NICE National Institute for Health and Care Excellence

Quality standard for asthma

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Introduction and overview

This quality standard covers the diagnosis and treatment of asthma in adults, young people and children aged 12 months and older. For more information see the scope for this quality standard.

Introduction

Asthma is a long-term condition that affects the airways in the lungs in children, young people and adults. Classic symptoms include breathlessness, tightness in the chest, coughing and wheezing. The goal of management is for people to be free from symptoms and able to lead a normal, active life. This is achieved partly through treatment, tailored to the person, and partly by people getting to know what provokes their symptoms and avoiding these triggers as much as possible. The causes of asthma are not well understood, so a cure is not usually possible, although this can sometimes be achieved in occupational asthma. Occupational factors account for about 1 in 6 cases of asthma in adults of working age[1].

In the UK, 5.4 million people are currently receiving treatment for asthma, 1.1 million of whom are children[2]. Asthma is the most common long-term medical condition, and 1 in 11 children has it. There are around 1000 deaths a year from asthma, about 90% of which are associated with preventable factors. Almost 40% of these deaths are in people under 75. Asthma is responsible for large numbers of accident and emergency department attendances and hospital admissions. Most admissions are emergencies and 70% may have been preventable with appropriate early interventions[3].

NICE quality standards describe high-priority areas for quality improvement in a defined care or service area. Each standard consists of a prioritised set of specific, concise and measurable statements. They draw on existing guidance, which provides an underpinning, comprehensive set of recommendations, and are designed to support the measurement of improvement. The quality standard, in conjunction with the guidance on which it is based, should contribute to the improvements outlined in the following frameworks:

- NHS Outcomes Framework 2013–14
- Improving outcomes and supporting transparency: Part 1: a public health outcomes framework for England, 2013–2016

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The table below shows the outcomes, overarching indicators and improvement areas from the frameworks that the quality standard could contribute to achieving:

NHS outcomes framework 2013–14	
Domain1: Preventing people from dying prematurely	**Overarching indicators** 1a Potential years of life lost (PYLL) from causes considered amenable to healthcare i) Adults ii) Children and young people (placeholder) **Improvement areas** *Reducing premature mortality from the major causes of death* 1.2 Under 75 mortality rate for respiratory disease
Domain 2: Enhancing quality of life for people with long-term conditions	**Overarching indicator** 2 Health-related quality of life for people with long-term conditions **Improvement areas** *Ensuring people feel supported to manage their condition* 2.1 Proportion of people feeling supported to manage their condition *Reducing time spent in hospital by people with long-term conditions* 2.3i Unplanned hospitalisation for chronic ambulatory care sensitive conditions (adults) 2.3ii Unplanned hospitalisation for asthma, diabetes and epilepsy in under 19s
Domain 3: Helping people to recover from episodes of ill health or following injury	**Overarching indicator** 3b Emergency readmissions within 30 days of discharge from hospital

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Domain 4: Ensuring that people have a positive experience of care	**Overarching indicators** 4a i Patient experience of primary care – GP services 4b Patient experience of hospital care
Public health outcomes framework 2013–16	
Domain 4: Healthcare public health and preventing premature mortality	**Objective** Reduced numbers of people living with preventable ill health and people dying prematurely, while reducing the gap between communities. **Indicator** 4.7 Mortality from respiratory disease 4.11 Emergency readmissions within 30 days of discharge from hospital (placeholder)

Overview

The quality standard for asthma requires that services should be commissioned from and coordinated across all relevant agencies encompassing the whole asthma care pathway. An integrated approach to provision of services is fundamental to the delivery of high quality care to adults, young people and children with asthma.

The quality standard should be read in the context of national and local guidelines on training and competencies. All healthcare professionals involved in diagnosing and managing asthma in adults, young people and children should have sufficient and appropriate training and competencies to deliver the actions and interventions described in the quality standard.

[1] British Occupational Health Research (2010) Occupational asthma: prevention, identification and management: systematic review and recommendations.

[2] Asthma UK (accessed November 2012) Facts for journalists.

[3] Department of Health (2011) Outcomes strategy for chronic obstructive pulmonary disease (COPD) and asthma in England.

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List of quality statements

Statement 1. People with newly diagnosed asthma are diagnosed in accordance with BTS/SIGN guidance.

Statement 2. Adults with new onset asthma are assessed for occupational causes.

Statement 3. People with asthma receive a written personalised action plan.

Statement 4. People with asthma are given specific training and assessment in inhaler technique before starting any new inhaler treatment.

Statement 5. People with asthma receive a structured review at least annually.

Statement 6. People with asthma who present with respiratory symptoms receive an assessment of their asthma control.

Statement 7. People with asthma who present with an exacerbation of their symptoms receive an objective measurement of severity at the time of presentation.

Statement 8. People aged 5 years or older presenting to a healthcare professional with a severe or life-threatening acute exacerbation of asthma receive oral or intravenous steroids within 1 hour of presentation.

Statement 9. People admitted to hospital with an acute exacerbation of asthma have a structured review by a member of a specialist respiratory team before discharge.

Statement 10. People who received treatment in hospital or through out-of-hours services for an acute exacerbation of asthma are followed up by their own GP practice within 2 working days of treatment.

Statement 11. People with difficult asthma are offered an assessment by a multidisciplinary difficult asthma service.

In addition, quality standards that should also be considered when commissioning and providing a high-quality asthma service are listed in related NICE quality standards.

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Quality statement 1: Diagnosis

Quality statement

People with newly diagnosed asthma are diagnosed in accordance with BTS/SIGN guidance.

Rationale

Making a diagnosis of asthma is a process which is different in adults and children and also varies among adults and among children. Processes for adults and children are described in the BTS/SIGN guidance. It is important the process followed is documented to ensure continuity in the diagnostic process. It is also important that the basis on which the diagnosis of asthma is made is clearly recorded because this process may have implications for the future management of the condition. Following the process should result in an accurate diagnosis and ensure the person receives appropriate treatment.

Quality measure

Structure: Evidence of local arrangements to ensure people with newly diagnosed asthma are diagnosed in accordance with BTS/SIGN guidance, and that the process is documented in their patient notes.

Process: Proportion of people with newly diagnosed asthma whose notes describe the process, as outlined in the BTS/SIGN guidance, by which the diagnosis was made.

Numerator – the number of people in the denominator whose notes describe the process, as outlined in the BTS/SIGN guidance, by which the diagnosis was made.http://www.sign.ac.uk/

Denominator – the number of people with newly diagnosed asthma.

What the quality statement means for each audience

Service providers ensure systems are in place for people with newly diagnosed asthma to be diagnosed in accordance with BTS/SIGN guidance.

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Healthcare professionals ensure people with newly diagnosed asthma are diagnosed in accordance with BTS/SIGN guidance.

Commissioners ensure they commission services for people with newly diagnosed asthma to be diagnosed in accordance with BTS/SIGN guidance.

People with newly diagnosed asthma have a diagnosis made in line with BTS/SIGN guidance.

Source guidance

BTS/SIGN clinical guideline 101: British guideline on the management of asthma recommendations in paragraphs 2.1.1, 2.1.7, 2.4, 2.5.1 and 2.5.4.

Data source

Structure: Local data collection.

Process: Local data collection.

Definitions

The diagnosis and the process by which the diagnosis is made should be documented in the patient's notes.

The diagnostic process is outlined in the BTS/SIGN guideline, figure 1 for children and in figure 2 for adults, and consists of:

- history and clinical examination
- objective tests if the clinical diagnosis is uncertain and
- response to treatment given in accordance with the BTS/SIGN treatment steps.

The diagnosis is not a one-time event and may need to be reviewed, particularly in younger children.

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Quality statement 2: Diagnosing occupational asthma

Quality statement

Adults with new onset asthma are assessed for occupational causes.

Rationale

Occupational asthma is the only form of asthma that can potentially be cured by removing the person from exposure to the trigger. Healthcare professionals need to be able to recognise symptoms that suggest occupational asthma so that they can ensure appropriate referral and treatment.

Quality measure

Structure: Evidence of local arrangements to ensure adults with new onset asthma are assessed for occupational causes.

Process: Proportion of adults with new onset asthma who are assessed for occupational causes.

Numerator – the number of people in the denominator assessed for occupational causes.

Denominator – the number of adults with new onset asthma.

Outcome: Incidence of occupational asthma.

What the quality statement means for each audience

Service providers ensure systems are in place for adults with new onset asthma to be assessed for occupational causes.

Healthcare professionals assess adults with new onset asthma for occupational causes.

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Commissioners ensure they commission services that assess adults with new onset asthma for occupational causes.

Adults who have recently developed asthma are assessed for causes linked to their place of work.

Source guidance

BTS/SIGN clinical guideline 101: British guideline on the management of asthma recommendation in paragraph 7.9.1 and good practice point in paragraph 7.9.3.

Data source

Structure: Local data collection.

Process: Local data collection.

Outcome: Local data collection.

Definitions

Adults are defined as 16 years and older.

New onset asthma is defined as asthma developing in adults who have not had a previous diagnosis of asthma or a reappearance of childhood asthma in adults.

The BTS/SIGN guideline lists the 2 questions to be asked when assessing for occupational asthma as:

- Are you better on days away from work?
- Are you better on holiday?

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Quality statement 3: Written personalised action plans

Quality statement

People with asthma receive a written personalised action plan.

Rationale

Written personalised action plans, given as part of structured education, can improve outcomes such as self-efficacy, knowledge and confidence for people with asthma, particularly for people with moderate to severe asthma whose condition is managed in secondary care. For people with asthma who have had a recent acute exacerbation resulting in admission to hospital, written personalised action plans may reduce readmission rates.

Quality measure

Structure: Evidence of local arrangements to ensure people with asthma receive a written personalised action plan.

Process:

a) Proportion of people with asthma who receive a written personalised action plan.

Numerator – the number of people in the denominator receiving a written personalised action plan.

Denominator – the number of people with asthma.

b) Proportion of people treated in hospital for an acute exacerbation of asthma who receive a written personalised action plan before discharge.

Numerator – the number of people in the denominator receiving a written personalised action plan before discharge.

Denominator – the number of people treated in hospital for an acute exacerbation of asthma.

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What the quality statement means for each audience

Service providers ensure systems are in place for people with asthma to receive a written personalised action plan.

Healthcare professionals ensure they give people with asthma a written personalised action plan.

Commissioners ensure they commission services that give people with asthma a written personalised action plan.

People with asthma receive a written plan with details of how their asthma will be managed.

Source guidance

BTS/SIGN clinical guideline 101: British guideline on the management of asthma recommendations in paragraphs 9.1 and 9.1.1.

Data source

Structure: Local data collection.

Process: a) and b) Local data collection.

Definitions

A personalised action plan should be tailored to the person with asthma, enabling people with asthma to recognise when symptoms are worse and setting out actions to be taken when asthma control deteriorates.

Equality and diversity considerations

A personalised action plan should be tailored to the person with asthma. The intent of the statement is for people with asthma to not just receive the information verbally but for it to be

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recorded. This allows people to refer back to the information at a later date. Other formats, such as braille, pictorial or digital, may be needed for particular groups.

For some people with asthma it may be appropriate for a parent or carer to be involved in the review of the written personalised action plan; particularly for children, older people and those with learning disabilities.

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Quality statement 4: Inhaler technique

Quality statement

People with asthma are given specific training and assessment in inhaler technique before starting any new inhaler treatment.

Rationale

People with asthma need to be able to use their inhaler correctly to ensure they receive the correct dose of treatment. There are several types of inhaler and it is important that training and assessment are specific to each inhaler.

Training and assessment need to take place before any new inhaler treatment is started, to ensure that changes to treatment do not fail because of poor technique.

Quality measure

Structure: Evidence of local arrangements to ensure people with asthma are given specific training and assessment in inhaler technique before starting any new inhaler treatment.

Process: Proportion of people with asthma who are given specific training and assessment in inhaler technique before starting any new inhaler treatment.

Numerator – the number of people in the denominator who have training and assessment in inhaler technique.

Denominator – the number of people with asthma starting a new inhaler treatment.

What the quality statement means for each audience

Service providers ensure systems are in place for people with asthma to be given specific training and assessment in inhaler technique before starting any new inhaler treatment.

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Healthcare professionals ensure people with asthma receive specific training and assessment in inhaler technique before starting any new inhaler treatment.

Commissioners ensure they commission services that give people with asthma specific training and assessment in inhaler technique before they start any new inhaler treatment.

People with asthma are given training in using their inhaler before they start any new inhaler treatment.

Source guidance

BTS/SIGN clinical guideline 101: British guideline on the management of asthma recommendation in paragraph 5.1.

Data source

Structure: Local data collection.

Process: Local data collection.

Definitions

During an assessment of inhaler technique the person with asthma should demonstrate that they can use the inhaler as specified in the manufacturer's guidance.

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Quality statement 5: Review

Quality statement

People with asthma receive a structured review at least annually.

Rationale

A structured review can improve clinical outcomes for people with asthma. Benefits associated with structured review may include reduced absence from school or work, reduced exacerbation rate, improved symptom control and reduced attendance in accident and emergency departments.

Quality measure

Structure: Evidence of local arrangements to ensure people with asthma receive a structured review at least annually.

Process: Proportion of people with asthma who receive a structured review at least annually.

Numerator – the number of people in the denominator who had a structured review within 12 months of the last review or diagnosis.

Denominator – the number of people with asthma.

What the quality statement means for each audience

Service providers ensure systems are in place for people with asthma to receive a structured review at least annually.

Healthcare professionals ensure people with asthma receive a structured review at least annually.

Commissioners ensure they commission services that give people with asthma a structured review at least annually.

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People with asthma have a review of their asthma and its management at least once a year.

Source guidance

BTS/SIGN clinical guideline 101: British guideline on the management of asthma recommendations in paragraphs 2.6.3, 2.6.4 and 8.1.2.

Data source

Structure: Local data collection.

Process: Local data collection.

Definitions

Components of a structured review

The components of a structured review are set out in the BTS/SIGN guideline paragraphs 2.6.3 and 2.6.4. The review will vary for adults and children.

Components of a structured review for children include:

- assessment of symptomatic asthma control using a recognised tool
- review of exacerbations, oral corticosteroid use and time off school or nursery as a result of asthma since last assessment
- checking inhaler technique
- assessing adherence (which can be done by reviewing prescription refill frequency)
- adjustment of treatment (consider stepping up if poor control or stepping down if good control since the last annual review)
- possession and review of personalised action plan
- exposure to tobacco smoke

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- measurement of growth centile (height and weight)
- assessment of comorbidities
- review of diagnosis.

Components of a structured review for adults include:

- assessment of symptomatic asthma control using a recognised tool
- measurement of lung function, assessed by spirometry or by peak expiratory flow
- review of exacerbations, oral corticosteroid use and time off work or study since last assessment
- checking inhaler technique
- assessing adherence (which can be done by reviewing prescription refill frequency)
- adjustment of treatment (consider stepping up if poor control or stepping down if good control since the last annual review)
- bronchodilator reliance (which can be assessed by reviewing prescription refill frequency)
- possession and review of personalised action plan
- smoking status
- assessment of comorbidities
- review of diagnosis.

Assessment of asthma control

An assessment of asthma control should use a recognised tool (see BTS/SIGN guideline, table 8). The tool used should be appropriate for the age of the person with asthma. The available tools include:

- Royal College of Physicians (RCP) 3 questions
- asthma control questionnaire

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- asthma control test or children's asthma control test
- mini asthma quality of life questionnaire or paediatric asthma quality of life questionnaire.

These tools are usefully supplemented by 1 or more tests of airway function, which include:

- spirometry
- peak expiratory flow
- airway responsiveness
- exhaled nitric oxide
- eosinophil differential count in induced sputum.

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Quality statement 6: Assessing asthma control

Quality statement

People with asthma who present with respiratory symptoms receive an assessment of their asthma control.

Rationale

For people who present with respiratory symptoms between annual reviews, it is important to assess asthma control using a recognised tool to identify those who need treatment. In some cases this may prevent admission to hospital for deteriorating symptoms.

Quality measure

Structure: Evidence of local arrangements to ensure people with asthma presenting with respiratory symptoms receive an assessment of their asthma control.

Process: Proportion of people with asthma presenting with respiratory symptoms who receive an assessment of their asthma control.

Numerator – the number of people in the denominator receiving an assessment of their asthma control.

Denominator – the number of people with asthma who present with respiratory symptoms.

What the quality statement means for each audience

Service providers ensure systems are in place for people with asthma who present with respiratory symptoms to receive an assessment of their asthma control.

Healthcare professionals assess asthma control in people with asthma who present with respiratory symptoms.

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Commissioners ensure they commission services that assess asthma control in people with asthma who present with respiratory symptoms.

People with asthma who have symptoms have an assessment of how well their asthma is controlled.

Source guidance

BTS/SIGN clinical guideline 101: British guideline on the management of asthma good practice points in paragraphs 2.6.1 and 2.6.2.

Data source

Structure: Local data collection.

Process: Local data collection.

Definitions

Respiratory symptoms include cough, wheezing, breathlessness and chest tightness.

Assessment of asthma control

An assessment of asthma control should use a recognised tool (see BTS/SIGN guideline, table 8). The tool used should be appropriate for the age of the person with asthma. The available tools include:

- Royal College of Physicians (RCP) 3 questions
- asthma control questionnaire
- asthma control test or children's asthma control test
- mini asthma quality of life questionnaire or paediatric asthma quality of life questionnaire.

These tools are usefully supplemented by 1 or more tests of airway function, which include:

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- spirometry
- peak expiratory flow
- airway responsiveness
- exhaled nitric oxide
- eosinophil differential count in induced sputum.

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Quality statement 7: Assessing severity

Quality statement

People with asthma who present with an exacerbation of their symptoms receive an objective measurement of severity at the time of presentation.

Rationale

Severity of an exacerbation should be objectively measured as soon as a person presents with respiratory symptoms. Delays in measurement can result in symptoms deteriorating further. An accurate measurement can determine the level of severity of the attack and ensure appropriate treatment is started promptly.

Quality measure

Structure: Evidence of local arrangements to ensure people with asthma presenting with an exacerbation of their respiratory symptoms receive an objective measurement of severity at the time of presentation.

Process: Proportion of people with asthma presenting with an exacerbation of their respiratory symptoms who receive an objective measurement of severity at the time of presentation.

Numerator – the number of people in the denominator receiving an objective measurement of severity at the time of presentation.

Denominator – the number of people with asthma presenting with an exacerbation of their respiratory symptoms.

What the quality statement means for each audience

Service providers ensure systems are in place for people with asthma who present with an exacerbation of their respiratory symptoms to receive an objective measurement of severity at the time of presentation.

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Healthcare professionals ensure people presenting with an acute exacerbation of asthma receive an objective measurement of severity at the time of presentation.

Commissioners ensure they commission services that give people with asthma who present with an exacerbation of their respiratory symptoms an objective measurement of severity at the time of presentation.

People with asthma who go to see a healthcare professional because their symptoms have worsened have their symptoms measured at the time of the appointment.

Source guidance

Consensus based on annex 3–7 and guidance in paragraph 6.2.3 in the BTS/SIGN clinical guideline 101: British guideline on the management of asthma.

Data source

Structure: Local data collection.

Process: Local data collection.

Definitions

Respiratory symptoms include cough, wheezing, breathlessness and chest tightness.

Objective measurement of severity

The clinical signs to assess when determining the severity of an exacerbation differ for adults, children aged 2–5 years and children aged older than 5 years. The measurements are outlined below and in the BTS/SIGN guideline: table 10 or annex 3 for adults and table 12 or annex 5, 6 or 7 for children older than 2 years.

Children aged 2–5 years

Moderate asthma	Severe asthma	Life-threatening asthma

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SpO_2 ≥92% Able to talk Heart rate ≤140/minute Respiratory rate ≤40/minute	SpO_2 <92% Too breathless to talk Heart rate >140/minute Respiratory rate >40/minute Use of accessory neck muscles	SpO_2<92% plus any of: • silent chest • poor respiratory effort • agitation • altered consciousness • cyanosis

Children older than 5 years

Moderate asthma	**Severe asthma**	**Life-threatening asthma**
SpO_2 ≥92% PEF ≥50% best or predicted Able to talk Heart rate ≤125/minute Respiratory rate ≤30/minute	SpO_2 <92% PEF 33–50% best or predicted Too breathless to talk Heart rate >125/minute Respiratory rate >30/minute Use of accessory neck muscles	SpO_2 <92% plus any of: • PEF <33% best or predicted • silent chest • poor respiratory effort • agitation • altered consciousness • cyanosis

Adults

Measure peak expiratory flow (PEF) and arterial saturation		
PEF >50–75% best or predicted	**PEF 33–50% best or predicted**	**PEF <33% best or predicted**
Moderate asthma	**Acute severe asthma**	**Life-threatening asthma**

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SpO_2 ≥92% PEF >50–75% best or predicted No features of acute severe asthma	Features of severe asthma • PEF<50% best or predicted • Respiration ≥ 25/minute • SpO_2 ≥92% • Pulse ≥110 beats/minute • Cannot complete sentence in 1 breath	• SpO_2<92% • Silent chest, cyanosis, poor respiratory effort • Arrhythmia, hypotension • Exhaustion, altered consciousness

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Quality statement 8: Treatment for acute asthma

Quality statement

People aged 5 years or older presenting to a healthcare professional with a severe or life-threatening acute exacerbation of asthma receive oral or intravenous steroids within 1 hour of presentation.

Rationale

Steroids are part of a range of treatment that can be given to people aged 5 years or older presenting with a severe or life-threatening exacerbation of asthma.

The use of steroids soon after presentation may contribute to reducing the need for hospital admission, preventing relapse in symptoms, reducing mortality and the need for β_2 agonist therapy.

Quality measure

Structure: Evidence of local arrangements to ensure people aged 5 years or older presenting to a healthcare professional with a severe or life-threatening acute exacerbation of asthma receive oral or intravenous steroids within 1 hour of presentation.

Process: Proportion of people aged 5 years or older presenting to a healthcare professional with a severe or life-threatening acute exacerbation of asthma who receive oral or intravenous steroids within 1 hour of presentation.

Numerator – the number of people in the denominator receiving oral or intravenous steroids within 1 hour of presentation.

Denominator – the number of people aged 5 years or older presenting to a healthcare professional with a severe or life-threatening acute exacerbation of asthma.

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What the quality statement means for each audience

Service providers ensure systems are in place for people aged 5 years or older presenting to a healthcare professional with a severe or life-threatening acute exacerbation of asthma to receive oral or intravenous steroids within 1 hour of presentation.

Healthcare professionals ensure people aged 5 years or older presenting to them with a severe or life-threatening acute exacerbation of asthma receive oral or intravenous steroids within 1 hour of presentation.

Commissioners ensure they commission services that give oral or intravenous steroids to people aged 5 years or older presenting to a healthcare professional with a severe or life-threatening acute exacerbation of asthma within 1 hour of presentation.

People aged 5 years or older who see a healthcare professional with severe or life-threatening asthma are given oral or intravenous steroids within 1 hour.

Source guidance

BTS/SIGN clinical guideline 101: British guideline on the management of asthma recommendations in paragraphs 6.3.3, 6.8.4 and 7.5 and guidance in annex 3–7.

Data source

Structure: Local data collection.

Process: Local data collection.

Definitions

The BTS/SIGN guideline defines severe and life-threatening asthma in table 10 for adults and table 12 for children.

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Quality statement 9: Specialist review

Quality statement

People admitted to hospital with an acute exacerbation of asthma have a structured review by a member of a specialist respiratory team before discharge.

Rationale

A structured review of clinical management and the written personalised action plan ensure people admitted to hospital receive appropriate treatment and in some cases may reduce readmission rates.

Quality measure

Structure: Evidence of local arrangements to ensure people admitted to hospital with an acute exacerbation of asthma have a structured review by a member of a specialist respiratory team before discharge.

Process: Proportion of people admitted to hospital with an acute exacerbation of asthma who receive a structured review by a member of a specialist respiratory team before discharge.

Numerator – the number of people in the denominator receiving a structured review by a member of a specialist respiratory team.

Denominator – the number of people discharged from hospital after admission for an acute exacerbation of asthma.

What the quality statement means for each audience

Service providers ensure systems are in place for people admitted to hospital with an acute exacerbation of asthma to be reviewed by a member of a specialist respiratory team before discharge.

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Healthcare professionals ensure people admitted to hospital with an acute exacerbation of asthma are reviewed by a member of a specialist respiratory team before discharge.

Commissioners ensure they commission services which give people admitted to hospital with an acute exacerbation of asthma a review by a member of a specialist respiratory team before discharge.

People admitted to hospital with a sudden worsening of asthma have a review by a member of a specialist team before discharge.

Source guidance

Consensus based on guidance from paragraph 8.2 in the BTS/SIGN clinical guideline 101: British guideline on the management of asthma.

Data source

Structure: Local data collection.

Process: Local data collection.

Definitions

Structured review

A structured review should include:

- an assessment of events leading up to the attack (including exposure to triggers, adherence and inhaler technique)
- review of the written personalised action plan
- review of regular treatment including considering whether this needs to be changed.

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Specialist respiratory team

Specialist respiratory team is defined as a team in which the clinical lead is a respiratory consultant (adult or paediatric) or a specialist with an interest in respiratory disease (adult or paediatric) or a trained specialist nurse with expertise in managing asthma.

Equality and diversity considerations

A personalised action plan should be tailored to the person with asthma. The intent of the statement is for people with asthma to not just receive the information verbally but for it to be recorded. This allows people to refer back to the information later. Other formats, such as braille, pictorial or digital, may be needed for particular groups.

For some people with asthma it may be appropriate for a parent or carer to be involved in the review of the written personalised action plan, particularly for children, older people and those with learning disabilities.

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Quality statement 10: Follow-up in primary care

Quality statement

People who received treatment in hospital or through out-of-hours services for an acute exacerbation of asthma are followed up by their own GP practice within 2 working days of treatment.

Rationale

For people treated for an exacerbation of asthma in hospital (both in accident and emergency departments and as inpatients) or through out-of-hours services, follow-up appointments are important to explore the possible reasons for the exacerbation and the actions needed to reduce the risk of further acute episodes.

Quality measure

Structure:

a) Evidence of local arrangements to ensure people who received treatment in hospital or through out-of-hours services for an acute exacerbation of asthma are followed up by their own GP practice within 2 working days of treatment.

b) Evidence of local arrangements to ensure effective communication between secondary care centres (such as hospitals and out-of-hours services) and primary care.

Process: Proportion of people who received treatment in hospital or through out-of-hours services for an acute exacerbation of asthma who are followed up by their own GP practice within 2 working days of treatment.

Numerator – the number of people in the denominator followed up by their own GP practice within 2 working days of treatment.

Denominator – the number of people who received treatment in hospital or through out-of-hours services for an acute exacerbation of asthma.

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What the quality statement means for each audience

Service providers ensure systems are in place for people who received treatment in hospital or through out-of-hours services for an acute exacerbation of asthma to be followed up by their own GP practice within 2 working days of treatment.

Healthcare professionals follow up all people in their own practice who received treatment for an acute exacerbation of asthma in hospital or through out-of-hours services within 2 working days of treatment.

Commissioners ensure they commission services that specify effective communication between secondary care centres (such as hospitals and out-of-hours services) and primary care so that people who received treatment for an acute exacerbation of asthma in hospital or through out-of-hours services are followed up by their own GP practice within 2 working days of treatment.

People who received treatment in hospital or through out-of-hours services for a sudden worsening of their asthma see a healthcare professional in their own GP practice within 2 working days of treatment.

Source guidance

Consensus based on annex 3 and guidance from paragraphs 6.6.3, 6.9.5 and 6.11.4 in the BTS/SIGN clinical guideline 101: British guideline on the management of asthma.

Data source

Structure: a) and b) Local data collection.

Process: Local data collection.

Definitions

People who received treatment in hospital include both people treated in accident and emergency departments and those treated as inpatients

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People admitted with an acute exacerbation should be followed up within 2 days of discharge; people not admitted but treated for an acute exacerbation should be followed up within 2 days of treatment.

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Quality statement 11: Difficult asthma

Quality statement

People with difficult asthma are offered an assessment by a multidisciplinary difficult asthma service.

Rationale

People with difficult asthma need specialist assessment to accurately diagnose their asthma, exclude alternative causes of persistent symptoms, manage comorbidities, confirm adherence to therapy and ensure they are receiving the most appropriate treatment.

Quality measure

Structure: Evidence of local arrangements to ensure people with difficult asthma are offered an assessment by a multidisciplinary difficult asthma service.

Process: Proportion of people with difficult asthma who receive an assessment by a multidisciplinary difficult asthma service.

Numerator – the number of people in the denominator receiving an assessment by a multidisciplinary difficult asthma service.

Denominator – the number of people with difficult asthma.

What the quality statement means for each audience

Service providers ensure systems are in place for people with difficult asthma to be offered an assessment by a multidisciplinary difficult asthma service.

Healthcare professionals offer people with difficult asthma an assessment by a multidisciplinary difficult asthma service.

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Commissioners ensure they commission services that offer people with difficult asthma an assessment by a multidisciplinary difficult asthma service.

People with asthma that is difficult to control are offered an assessment by a team that specialises in managing 'difficult asthma'.

Source guidance

BTS/SIGN clinical guideline 101: British guideline on the management of asthma recommendations in paragraph 7.2.1.

Data source

Structure: Local data collection.

Process: Local data collection.

Definitions

Difficult asthma for adults

The definition of difficult asthma in adults was agreed by consensus and aligns with the interim specification for Respiratory Severe asthma.

Difficult asthma in adults is defined as asthma with symptoms despite treatment at steps 4 or 5 of the BTS/SIGN guideline plus 1 of the following:

- an event of acute severe asthma which is life threatening, requiring invasive ventilation within the last 10 years
- requirement for maintenance oral steroids for at least 6 months at a dose equal to or above 7.5 mg prednisolone per day or a daily dose equivalent of this calculated over 12 months
- 2 hospitalisations within the last 12 months in patients taking and adherent to high dose inhaled steroids (greater than or equal to 1000 micrograms of beclometasone or equivalent)
- fixed airflow obstruction, with a post bronchodilator FEV_1 less than 70% of predicted normal.

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Difficult asthma for children

The definition of difficult asthma in children was agreed by consensus and aligns with the interim service specification for Paediatric Medicine: respiratory.

Difficult asthma in children is defined as stage 3 or 4 but still symptomatic, especially if high dose inhaled corticosteroids have been used, and all stage 5 (aged 5 years and older) or stage 4 (younger than 5 years) as per the BTS/SIGN guideline.

Assessment

The BTS/SIGN guideline states a systematic evaluation should include:

- confirmation of the diagnosis of asthma and
- identification of the mechanism of persisting symptoms and
- assessment of adherence with therapy.

Difficult asthma service for adults

The service requirements to be met by a difficult asthma service for adults are set out in the interim specification for Respiratory Severe asthma.

Difficult asthma service for children

The service requirements to be met by a difficult asthma service for children are set out in the interim service specification for Paediatric Medicine: Respiratory.

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Using the quality standard

It is important that the quality standard is considered alongside current policy and guidance documents listed in development sources.

NICE has produced a support document to help commissioners and others consider the commissioning implications and potential resource impact of this quality standard. Information for patients using the quality standard is also available on the NICE website.

The quality measures accompanying the quality statements aim to improve the structure, process and outcomes of healthcare. They are not a new set of targets or mandatory indicators for performance management.

Expected levels of achievement for quality measures are not specified. As quality standards are intended to drive up the quality of care, achievement levels of 100% should be aspired to (or 0% if the quality statement states that something should not be done). However, we recognise that this may not always be appropriate in practice, taking account of patient safety, patient choice and clinical judgement and therefore desired levels of achievement should be defined locally.

We have indicated where national indicators currently exist and measure the quality statement. National indicators include those developed by the Health and Social Care Information Centre through their Indicators for Quality Improvement Programme. For statements for which national quality indicators do not exist, the quality measures should form the basis for audit criteria developed and used locally to improve the quality of healthcare.

For further information, including guidance on using quality measures, please see What makes up a NICE quality standard.

Diversity, equality and language

During the development of this quality standard, equality issues have been considered and equality assessments are published on the NICE website.

Good communication between health professionals and people with asthma is essential. Treatment and care, and the information given about it, should be culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning

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disabilities, and to people who do not speak or read English. People with asthma should have access to an interpreter or advocate if needed.

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Development sources

Evidence sources

The documents below contain clinical guideline recommendations or other recommendations that were used by the Topic Expert Group to develop the quality standard statements and measures.

- British guideline on the management of asthma. British Thoracic Society and Scottish Intercollegiate Guidelines Network clinical guideline 101 (2008, updated 2011; NICE accredited).

Policy context

It is important that the quality standard is considered alongside current policy documents, including:

- Department of Health (2011) An outcomes strategy for people with chronic obstructive pulmonary disease (COPD) and asthma in England.
- Department of Health (2004) National Service Framework for Children, Young People and Maternity Services: Asthma.

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Related NICE quality standards

Patient experience in adult NHS services. NICE quality standard (2012).

Chronic obstructive pulmonary disease (COPD). NICE quality standard (2011).

Smoking cessation. NICE quality standard (in development).

Medicines optimisation. NICE quality standard (referred for development).

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Changes after publication

July 2013: The definitions of difficult asthma and difficult asthma services in quality statement 11 have been updated to replace links to the consultation versions of the specialised commissioning service specifications for severe difficult to control asthma and specialist paediatric respiratory services with links to the interim specification for Respiratory Severe asthma and interim service specification for Paediatric Medicine: Respiratory.

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About this quality standard

NICE quality standards are a set of specific, concise statements and associated measures. They set out aspirational, but achievable, markers of high-quality, cost-effective patient care, covering the treatment and prevention of different diseases and conditions. Derived from the best available evidence such as NICE guidance and other evidence sources accredited by NHS Evidence, they are developed independently by NICE, in collaboration with NHS and social care professionals, their partners and service users, and address three dimensions of quality: clinical effectiveness, patient safety and patient experience.

The methods and processes for developing NICE quality standards are described in the healthcare quality standards process guide.

We have produced a summary for patients and carers.

Changes since publication

January 2014: Statement 7 definitions, adults table '≥110 breaths/minute' corrected to '≥110 beats/minute'.
June 2013: List of Topic Expert Group and NICE project team members added.

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