NICE National Institute for Health and Care Excellence

NICE guideline

Bronchiolitis in children: diagnosis and management

NICE guideline

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Contents

Introduction

Bronchiolitis is the most common disease of the lower respiratory tract during the first year of life. It usually presents with cough with increased work of breathing, and it often affects a child's ability to feed. In primary care, the condition may often be confused with a common cold, though the presence of lower respiratory tract signs (wheeze and/or crackles on auscultation) in an infant in mid-winter would be consistent with this clinical diagnosis. The 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 risk factors that can put children with bronchiolitis at increased risk of severe illness. These include congenital heart disease, neuromuscular disorders, immunodeficiency and chronic lung disease.

The management of bronchiolitis depends on the severity of the illness. In most children bronchiolitis can be managed at home by parents or carers.

Approximately 1 in 3 infants will develop clinical bronchiolitis in the first year of life and 2–3% of all infants require hospitalization. In 2011/12 in England, there were 30,451 secondary care admissions for the management of bronchiolitis. It is uncommon for bronchiolitis to cause death. In 2009/10 in England, there were 72 recorded deaths of children within 90 days of hospital admission for bronchiolitis.

Bronchiolitis is associated with an increased risk of chronic respiratory conditions, including asthma, but it is not known if it causes these conditions.

The guideline covers children with bronchiolitis but not those with other respiratory conditions, such as recurrent viral induced wheeze or asthma.

Medicine recommendations

The guideline will assume that prescribers will use a drug's summary of product characteristics to inform decisions made with individual patients.

Patient-centred care

This guideline offers best practice advice on the care of children with bronchiolitis.

Patients and healthcare professionals have rights and responsibilities as set out in the NHS Constitution for England – all NICE guidance is written to reflect these. Treatment and care should take into account individual needs and preferences. Patients should have the opportunity to make informed decisions about their care and treatment, in partnership with their healthcare professionals. If the patient is under 16, their family or carers should also be given information and support to help the child or young person to make decisions about their treatment. Healthcare professionals should follow the Department of Health's advice on consent (or, in Wales, advice on consent from the Welsh Government). If someone does not have capacity to make decisions, healthcare professionals should follow the code of practice that accompanies the Mental Capacity Act and the supplementary code of practice on deprivation of liberty safeguards.

If a young person is moving between paediatric and adult services, care should be planned and managed according to the best practice guidance described in the Department of Health's Transition: getting it right for young people.

Adult and paediatric healthcare teams should work jointly to provide assessment and services to children with bronchiolitis. Diagnosis and management should be reviewed throughout the transition process, and there should be clarity about who is the lead clinician to ensure continuity of care.

Key priorities for implementation

The following recommendations have been identified as priorities for implementation. The full list of recommendations is in section 1.

- Diagnose bronchiolitis if the child has a coryzal prodrome lasting 1 to 3 days, followed by:
    - persistent cough **and**
    - either tachypnoea or chest recession (or both) **and**
    - either wheeze or crackles on chest auscultation (or both).
- When diagnosing bronchiolitis, take into account that young infants with this disease (in particular those under 6 weeks of age) may present with apnoea without other clinical signs.
- Immediately refer children with bronchiolitis for emergency hospital care (usually by 999 ambulance) if they have any of the following:
    - apnoea (observed or reported)
    - child looks seriously unwell to a healthcare professional
    - severe respiratory distress, for example grunting, marked chest recession, or a respiratory rate of over 70 breaths/minute
    - central cyanosis
    - persistent oxygen saturation of less than 92% when breathing air.
- Consider referring children with bronchiolitis to hospital if they have any of the following:
    - a respiratory rate of over 60 breaths/minute
    - difficulty with breastfeeding or inadequate oral fluid intake (50–75% of usual volume, taking account of risk factors [see recommendation 1.3.3] and using clinical judgement)
    - clinical dehydration.
- When assessing a child in a secondary care setting, admit them to hospital if they have any of the following:
    - apnoea (observed or reported)

  - persistent oxygen saturation of less than 92% when breathing air
  - inadequate oral fluid intake (50–75% of usual volume, taking account of risk factors [see recommendation 1.3.3] and using clinical judgement)
  - persisting severe respiratory distress, for example grunting, marked chest recession, or a respiratory rate of over 70 breaths/minute.

- Do not routinely perform a chest X-ray in children with bronchiolitis, because changes on X-ray may mimic pneumonia and should not be used to determine the need for antibiotics.
- Do not use any of the following to treat bronchiolitis in children:
  - antibiotics
  - hypertonic saline
  - adrenaline (nebulised)
  - salbutamol
  - montelukast
  - ipratropium bromide
  - systemic or inhaled corticosteroids
  - a combination of systemic corticosteroids and nebulised adrenaline.
- Give oxygen supplementation to children with bronchiolitis if their oxygen saturation is persistently less than 92%.
- Give fluids by nasogastric or orogastric tube in children with bronchiolitis if they cannot take enough fluid by mouth.
- Provide key safety information for parents to take away for reference for children who will be looked after at home. This should cover:
  - how to recognise developing '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
- 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.

1 Recommendations

The following guidance is based on the best available evidence. The full guideline gives details of the methods and the evidence used to develop the guidance.

> The wording used in the recommendations in this guideline (for example, words such as 'offer' and 'consider') denotes the certainty with which the recommendation is made (the strength of the recommendation). See about this guideline for details.

1.1 Assessment and diagnosis

1.1.1 When diagnosing bronchiolitis, take into account that it occurs in children under 2 years of age and most commonly in the first year of life, peaking between 3 and 6 months.

1.1.2 When diagnosing bronchiolitis, take into account that symptoms usually peak between 3 and 5 days, and that cough resolves in 90% of infants within 3 weeks.

1.1.3 Diagnose bronchiolitis if the child has a coryzal prodrome lasting 1 to 3 days, followed by:

- persistent cough **and**
- either tachypnoea or chest recession (or both) **and**
- either wheeze or crackles on chest auscultation (or both).

1.1.4 When diagnosing bronchiolitis, take into account that the following symptoms are common in children with this disease:

- fever (in around 30% of cases, usually of less than 39°C)
- poor feeding (typically after 3 to 5 days of illness).

1.1.5 When diagnosing bronchiolitis, take into account that young infants with this disease (in particular those under 6 weeks of age) may present with apnoea without other clinical signs.

1.1.6 Consider a diagnosis of pneumonia if the child has:

- high fever (over 39°C) and/or
- persistently focal crackles.

1.1.7 Think about a diagnosis of viral-induced wheeze or early-onset asthma rather than bronchiolitis in older infants and young children if they have:

- persistent wheeze without crackles or
- recurrent episodic wheeze or
- a personal or family history of atopy.

Take into account that these conditions are unusual in children under 1 year of age.

1.1.8 Measure oxygen saturation in every child presenting with suspected bronchiolitis, including those presenting to primary care if pulse oximetry is available.

1.1.9 Ensure healthcare professionals performing pulse oximetry are appropriately trained in its use specifically in infants and young children.

1.1.10 Suspect impending respiratory failure, and take appropriate action as these children may need intensive care (see recommendations 1.2.1 and 1.4.5), if any of the following are present:

- signs of exhaustion, for example listlessness or decreased respiratory effort
- recurrent apnoea
- failure to maintain adequate oxygen saturation despite oxygen supplementation.

1.2 When to refer

1.2.1 Immediately refer children with bronchiolitis for emergency hospital care (usually by 999 ambulance) if they have any of the following:

- apnoea (observed or reported)
- child looks seriously unwell to a healthcare professional

- severe respiratory distress, for example grunting, marked chest recession, or a respiratory rate of over 70 breaths/minute
- central cyanosis
- persistent oxygen saturation of less than 92% when breathing air.

1.2.2 Consider referring children with bronchiolitis to hospital if they have any of the following:

- a respiratory rate of over 60 breaths/minute
- difficulty with breastfeeding or inadequate oral fluid intake (50–75% of usual volume, taking account of risk factors [see recommendation 1.3.3] and using clinical judgement)
- clinical dehydration.

1.2.3 When deciding whether to refer a child with bronchiolitis to secondary care, take account of the following risk factors for more severe bronchiolitis:

- chronic lung disease (including bronchopulmonary dysplasia)
- haemodynamically significant congenital heart disease
- age in young infants (under 3 months)
- premature birth, particularly under 32 weeks
- neuromuscular disorders
- immunodeficiency.

1.2.4 When deciding whether to refer a child to secondary care, take into account factors that might affect a carer's ability to look after a child with bronchiolitis, for example:

- social circumstances
- the skill and confidence of the carer in looking after a child with bronchiolitis at home
- confidence in being able to spot red flag symptoms (see recommendation 1.6.1)

- distance to healthcare in case of deterioration.

1.3 When to admit

1.3.1 Measure oxygen saturation using pulse oximetry in every child presenting to secondary care with clinical evidence of bronchiolitis.

1.3.2 When assessing a child in a secondary care setting, admit them to hospital if they have any of the following:

- apnoea (observed or reported)
- persistent oxygen saturation of less than 92% when breathing air
- inadequate oral fluid intake (50–75% of usual volume, taking account of risk factors [see recommendation 1.3.3] and using clinical judgement)
- persisting severe respiratory distress, for example grunting, marked chest recession, or a respiratory rate of over 70 breaths/minute.

1.3.3 When deciding whether to admit a child with bronchiolitis, take account of the following risk factors for more severe bronchiolitis:

- chronic lung disease (including bronchopulmonary dysplasia)
- haemodynamically significant congenital heart disease
- age in young infants (under 3 months)
- premature birth, particularly under 32 weeks
- neuromuscular disorders
- immunodeficiency.

1.3.4 When deciding whether to admit a child, take into account factors that might affect a carer's ability to look after a child with bronchiolitis, for example:

- social circumstances
- the skill and confidence of the carer in looking after a child with bronchiolitis at home
- confidence in being able to spot red flag symptoms (see recommendation 1.6.1)

- distance to healthcare in case of deterioration.

1.3.5 Clinically assess the hydration status of children with bronchiolitis.

1.3.6 Do not routinely perform blood tests in the assessment of a child with bronchiolitis.

1.3.7 Do not routinely perform a chest X-ray in children with bronchiolitis, because changes on X-ray may mimic pneumonia and should not be used to determine the need for antibiotics.

1.3.8 Consider performing a chest X-ray if intensive care is being proposed for a child.

1.3.9 Provide parents or carers with key safety information (see recommendation 1.6.1) if the child is not admitted.

1.4 Management of bronchiolitis

1.4.1 Do not perform chest physiotherapy on children with bronchiolitis who do not have relevant comorbidities (for example spinal muscular atrophy, severe tracheomalacia).

1.4.2 Consider requesting a chest physiotherapy assessment in children who have relevant comorbidities (for example spinal muscular atrophy, severe tracheomalacia) when there may be additional difficulty clearing secretions.

1.4.3 Do not use any of the following to treat bronchiolitis in children:

- antibiotics
- hypertonic saline
- adrenaline (nebulised)
- salbutamol
- montelukast
- ipratropium bromide
- systemic or inhaled corticosteroids

- a combination of systemic corticosteroids and nebulised adrenaline.

1.4.4 Give oxygen supplementation to children with bronchiolitis if their oxygen saturation is persistently less than 92%.

1.4.5 Consider continuous positive airway pressure (CPAP) in children with bronchiolitis who have impending respiratory failure (see recommendation 1.1.10).

1.4.6 Do not routinely perform upper airway suctioning in children with bronchiolitis.

1.4.7 Consider upper airway suctioning in children who have respiratory distress or feeding difficulties because of upper airway secretions.

1.4.8 Perform upper airway suctioning in children with bronchiolitis presenting with apnoea even if there are no obvious upper airway secretions.

1.4.9 Do not routinely carry out blood gas testing in children with bronchiolitis.

1.4.10 Consider carrying out capillary blood gas testing in children with severe worsening respiratory distress (when supplemental oxygen concentration is greater than 50%) or suspected impending respiratory failure (see recommendation 1.1.10)

1.4.11 Give fluids by nasogastric or orogastric tube in children with bronchiolitis if they cannot take enough fluid by mouth.

1.4.12 Give intravenous isotonic fluids (see NPSA guidance[1]) to children who:

- do not tolerate nasogastric or orogastric fluids or
- have impending respiratory failure.

1.5 When to discharge

1.5.1 When deciding on the timing of discharge for children admitted to hospital, make sure that the child:

- is clinically stable

- is taking adequate oral fluids
- has maintained oxygen saturation over 92% in air for 4 hours, including a period of sleep.

1.5.2 When deciding whether to discharge a child, take into account factors that might affect a carer's ability to look after a child with bronchiolitis, for example:

- social circumstances
- the skill and confidence of the carer in looking after a child with bronchiolitis at home
- confidence in being able to spot red flag symptoms (see recommendation 1.6.1)
- distance to healthcare in case of deterioration.

1.5.3 Provide parents or carers with key safety information (see recommendation 1.6.1) when the child is discharged.

1.6 Key safety information for looking after a child at home

1.6.1 Provide key safety information for parents and carers to take away for reference for children who will be looked after at home. This should cover:

- how to recognise developing '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
  - 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.

[1] NICE guidance on intravenous fluids therapy in children is in development and is due to be published in October 2015.

2 Research recommendations

The Guideline Development Group has made the following recommendations for research, based on its review of evidence, to improve NICE guidance and patient care in the future. The Guideline Development Group's full set of research recommendations is detailed in the full guideline. See the guidelines manual section 9.5 for guidance on formulating and selecting high-priority research recommendations for inclusion in the NICE guideline.

2.1 Oxygen saturation measurement in primary care

What is the clinical and cost effectiveness of oxygen saturation (SpO_2) measurement in primary care in children with bronchiolitis?

Why this is important

There are no studies to inform the use of SpO_2 measurement in primary care. SpO_2 is used routinely in secondary care to help decide on the need for admission to hospital. The clinical and cost effectiveness of SpO_2 measurement in primary care is also important. SpO_2 is not routinely measured in infants and young children with bronchiolitis in primary care. The value of SpO_2 measurement to help identify those who need admission to hospital should be assessed. Possible outcomes might be fewer or more infants being referred to hospital, or admitted.

2.2 Paediatric early warning score (PEWS) as predictors of deterioration

In children with bronchiolitis can paediatric early warning score (PEWS) predict deterioration?

Why this is important

In children with bronchiolitis there is clinical uncertainty about the prediction of deterioration. There are a number of clinical scores for bronchiolitis that include objective and subjective measures. No bronchiolitis score is currently in widespread use in clinical practice. Increasingly, PEWS are being employed generically in paediatric practice in the UK. The effectiveness of PEWS scores in predicting deterioration for infants with bronchiolitis needs to be assessed.

2.3 Combined bronchodilator and corticosteroid therapy for bronchiolitis

What is the efficacy of combined bronchodilator and corticosteroid therapy?

Why this is important

There are no effective therapies for the treatment of bronchiolitis. One study reported that infants provided with both nebulised adrenaline and systemic steroids had improved clinical outcomes. This was a subgroup analysis, so was not anticipated in the trial design and consequently the analysis was not adequately powered to answer this question. A multicentre randomised controlled trial (RCT) that assesses the clinical and cost effectiveness of combined adrenaline and corticosteroids treatment for bronchiolitis is needed.

2.4 High-flow humidified oxygen and oxygen

What is the clinical and cost effectiveness of high-flow humidified oxygen versus standard supplemental oxygen?

Why this is important

Providing oxygen (typically by nasal cannula) is standard care for bronchiolitis. Newly-developed medical devices can now deliver high-flow humidified oxygen that is thought to provide more comfortable and effective delivery of gases while retaining airway humidity. The use of this medical device is becoming widespread without demonstration of additional efficacy. A multicentre RCT comparing high-flow humidified oxygen and standard supplemental oxygen would be of benefit, as would including weaning strategies for high-flow humidified oxygen.

2.5 Nasal suction

What is the clinical and cost effectiveness of suction to remove secretions from the upper respiratory tract compared with minimal handling?

Why this is important

Suction is a commonly used therapy in bronchiolitis. Infants are obligate nasal breathers, so removal of secretions is thought to relieve respiratory distress. However, suction is distressing to infants and parents. Methods vary and there is no evidence on which approach, if any, is most effective. In some trials it appears that minimal handling is more effective than therapies. A multicentre RCT comparing the clinical and cost effectiveness of suction (also covering different suction strategies, for example superficial versus deep) with minimal handling is needed.

3 Other information

3.1 Scope and how this guideline was developed

NICE guidelines are developed in accordance with a scope that defines what the guideline will and will not cover.

How this guideline was developed

NICE commissioned the National Collaborating Centre for Women's and Children's Health to develop this guideline. The Centre established a Guideline Development Group (see section 4), which reviewed the evidence and developed the recommendations.

The methods and processes for developing NICE clinical guidelines are described in the guidelines manual.

3.2 Related NICE guidance

Details are correct at the time of consultation on the guideline (November 2014). Further information is available on the NICE website.

Published

General

- Medicines adherence NICE guideline CG76 (2009)

Condition-specific

- Feverish illness in children (2013) NICE guideline CG160
- Antibiotics for early-onset neonatal infection (2012) NICE guideline CG149
- Infection (2012) NICE guideline CG139
- Prevention and control of healthcare-associated infections (2011) NICE guideline PH36
- Bacterial meningitis and meningococcal septicaemia (2010) NICE guideline CG102
- Respiratory tract infections – antibiotic prescribing (2008) NICE guideline CG69

- Omalizumab for severe persistent allergic asthma (2007) NICE technology appraisal guidance 133
- Inhaled corticosteroids for the treatment of chronic asthma in children under the age of 12 years (2007) NICE technology appraisal guidance 131
- Guidance on the use of inhaler systems (devices) in children under the age of 5 years with chronic asthma (2000) NICE technology appraisal guidance 10

Under development

NICE is developing the following guidance (details available from the NICE website):

- Asthma. NICE guideline. Publication expected June 2015.
- Intravenous fluid therapy in children. NICE guideline. Publication expected October 2015.

4 The Guideline Development Group, National Collaborating Centre and NICE project team

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4.4 Declarations of interests

The following members of the Guideline Committee made declarations of interests. All other members of the Committee stated that they had no interests to declare. The conflicts of interest policy (2007) was followed until September 2014, when an updated policy was published.

Member	Interest declared	Type of interest	Decision taken
Thomas Bourke	Expenses to attend a meeting from Novartis Pharmaceuticals (not related to bronchiolitis).	Personal pecuniary	Declare and participate

Thomas Bourke	Published a paper on bronchiolitis [Bourke T, Shields M (2011) Bronchiolitis. Clin Evid 04 (0308)].	Personal non-pecuniary	Declare and participate
John Crimmins	Received an honorarium for an article on fever in children.	Personal financial non-specific	Declare and participate
Steve Cunningham (Chair)	Advisory board attendance with honorarium for Gilead at which a product for cystic fibrosis was discussed, but also a brief discussion on a novel drug treatment for RSV bronchiolitis.	Personal non-pecuniary	Declare and participate
Steve Cunningham (Chair)	Chief investigator in a project funded by HTA (BiDS) about oxygen saturation in infant with bronchiolitis at discharge from hospital.	Personal non-pecuniary	Declare and participate
Steve Cunningham (Chair)	Principle Investigator for phase 1 study of novel drug treatment for RSV bronchiolitis in infants.	Personal non-pecuniary	Declare and participate
Steve Cunningham (Chair)	Attends lunch meeting sponsored by GlaxoSmithKline every 3 months.	Personal pecuniary	Declare and participate
Steve Cunningham (Chair)	Consultancy work via NHS Lothian for Biotechnology company developing a novel drug treatment for RSV bronchiolitis in infants.	Personal pecuniary	Declare and participate
Julian Legg	Research interest in viral bronchiolitis.	Personal non-pecuniary	Declare and participate
Julian Legg	Attended a medical meeting sponsored by GlaxoSmithKline at which a product unrelated to the current guideline was discussed. GlaxoSmithKline provided subsistence (a meal) for the attendees.	Personal pecuniary	Declare and participate

Julian Legg	Chaired meeting of Wessex Paediatric Respiratory Society in February 2014. This was an educational meeting sponsored by GlaxoSmithKline who arranged the venue and provided subsistence (a meal) for the attendees. No areas related to the current guideline were discussed.	Personal pecuniary	Declare and participate
Julian Legg	Attended a cystic fibrosis educational meeting (March 2015) organised by Forest Laboratories who provided overnight accommodation and subsistence (meals). No areas related to the current guideline were discussed.	Personal pecuniary	Declare and participate
Julian Legg	North American Cystic Fibrosis Conference 2015 – grant provided by Cystic Fibrosis Trust, UK for Conference Registration	Personal pecuniary	Declare and participate
Julian Legg	Expenses from Abbott Laboratories to support attendance of a meeting on Cystic Fibrosis organised by a charity (Child Health International) in Bulgaria in 2013.	Non-personal pecuniary	Declare and participate
Clare van Miert	Clinical doctorate research fellowship funded by the National Institute for Health Research to Measuring Clinical Severity in Infants with Bronchiolitis.	Personal pecuniary	Declare and participate
Clare van Miert	Speaker at a respiratory meeting presenting doctorate research study	Personal non-pecuniary	Declare and participate
Clare van Miert	Co-applicant on a grant (PCORI) with aims to identify important outcomes for parents with children with acute respiratory infections	Personal non-pecuniary	Declare and participate
Clare van Miert	Attended a preliminary meeting with representatives of Fisher & Paykel to explore the possibility that they would supply equipment and consumables for a research study investigating the efficacy and safety of high flow oxygen compared with standard care	Personal non-pecuniary	Declare and participate

Clare van Miert	Published a paper [van Miert C, Abbott J, Verhoeff F, Lane S, Carter B, McNamara P (2014) Development and Validation of the Liverpool Infant Bronchiolitis Severity Score: a research protocol. Journal of Advanced Nursing]	Personal non-pecuniary	Declare and participate
Clare van Miert	Submitted an application to HTA commission call for a feasibility study to look at the optimum thresholds for starting nCPAP and high-flow oxygen in infants with bronchiolitis (£255,816.00)	Personal non-pecuniary	Declare and participate
Clare van Miert	Attended a ground round meeting which had a breakfast sponsored by Spectrumthea (croissant and coffee)	Personal non-pecuniary	Declare and participate
Clare van Miert	Co-applicant for funding to Research for Patient Benefit on a bronchiolitis feasibility study	Personal financial specific	Declare and participate
Clare van Miert	Provided expert article on bronchiolitis: Bronchiolitis Nursing Standard, January 7 2015, vol 19 p 19.	Personal non-financial specific	Declare and participate
Clare van Miert	Approached (via email) for information on parents 'needs' by a member of a parliamentary roundtable committee meeting for bronchiolitis after undertaking interviews with parents of infants with bronchiolitis as part PhD	Personal non-financial specific	Declare and participate
Clare van Miert	Successfully applied for a travel bursary to present at RSV conference in South Africa (November 14) to present research on bronchiolitis but could not attend – PhD supervisor attended and presented the research	Non-personal financial specific	Declare and participate
Debra Quantrill	Holds shares in Futura Medical plc – pharmaceutical group that develops products for the consumer healthcare market	Personal pecuniary	Declare and participate

Changes after publication

September 2015: Minor maintenance.

June 2015: Minor corrections to NCGC staff list.

About this guideline

NICE clinical guidelines are recommendations about the treatment and care of people with specific diseases and conditions.

NICE guidelines are developed in accordance with a scope that defines what the guideline will and will not cover.

This guideline was developed by the National Collaborating Centre for Women's and Children's Health which is based at the Royal College of Obstetricians and Gynaecologists. The Collaborating Centre worked with a Guideline Development Group, comprising healthcare professionals (including consultants, GPs and nurses), patients and carers, and technical staff, which reviewed the evidence and drafted the recommendations. The recommendations were finalised after public consultation.

The methods and processes for developing NICE clinical guidelines are described in the guidelines manual.

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.

Strength of recommendations

Some recommendations can be made with more certainty than others. The Guideline Development Group makes a recommendation based on the trade-off between the benefits and harms of an intervention, taking into account the quality of the underpinning evidence. For some interventions, the Guideline Development Group is confident that, given the information it has looked at, most patients would choose the intervention. The wording used in the recommendations in this guideline denotes the certainty with which the recommendation is made (the strength of the recommendation).

For all recommendations, NICE expects that there is discussion with the patient about the risks and benefits of the interventions, and their values and preferences. This discussion aims to help them to reach a fully informed decision (see also patient-centred care).

Interventions that must (or must not) be used

We usually use 'must' or 'must not' only if there is a legal duty to apply the recommendation. Occasionally we use 'must' (or 'must not') if the consequences of not following the recommendation could be extremely serious or potentially life threatening.

Interventions that should (or should not) be used – a 'strong' recommendation

We use 'offer' (and similar words such as 'refer' or 'advise') when we are confident that, for the vast majority of patients, an intervention will do more good than harm, and be cost effective. We use similar forms of words (for example, 'Do not offer…') when we are confident that an intervention will not be of benefit for most patients.

Interventions that could be used

We use 'consider' when we are confident that an intervention will do more good than harm for most patients, and be cost effective, but other options may be similarly cost effective. The choice of intervention, and whether or not to have the intervention at all, is more likely to depend on the patient's values and preferences than for a strong recommendation, and so the healthcare professional should spend more time considering and discussing the options with the patient.

Other versions of this guideline

The full guideline, bronchiolitis: diagnosis and management of bronchiolitis in children contains details of the methods and evidence used to develop the guideline. It is published by the National Collaborating Centre for Women's and Children's Health.

The recommendations from this guideline have been incorporated into a NICE pathway.

We have produced information for the public about this guideline.

Implementation

Implementation tools and resources to help you put the guideline into practice are also available.

Your responsibility

This guidance represents the view of NICE, which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. However, the guidance does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer, and informed by the summaries of product characteristics of any drugs.

Implementation of this guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, 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 guidance should be interpreted in a way that would be inconsistent with compliance with those duties.

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