

Bronchiolitis in children

Quality standard

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This standard is based on NG9.

This standard should be read in conjunction with QS121, QS117, QS64, QS131 and QS10.

Introduction

This quality standard covers the assessment, diagnosis and management of bronchiolitis in children. For more information see the [bronchiolitis topic overview](#).

Why this quality standard is needed

Bronchiolitis is a condition that affects the lower respiratory tract. It is caused by infection with one of several different viruses. At the start of the infection, symptoms are usually those of a common cold, including a blocked or stuffy nose, cough and sneezing. After several days, breathing and feeding difficulties develop. Until this point, it is not possible to tell that the infection will cause bronchiolitis. If there are wheeze and/or crackles heard on clinical examination, a diagnosis of bronchiolitis can be made.

Bronchiolitis symptoms are usually mild and may only last for a few days, but in some cases the disease can cause severe illness. There are several individual and environmental factors that increase the risk of these severe illnesses in children with bronchiolitis. These include social deprivation, congenital heart disease, neuromuscular disorders, immunodeficiency and chronic lung disease.

Approximately 1 in 3 infants will develop clinical bronchiolitis in the first year of life, and 2–3% of these will need hospitalisation. In 2014/15 in England there were approximately 39,400 hospital admissions of children aged 0–4 with a primary diagnosis of bronchiolitis. Of these, around 93% (36,600) were aged under 1 year and around 7% (2,800) were aged 1–4 years^[1].

Bronchiolitis can usually be managed at home by parents and carers. In most children bronchiolitis is mild, and breathing and feeding usually get better within 5 days. The cough may take longer to go (usually around 3–4 weeks).

The quality standard is expected to contribute to improvements in the following outcomes:

- antibiotic use

- parent and carer experience of primary and secondary care
- hospital admissions.

How this quality standard supports delivery of outcome frameworks

NICE quality standards are a concise set of prioritised statements designed to drive measurable improvements in the 3 dimensions of quality – safety, experience and clinical effectiveness of care – for a particular area of health or care. They are derived from high-quality guidance, such as that from NICE or other sources accredited by NICE. This quality standard, in conjunction with the guidance on which it is based, should contribute to the improvements outlined in the following 2 outcome frameworks published by the Department of Health:

- [NHS Outcomes Framework 2015–16](#)
- [Public Health Outcomes Framework 2013–16](#)

Tables 1 and 2 show the outcomes, overarching indicators and improvement areas from the frameworks that the quality standard could contribute to achieving.

Table 1 [NHS Outcomes Framework 2015–16](#)

Domain	Overarching indicators and improvement areas
3 Helping people to recover from episodes of ill health or following injury	<p><i>Overarching indicators</i></p> <p>3a Emergency admissions for acute conditions that should not usually require hospital admission</p> <p>3b Emergency readmissions within 30 days of discharge from hospital*</p> <p><i>Improvement areas</i></p> <p>Preventing lower respiratory tract infections (LRTI) in children from becoming serious</p> <p>3.2 Emergency admissions for children with LRTI</p>

<p>4 Ensuring that people have a positive experience of care</p>	<p><i>Overarching indicators</i></p> <p>4a Patient experience of primary care</p> <p>i GP services</p> <p>ii GP Out-of-hours services</p> <p>4b Patient experience of hospital care</p> <p>4c <i>Friends and family test</i></p> <p>4d <i>Patient experience characterised as poor or worse</i></p> <p><i>i Primary care</i></p> <p><i>ii Hospital care</i></p> <p><i>Improvement areas</i></p> <p>Improving people's experience of outpatient care</p> <p>4.1 Patient experience of outpatient services</p> <p>Improving hospitals' responsiveness to personal needs</p> <p>4.2 Responsiveness to inpatients' personal needs</p> <p>Improving people's experience of accident and emergency services</p> <p>4.3 Patient experience of A&E services</p> <p>Improving access to primary care services</p> <p>4.4 Access to i GP services</p>
<p>Alignment with Public Health Outcomes Framework</p> <p>Indicators in italics in development</p> <p>* Indicator is shared</p>	

Table 2 Public health outcomes framework for England, 2013–16

Domain	Objectives and indicators
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4 Healthcare public health and preventing premature mortality	<p>Objective</p> <p>Reduced numbers of people living with preventable ill health and people dying prematurely, whilst reducing the gap between communities</p> <p>Indicators</p> <p>4.11 Emergency readmissions within 30 days of discharge from hospital*</p>
<p>Alignment with NHS Outcomes Framework</p> <p>* Indicator is shared</p>	

Safety and people's experience of care

Ensuring that care is safe and that people have a positive experience of care is vital in a high-quality service. It is important to consider these factors when planning and delivering services relevant to bronchiolitis in children.

Coordinated services

The quality standard for bronchiolitis in children specifies that services should be commissioned from and coordinated across all relevant agencies encompassing the whole bronchiolitis care pathway. A person-centred, integrated approach to providing services is fundamental to delivering high-quality care to children with bronchiolitis.

The Health and Social Care Act 2012 sets out a clear expectation that the care system should consider NICE quality standards in planning and delivering services, as part of a general duty to secure continuous improvement in quality. Commissioners and providers of health and social care should refer to the library of NICE quality standards when designing high-quality services. Other quality standards that should also be considered when choosing, commissioning or providing a high-quality bronchiolitis service are listed in [related quality standards](#).

Training and competencies

The quality standard should be read in the context of national and local guidelines on training and competencies. All healthcare practitioners involved in assessing, caring for and treating children with bronchiolitis should have sufficient and appropriate training and competencies to deliver the actions and interventions described in the quality standard. Quality statements on staff training and competency are not usually included in quality standards. However, recommendations in the

development sources on specific types of training for the topic that exceed standard professional training are considered during quality statement development.

Role of families and carers

Quality standards recognise the important role families and carers have in supporting children with bronchiolitis. Healthcare professionals should ensure that family members and carers are involved in the decision-making process about investigations, treatment and care.

^[1] The Health and Social Care Information Centre (2015) [Hospital Episode Statistics, Admitted Patient Care - England, 2014-15 \[NS\]](#)

List of quality statements

Statement 1. Children with bronchiolitis are not prescribed antibiotics to treat the infection.

Statement 2. Parents and carers of children with bronchiolitis are informed that medication is not being used because the condition is usually self-limiting.

Statement 3. Parents and carers of children with bronchiolitis are given key safety information about what to expect and when to be concerned if caring for the child at home.

Statement 4 (placeholder). Admission avoidance and early supported discharge.

Quality statement 1: Antibiotic use

Quality statement

Children with bronchiolitis are not prescribed antibiotics to treat the infection.

Rationale

Bronchiolitis is caused by a viral infection so antibiotics should not be used as treatment. The number of children who have bronchiolitis and who then develop a bacterial infection is extremely low. Antibiotics can lead to common adverse reactions. Reducing unnecessary antibiotics will help prevent the development of bacterial resistance and will also reduce costs.

Quality measures

Structure

Evidence of local prescribing protocols to direct antibiotic prescribing in children with bronchiolitis.

Data source: Local data collection.

Process

a) Proportion of diagnoses of bronchiolitis with a prescription for antibiotics in primary care.

Numerator – the number in the denominator with a prescription for antibiotics.

Denominator – the number of diagnoses of acute bronchiolitis in primary care.

Data source: Local data collection.

b) Proportion of diagnoses of bronchiolitis with a prescription for antibiotics in secondary care.

Numerator – the number in the denominator with a prescription for antibiotics.

Denominator – the number of diagnoses of bronchiolitis in secondary care.

Data source: Local data collection.

What the quality statement means for service providers, healthcare professionals and commissioners

Service providers (such as primary and secondary care and emergency departments) ensure that protocols are in place to ensure that healthcare professionals do not prescribe antibiotics to treat bronchiolitis in children. Services also ensure that procedures are in place to monitor antibiotic prescriptions for bronchiolitis in children.

Healthcare professionals (GPs and secondary care clinicians) do not prescribe antibiotics to treat bronchiolitis in children.

Commissioners (NHS England and clinical commissioning groups) ensure that primary and secondary care services do not prescribe antibiotics to treat bronchiolitis in children.

What the quality statement means for parents and carers

Children with bronchiolitis are not given antibiotics to treat the condition because it is caused by a viral infection.

Source guidance

- [Bronchiolitis in children: diagnosis and management](#) (2015) NICE guideline NG9, recommendation 1.4.3 (key priority for implementation)

Quality statement 2: Bronchiolitis management

Quality statement

Parents and carers of children with bronchiolitis are informed that medication is not being used because the condition is usually self-limiting.

Rationale

In most cases, medication is not needed to manage bronchiolitis because it is usually self-limiting (that is, it settles without the need for treatment). Helping parents and carers to understand this can increase their confidence in caring for their child at home if hospital admission is not needed. It may also help parents and carers understand why medication is not being given even if the child is admitted to hospital.

Quality measures

Structure

Evidence of local arrangements to help parents and carers of children with bronchiolitis understand that medication is not being used because the condition is usually self-limiting.

Data source: Local data collection.

Process

a) Proportion of diagnoses of bronchiolitis in primary care where the parents and carers are informed that medication is not being used because the condition is usually self-limiting.

Numerator – the number in the denominator where the parents and carers are informed that medication is not being used because the condition is usually self-limiting.

Denominator – the number of diagnoses of bronchiolitis in primary care.

Data source: Local data collection.

b) Proportion of diagnoses of bronchiolitis in secondary care where the parents and carers are informed that medication is not being used because the condition is usually self-limiting.

Numerator – the number in the denominator where the parents and carers are informed that medication is not being used because the condition is usually self-limiting.

Denominator – the number of diagnoses of bronchiolitis in secondary care.

Data source: Local data collection.

Outcome

a) Parent- and carer-reported confidence in caring for children with bronchiolitis at home.

Data source: Local data collection.

b) Antibiotic prescribing rates for bronchiolitis.

Data source: Local data collection.

What the quality statement means for service providers, healthcare professionals and commissioners

Service providers (such as primary and secondary care and emergency departments) ensure that resources are available to help parents and carers of children with bronchiolitis understand that medication is not being used because the condition is usually self-limiting.

Healthcare professionals (such as GPs and secondary care clinicians) inform parents and carers of children with bronchiolitis that medication is not being used because the condition is usually self-limiting.

Commissioners (NHS England area teams and clinical commissioning groups) ensure that primary and secondary care providers have procedures in place to inform parents and carers of children with bronchiolitis that medication is not being used because the condition is usually self-limiting.

What the quality statement means for parents and carers

Parents and carers of children with bronchiolitis are informed that bronchiolitis usually settles without the need for treatment, which is why medication is not being used.

Source guidance

- [Bronchiolitis in children: diagnosis and management \(2015\) NICE guideline NG9](#), recommendation 1.4.3 (key priority for implementation)

Quality statement 3: Key safety information

Quality statement

Parents and carers of children with bronchiolitis are given key safety information about what to expect and when to be concerned if caring for the child at home.

Rationale

Providing key safety information will reassure parents and carers about the natural progression of bronchiolitis, and provide information about when help from healthcare professionals is needed. Children may deteriorate rapidly, so it is vital that parents and carers can identify the signs and symptoms that mean they need to seek appropriate help from a healthcare professional.

Quality measures

Structure

Evidence of local arrangements to ensure key safety information is provided to parents and carers of children with bronchiolitis being cared for at home.

Data source: Local data collection.

Process

a) Proportion of diagnoses of bronchiolitis in primary care where the parents and carers are given key safety information if the child is to be cared for at home.

Numerator – the number in the denominator where the parents and carers are given key safety information.

Denominator – the number of diagnoses of bronchiolitis in primary care where the child is to be cared for at home.

Data source: Local data collection.

b) Proportion of discharges from hospital or emergency care of children with bronchiolitis where the parents and carers are given key safety information.

Numerator – the number in the denominator where the parents and carers are given key safety information.

Denominator – the number of discharges from hospital or emergency care of children with bronchiolitis.

Data source: Local data collection.

Outcome

Parent- and carer-reported confidence in caring for children with bronchiolitis at home.

Data source: Local data collection.

What the quality statement means for service providers, healthcare professionals and commissioners

Service providers (such as primary and secondary care and emergency departments) ensure that key safety information is available for parents and carers of children with bronchiolitis when the child is to be cared for at home.

Healthcare professionals (GPs and secondary care clinicians) give key safety information to parents and carers who are caring for children with bronchiolitis at home.

Commissioners (NHS England area teams and clinical commissioning groups) specify that key safety information is given to parents and carers who are caring for children with bronchiolitis at home.

What the quality statement means for parents and carers

Parents and carers of children with bronchiolitis are given key safety information if they are caring for the child at home. This information should explain how to reduce the risks to the child, and how to tell when the child needs to see a healthcare professional.

Source guidance

- [Bronchiolitis in children: diagnosis and management \(2015\) NICE guideline NG9, recommendation 1.6.1 \(key priority for implementation\)](#)

Definitions of terms used in this quality statement

Key safety information

What to expect

In most children, bronchiolitis is mild and their breathing and feeding will get better within 5 days, though their cough may take longer to go (usually around 3 weeks, but sometimes it can be longer). There are no medicines that can cure bronchiolitis, but the normal medicines you would give for a cold (like paracetamol or ibuprofen) can help make the symptoms better.

When to be concerned

When caring for your child at home, you need to know these important signs and if they may be getting worse so you can get help as quickly as you can:

- breathing becoming harder work – this may mean they are making an 'effort noise' every time they breathe out (often called grunting), flaring their nostrils, their chest might 'suck in' between the ribs, or they may use their stomach to breathe
- not taking in enough feeds (half to three quarters of normal, or no wet nappy for 12 hours) – these are signs they might be dehydrated
- pauses in their breathing for more than 10 seconds (apnoea)
- skin inside the lips or under the tongue turning blue (cyanosis)
- exhaustion (not responding as they usually would, sleepy, irritable, floppy, hard to wake up).

If you notice any of these signs, you must get help from a healthcare professional immediately.

Smoking can make their bronchiolitis symptoms worse, so do not smoke in your house.

[[Bronchiolitis in children: diagnosis and management](#) (NICE guideline NG9) information for the public, 'caring for your child at home' and recommendation 1.6.1]

Quality statement 4 (placeholder): Admission avoidance and early supported discharge

What is a placeholder statement?

A placeholder statement is an area of care that has been prioritised by the Quality Standards Advisory Committee but for which no source guidance is currently available. A placeholder statement indicates the need for evidence-based guidance to be developed in this area.

Rationale

Further guidance is needed on admission avoidance and early supported discharge of children with bronchiolitis. Bronchiolitis is most common in the winter months. Approximately 1 in 3 children will develop bronchiolitis in the first year of life and 2–3% of them will require hospitalisation. Involving teams such as children's community nursing when a child has been diagnosed with bronchiolitis may help to reduce hospital admissions. Early supported discharge may also reduce hospital readmissions.

Caring for a child at home will also enable a flexible and personalised approach to care, meeting the needs of children with bronchiolitis and their families.

Using the quality standard

Quality measures

The quality measures accompanying the quality statements aim to improve the structure, process and outcomes of care in areas identified as needing quality improvement. They are not a new set of targets or mandatory indicators for performance management.

We have indicated if current national indicators exist that could be used to measure the quality statements. We have indicated if current national indicators exist that could be used to measure the quality statements. If there is no national indicator that could be used to measure a quality statement, the quality measure should form the basis for audit criteria developed and used locally.

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See NICE's [what makes up a NICE quality standard?](#) for further information, including advice on using quality measures.

Levels of achievement

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

NICE's [quality standard service improvement template](#) helps providers to make an initial assessment of their service compared with a selection of quality statements. It includes assessing current practice, recording an action plan and monitoring quality improvement. This tool is updated monthly to include new quality standards.

Using other national guidance and policy documents

Other national guidance and current policy documents have been referenced during the development of this quality standard. It is important that the quality standard is considered alongside the documents listed in [development sources](#).

Diversity, equality and language

During the development of this quality standard, equality issues have been considered and [equality assessments](#) are available.

Good communication between health, public health and social care practitioners and children and young people with bronchiolitis, and their parents or carers (if appropriate), is essential. Treatment, care and support, and the information given about it, should be both age-appropriate and culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English. Children with bronchiolitis and their parents or carers (if appropriate) should have access to an interpreter or advocate if needed.

Commissioners and providers should aim to achieve the quality standard in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this quality standard should be interpreted in a way that would be inconsistent with compliance with those duties.

Development sources

Further explanation of the methodology used can be found in the quality standards [process guide](#).

Evidence sources

The documents below contain recommendations from NICE guidance or other NICE-accredited recommendations that were used by the Quality Standards Advisory Committee to develop the quality standard statements and measures.

- [Bronchiolitis in children: diagnosis and management \(2015\) NICE guideline NG9](#)

Policy context

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

- Department of Health (2015) [Respiratory syncytial virus: the green book, chapter 27a](#)
- Public Health England (2014) [Respiratory virus circulation, England and Wales](#)
- Department of Health (2010) [Respiratory syncytial virus prophylaxis: recommendations for the use of the passive immunisation, Synagis](#)
- Public Health England (2008) [Respiratory syncytial virus \(RSV\): guidance, data and analysis](#)

Related NICE quality standards

Published

- [Antimicrobial stewardship](#) (2016) NICE quality standard 121
- [Preventing excess winter deaths and illness associated with cold homes](#) (2016) NICE quality standard 117
- [Fever in under 5s](#) (2014) NICE quality standard 64

Future quality standards

This quality standard has been developed in the context of all quality standards referred to NICE, including the following topics scheduled for future development:

- Intravenous fluids in children
- Non-antibiotic clinical management of infectious diseases

The full list of quality standard topics referred to NICE is available from the [quality standards topic library](#) on the NICE website.

Quality Standards Advisory Committee and NICE project team

Quality Standards Advisory Committee

This quality standard has been developed by Quality Standards Advisory Committee 3. Membership of this committee is as follows:

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Public Health Behaviour Change Specialist, Solihull Public Health Department

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About this quality standard

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. NICE quality standards draw on existing NICE or NICE-accredited guidance that provides an underpinning, comprehensive set of recommendations, and are designed to support the measurement of improvement.

The methods and processes for developing NICE quality standards are described in the [quality standards process guide](#).

This quality standard has been incorporated into the NICE pathway on [bronchiolitis in children](#).

NICE produces guidance, standards and information on commissioning and providing high-quality healthcare, social care, and public health services. We have agreements to provide certain NICE services to Wales, Scotland and Northern Ireland. Decisions on how NICE guidance and other products apply in those countries are made by ministers in the Welsh government, Scottish government, and Northern Ireland Executive. NICE guidance or other products may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

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Endorsing organisation

This quality standard has been endorsed by NHS England, as required by the Health and Social Care Act (2012)

Supporting organisations

Many organisations share NICE's commitment to quality improvement using evidence-based guidance. The following supporting organisations have recognised the benefit of the quality standard in improving care for patients, carers, service users and members of the public. They have agreed to work with NICE to ensure that those commissioning or providing services are made aware of and encouraged to use the quality standard.

- [Royal College of General Practitioners](#)
- [British Society for Antimicrobial Chemotherapy](#)
- [British Lung Foundation](#)

- Royal College of Paediatrics and Child Health