

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.
- 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](#) [add hyperlink in final version]
29 during scoping. The 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 primary, secondary, tertiary and community care settings where NHS
45 healthcare is provided or commissioned.

46 **1.3 Activities, services or aspects of care**

47 **Key areas that will be covered**

- 48 1 Pharmacological management of chronic asthma.
49 Note that guideline recommendations will normally fall within licensed
50 indications; exceptionally, and only if clearly supported by evidence, use
51 outside a licensed indication may be recommended. The guideline will assume
52 that prescribers will use a medicine's summary of product characteristics to
53 inform decisions made with individual patients.
- 54 2 Stratification of asthma care according to exacerbation risk.

55 3 Self-management (personal asthma action plan).

56 **Areas that will not be covered**

57 1 Non-pharmacological management of chronic asthma

58 2 Biologics (for example Omalizumab)

59 3 Comparison of drug-delivery devices (inhalers)

60 4 Thermoplasty

61 5 Management of acute asthma attacks

62 6 Service delivery for acute asthma attacks

63 **1.4 Economic aspects**

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

70 **1.5 Key issues and questions**

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

73 **Pharmacological management of chronic asthma**

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

75 1 What is the most clinically and cost effective drug or combination of drugs for
76 the management of people with asthma who are not currently taking regular
77 preventative treatment for asthma?

78 ***People with asthma currently on inhaled corticosteroids only (BTS/SIGN 79 step 2)***

80 1 What is the most clinically and cost effective sequence in which to introduce
81 additional drugs or combination of drugs for the management of people with
82 asthma who are currently taking inhaled corticosteroids only (BTS/SIGN step 2)
83 when this fails to provide adequate control?

84 ***Adherence to pharmacological therapy***

- 85 1 What are the most clinically and cost effective strategies to improve medicines
86 adherence in people with asthma?

87 [Note to stakeholders: Please provide suggestions of the interventions to include that
88 are designed to improve adherence to asthma pharmacological therapy.]

89 ***Review of pharmacological therapy***

- 90 1 What are the clinical features (symptoms and/or objective measurements)
91 which indicate that an adjustment in treatment is appropriate?

92 ***Indications for referral to tertiary care for severe, difficult to treat asthma***

- 93 1 What are the indications for referral to tertiary care for severe, difficult to treat
94 asthma?

95 **Stratification of asthma care according to exacerbation risk**

- 96 2 What is the clinical and cost effectiveness of delivering asthma care stratified
97 according to risk of exacerbations to improve outcomes for people with
98 asthma?

99 **Self-management (personal asthma action plan)**

- 100 3 What is the clinical and cost effectiveness of self-management plans (personal
101 asthma action plan) for improving outcomes for people with asthma?
102 4 Using self-management plans what is the optimal increase in preventer therapy
103 when control is lost?

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

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

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

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

- 154 • [Patient experience in adult NHS services](#) (2012) NICE guideline CG138
- 155 • [Service user experience in adult mental health](#) (2011) NICE guideline CG136
- 156 • [Medicines adherence](#) (2009) NICE guideline CG76

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

158 NICE is currently developing the following guidance that is closely related to this
159 guideline:

- 160 • [Asthma diagnosis and monitoring](#) NICE guideline. Publication expected July 2015.
- 161 • [Acute medical emergencies](#) NICE guideline. Publication expected
162 November 2016.

163 **2.2 NICE Pathways**

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

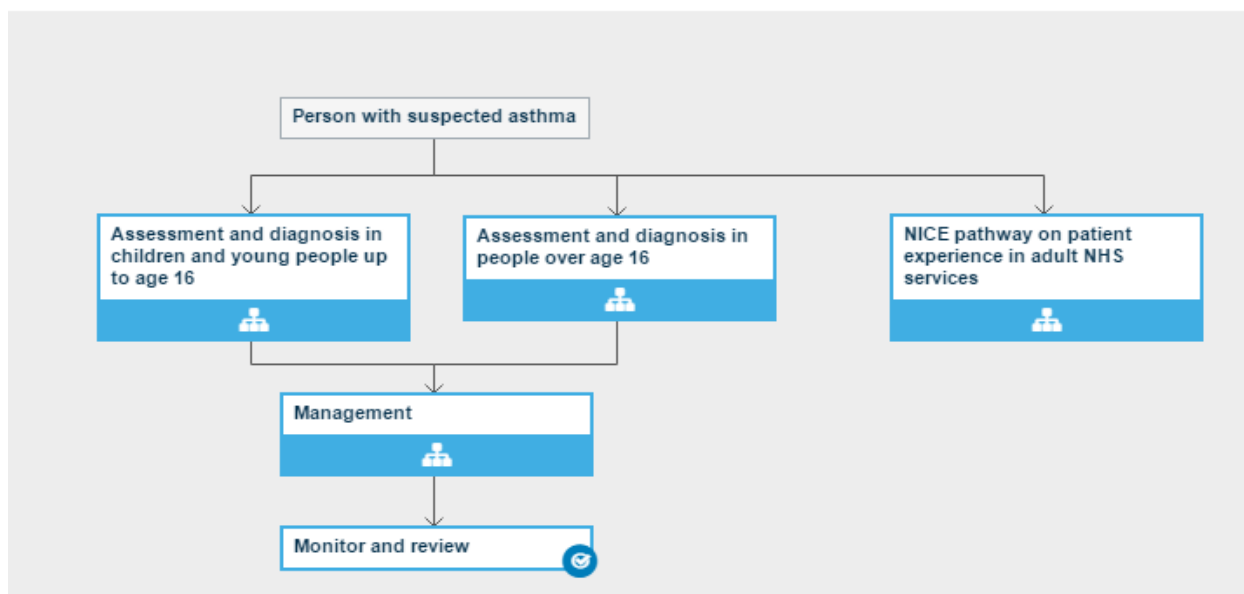
167 A draft pathway outline on asthma is included below – the recommendations from
168 this guideline will be added to the ‘management’ section of the pathway. It will be
169 adapted and more detail added as the recommendations are written during guideline
170 development.

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

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

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

Asthma overview



190

191 3 Context

192 3.1 Key facts and figures

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

197 The aims of asthma management are to optimise current control of symptoms and
198 daily activities and prevent future risk of exacerbations including hospital admission
199 and death.

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

207 This guideline aims to give guidance on cost-effective management of asthma in
208 children and adults to improve control of asthma and minimising future risk of
209 exacerbations.

210 **3.2 Current practice**

211 Most adults and children with asthma are managed in primary care by general
212 practitioners and practice nurses with specific training. Management includes advice
213 about limiting exposure to known factors that trigger symptoms or asthma attacks,
214 treatment with preventive medicines tailored to the person's severity of illness and
215 regular review and monitoring of symptoms and exacerbations. Based on current
216 guidelines (BTS/SIGN 2014) preventive treatment is stepped up or stepped down to
217 ensure that the person experiences minimal symptoms with as low a level of
218 treatment as possible. There is considerable variation in the monitoring of people
219 with asthma and the effectiveness of titrating treatment to symptoms with the 2014
220 Royal College of Physicians' National Review of Asthma Deaths (RCP NRAD 2014)
221 finding that 46% of people who died of asthma had factors in the implementation of
222 guidelines that could have avoided death. There was excessive prescribing of
223 reliever treatment and under-prescribing of preventer treatment implying a failure to
224 step-up treatment when needed.

225 People in whom there is diagnostic uncertainty or who have poor control despite
226 apparent adequate treatment have their asthma managed in secondary care with
227 specialist investigation and treatment. A small proportion of people with difficult to
228 treat asthma have their asthma managed in tertiary centres with specialist
229 investigations and treatment modalities. Referral to specialist care is recommended
230 for people whose asthma is poorly controlled but the RCP NRAD 2014 findings that

231 more than half the people who died were not under specialist care in the preceding
232 12 months suggests that this does not always happen.

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

237 **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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