- 184 • [Inhaler devices for routine treatment of chronic asthma in older children \(aged 5–
 185 15 years\)](#). NICE technology appraisal guidance 38 (2002)
- 186 • [Guidance on the use of inhaler systems \(devices\) in children under the age of 5
 187 years with chronic asthma](#). NICE technology appraisal guidance 10 (2000)
- 188 • [Bronchial thermoplasty for severe asthma](#). NICE interventional procedure
 189 guidance 419 (2012)
- 190 • [Measuring fractional exhaled nitric oxide concentration in asthma: NIOX MINO,
 191 NIOX VERO and Nobreath](#). NICE diagnostics guidance 12 (2014)
- 192 • [Asthma quality standard](#). NICE quality standard 25 (2013)

Asthma overview



193

194 **3 Context**

195 **3.1 Key facts and figures**

196 Asthma is a chronic disease of the lungs characterised by variable airflow limitation,
197 inflammation and hyperactivity of the airways. It is estimated that between 3.1 million
198 people (QOF 2011/2012) and 5.4 million (Asthma UK) people have asthma in the
199 United Kingdom affecting in the region of 6% of the population.

200 The aims of asthma management are to optimise current control of symptoms and
201 daily activities and prevent future risk of asthma attacks including hospital admission
202 and death.

203 Despite available effective treatment, there are data to show that asthma is still
204 poorly controlled. For example, 39% adult women and 30% men, 48% children had
205 experienced an asthma attack in the previous 12 months (Health Survey for England
206 2010) with around 1000 deaths from asthma occurring each year in the UK (RCP
207 NRAD 2014) and is a common cause for hospital admission (54,789 admissions in
208 the UK in 2011/12 Department of Health). There is also some evidence to show that
209 asthma control is worse in certain ethnic groups.

210 This guideline aims to give guidance on cost-effective management of asthma in
211 children and adults to improve control of asthma and minimise future risk of asthma
212 attacks.

213 **3.2 Current practice**

214 Most adults and children with asthma are managed in primary care by general
215 practitioners, pharmacists and practice nurses with a few patients needing
216 management in secondary care. Current guidelines (BTS/SIGN 2014) advise limiting
217 exposure to known triggers, individualised self-management action plans and
218 stepwise titration of preventive treatment tailored to the individual patient's severity of
219 illness. Regular review and monitoring of symptoms and asthma attacks is advised in
220 all patients with a diagnosis of asthma to identify poor control and poor adherence to
221 treatment.

222 However, there is considerable variation in following these guidelines, highlighted in
223 the National Review of Asthma Deaths by the Royal College of Physicians (RCP
224 NRAD 2014). Deficiencies in health professionals' implementation of these guidelines
225 were found in 46% of deaths. Only 23% of patients were provided with a personal

226 asthma action plan, 39% had excessive prescription of reliever medication, 80% had
227 under-prescription of preventer treatment and 14% were prescribed a single
228 component long acting beta agonist despite clear guidance not to. Avoidable patient
229 factors contributing to asthma deaths included current tobacco smoking in 19%, poor
230 recognition of the risk of adverse outcome in children and young people and
231 psychosocial factors including depression, mental health issues and drug misuse in
232 26%.

233 People in whom there is diagnostic uncertainty or who have poor control despite
234 apparent adequate treatment have their asthma managed in secondary care with
235 specialist investigation and treatment. A small proportion of people with difficult to
236 treat asthma have their asthma managed in tertiary centres with specialist
237 investigations and treatment modalities. Referral to specialist care is recommended
238 for people whose asthma is poorly controlled despite being on optimum therapy but
239 the RCP NRAD 2014 findings that more than half the people who died were not
240 under specialist care in the preceding 12 months suggests that this does not always
241 happen.

242 In summary, the implementation of current guidelines for the management of asthma
243 in children and adults is variable with the result that there is high proportion of people
244 with poorly controlled asthma and there is a high preventable mortality rate from this
245 condition.

246 **4 Further information**

This is the draft scope for consultation with registered stakeholders. The consultation dates are 15 April to 13 May 2015.

The guideline is expected to be published in 2017.

You can follow progress of the [guideline](#).

Our website has information about how [NICE guidelines](#) are developed.

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