Bronchiolitis in children

NICE quality standard

Draft for consultation

January 2016

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 in children. Children usually present with a cough and increased work of breathing, and this affects their ability to feed. 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.

The symptoms of bronchiolitis 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 actors that increase the risk of these severe illnesses in children with bronchiolitis. These include 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 or 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:

- hospital admissions
- parent and carer experience of primary and secondary care
- safety for children discharged on home oxygen.

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 – patient safety, patient experience and clinical effectiveness – 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 outcome frameworks published by the Department of Health:

- NHS Outcomes Framework 2015–16
- Public health outcomes framework for England 2013–16

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

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

Table 1 NHS Outcomes Framework 2015–16

Domain	Overarching indicators and improvement areas
1 Preventing people from dying prematurely	***Overarching indicators*** 1a Potential Years of Life Lost (PYLL) from causes considered amenable to healthcare Children and young people 1c Neonatal mortality and stillbirths ***Improvement areas*** **Reducing mortality in children** 1.6 i Infant mortality* ii Neonatal mortality and stillbirths
3 Helping people to recover from episodes of ill health or following injury	***Overarching indicators*** 3a Emergency admissions for acute conditions that should not usually require hospital admission 3b Emergency readmissions within 30 days of discharge from hospital* ***Improvement areas*** **Preventing lower respiratory tract infections (LRTI) in children from becoming serious** 3.2 Emergency admissions for children with LRTI
4 Ensuring that people have a positive experience of care	***Overarching indicators*** 4a Patient experience of primary care i GP services ii GP Out-of-hours services 4b Patient experience of hospital care 4c *Friends and family test* *4d Patient experience characterised as poor or worse* *i Primary care* *ii Hospital care* ***Improvement areas*** **Improving people's experience of outpatient care** 4.1 Patient experience of outpatient services **Improving hospitals' responsiveness to personal needs** 4.2 Responsiveness to inpatients' personal needs **Improving people's experience of accident and emergency services** 4.3 Patient experience of A&E services **Improving access to primary care services** 4.4 Access to i GP services
Alignment with Adult Social Care Outcomes Framework and/or Public Health Outcomes Framework Indicators in italics in development * Indicator is shared	

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

Domain	Objectives and indicators
4 Healthcare public health and preventing premature mortality	***Objective*** Reduced numbers of people living with preventable ill health and people dying prematurely, whilst reducing the gap between communities ***Indicators*** 4.1 Infant mortality* 4.11 Emergency readmissions within 30 days of discharge from hospital*
Alignment with Adult Social Care Outcomes Framework and/or NHS Outcomes Framework * Indicator is shared	

Patient experience and safety issues

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.

Coordinated services

The quality standard for bronchiolitis 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 health and social care 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. Health care professionals should ensure that family members and carers are involved in the decision-making process about investigations, treatment and care.

List of quality statements

Statement 1. Parents and carers of children with bronchiolitis are informed that the condition is usually self-limiting and why medication is not being used.

Statement 2. Parents and carers of children with bronchiolitis are given key safety information if they are caring for the child at home.

Statement 3. Healthcare professionals do not prescribe antibiotics to treat bronchiolitis in children.

Statement 4 (placeholder). Early discharge with support from community nursing teams.

Questions about the quality standard

Question 1 Does this draft quality standard accurately reflect the key areas for quality improvement?

Question 2 If the systems and structures were available, do you think it would be possible to collect the data for the proposed quality measures?

Question 3 Do you have an example from practice of implementing the NICE guideline that underpins this quality standard? If so, please submit your example to

the NICE local practice collection on the NICE website. Examples of using NICE quality standards can also be submitted.

Question 4 Do you know of any relevant evidence-based guidance that could be used to develop the placeholder statement? If so, please provide details. If not, would new evidence-based guidance relating to discharge with involvement from community nursing teams have the potential to improve practice? If so, please provide details.

Quality statement 1: Explaining bronchiolitis to parents and carers

Quality statement

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

Rationale

In most cases medication such as antibiotics and corticosteroids are not needed to manage bronchiolitis, as it is usually self-limiting. Telling parents or carers that bronchiolitis is usually self-limiting will help give them the confidence to care for their child at home if hospital admission is not needed. If a child is admitted to hospital, it may also help parents or carers understand why medication is not being given.

Quality measures

Structure

Evidence of local arrangements and written protocols to ensure that parents or carers of children with bronchiolitis are told that the condition is usually self-limiting, and why medication is not being used.

Data source: Local data collection.

Process

Proportion of children who present with bronchiolitis whose parents or carers are told that the condition is usually self-limiting and why medication is not being used.

Numerator – the number in the denominator whose parents or carers are told that the condition is usually self-limiting and why medication is not being used.

Denominator – the number of children diagnosed with bronchiolitis.

Data source: Local data collection.

Outcome

Parent and carer satisfaction with support provided.

Data source: Local data collection.

What the quality statement means for service providers, health and social care practitioners, and commissioners

Service providers (primary and secondary care) ensure resources are available to help healthcare professionals explain to parents and carers of children with bronchiolitis that the condition is usually self-limiting and why medication is not being used.

Healthcare professionals (such as GPs, Accident and Emergency consultants and secondary care doctors) tell parents or carers of children with bronchiolitis that the condition is usually self-limiting and why medication is not being used.

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

What the quality statement means for patients and carers

Parents or carers of children with bronchiolitis are told at their GP surgery or at hospital that the condition is usually self-limiting (it goes away on its own) and told why medication is not being used.

Source guidance

- Bronchiolitis in children (2015) NICE guideline NG9, recommendation 1.4.3 (key priority for implementation).

Quality statement 2: Key safety information

Quality statement

Parents and carers of children with bronchiolitis are given key safety information if they are caring for the child at home.

Rationale

Parents and carers need to know what to look out for when caring for a child with bronchiolitis. Children can deteriorate rapidly and so it is vital that parents and carers can identify signs so they know when to seek appropriate help from a healthcare professional.

Quality measures

Structure

Evidence of local arrangements to provide written key safety information that can be given to parents and carers of children with bronchiolitis if they are caring for the child at home, or when the child is discharged from hospital.

Data source: Local data collection.

Process

a) Proportion of children with bronchiolitis whose parents or carers are given key safety information at presentation to primary care if the child is being cared for at home.

Numerator – the number in the denominator whose parents or carers are given key safety information.

Denominator – the number of children being cared for at home following a diagnosis of bronchiolitis in primary care.

Data source: Local data collection.

b) Proportion of children with bronchiolitis whose parents or carers are given key safety information at discharge from hospital.

Numerator – the number in the denominator whose parents or carers are given key safety information.

Denominator – the number of children with bronchiolitis who are being discharged from hospital.

Data source: Local data collection.

Outcome

a) Parent and carer satisfaction with the key safety information provided about bronchiolitis when they are caring for the child at home or after discharge from hospital.

Data source: Local data collection.

b) Readmission rates.

Data source: Local data collection. National data on emergency readmissions within 30 days of discharge from hospital are available from the Health and Social Care Information Centre.

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

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

Healthcare professionals (GPs, doctors and nurses) give key safety information to parents or carers who are caring for children with bronchiolitis at home, or when the child is discharged from hospital.

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, or when the child is discharged from hospital.

What the quality statement means for patients and carers

Parents or carers of children with bronchiolitis are given key safety information if they are caring for the child at home, or when the child is discharged from hospital. This information should explain how to 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 (2015) NICE guideline NG9, recommendation 1.6.1 (key priority for implementation).

Definitions of terms used in this quality statement

Key safety information

Key safety information should include:

- how to recognise 'red flag' symptoms
  - worsening work of breathing (for example grunting, nasal flaring, marked chest recession)
  - fluid intake is 50–75% of normal or no wet nappy for 12 hours
  - apnoea or cyanosis (Apnoea is the temporary cessation of breathing; Cyanosis is the blue discolouration of the skin due to low oxygen levels in the blood)
  - exhaustion (for example, not responding normally to social cues, wakes only with prolonged stimulation)
- that people should not smoke in the child's home because it increases the risk of more severe symptoms in bronchiolitis
- how to get immediate help from an appropriate professional if any red flag symptoms develop
- arrangements for follow- up if necessary.

[Bronchiolitis (NICE guideline 9) recommendation 1.6.1]

Quality statement 3: Antibiotic use

Quality statement

Healthcare professionals do not prescribe antibiotics to treat bronchiolitis in children.

Rationale

As bronchiolitis is caused by a viral infection, antibiotics should not be used to treat it. The number of children who have bronchiolitis and then develop a bacterial infection is extremely low. Antibiotic use has several side effects, such as common adverse reactions and the development of bacterial resistance.

Quality measures

Structure

a) Evidence of local prescribing protocol to direct the antibiotic prescribing in children with bronchiolitis.

Data source: Local data collection.

b) Evidence of local audits to monitor the appropriateness of antibiotic prescribing in children with bronchiolitis.

Data source: Local data collection.

Process

Proportion children who are prescribed antibiotics for bronchiolitis.

Numerator – the number in the denominator who are prescribed antibiotics to treat bronchiolitis.

Denominator – the number of children with bronchiolitis.

Data source: Local data collection.

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

Service providers (primary and secondary care) ensure that protocols are in place to ensure that healthcare professionals do not prescribe antibiotics to treat children with bronchiolitis. Services also ensure that procedures are in place to monitor prescriptions of antibiotics to treat bronchiolitis in children.

Healthcare professionals (GPs, specialist nurses, secondary care doctors) 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 patients and carers

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

Source guidance

- Bronchiolitis in children (2015) NICE guideline NG9, recommendation 1.4.3 (key priority for implementation).

Quality statement 4 (placeholder): Early discharge with support from community nursing teams

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

The current NICE guideline gives several factors to be considered when discharging a child with bronchiolitis from secondary care. Further guidance is needed on how to involve children's community nursing teams to support early discharge of children with bronchiolitis from secondary care. Supporting early discharge from hospital of children with bronchiolitis through community nursing teams prevents readmission. It also provides a flexible and personalised approach to care in order to meet the needs of the patients and their families.

Question for consultation

Do you know of any relevant evidence-based guidance that could be used to develop this placeholder statement? If so, please provide details. If not, would new evidence-based guidance relating to discharge with involvement from community nursing teams have the potential to improve practice? If so, please provide details.

Status of this quality standard

This is the draft quality standard released for consultation from 26 January 2016 to 22 February 2016. It is not NICE's final quality standard on bronchiolitis. The statements and measures presented in this document are provisional and may change after consultation with stakeholders.

Comments on the content of the draft standard must be submitted by 5pm on 22 February 2016. All eligible comments received during consultation will be reviewed by the Quality Standards Advisory Committee and the quality statements and measures will be refined in line with the Quality Standards Advisory Committee's considerations. The final quality standard will be available on the NICE website from June 2016.

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. These include indicators developed by the Health and Social Care Information Centre through its Indicators for Quality Improvement Programme. 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.

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.

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.

Primary source

- Bronchiolitis in children (2015) NICE guideline NG9.

Other sources that may be used

- Cough – acute with chest signs in children (Scenario: Bronchiolitis) (2012) NICE Clinical Knowledge Summaries.

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
- Welsh Paediatric Society (2013) Bronchiolitis-12: An all-Wales audit
- 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

- Feverish illness in children (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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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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