Suspected Croup in a child 3 months – 6 years

When should I suspect croup?

- Suspect croup in a child with a sudden-onset, seal-like barking cough, often accompanied by stridor ,tracheal indrawing, chest wall (intercostal) or sternal indrawing. Symptoms are typically worse at night and increase with agitation.
- Prodromal, non-specific upper respiratory tract symptoms (coryza, non-barking cough, mild fever) may have been present for between 12 and 48 hours.
- Hoarse voice is also common.
- In moderate or severe cases, the child may be showing signs of respiratory distress or failure, such as:
  - Persistent agitation.
  - Lethargy/fatigue
  - Asynchronous chest wall and abdominal movement.
  - Pallor or cyanosis.
  - Decreased level of consciousness.

The differential diagnoses of croup should be considered which include:

- **Bacterial tracheitis** — suspect in a person with fever, sudden onset stridor, and respiratory distress, following a viral-like respiratory illness from which the person appears to be recovering but then becomes acutely worse.
- **Epiglottitis** — suspect in a person with sudden onset high fever, dysphagia, drooling, anxiety, non-barking cough, and their preferred posture is sitting upright with head extended.
  - Note: This is rarely seen since widespread immunisation against *Haemophilus influenzaeB*.
- **Foreign body in upper airway** — suspect in a person with sudden onset dyspnoea and stridor, usually a clear history of foreign body inhalation or ingestion, no prodrome or symptoms of viral illness, and no fever (unless secondary infection).
- **Retropharyngeal/peritonsillar abscess** — suspect in a person with dysphagia, drooling, stridor (occasionally), dyspnoea, tachypnoea, neck stiffness, and unilateral cervical adenopathy. Onset is typically more gradual than with croup and is often accompanied by fever.
- **Angioneurotic oedema** — suspect in a person with acute swelling of the upper airway that may cause dyspnoea and stridor. Fever is uncommon. Swelling of face, tongue, or pharynx may be present. Can occur at any age.
- **Allergic reaction** — suspect in a person with rapid onset of dysphagia, stridor, and possible cutaneous manifestations (urticarial rash). Can occur at any age. Suspicion should be further raised if there is a personal or family history of prior episodes, or allergy.

The information on the diagnosis of croup is based on expert opinion in the BMJ Best Practice guideline Croup [BMJ Best practice, 2017].

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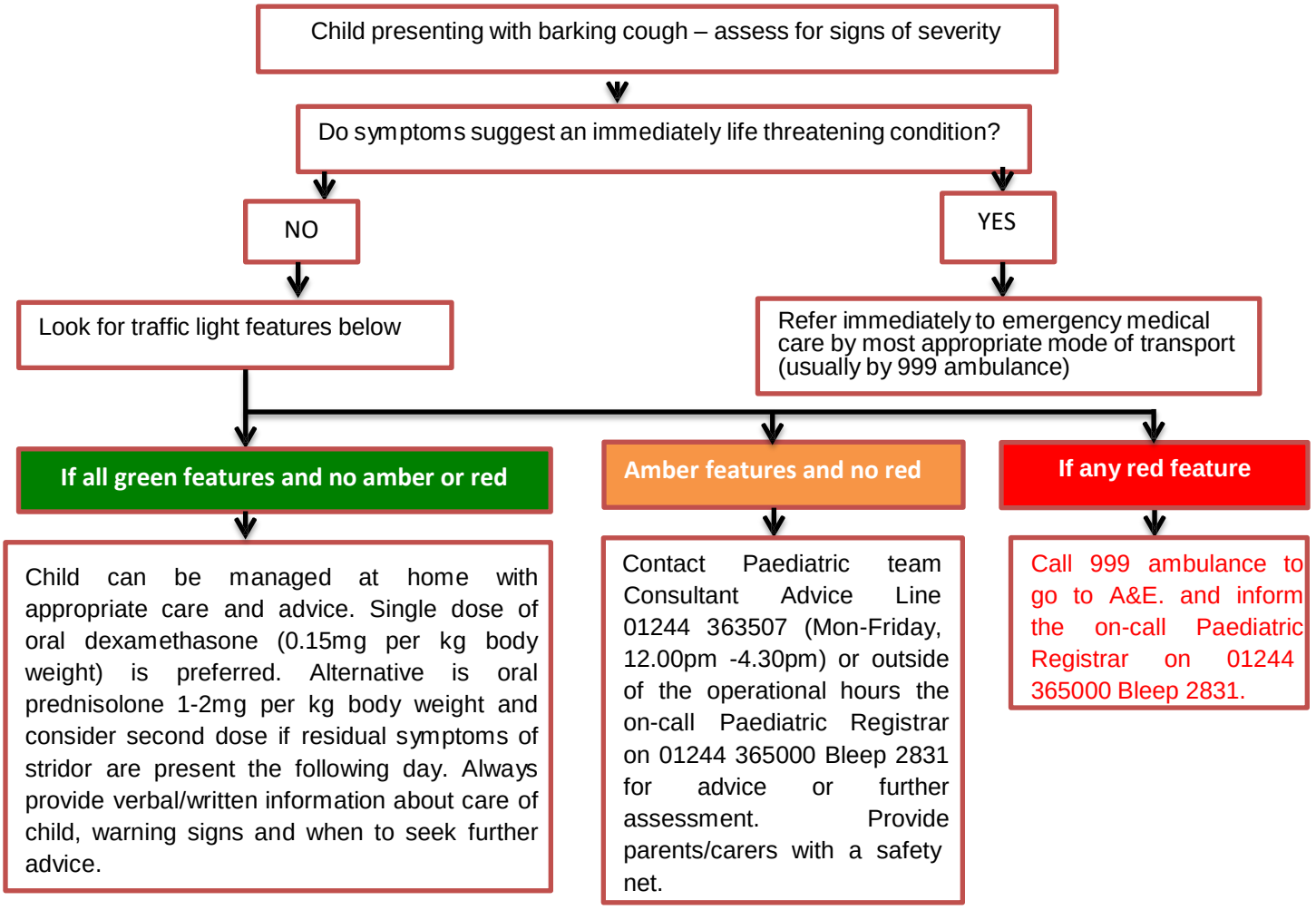

Table 1: Traffic Light system for identifying severity of illness

	Green – low risk	Amber – Intermediate risk	Red – high risk
Colour and Activity	• Normal • Child alert	• Quieter than normal	• Pale • Lethargy • Distress/agitation
Respiratory	Respiratory Rate • Under 12 months <50 breaths/ minute • Over 12 months <40 breaths/ minute • SATS 95% or above	Respiratory Rate • Under 12 months 50-60 breaths/ minute • Over 12 months 40-60 breaths/ minute	Respiratory rate • Over 60 (all ages) • SATS less than 92%
Cough	Occasional barking cough No stridor	Frequent barking cough and stridor	Struggling with persistent cough
Chest Recession	No chest recession	Mild subcostal recession and tracheal tug	Marked subcostal and retrosternal recession
Circulation and Hydration	CRT less than 2 seconds	CRT 2-4 seconds	CRT more than 4 seconds
*SATS: Saturation in air **CRT: Capillary refill time		• Poor response to initial treatment • Reduced fluid intake • Uncertain diagnosis • Significant parental anxiety, late evening/night presentation • No access to transport or long way from hospital	

Traffic light table should be used in conjunction with the recommendations in the NICE guideline on Feverish illness in children.
See : http://guidance.nice.org.uk/CG160

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Westley Croup Score:
A standard measurement of croup severity; According to the Westley score, a score of less than 3 represents mild disease; a score of 3-6 represents moderate disease; and a score greater than 6 represents severe disease

When assessing signs of severity consider Westley Croup Score: Table 2 below.

Table 2: Westley Croup Score

Clinical Sign	Degree	Score
Stridor	None At rest on auscultation At rest without auscultation	0 1 2
Chest Wall Retractions	None Mild Moderate Severe	0 1 2 3
Air Entry	Normal Decreased Severely Decreased	0 1 2
Cyanosis	None With Agitation At rest	0 4 5
Consciousness Level	Normal Altered	0 5

When you feel a GP review in a specific time period is clinically appropriate but that falls outside of the 'in hours' GP service please advise your patient / family to call NHS 111 (at an agreed time interval/level of deterioration – depending on your concerns) and advise that there is a 'predetermined plan to speak with an Out of Hours GP'. Please provide your patient/family with a letter detailing your clinic findings and concerns to help the Out of Hours GP assessment.

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Croup advice sheet

Name of child…… Age…… Date/time advice given……

Further advice/follow up……

……

Name of professional…… Signature of professional……

How is your child?

- Blue lips
- Unresponsive and very irritable
- Finding it very difficult to breathe
- Pauses in breathing or irregular breathing pattern
- Under 3 months and has temperature over 38°C

You need urgent help

Please phone 999 or go to the nearest Accident and Emergency Department

- Decreased feeding
- Passing less urine than normal
- Baby/child's health gets worse or you are worried
- If your baby/child is vomiting
- Your baby's temperature is above 39°C

You need to contact a doctor or nurse today

Please ring your GP Surgery or call NHS 111 – dial 111

- If none of the above factors are present

Self-Care

Using the advice overleaf you can provide the care your child needs at home

Some useful numbers

GP Surgery
(make a note of number here)

NHS 111
Dial 111
(available 24 hours – 7 days a week)

GP Out of Hours Service: Contacted via the NHS 111 service
(Open from 6pm to 8am on weekdays & 24hr cover at weekends & bank holidays)

For online advice: NHS Choices www.nhs.uk (available 24 hours – 7 days a week)

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NHS
West Cheshire
Clinical Commissioning Group

Croup advice sheet – babies/children - 3 months to 6 years

What is croup?

Croup is an inflammation of the voice box characterised by a typical dry barking cough and sometimes leading to difficulty in breathing.

The condition most often affects small children. It is usually caused by a virus and occurs in epidemics particularly in the autumn and early spring.

Symptoms start with a mild fever and a runny nose. This progresses to a sore throat and a typical barking cough. Young children have smaller air passages and inflammation in the voice box leads to the gap between the vocal cords being narrowed. This may obstruct breathing, particularly when breathing in (stridor), which often starts in the middle of the night.

Croup develops over a period of one or two days, the severity and time that it persists varies, but often symptoms are worse on the second night of the cough.

Croup is usually caused by a virus and for that reason antibiotics are not normally effective.

How can I help my child?

- Be calming and reassuring. A small child may become distressed with croup. Crying can make things worse.
- Sit the child upright on your lap if their breathing is noisy or difficult. Let the child find a comfortable position.
- Give the child lots of cool drinks (if they are happy to take them).
- Lower the fever. If a child has a fever (high temperature) their breathing is often faster, and they may be more agitated and appear more ill.

To lower a fever:

- Give paracetamol or ibuprofen.
- Lightly dress the child if the room is not cold.

Be aware

Steam used to be commonly advised as a treatment. It was thought that steam may loosen the mucus and make it easier to breathe. However, there is little evidence that this does any good. Also, some children have been scalded by steam whilst being treated for croup. Therefore, steam is not recommended. Also, DO NOT make a child with breathing difficulty lie down or drink fluids if they don't want to, as that could make breathing worse.