Bronchiolitis Pathway

Clinical Assessment / Management Tool for Children Younger than 2 years old with suspected Bronchiolitis

December 2016
Kent, Surrey & Sussex Version

NHS South East Clinical Networks Children and Young People

Kent Surrey Sussex Academic Health Science Network — Patient Safety Collaborative

Management - Primary Care and Community Settings

Patient Presents

Suspected Bronchiolitis?

- Bronchiolitis season
- Coryzal prodrome for 1-3 days
- Persistent cough with tachypnoea or chest recession or both
- Either wheeze or crackles or both
- Fever (usually < 39°C)
- Poor feeding
- Isolated apnoeas (particularly in those under 6 weeks)

Do the symptoms and/or signs suggest an **immediately life threatening (high risk)** illness?

Think Sepsis

Yes

- **Refer immediately** to emergency care by **999**
- Alert Paediatric Emergency Service following local hospital referral pathway
- Stay with child whilst waiting and give **High-Flow Oxygen** support

Consider differential diagnosis if:
Temp > 39°C (sepsis / pneumonia) or sweaty / pale (cardiac) or unusual features of illness. Consider viral induced wheeze or early onset asthma in older infants.

Record your findings.
GMC Best Practice recommendation http://bit.ly/1DPXI2b

Table 1

Clinical Findings	Green - low risk	Amber - intermediate risk	Red - high risk
Behaviour	• Alert • Normal	• Irritable • Decreased activity • Reduced response to social cues • No smile	• Unable to rouse • No response to social cues • Appears ill to a healthcare professional • Wakes only with prolonged stimulation • Weak or continuous cry
Circulation and Hydration	• CRT < 2 secs • Moist mucous membranes • Normal colour skin, lips and tongue • Normal feeding- Tolerating 75% of fluid • Occasional cough induced vomiting	• CRT 2-3 secs • Pallor colour reported by parent/carer • 50-75% fluid intake over 3-4 feeds • Reduced urine output • Pale/mottled • Cool peripheries	• CRT > 3 secs • Cyanotic lips and tongue • <50% fluid intake over 2-3 feeds or appears dehydrated • Significantly reduced urine output • Pale/Mottled/Ashen blue
Features of Respiratory Distress:			
Respiratory rate Measured at rest for 30 seconds	• Under 12mths <50 breaths/minute • Over 12mths <40 breaths/minute	• Increased work of breathing • All ages > 60 breaths /minute	• All ages > 70 breaths/minute
Chest Recession	• No Chest Recessions	• Moderate Chest Recessions	• Severe Chest Recessions
Nasal Flaring	• No Nasal Flaring	• Moderate Nasal Flaring	• Severe Nasal Flaring
Grunting	• No Grunting	• Moderate Grunting	• Severe Grunting
Apnoeas	• No Apnoeas	• No Apnoeas	• Apnoeas
O_2 Sats in air**	• >92% or above	• >92%	• <92%
Other	• Satisfactory Social Circumstance	• Pre-existing lung condition • Congenital Heart Disease • Re-attendance • Neuromuscular weakness • Immunocompromised • Age <6 weeks (corrected) • Prematurity • Safeguarding concerns	

Table 2 Normal Paediatric Values:

(APLS†)	Respiratory Rate at rest: [b/min]	Heart Rate [bpm]	Systolic Blood Pressure [mmHg]
< 1 year	30 - 40	110 - 160	70 - 90
1-2 years	25 - 35	100 - 150	80 - 95

†Advanced Paediatric Life Support The Practical Approach Fifth Edition Advanced Life Support Group Edited by Martin Samuels; Susan Wieteska Wiley-Blackwell / 2011 BMJ Books.

999

Also think about...

Bronchiolitic symptoms often deteriorate up to Day 3. This needs to be considered in those patients with other high risk factors.

Green Action

Provide appropriate and clear guidance to the parent / carer and refer them to the patient advice sheet.
Confirm they are comfortable with the decisions / advice given and then think "Safeguarding" before sending home.

*Please see overleaf for telephone numbers

Amber Action

Advice from Paediatrician-On-Call* should be sought and/or a clear management plan agreed with parents.

Refer

Manage

Management Plan

- Provide the parent/carer with a safety net: use the advice sheet and advise on signs and symptoms and changes and signpost as to where to go should things change
- Arrange any required follow up or review and send any relevant documentation

Urgent Action

Consider commencing high flow oxygen support
Refer immediately to emergency care by 999
Alert Paediatric Emergency Service following local hospital referral pathway
Commence relevant treatment to stabilise child for transfer
Send relevant documentation

Hospital Emergency Department / Paediatric Unit

**NB: Oximetry forms a recommended part of the Primary Care assessment of children NICE NG9 2015.

This guidance is written in the following context:

This document was arrived at after careful consideration of the evidence available including but not exclusively NICE, SIGN, EBM data and NHS evidence, as applicable. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. The guidance does not, however, 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 carer.

Supporting Information

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Where can I learn more about paediatric assessment?

We also recommend signing up to the online and interactive learning tool **Spotting the Sick Child**. It is free of charge. It was commissioned by the Department of Health to support health professionals in the assessment of the acutely sick child. It is also CPD certified.

www.spottingthesickchild.com

*GP / Clinician Priority Phonelines / Contact Numbers at Local Hospitals

Surrey and Sussex Area Hospitals

Ashford and St Peter's Hospital NHS Foundation Trust, Chertsey **01932 872000**

Brighton and Sussex University Hospitals NHS Trust Royal Alexandra Hospital, Brighton **01273 523230**

East Sussex Healthcare NHS Trust
Conquest Hospital, Hastings **01424 755255**
Eastbourne District General Hospital **01323 417400**

Frimley Park Hospital NHS Foundation Trust, Camberley **01276 604604 Bleep 100**

Royal Surrey County Hospital NHS Foundation Trust, Guildford **01483 571122**

Surrey and Sussex Healthcare NHS Trust
East Surrey Hospital, Redhill **01737 231807**

Western Sussex Hospitals NHS Trust St Richards Hospital, Chichester **01243 536180/1**
Worthing Hospital **01903 285060**

Kent and Medway Area Hospitals

Dartford and Gravesham NHS Trust
Darent Valley Hospital / Queen Marys Hospital Sidcup / Erith and District Hospital
01322 428100 Bleep 316 (same number applies to both hospital sites)

East Kent Hospitals NHS Trust
Queen Elizabeth The Queen Mother Hospital, Margate / William Harvey Hospital, Ashford
01227 783190 (same number applies to both hospital sites)

Maidstone and Tonbridge Wells NHS Trust
01622 723011
Medway Maritime Hospital, Gillingham
01634 825000

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Based on Bronchiolitis in children: diagnosis and management NICE guidelines [NG9] Published date: June 2015 https://www.nice.org.uk/guidance/ng9/resources/bronchiolitis-in-children-diagnosis-and-management-51048523717 and on Scottish Intercollegiate Guidelines (SIGN) 2006 Guideline No. 91 Bronchiolitis in children - www.sign.ac.uk/guidelines/fulltext/91/index.html

Dear Colleague,

We would like to introduce you to the **Bronchiolitis Pathway Clinical Assessment / Management Tool for Children Younger than 2 years old - Primary Care and Community Settings.** This is one of a series of urgent care pathways developed by the Children and Young People's Network for the most common conditions requiring primary and / or acute care.

The local clinical groups who played such an important role in creating these tools, starting from 2010, have included representatives from acute, community and primary care as well as parents, education and social care. In particular we would also like to thank Paediatrics and Emergency Medicine colleagues for their support in finalising these versions for circulation.

The professionals were all working towards four main objectives:

- To promote **evidence-based** assessment and management of unwell children and young people. The pathway tools aim to ensure that accurate and prompt advice is available to assist health professionals to make safe decisions that can be taken quickly.
- To build **consistency** across the Network area, so all healthcare professionals understand the pathway and can assess, manage and support children, young people and their families during the episode, to the same high standards, regardless of where they present.
- To support local healthcare professionals to share **learning** and expertise across organisations in order to drive **continuous development** of high quality care
- To build the **confidence/resilience** of parents to manage their child's illness which should be increased with the consistent advice offered for unwell children and young people accessing all local NHS services in an emergency or urgent scenario.

This pathway is comprised of three elements: parental advice, a pathway for use in primary care and community settings and a pathway for use in acute (hospital) settings. Each part has been designed to be compatible with existing pathways in the acute sector and should be particularly valuable for use in Hospital Emergency Departments and primary care settings.

It is an expectation that these pathways will not only provide a guide for clinicians faced with an unwell child, but will also be used in training and disseminated across all relevant departments and team-members.

We hope you will find this a quality tool to be used within your practice. We look forward to hearing back on how the consistency of assessment and management of these children and the overall quality of practice and patient experience has been improved with this relatively simple but whole system initiative.

To feedback or for further information including how to obtain more copies of this document (Please Quote Ref: **B2**) we have one mailbox for these queries on behalf of the South East Clinical Networks area (Kent, Surrey and Sussex). Please email: CWSCCG.cypSECpathways@nhs.net

May we commend it to your use.

Yours sincerely

The Network

Glossary of Terms and Abbreviations

CPD	Continuous Professional Development	**HR**	Heart Rate
CRT	Capillary Refill Time	**O_2 SATS**	Oxygen Saturation in Air
ED	Hospital Emergency Department	**RR**	Respiratory Rate

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