



Cheshire and Merseyside
Women's and Children's
Services Partnership

The Big 6

The Most Common Conditions That Children Present With For Urgent Care

- Sepsis
- Fever
- Respiratory
 - Bronchiolitis
 - Croup
 - Asthma
- Gastroenteritis
- Head Injury
- Abdominal Pain

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The Big 6

Dear Colleague,

This document has three main objectives in mind:

- To promote evidence-based assessment and management of unwell children and young people for the most common conditions when accessing local NHS services in an urgent scenario;
- To build consistency 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 urgent care pathways for children and young people.

We are keen to promote the use of the assessment tools included in this booklet for the six most common condition/symptoms that can cause children and young people to present for emergency and urgent care.

These six conditions/symptoms are:

- **Sepsis**
- **Fever**
- **Respiratory:**
 - Bronchiolitis
 - Croup
 - Asthma
- **Gastroenteritis**
- **Head injury**
- **Abdominal Pain.**

These assessment tools have been developed using both national guidance such as NICE and SIGN publications, along-side local policies and protocols, and have been reviewed and subject to clinical scrutiny by clinicians across region. Whilst it is hoped that all healthcare professionals who work with children and young people along this pathway will acknowledge and embed the use of this guidance, it must be stressed that 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 them.

We hope these tools support you and your colleagues to provide ever improving high quality care for children and young people on the urgent and emergency care pathway.

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SEPSIS

Clinical Assessment Tool

Children and young people with suspected Sepsis in and out of hospital setting

We have chosen to treat sepsis as an overarching concern for all of the six presentations. Sepsis should be actively considered in any cases where life threatening signs or symptoms are detected or specific red flags are found. e.g. petechial rash.

Suspicion of Sepsis should always trigger a rapid transfer to a hospital setting where immediate ability to resuscitate and treat are available. The [Sepsis Trust](#) have produced many resources to support clinicians and families and are recommended as a reliable source of advice.

- Each Trust will have its own Sepsis Tool and there is the primary care sepsis tool for community settings.
- Paediatric Early Warning tools can be useful to help clinicians make a risk assessment.



The POPS app is a simple tool which can be used in any setting by clinicians of variable expertise to guide need for further assessment and urgency.



Table 1: Normal vital signs in children

Age	Respiratory Rate at Rest	Systolic Blood Pressure	Heart Rate
< 1	30-60 breaths/min	> 70 mmhg	110-160 bpm
1-2yrs	25-40 breaths/min	> 70 mmhg	90-150 bpm
2-5yrs	25-30 breaths/min	80-100 mmhg	95-140 bpm
5-12yrs	20-25 breaths/min	90-110 mmhg	80-120 bpm
> 12yrs	15-20 breaths/min	100-120 mmhg	60-100 bpm

As COVID-19 has highlighted in the current climate all the acutely unwell children should be seen and assessed with appropriate infection control measures in place.

FEVER

Clinical Assessment Tool

Table 1: Traffic light system for identifying severity of illness in feverish children

Category	GREEN – low risk	AMBER – Intermediate risk	RED – high risk
Colour	<ul style="list-style-type: none"> Normal colour 	<ul style="list-style-type: none"> Pallor reported by parent/carer 	<ul style="list-style-type: none"> Pale/mottled/ashen/blue
Activity	<ul style="list-style-type: none"> Responds normally to social cues Content/smiles Stays awake or awakens quickly Strong normal cry/not crying 	<ul style="list-style-type: none"> Not responding normally to social cues Wakes only with prolonged stimulation Decreased activity No smile 	<ul style="list-style-type: none"> No response to social cues Appears ill to a healthcare professional Does not wake or if roused does not stay awake Weak, high-pitched or continuous cry
Respiratory	<ul style="list-style-type: none"> No red or amber criteria met 	<ul style="list-style-type: none"> Increased work of breathing Tachypnoea: <ul style="list-style-type: none"> RR > 50 breaths/minute, age 6–12 months RR > 40 breaths/minute, age >12 months Oxygen saturation < 92% in air 	<ul style="list-style-type: none"> Grunting Tachypnoea: <ul style="list-style-type: none"> RR > 60 breaths/minute Moderate or severe chest indrawing
Circulation and hydration	<ul style="list-style-type: none"> Normal skin and eyes Moist mucous membranes 	<ul style="list-style-type: none"> Dry mucous membrane Poor feeding in infants CRT > 3 seconds Tachycardia <ul style="list-style-type: none"> >160 beats/minute age < 1 year >150 beats/minute age 1-2 years >140 beats/minute age 2-5 years Reduced urine output 	<ul style="list-style-type: none"> Reduced skin turgor
Other risk factors	<ul style="list-style-type: none"> None of the amber or red symptoms or signs 	<ul style="list-style-type: none"> Age 3-6 months, temperature $\geq 39^{\circ}\text{C}^*$ Fever for ≥ 5 days Rigors Swelling of a limb or joint Non-weight bearing limb/not using an extremity 	<ul style="list-style-type: none"> Age 0-3 months, temperature $> 38^{\circ}\text{C}$ Non-blanching rash Bulging fontanelle Neck stiffness Status epilepticus Focal neurological signs Focal seizures

*Some vaccinations have been found to induce fever in children aged under 3 months

CRT: Capillary Refill Time

RR: Respiratory Rate

Reference NICE guidance febrile children < 5

FEVER

Clinical Assessment Tool

Child with Fever

Child presenting with fever – assess for signs of severity

Do symptoms and/or signs suggest an immediately life-threatening illness?
(i.e. compromise of airway / breathing / circulation / conscious level – CONSIDER SEPSIS)

No

Yes

Look for traffic light features and symptoms and signs of specific diseases.
Document temperature, heart rate, respiratory rate, capillary refill time, colour, activity and hydration status. Always check urine in unexplained fever.
Check blood glucose if possible.

Refer immediately to emergency medical care by most appropriate mode of transport (usually by 999 ambulance)

If all green features and no amber or red

If any amber features and no diagnosis reached

If any red features

Child can be managed at home with appropriate care advice. Always provide verbal/written information about care of child with fever, warning signs and when to seek further advice.

If remotely assessed then arrange assessment in face to face setting.
Look for symptoms and signs of specific diseases.

- Manage ABC's as able.
- Administer IV/IM antibiotics if sepsis or meningitis suspected.
- 999 Ambulance emergency transfer to nearest Emergency Department.

Remember to check urine in unexplained fever

For advice and guidance, contact your local paediatric on-call teams



When you feel a review in a specific time period is clinically appropriate please arrange that and ensure that the parents/carers are aware of the plan and who to contact.

FEVER

Parent Advice Sheet

Fever Advice for Children and Young People



Red

- If your child becomes unresponsive
- If your child becomes blue
- If your child is finding it hard to breathe
- If your child has a fit
- If your child develops a rash that does not disappear with pressure (see the tumbler test)

You need urgent help.
Please phone 999 or go straight to the nearest Accident and Emergency Department.



Amber

- If your child's health gets worse or if you are worried
- If your child has signs of dehydration including dry mouth, no tears, sunken eyes, sunken fontanelle (soft spot on the baby's head), drowsiness and seems generally unwell
- The temperature lasts more than 5 days and your child has not seen a health care professional

You need to seek medical attention today.
Contact your GP or Ring 111.



Green

- If you have concerns about looking after your child at home

If you need advice.
Please contact 111.

Useful information

Children under the weather?

Search 'Catch app' to download a free NHS local health app for parents and carers of children from pregnancy to age 5 (Use www.nhs.uk if not available in your region).



For more information visit www.catchapp.co.uk or @catchapp_uk



Your Pharmacist



Pharmacists can offer advice and medicines for a range of minor illnesses and most have a room where you can discuss issues with pharmacy staff without being overheard and are trained to tell you when your symptoms mean you need to see a doctor.



Need medical advice or help right now?

CALL
111

Use the NHS 111 service if you urgently need medical help or advice but it's not a life-threatening situation. You can also access 111 online at: www.111.nhs.uk

Trained advisors are available 24 hours a day and can book you an appointment at the Urgent Treatment Centre, order a repeat prescription or put you in touch with a healthcare professional.

FEVER

Patient Information Sheet

Fever Advice for Children and Young People

What is Fever?

- A fever is an increase in body temperature. This in itself is not dangerous. Normal body temperature is variable but usually between 36 and 37.5°C.
- Fevers in children are common. This leaflet provides advice on when to seek help and on what you can do to help your child feel better. Often the fever lasts for a short duration and many children can be cared for at home if the child continues to drink, remains alert and does not develop any worrying symptoms.
- However, if you are worried or your child is getting worse with warning symptoms as listed in this leaflet, then you should seek the advice through 111 who will direct you to an appropriate service.

Working out the cause of the Fever

- If you talk to a healthcare professional on the telephone, they will ask you questions about your child's health and symptoms. This will help them to decide if your child is best cared for at home or needs to see a healthcare professional face-to-face.
- Sometimes your healthcare professional will not find a reason for your child's fever, even after a full examination. If your child is otherwise looking well, then treatment may not be necessary.
- Most children can be safely cared for at home if otherwise well. Your healthcare professional may decide that your child needs a follow-up appointment. They will give you information on how to look for symptoms that may suggest more serious illnesses and how to get further help if they occur.

Looking after your feverish child

- Give your child plenty of drinks e.g. water or squash. If you are breast feeding then continue as breast milk is best.
- Give babies smaller but more frequent feeds to help keep them hydrated.
- Do not worry about food if your child does not feel like eating but encourage them to drink more fluids.
- Look for signs of dehydration such as a dry mouth, lack of tears, sunken eyes, sunken fontanelle – the soft spot on your baby's head, passing less amounts of urine.
- Children with a fever should not be over or underdressed. If your child is shivering or sweating a lot, change the amount of clothes they are wearing.
- Physical methods of cooling your child such as fanning, cold bathing and tepid sponging can cause discomfort so are not advised.
- It is not necessary to use medicines to treat your child's fever but if your child is distressed, you can help them feel better by giving them medicines like paracetamol or Ibuprofen. Always follow the instructions on the bottle to avoid overdosing your child. These medicines can make your child feel more comfortable but they do not treat the cause of the temperature.
- Check on your child regularly, including during the night, especially if your child is under 6 months old as they are at higher risk of serious infection.
- Keep your child away from nursery or school whilst they have a fever.

The 'Tumbler Test'



If a rash appears, do the 'Tumbler Test':

- Press a glass tumbler firmly against the rash. If you can see spots through the glass and they do not fade, this is called a 'non blanching rash'.
- If this rash is present, seek medical advice immediately to rule out serious infection.
- A rash is harder to see on dark skin so check paler areas (palms of hands/soles of feet).

RESPIRATORY: Bronchiolitis

Clinical Assessment Tool

Table 1: Traffic light system for identifying severity of illness

Category	GREEN – low risk	AMBER – Intermediate risk	RED – high risk
Behaviour	<ul style="list-style-type: none"> Alert Normal 	<ul style="list-style-type: none"> Irritable Not responding normally to social cues Decreased activity No smile 	<ul style="list-style-type: none"> Unable to rouse Wakes only with prolonged stimulation No response to social cues Weak, high pitched or continuous cry Appears ill to a healthcare professional
Circulation	<ul style="list-style-type: none"> CRT < 2 secs 	<ul style="list-style-type: none"> CRT 2-3 secs 	<ul style="list-style-type: none"> CRT over 3 secs
Skin	<ul style="list-style-type: none"> Normal colour skin, lips & tongue Moist mucous membranes 	<ul style="list-style-type: none"> Pallor colour reported by parent/ carer cool peripheries 	<ul style="list-style-type: none"> Pale/mottled /ashen blue Cyanotic lips and tongue
Respiratory Rate	<ul style="list-style-type: none"> Under 12mths < 50 breaths/minute Over 12 mths < 40 breaths/minute No respiratory distress 	<ul style="list-style-type: none"> < 12 mths 50-60 breaths/minute > 12 mths 40-60 breaths/minute 	<ul style="list-style-type: none"> All ages > 60 breaths/minute
SATS in air	<ul style="list-style-type: none"> 95% or above 	<ul style="list-style-type: none"> 92-94% 	<ul style="list-style-type: none"> < 92%
Chest Recession	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Moderate 	<ul style="list-style-type: none"> Severe
Nasal Flaring	<ul style="list-style-type: none"> Absent 	<ul style="list-style-type: none"> May be present 	<ul style="list-style-type: none"> Present
Grunting	<ul style="list-style-type: none"> Absent 	<ul style="list-style-type: none"> Absent 	<ul style="list-style-type: none"> Present
Feeding Hydration	<ul style="list-style-type: none"> Normal – no vomiting 	<ul style="list-style-type: none"> 50-75% fluid intake over 3-4 feeds +/- vomiting. Reduced urine output 	<ul style="list-style-type: none"> < 50% fluid intake over 2-3 feeds +/- vomiting. Significantly reduced urine output.
Apnoeas	<ul style="list-style-type: none"> Absent 	<ul style="list-style-type: none"> Absent 	<ul style="list-style-type: none"> Present*

CRT: Capillary refill time

SATS: Saturation in air

***Apnoea:** For 10-15 secs or shorter if accompanied by a sudden decrease in saturations/central cyanosis or bradycardia = Immediately call 999 Ambulance and give oxygen

RESPIRATORY: Bronchiolitis

Clinical Assessment Tool

Babies/Children under 2 years with suspected Bronchiolitis

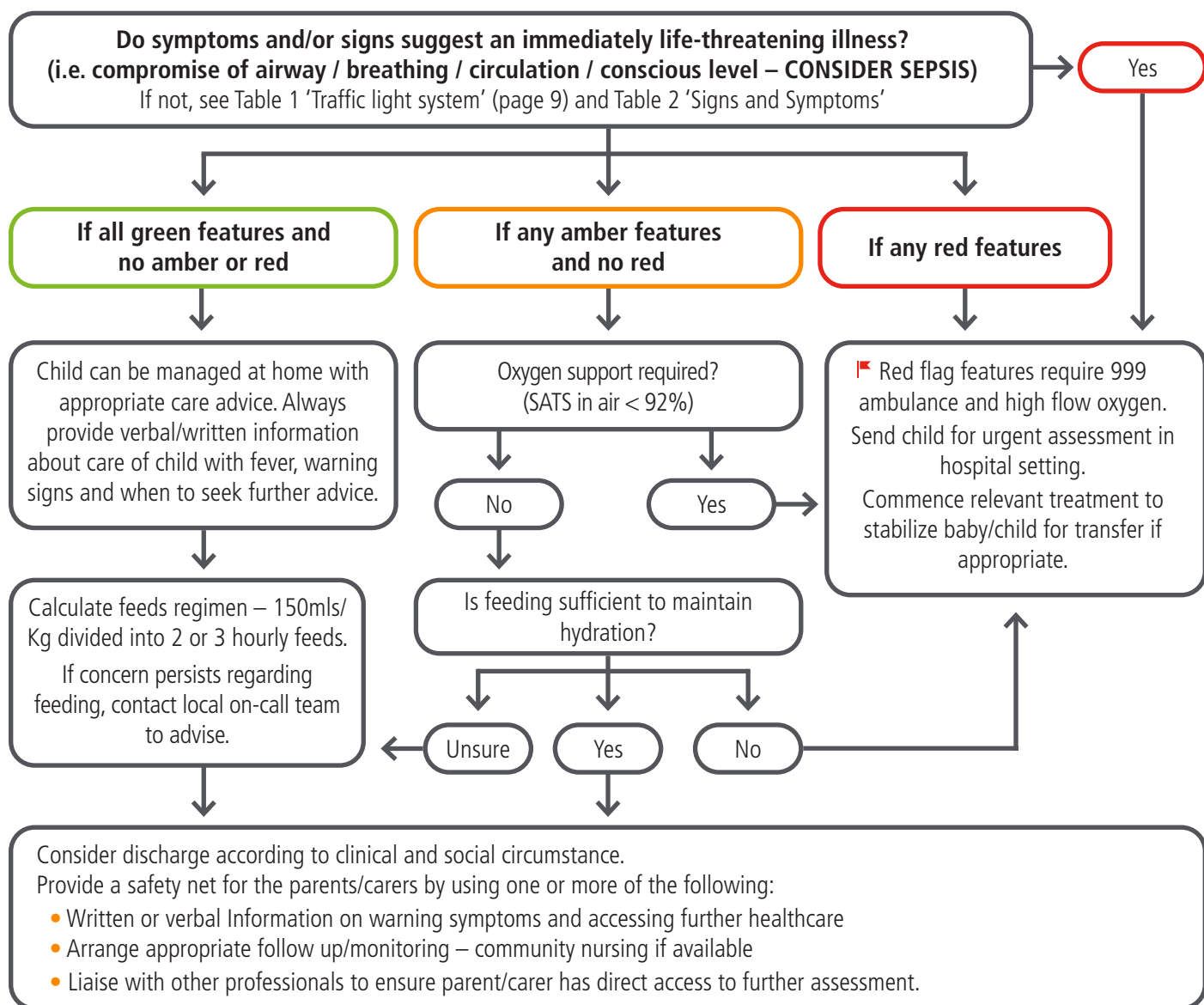


Table 2: Healthcare professionals should be aware of the increased vulnerability for hospital admission in infants with the following:

- Complex needs
- Age < 6 weeks
- Prematurity
- Social concerns

- Re-attendance
- Duration of illness < 3 days and Amber – may need to admit
- Children attending after midnight.

Table 3: Signs and symptoms can include:

- Rhinorrhoea (runny nose)
- Cough
- Poor Feeding Vomiting
- Pyrexia

- Respiratory distress
- Apnoea
- Inspiratory crackles +/- wheeze
- Cyanosis

Most infants with bronchiolitis do not require CXR – **DO NOT** give infants with bronchiolitis Beta2 agonists or steroids (NICE 2015).



When you feel a review in a specific time period is clinically appropriate please arrange that and ensure that the parents/carers are aware of the plan and who to contact.

RESPIRATORY: Bronchiolitis

Parent Advice Sheet

Babies/Children Under 2 Years with Suspected Bronchiolitis



Red

- Blue lips
- Unresponsive and very irritable
- Finding it difficult to breathe
- Pauses in breathing or irregular breathing pattern

You need urgent help.
Please phone 999 or go straight to the nearest Accident and Emergency Department.



Amber

- Decreased feeding < 50% of normal
- Passing less urine than normal
- Baby/child's health is getting worse or you are worried
- If your baby/child is vomiting
- Your babies temperature is above 38.5°C (or above 38°C for babies less than 3 months old)

You need to contact a doctor or nurse today.
Contact your GP or Ring 111.



Green

- If you are concerned about looking after your baby at home

If you need advice.
Please contact 111.

Useful information

Children under the weather?

Search 'Catch app' to download a free NHS local health app for parents and carers of children from pregnancy to age 5 (Use www.nhs.uk if not available in your region).



For more information visit www.catchapp.co.uk or @catchapp_uk



Your Pharmacist



Pharmacists can offer advice and medicines for a range of minor illnesses and most have a room where you can discuss issues with pharmacy staff without being overheard and are trained to tell you when your symptoms mean you need to see a doctor.



Need medical advice or help right now?

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111

Use the NHS 111 service if you urgently need medical help or advice but it's not a life-threatening situation. You can also access 111 online at: www.111.nhs.uk

Trained advisors are available 24 hours a day and can book you an appointment at the Urgent Treatment Centre, order a repeat prescription or put you in touch with a healthcare professional.

RESPIRATORY: Bronchiolitis

Patient Information Sheet

Bronchiolitis Advice Sheet – Babies/Children under 2 years

What is Bronchiolitis?

Bronchiolitis is an infectious disease when the small airways in your baby/child's lungs become swollen. This can make it more difficult for your baby/child to breathe. Bronchiolitis is usually caused by a virus. It is common in winter months and usually only causes mild, cough, cold like symptoms. Most babies/children get better on their own. Some babies/children, especially very young ones, can have difficulty with breathing or feeding and may need to go to hospital. Remember Bronchiolitis is infectious and is easily spread from a coughing baby/infant.

What are the symptoms?

- Your baby/child may have a runny nose and sometimes a temperature and a cough. After a few days your baby/child's cough may become worse.
- Your baby/child's breathing may be faster than normal and it may become noisy. He or she may need to use more effort to breathe.
- Sometimes, in the very young babies, Bronchiolitis may cause them to have brief pauses in their breathing. If this happens you need to seek medical attention today (see amber box)
- If breathing becomes more difficult, your baby may not be able to take the usual amount of milk by breast or bottle.
- You may notice fewer wet nappies than usual.
- Your baby/child may vomit after feeding and become irritable.

How can I help my baby?

- If your baby/child is not feeding as normal, offer feeds little and often – your baby needs at least 150ml/kg of milk every 24 hours to stay hydrated. Give this in 2 or 3 hourly feeds.*
- Sit your baby up after feeds
- Main treatments are to make sure that your baby is managing to take enough feed to keep hydrated and is able to breathe without using lots of effort – if either of these things become a problem you need to seek medical advice.
- If your baby/child has a fever, you can give him or her paracetamol in the recommended doses. If your child is older than 3 months you may give Ibuprofen as an alternative. Speak to your Pharmacist for advice and guidance.
- If your baby/child is already taking medicines or inhalers for other reasons, you should carry on using these.
- Bronchiolitis is caused by a virus so antibiotics won't help.
- Inhalers and steroids don't help in bronchiolitis
- Make sure your baby/child is not exposed to tobacco smoke. Passive smoking can seriously damage your baby/child's health.
- Remember smoke is an irritant and will make your babies symptoms worse - smoke remains on your clothes even if you smoke outside.

How long does Bronchiolitis last?

- Most babies/children with bronchiolitis get better within about two weeks – the cough may persist a little longer.
- Your baby/child can go back to nursery or day care as soon as he or she is well enough (that is feeding normally and with no difficulty in breathing).
- There is usually no need to see your doctor if your baby/child is recovering well. But if you are worried about your baby/child's progress, contact NHS 111 or discuss this with your doctor.

RESPIRATORY: Croup

Clinical Assessment Tool

Table 1: Traffic light system for identifying severity of illness in children with Croup

Category	GREEN – low risk	AMBER – Intermediate risk	RED – high risk
Colour	<ul style="list-style-type: none"> • Normal • Child alert 	<ul style="list-style-type: none"> • Quieter than normal 	<ul style="list-style-type: none"> • Pale • Lethargy • Distress/agitation • Grey and cyanotic █
Respiratory	<ul style="list-style-type: none"> • Under 12 months < 50 breaths/minute • Over 12 months < 40 breaths/minute • Sats 95% or above 	<ul style="list-style-type: none"> • Under 12 months 50-60 breaths/minute • Over 12 months 40-60 breaths/minute • Sats 92-94% 	<ul style="list-style-type: none"> • 60 (all ages) • Sats < 92%
Cough	<ul style="list-style-type: none"> • Occasional barking cough • No stridor 	<ul style="list-style-type: none"> • Frequent barking cough and stridor • Intermittent stridor or stridor when distressed 	<ul style="list-style-type: none"> • Struggling with persistent cough • Biphasic stridor █
Chest recession	<ul style="list-style-type: none"> • No chest recession 	<ul style="list-style-type: none"> • Subcostal recession 	<ul style="list-style-type: none"> • Marked subcostal and retrosternal recession █
Circulation and hydration	<ul style="list-style-type: none"> • CRT < 2 secs 	<ul style="list-style-type: none"> • CRT < 2 secs 	<ul style="list-style-type: none"> • CRT over 3 secs
Age			<ul style="list-style-type: none"> • < 3months
Westley score	<ul style="list-style-type: none"> • 0-2 	<ul style="list-style-type: none"> • 3-5 	<ul style="list-style-type: none"> • 6-11 • 12+ Impending respiratory failure
Other risk factors	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • Present

RESPIRATORY: Croup

Clinical Assessment Tool

Suspected Croup in Children 0-6 Years

Child presenting with barking cough – assess for signs of severity

DO NOT DISTRESS THE CHILD

Do symptoms and/or signs suggest an immediately life-threatening illness?

Consider alternative diagnosis – Foreign Body Inhalation, Epiglottitis, Bacterial tracheitis – CONSIDER SEPSIS.

Yes

Refer immediately to emergency medical care by 999 ambulance

No

Look for traffic light features below

If all green features and no amber or red

Child can be managed at home with appropriate care and advice. Single dose of oral dexamethasone. Alternative is oral prednisolone 1-2mg per kg body weight and consider second dose if residual symptoms of stridor are present the following day. Always provide verbal/written information about care of child, warning signs and when to seek further advice.

If any amber features and no red

Give single dose of oral dexamethasone (as per local guideline) if available or prednisolone 2mg/kg. Arrange a follow-up and review within 1 hour. Discuss with on call paediatric service.

If any red features

Give single dose of oral dexamethasone (as per local guideline) if available or Prednisolone 2mg/kg if able. **DO NOT DISTRESS THE CHILD.** Consider nebulised adrenaline if available.

N.B. Westley score – use this if you are familiar with this tool, however, it is not essential.



When you feel a review in a specific time period is clinically appropriate please arrange that and ensure that the parents/carers are aware of the plan and who to contact.

RESPIRATORY: Croup

Parent Advice Sheet

Suspected Croup in Children 0-6 Years



Red

- Blue lips
- Unresponsive and very irritable
- Finding it difficult to breathe with heaving of chest
- Pauses in breathing or irregular breathing patterns
- Persistent noisy breathing (stridor present continually)

You need urgent help.

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



Amber

- Not improving with treatment
- Breathing more noisy
- Breathing more labored (chest 'indrawing')
- Persisting fevers

You need to contact a doctor or nurse today.

Contact your GP or Ring 111.



Green

- If you have concerns about looking after your child at home

If you need advice.

Please contact 111.

Useful information

Children under the weather?

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Trained advisors are available 24 hours a day and can book you an appointment at the Urgent Treatment Centre, order a repeat prescription or put you in touch with a healthcare professional.

RESPIRATORY: Croup

Patient Information Sheet

Suspected Croup in Children 0-6 Years

What is Croup?

Croup is an inflammation around the voice box with a typical dry barking or 'seal' like cough that sometimes leads to difficulty in breathing.

The condition most often affects young children. It is almost always caused by a virus, and for that reason antibiotics don't work. Croup is most common in autumn and winter months.

Symptoms may start with a mild fever and a runny nose then a hoarse voice and a sore throat and a typical barking cough. Young children have smaller air passages and swelling in the voice box can cause the airway to be narrowed which can affect the breathing and result in noisy breathing called a stridor.

If your child does develop a Stridor you need to take them to see a doctor or nurse.

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

How can I help my child?

- Be calming and reassuring. Children 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).
- A cool environment such as taking your child outside at night for a brief period may help.
- If your child has a fever (high temperature) their breathing is often faster, and they may be more upset and appear more ill. To lower a fever:
 - Give paracetamol or ibuprofen.

Be aware

Steam used to be commonly advised as a treatment. However, there is little evidence that this does any good. and some children have been scalded by steam whilst being treated for croup. Therefore, steam is not recommended.

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.

RESPIRATORY: Asthma

Clinical Assessment Tool

Table 1: Traffic Light system for identifying signs and symptoms of clinical dehydration and shock

Category	GREEN – low risk	AMBER – Intermediate risk	RED – high risk
Behaviour	• Normal	• Anxious/Agitated	• Exhaustion/Confusion
Talking	• In sentences	• Not able to complete a sentence in one breath	• Not able
Heart Rate	• Within normal range (see Table 2)	<ul style="list-style-type: none"> • > 140 beats/min (2-5 years) • > 125 beats/min (> 5 years) • *Consider influence of fever &/or Salbutamol 	
Respiratory Rate	<ul style="list-style-type: none"> • < 40 breaths/min 2-5 years • < 30 breaths/min 5-12 years • < 25 breaths/min 12-16 years 	<ul style="list-style-type: none"> • > 40 breaths/min 2-5 years • > 30 breaths/min > 5 years • Silent Chest 	
Work of Breathing	<ul style="list-style-type: none"> • No increased work of breathing • No chest recession 	<ul style="list-style-type: none"> • Increased work of breathing • Subcostal/Intracostal recession • Tracheal tug 	• Severe increased work of breathing e.g. retrosternal recession
SaO2	• > 95% in air	• 92-94% in air	• < 92% in air
PEFR	• > 50% of predicted (see Table 3)	• 33-50% of predicted (see Table 3)	<ul style="list-style-type: none"> • <33% of predicted (see Table 3) • Unable to perform test

CRT: capillary refill time **RR:** respiration rate

Table 2: Patients at increased risk

- Previous HDU/ICU admissions
- Patients diagnosed with 'Brittle' asthma
- Repeated episodes of unscheduled care
- Psychosocial problems
- Non-adherence to asthma medication and/or clinic attendance

Table 3: Guidelines for when to use a nebuliser

- Oxygen Saturations persistently below 92%
- Requiring oxygen
- Unable to use spacer device
- Severe respiratory distress

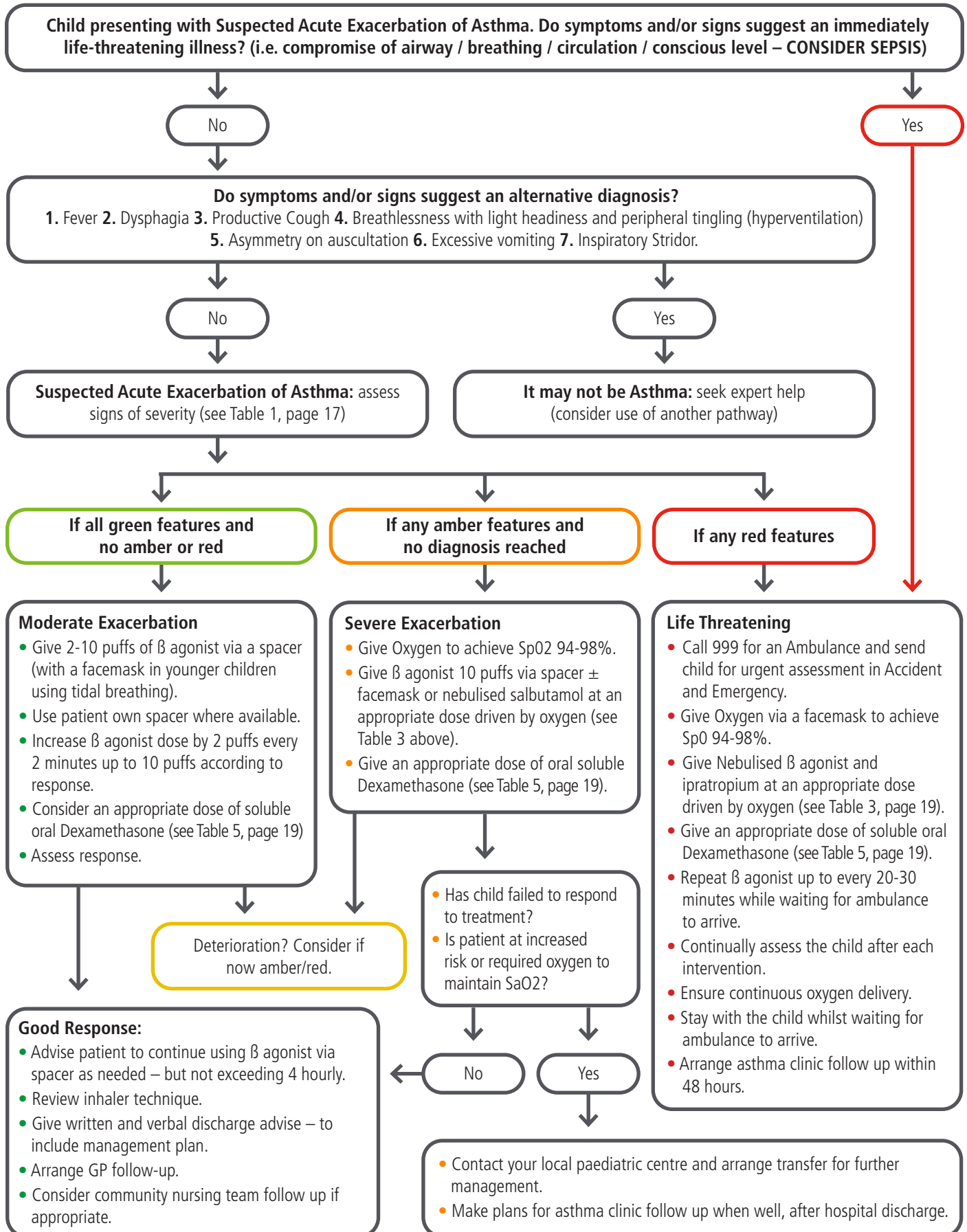
Salbutamol: 2-5 years – 2.5mg,
> 5 years – 5mg

Ipratropium: under 12 years – 250micrograms,
12-18 years – 500micrograms

RESPIRATORY: Asthma

Clinical Assessment Tool

Children with Acute Asthma 2-16 Years



RESPIRATORY: Asthma

Clinical Assessment Tool

Table 4: Predicted Peak Flow: For use with EU/EN13826 scale PEF metres only

Height (m)	Height (ft)	Predicted EU PEFR	Height (m) (L/min)	Height (ft)	Predicted EU PEFR (L/min)
0.85	2'9"	87	1.30	4'3"	212
0.90	2'11"	95	1.35	4'5"	233
0.95	3'1"	104	1.40	4'7"	254
1.00	3'3"	115	1.45	4'9"	276
1.05	3'5"	127	1.50	4'11"	299
1.10	3'7"	141	1.55	5'1"	323
1.15	3'9"	157	1.60	5'3"	346
1.20	3'11"	174	1.65	5'5"	370
1.25	4'1"	192	1.70	5'7"	393

Table 5: Prednisolone and Dexamethasone Dosing Guideline

Prednisolone - Children's BNF 2018-19

Give prednisolone by mouth:

- Child under 12 years: 1-2 mg/kg (max. 40 mg) daily for up to 3 days or longer if necessary, if the child has been taking an oral corticosteroid for more than a few days give prednisolone 2mg/kg (max. 60mg).
- Young person 12-18 years: 40-50mg daily for at least 5 days.

BTS guidelines 2019: (if weight not available)

- Use a dose of 20mg for children 2-5 years and 30-40mg for children > 5 years.

Dexamethasone is as effective as prednisolone and better tolerated – if it is available give

- Oral dexamethasone (soluble is cheapest and shelf life longer)
- 0.15mg -0.6mg/kg (all ages as per local guideline)
- Maximum 16mg dose
- Can be repeated after 24 hours

Table 6: Practice points

- Make sure your child has an asthma management plan
- If you are prescribing salbutamol, correct inhaler technique is critical to success – [ASTHMA UK](#)
- **Wheeze is common in pre-school children**
 - Do not routinely use steroids in this age group, as there is little evidence of effectiveness
 - If there is a family history of atopy consider a short course of steroids
 - If you start inhaled steroid treatment ensure a timely review

RESPIRATORY: Asthma

Parent Advice Sheet

Children with Acute Asthma 2-16 Years



Red

- Drowsy
- Has severe wheeze
- Unable to speak in sentences
- Unable to take fluids and is getting tired
- Is unable to respond reduced conscious level
- Breathless, at rest with heaving of the chest

You need urgent help.

Ring 999 – you need help immediately. If you have a blue inhaler use it now, 1 puff per minute via spacer until the ambulance arrives.



Amber

- Wheezing and breathless
- Not responding to usual reliever treatment

You need to contact a doctor or nurse today.

Contact your GP or Ring 111.



Green

- Requiring to use their reliever regularly throughout the day for cough or wheeze but is not breathing quickly
- Able to continue day to day activities
- Change in peak flow meter readings

You need some advice.

Contact 111 or GP surgery.

Useful information

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RESPIRATORY: Asthma

Parent Advice Sheet

Children with Acute Asthma 2-16 Years

What is Asthma?

Asthma is caused by inflammation of the airways. If you have asthma, the airways are more sensitive than normal and become inflamed when exposed to certain triggers. These triggers can be different in each person.

Asthma can start at any age, but it most commonly starts in childhood. At least 1 in 10 children, and 1 in 20 adults, have asthma.

In an asthma attack the muscles of the air passages in the lungs tighten and the linings of the airways swell. As a result, the airways become narrowed and breathing becomes difficult.

What causes Asthma in children?

In young pre-school children, wheezing is usually brought on by a viral infection – causing a cold, ear or throat infection. This is often called 'viral-induced wheeze'. Most children will grow out of it, as they get to school age. In older children, viruses are still the commonest cause of wheezing. But other specific triggers may also cause an asthma attack such as:

- An allergy e.g. dust, animals.
- Pollens and mold particularly in hayfever season.
- Cigarette smoke.
- Extremes of temperature.
- Stress.
- Exercise (sport and exercise are good for you if you have asthma, an inhaler can be used before exercise to prevent symptoms from developing and breathing techniques can help).

Your child MAY BE having an Asthma attack if any of the following:

- Their reliever isn't helping or lasting over four hours.
- Their symptoms are getting worse (cough, breathlessness, wheeze or tight chest).
- They are too breathless or it's difficult to speak, eat or sleep.
- Their breathing may get faster and they feel like they can't get their breath in properly.
- Young children may complain of a tummy ache.

What to do if your child has an asthma attack:

1. Give your child two puffs of their reliever inhaler (usually blue), immediately.
2. Get your child to sit down and try to take slow, steady breaths. Keep them calm and reassure them.
3. If they do not start to feel better, give them two puffs of their reliever inhaler (one puff at a time) every two minutes. They can take up to ten puffs.
4. If they do not feel better after taking their inhaler as above, or if you are worried at any time, call 111.
5. If an ambulance has been called and has not arrived within 10 mins and symptoms are the same repeat 10 puffs.

If your child's symptoms improve and you do not need to call 111 or 999, you still need to take them to see a doctor or asthma nurse within 24 hours of an asthma attack. Most people who have asthma attacks will have warning signs for a few days before the attack. These include having to use the blue reliever inhaler more often; changes in peak flow meter readings, and increased symptoms, such as waking up in the night. Don't ignore these warning signs, as they indicate that your child's asthma control is poor and they risk having a severe attack.

GASTROENTERITIS

Clinical Assessment Tool

Table 1: Traffic light system for identifying signs of dehydration and shock

Category	GREEN – Low risk	AMBER – Intermediate risk	RED – high risk
Activity	<ul style="list-style-type: none"> • Responds normally to social cues • Content/smiles • Stays awake/awakens quickly • Strong normal cry/not crying 	<ul style="list-style-type: none"> • Altered response to social cues • Decreased activity • No smile 	<ul style="list-style-type: none"> • Not responding normally to or no response to social cues • Appears ill to a healthcare professional • Unable to rouse or if roused does not stay awake • Weak, high-pitched or continuous cry
Skin	<ul style="list-style-type: none"> • Normal skin colour • Normal turgor 	<ul style="list-style-type: none"> • Normal skin colour • Warm extremities 	<ul style="list-style-type: none"> • Pale/Mottled/Ashen blue • Cold extremities
Respiratory	<ul style="list-style-type: none"> • Normal breathing 	<ul style="list-style-type: none"> • Tachypnoea 	<ul style="list-style-type: none"> • Tachypnoea
Hydration	<ul style="list-style-type: none"> • CRT ≤ 2 secs • Moist mucous membranes (except after a drink) • Normal urine 	<ul style="list-style-type: none"> • CRT 2-3 secs • Dry mucous membranes (except after a drink) • Reduced urine output 	<ul style="list-style-type: none"> • CRT > 3 seconds
Pulses/Heart Rate	<ul style="list-style-type: none"> • Heart rate normal • Peripheral pulses normal 	<ul style="list-style-type: none"> • Tachycardic • Peripheral pulses weak 	<ul style="list-style-type: none"> • Tachycardic • Peripheral pulses weak
Blood Pressure	<ul style="list-style-type: none"> • Normal 	<ul style="list-style-type: none"> • Normal 	<ul style="list-style-type: none"> • Hypotensive
Eyes	<ul style="list-style-type: none"> • Normal eyes 	<ul style="list-style-type: none"> • Sunken Eye 	

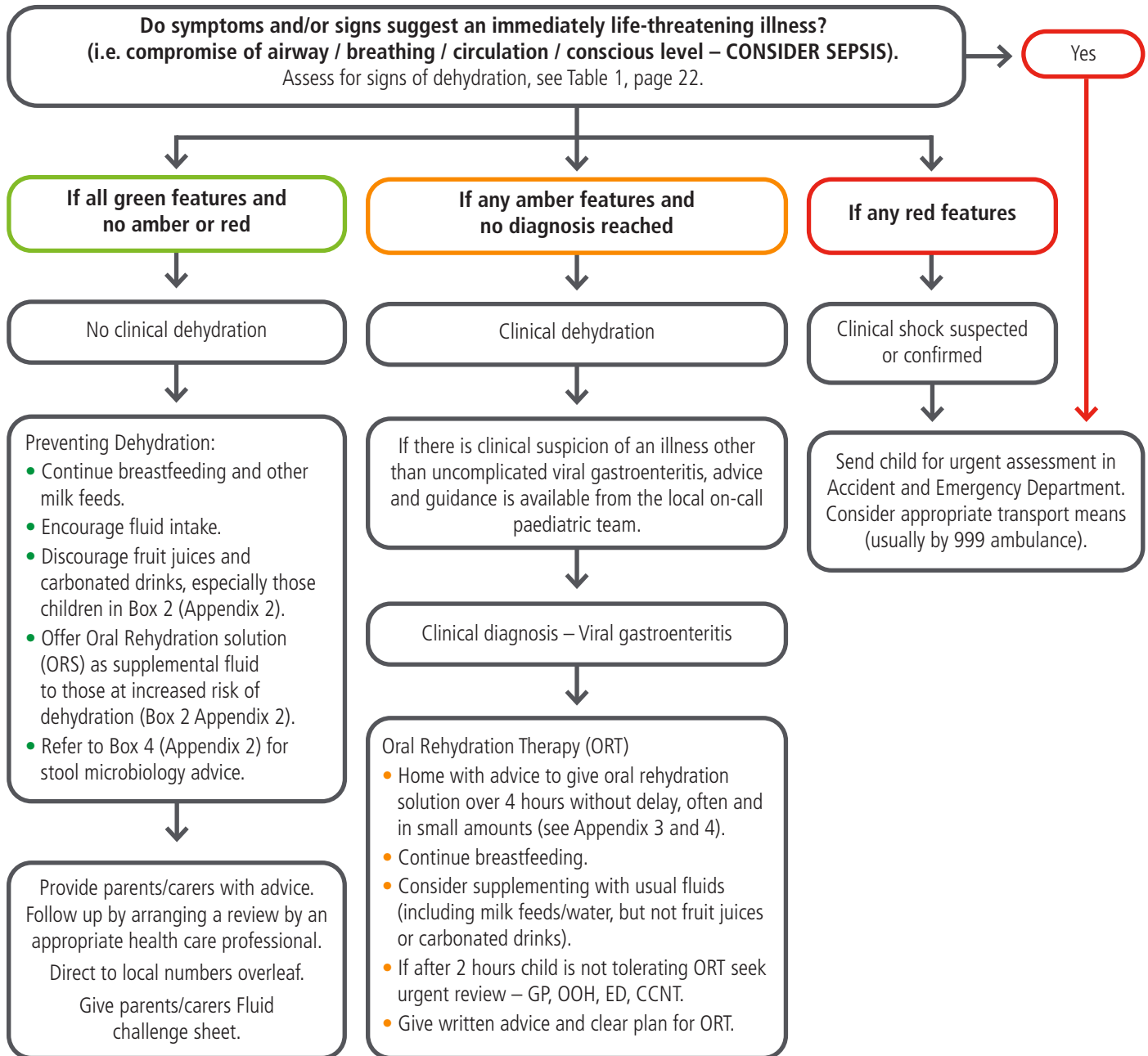
Please refer to Appendix 3 for normal values.

CRT: Capillary Refill Time **RR:** Respiration Rate

GASTROENTERITIS

Clinical Assessment Tool

Children with Suspected Gastroenteritis – Diarrhoea and/or Vomiting



Box 1: These children are at increased risk of dehydration

- Children younger than 1 year, especially those younger than 6 months.
- Infants who were of a low birth weight.
- Children who have passed six or more diarrhoea stools in the past 24 hours.
- Children who have vomited three times or more in the last 24 hours.
- Children who have not been offered or have not been able to tolerate supplementary fluids before presentation.
- Infants who have stopped breastfeeding during the illness.
- Children with signs of malnutrition.
- Children who have not passed urine in 12 hours.
- Children who have persistent vomiting.
- Children with psycho-social issues which may prevent treatment compliance.

GASTROENTERITIS

Parent Advice Sheet

Children with Suspected Gastroenteritis – Diarrhoea and/or Vomiting



Red

If your child:

- becomes difficult to rouse/unresponsive
- becomes pale and floppy
- is finding it difficult to breathe

You need urgent help.

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



Amber

If your child:

- seems dehydrated i.e. dry mouth, sunken eyes, no tears, drowsy or passing less urine than normal
- has blood in the stool (poo) OR constant tummy pain
- has stopped drinking OR breastfeeding and/or is unable to keep down fluids
- becomes irritable or lethargic
- their breathing is rapid or deep
- is under 3 months old
- has cold feet and hands
- has diabetes
- persistent vomiting and/or large diarrhoea and/or no wet nappy for more than 12 hours OR is unable to take recommended fluid

You need to contact a doctor or nurse today.

Contact your GP or Ring 111.



Green

- If none of the above features are present, most children with diarrhoea and/or vomiting can be safely managed at home
- If you have concerns about looking after your child at home

You need some advice.

Contact 111 or GP surgery.

Useful information

Children under the weather?

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GASTROENTERITIS

Parent Information Sheet

Children with Suspected Gastroenteritis – Diarrhoea and/or Vomiting

About Gastroenteritis

Severe diarrhoea and / or vomiting can lead to dehydration, which is when the body does not have enough water or the right balance of salts. If dehydration becomes severe it can be dangerous.

Children at increased risk of dehydration include: young babies under 1 year old (and especially the under 6 months), those born at a low birth weight, those who have stopped drinking or breastfeeding during the illness.

How can I look after my child?

- If your child has other symptoms like a high temperature, neck stiffness or rash please ask for advice from a health care professional.
- Diarrhoea can often last between 5-7 days and stops within 2 weeks. Vomiting does not usually last for more than 3 days. If your child continues to be ill longer than these periods, seek advice.
- Continue to offer your child their usual feeds, including breast or other milk feeds.
- Encourage your child to drink plenty of fluids – little and often. Water is not enough and ideally Oral Rehydration Solution (ORS) is best e.g. Dioralyte. ORS can be purchased over the counter at large supermarkets and pharmacies and can help prevent dehydration from occurring.
- Mixing the contents of the ORS sachet in dilute squash (not “sugar-free” squash) instead of water may improve the taste.
- Do not worry if your child is not interested in solid food, but offer food if hungry.
- Don't give your child fizzy drinks and/or fruit juices as they can make diarrhoea worse.
- Your child may have stomach cramps; if simple painkillers do not help please seek further advice.
- Hand washing is the best way to stop gastroenteritis spreading.
- Suggested drink alternatives: ice lollies and diluted juice (50% water), jelly.

After care

Once your child is rehydrated and no longer vomiting:

- Reintroduce the child's usual food.
- If signs of dehydration recur, start giving ORS again and seek advice.
- Anti-diarrhoea medicines should not be given to children*.

Preventing the spread of Gastroenteritis and/or vomiting



You and/or your child should wash your hands with soap (liquid if possible) in warm running water and then dry them carefully:

- After going to the toilet
- After changing nappies
- Before touching food



Your child should not:

- Share his or her towels with anyone
- Go to school or any other childcare facility until 48 hours after the last episode of diarrhoea and/or vomiting
- Swim in swimming pools until 2 weeks after the diarrhoea has stopped

HEAD INJURY

Clinical Assessment Tool

Table 1: Traffic light system for identifying severity of illness

GREEN – low risk	AMBER – Intermediate risk	RED – high risk
<ul style="list-style-type: none"> • Has not been knocked out at any time • Is alert and interacts with you • Has been sick but only once • Has bruising or minor cuts to the head • No boggy swelling • Cried immediately but is otherwise normal • GCS 15/ Alert on AVPU scale • Safeguarding check - consider mechanism of injury in a non-mobile child 	<ul style="list-style-type: none"> • Has had a persistent headache since the injury • Altered behavior • < Alert on AVPU • Has a blood clotting disorder 	<ul style="list-style-type: none"> • Witnessed loss of consciousness lasting more than 5 minutes • Amnesia lasting more than 5 minutes • Abnormal drowsiness • 3 or more discrete episodes of vomiting • Clinical suspicion of non-accidental injury • Post traumatic seizure but no history of epilepsy • Age > 1 year: GCS < 14 on assessment • Age < 1 year: GCS (Paediatric) < 15 on assessment • At 2 hours after the injury, GCS less than 15 • Suspicion of open or depressed skull injury or tense fontanelle • For children < 1 year, presence of bruise, swelling or laceration > 5 cm on the head • Any sign of basal skull fracture (haemotympanum, “panda” eyes, cerebrospinal fluid (CSF) leakage from ears or nose, Battle’s sign) • Focal neurological deficit • High risk mechanism of injury

GCS – Glasgow Coma Scale (see below)

Glasgow Coma Scale (assess child against scale)

The lowest possible GCS (the sum) is 3 (deep coma or death), while the highest is 15 (fully awake person).

	1	2	3	4	5	6
Eye	Does not open eyes	Opens eyes in response to painful stimuli	Opens eyes in response to voice	Opens eyes spontaneously	N/A	N/A
Verbal	Makes no sounds	Incomprehensible sounds	Utters inappropriate words	Confused, disoriented	Oriented, converses normally	N/A
Motor	Makes no movements	Extension to painful stimuli (decerebrate response)	Abnormal flexion to painful stimuli (decorticate response)	Flexion/ withdrawal to painful stimuli	Localises painful stimuli	Obeys commands

AVPU Scale – Assess child’s level of consciousness

A	Alert, conscious and able to correctly answer name, date, time and location	15
V	Responds to voice. Not alert, is semi-conscious but responds to a raised voice even if only groans or moans (ensure patient is not deaf)	12
P	Responds to pain	8
U	Unresponsive	3

HEAD INJURY

Clinical Assessment Tool

Children with Head Injury

Child presenting with a Head Injury

Do symptoms suggest an immediately life threatening condition?
(i.e. compromise of airway / breathing / circulation / conscious level – CONSIDER SEPSIS)

No

Yes

Look for traffic light features below

Refer immediately to emergency medical care by most appropriate mode of transport (usually by 999 ambulance)

If all green features and no amber or red

If any amber features and no red

If any red features

Child can be managed at home with appropriate care and advice.
Always provide verbal/written information about warning signs and when to seek further advice.

For advice and guidance, contact your nearest paediatric Emergency Department

Send child for urgent assessment in Accident and Emergency Department. Consider appropriate transport means (999).



When you feel a review in a specific time period is clinically appropriate please arrange that and ensure that the parents/carers are aware of the plan and who to contact.

HEAD INJURY

Parent Advice Sheet

Children with Head Injury



Red

- Has been 'knocked out' at any time
- Been sick more than once
- Has clear fluid dribbling out of their ears, nose or both
- Has blood coming from inside one or both of their ears
- Has difficulty speaking or understanding what you are saying
- Is sleepy and you cannot get them to wake up
- Has weakness in their arms and legs or is losing their balance
- Has had a convulsion or fit

You need urgent help.

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



Amber

- If your child:
- Has a blood clotting disorder
 - Is behaving differently to normal

You need to contact a doctor or nurse today.

Contact your GP or Ring 111.



Green

- If none of the above features are present, most children with can be safely managed at home
- If you have concerns about looking after your child at home

You need to contact a doctor today.

Contact 111 or GP surgery.

Useful information

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HEAD INJURY

Parent Information Sheet

Children with Head Injury

Things that will help your child get better

If you follow this advice it should help your child get better more quickly and it may help any symptoms they have to go away.

- Do encourage your child to have plenty of rest and avoid stressful situations.
- Do not give them sleeping pills, sedatives or tranquilisers unless they are prescribed for your child by a doctor.

Self care

- Clean any wound with tap water.
- If the area is swollen or bleeding apply pressure.
- Give your child paracetamol or ibuprofen if they are in pain. Always follow the manufacturers' instructions for the correct dose.
- Observe your child closely for the next 2-3 days and check that they are behaving normally and they respond to you as usual.
- If the area is swollen or bruised, try placing a cold facecloth over it for 20 minutes every 3-4 hours.
- Make sure your child is drinking enough fluid – whatever they prefer.
- Allow your child to sleep as normal, but check that they respond normally to touch and that their breathing and position in bed is normal.
- Give them plenty of rest, and make sure they avoid any strenuous activity for the next 2-3 days or until their symptoms have settled.
- You know your child best, if they are behaving in any way unusual for them and you are concerned, seek further advice – Ring 111.

These things are expected after a Head Injury

- Intermittent headache especially whilst watching TV or computer games.
- Being off their food.
- Tiredness or trouble getting to sleep.
- Short periods of irritability, bad temper or poor concentration.
- Simple pain killers should help with these symptoms

May last several weeks

Do not let them play any contact sport (for example, football) for at least 3 weeks without talking to their doctor first.

ABDOMINAL PAIN

Clinical Assessment Tool

Table 1: Traffic light system for identifying severity of illness

Category	GREEN – low risk	AMBER – Intermediate risk	RED – high risk
Activity	<ul style="list-style-type: none"> Active/responds normally to social cues 		<ul style="list-style-type: none"> Drowsy/no response to social cues
Respiratory	Respiratory Rate Normal (RR) <ul style="list-style-type: none"> Infant 40 breaths/min Toddler 35 breaths/min Pre-school 31 breaths/min School age 27 breaths/min 	<ul style="list-style-type: none"> Under 12 months 50-60 breaths/minute Over 12 months 40-60 breaths/minute 	Respiratory rate <ul style="list-style-type: none"> > 60 breaths/min (all ages)
SaO2	<ul style="list-style-type: none"> 95% in air 	<ul style="list-style-type: none"> 92-94% in air 	<ul style="list-style-type: none"> < 92% in air
Circulation and hydration	CRT < 2 seconds Heart rate normal <ul style="list-style-type: none"> Infant 120-170 beats/min Toddler 80-110 beats/min Pre-school 70-110 beats/min School age 70-110 beats/min 	<ul style="list-style-type: none"> CRT 2-3 seconds 	<ul style="list-style-type: none"> CRT > 3 seconds
Other	<ul style="list-style-type: none"> No fever Normal urine output Normal Stool Feeding normally 	<ul style="list-style-type: none"> Fever (see separate guide) Abdominal distension Sexually active/missed period Palpable abdominal mass Localised pain Jaundice Blood in urine or stool 	<ul style="list-style-type: none"> < 3 months of age

NB. Broad guidance as differential diagnosis very wide depending on age.

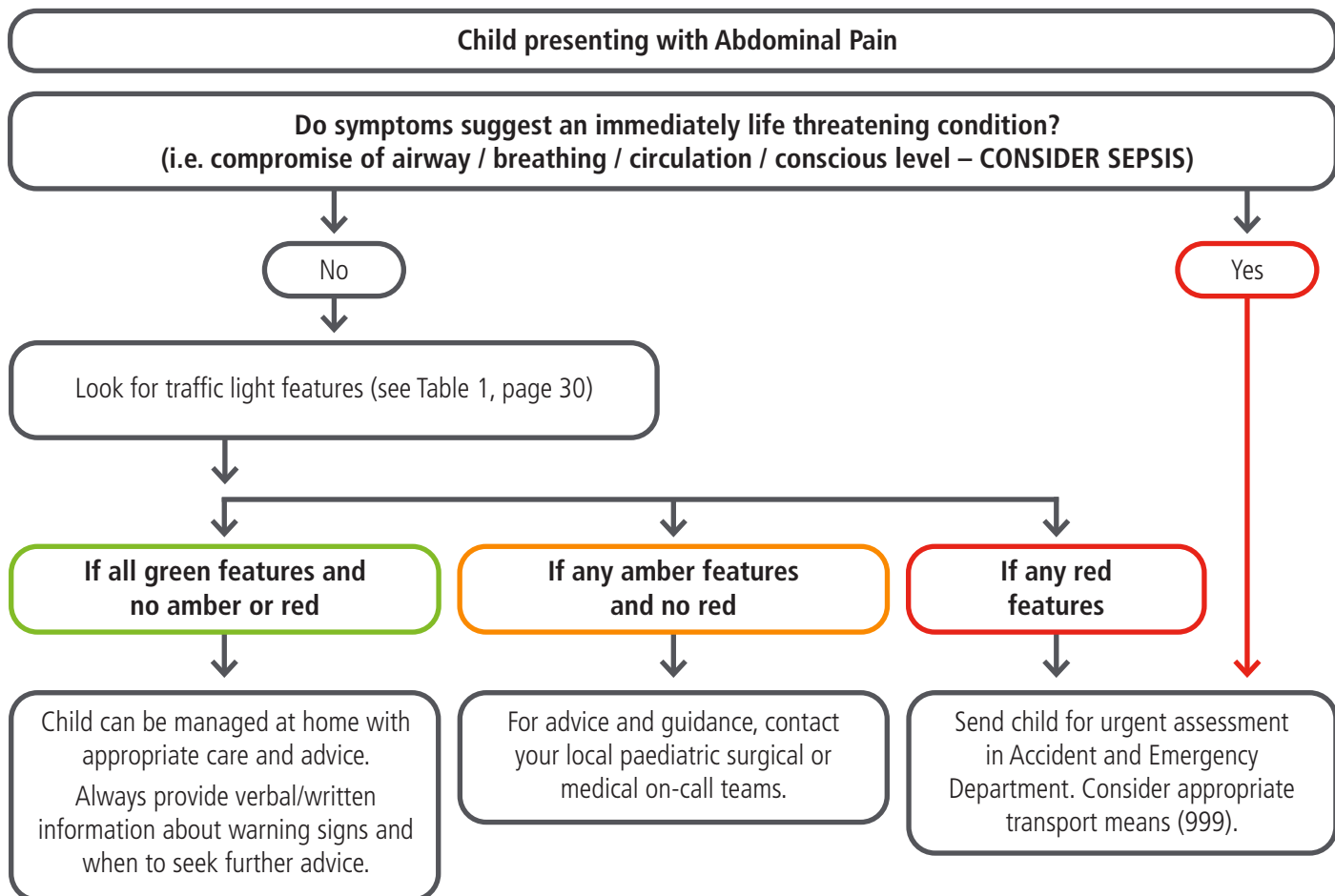
Table 2: Common differential diagnoses by age

< 2 years	2 to 12 years	12 to 16 years
<ul style="list-style-type: none"> Gastroenteritis Constipation Intussusception Infantile colic Urinary Tract Infection Incarcerated Inguinal Hernia Trauma Pneumonia Diabetes 	<ul style="list-style-type: none"> Gastroenteritis Mesenteric adenitis Constipation Urinary Tract Infection Onset of menstruation Psychogenic Trauma Pneumonia Diabetes Acute Appendicitis 	<ul style="list-style-type: none"> Mesenteric adenitis Acute appendicitis Menstruation Mittelschmerz Ovarian Cyst /Torsion Urinary Tract Infection Pregnancy Ectopic Pregnancy Testicular Torsion Pneumonia Diabetes

ABDOMINAL PAIN

Clinical Assessment Tool

Children with Abdominal Pain



Practice points

- Always check a urine sample
- Always perform a testicular examination
- Always consider ovarian cause in girls



When you feel a review in a specific time period is clinically appropriate please arrange that and ensure that the parents/carers are aware of the plan and who to contact.

ABDOMINAL PAIN

Parent Advice Sheet

Children with Abdominal Pain



Red

- Unresponsive
- Rash that does not disappear using the tumbler test
- Green or blood stained vomit
- Increasing sleepiness
- Severe or increasing pain

You need urgent help.
Please phone 999 or go straight to the nearest Accident and Emergency Department.



Amber

- Increased thirstiness
- Weeing more or less than normal
- Pain not controlled by regular painkillers
- Swollen tummy
- Yellow skin or eyes
- Blood in their poo or wee
- Not being as active or mobile as usual
- Breathing faster than usual

You need to contact a doctor or nurse today.
Contact your GP or Ring 111.



Green

- If none of the above features are present, most children with can be safely managed at home
- If you are concerned about looking after your child at home

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ABDOMINAL PAIN

Parent Information Sheet

Children with Abdominal Pain

About Abdominal Pain

There are many health problems that can cause stomach pain for children, including:

- Bowel (gut) problems – constipation, colic or irritable bowel.
- Infections – gastroenteritis, kidney or bladder infections, or infections in other parts of the body like the ear or chest.
- Food-related problems – too much food, food poisoning or food allergies.
- Problems outside the abdomen – muscle strain or migraine.
- Surgical problems – appendicitis (pain usually on the right side), bowel obstruction.
- Period pain – some girls can have pain before their periods start.
- Poisoning – any number of things.
- The most common cause of recurrent stomach aches is stress. Over 10% of children have them. The pain occurs in the pit of the stomach or near the belly button. The pain is mild but real.

How can I look after my child?

- Reassure the child and try to help them rest.
- If they are not being sick, try giving them simple paracetamol – probably avoid Ibuprofen if history of vomiting
- Help your child drink plenty of clear fluids whatever they like to drink (avoid fizzy drinks)
- Do not push your child to eat if they feel unwell.
- If your child is hungry, offer bland food such as crackers, rice, bananas or toast.
- It may help to place a gently heated wheat bag/heat pack on your child's tummy or run a warm bath for them.

Things to remember

- Many children with stomach pain get better in hours or days without special treatment and often no cause can be found.
- Sometimes the cause becomes more obvious with time and treatment can be started.
- If pain or other problems persist, see your doctor.

APPENDICES

APPENDIX 1

Symptoms and signs of specific illnesses causing fever/pyrexia

Always check urine in unexplained fever. If meningococcal disease is suspected then administer IM antibiotics and refer urgently to hospital. Check blood glucose if possible.

Diagnosis to be considered	Symptoms and signs
Meningococcal disease	Non-blanching rash, particularly with one or more of the following: <ul style="list-style-type: none"> • An ill-looking child • Lesions larger than 2 mm in diameter (purpura) • CRT > 3 seconds • Neck stiffness
Meningitis¹	Neck stiffness <ul style="list-style-type: none"> • Bulging fontanelle • Decreased level of consciousness • Convulsive status epilepticus
Herpes simplex encephalitis	Focal neurological signs <ul style="list-style-type: none"> • Focal seizures • Decreased level of consciousness
Pneumonia	Tachypnoea, measured as: <ul style="list-style-type: none"> • 0-5 months – RR > 60 breaths/minute • 6-12 months – RR > 50 breaths/minute • > 12 months – RR > 40 breaths/minute • Crackles in the chest • Nasal flaring • Chest indrawing • Cyanosis • Oxygen saturation < 95%
Urinary tract infection (in children aged older than 3 months)²	<ul style="list-style-type: none"> • Vomiting • Poor feeding • Lethargy • Irritability • Abdominal pain or tenderness • Urinary frequency or dysuria • Offensive urine or haematuria
Septic arthritis/osteomyelitis	<ul style="list-style-type: none"> • Swelling of a limb or joint • Not using an extremity • Non-weight bearing
Kawasaki disease³	Fever lasting longer than 5 days and at least four of the following: <ul style="list-style-type: none"> • Bilateral conjunctival injection • Change in upper respiratory tract mucous membranes (for example, injected pharynx, dry cracked lips or strawberry tongue) • Change in the peripheral extremities (for example, oedema, erythema or desquamation) • Polymorphous rash • Cervical lymphadenopathy

CRT: Capillary Refill Time **RR:** Respiratory Rate

¹ Classical signs (neck stiffness, bulging fontanelle, high-pitched cry) are often absent in infants with bacterial meningitis.

² Urinary tract infection should be considered in any child aged younger than 3 months with fever. See 'Urinary tract infection in children' (NICE clinical guideline, publication August 2007).

³ **Note:** in rare cases, incomplete/atypical Kawasaki disease may be diagnosed with fewer features.

APPENDICES

APPENDIX 2

Gastroenteritis

Box 1: Consider the following that may indicate diagnoses other than gastroenteritis

- Temperature of 38°C or higher (younger than 3 months)
- Temperature of 39°C or higher (3 months or older)
- Shortness of breath or tachypnoea
- Altered conscious state
- Neck-stiffness
- Abdominal distension or rebound tenderness
- History/Suspicion of poisoning
- Bulging fontanelle (in infants)
- Non-blanching rash
- Blood and/or mucus in stool
- Bilious (green) vomit
- Severe or localised abdominal pain
- History of head injury

Box 1: Stool microbiology advice

Consider performing stool microbiological investigations if:

- the child has recently been abroad, or
- the diarrhoea has not improved by day 7

APPENDICES

APPENDIX 3

Advice Sheet – GP Fluid Challenge Guidelines

The table below gives the normal maintenance fluid volumes based on weight for mild to moderately dehydrated children. For the first 10 kg of weight- 4 ml/kg/hour, for the second 10 kg – 2 ml/kg/hr, for all remaining kg – 1 ml/kg/hr. Aim for 75-100% of the fluid volumes listed below per hour when awake, given gradually over the hour with sips of fluid. Fluid should be clear, ideally oral rehydration solutions. e.g. dioralyte. If the child is breast-fed continue breastfeeding. Seek review if the patient.

- Is not taking fluids
- Is not keeping fluids down
- Is becoming more unwell
- Has reduced urine output

If the assessment shows "Red" features refer patient to Children's Observation Unit.

Child's weight in kg	Maintenance fluid volume – ml per hour
6	24
7	28
8	32
9	36
10	40
11	42
12	44
13	46
14	48
15	50
16	52
17	54
18	56
19	58
20	60
21	61
22	62
23	62
24	64
25	65
26	66
27	67
28	68
29	69
30	70
31	71
32	72

Child's weight in kg	Maintenance fluid volume – ml per hour
33	72
34	73
35	74
36	75
37	76
38	77
39	78
40	79
41	80
42	81
43	82
44	83
45	84
46	85
47	86
48	87
49	88
50	89
51	90
52	91
53	92
54	93
55	94
56	95
57	96
58	97
59	99

APPENDICES

APPENDIX 5

Abdominal Pain

Diagnosis to be considered	Symptoms and signs in conjunction with abdominal pain
Gastroenteritis	<ul style="list-style-type: none"> • Vomiting • Diarrhoea (does not exclude other conditions e.g. intussusception, pelvic appendicitis, pelvic abscess and inflammatory bowel disease)
Intestinal obstruction e.g. Intussusception or volvulus	<ul style="list-style-type: none"> • Bile stained vomiting • Colicky abdominal pain • Absence of normal stolling/flatus • Abdominal distension • Increased bowel sounds • Visible distended loops of bowel • Visible peristalsis • Scars • Swellings at the site of hernial orifices and of the external genitalia • Stool containing blood mixed with mucus
Infective diarrhoea	<ul style="list-style-type: none"> • Blood mixed with stools – ask about travel history and recent anti-biotic therapy
Inflammatory bowel disease	<ul style="list-style-type: none"> • Blood in stools
Midgut volvulus (shocked child)	<ul style="list-style-type: none"> • Blood in stools
Henoch schonlein purpura	<ul style="list-style-type: none"> • Blood in stools
Haemolytic uremic syndrome	<ul style="list-style-type: none"> • Blood in stools
Anorexia	<ul style="list-style-type: none"> • Loss of appetite
Lower lobe pneumonia	<ul style="list-style-type: none"> • Fever • Cough • Tachypnoea • Desaturation
Poisoning	<ul style="list-style-type: none"> • Ask about history of possible ingestions and what drugs/other toxic agents are available at home
Irreducible inguinal hernia	<ul style="list-style-type: none"> • Examine inguinoscrotal region
Torsion of the testis	<ul style="list-style-type: none"> • This is a surgical emergency – an appropriate surgeon should be consulted immediately
Jaundice	<ul style="list-style-type: none"> • Hepatitis may present with pain due to liver swelling
Urinary Tract Infection	<ul style="list-style-type: none"> • Routine urine analysis for children presenting with abdominal pain
Bites and stings	<ul style="list-style-type: none"> • Ask about possibly bites/stings. Adder envenomation can result in abdominal pain/vomiting

APPENDICES

APPENDIX 5

Abdominal Pain... *continued*

Diagnosis to be considered	Symptoms and signs in conjunction with abdominal pain
Peritonitis	<ul style="list-style-type: none"> • Refusal/inability to walk • Slow walk/stooped forward • Pain on coughing or jolting • Lying motionless • Decreased/absent abdominal wall movements with respiration • Abdominal distention • Abdominal tenderness – localised/generalised • Abdominal guarding/rigidity • Percussion tenderness • Palpable abdominal mass (see question below) • Bowel sounds – absent/decreased (peritonitis) • Associated non-specific signs – tachycardia, fever
Constipation	<ul style="list-style-type: none"> • Infrequent bowel activity • Foul smelling wind and stools • Excessive flatulence • Irregular stool texture • Passing occasional enormous stools or frequent small pellets • Withholding or straining to stop passage of stools • Soiling or overflow • Abdominal distension • Poor appetite • Lack of energy • Unhappy, angry or irritable mood and general malaise
If patient is postmenarchal female	<ul style="list-style-type: none"> • Suggest pregnancy test • Consider ectopic pregnancy, pelvic inflammatory disease or other STD. • Other gynaecological problems • Mittelschmerz • Torsion of the ovary • Pelvic inflammatory disease • Imperforate hymen with hydrometrocolpos
Known congenital or pre-existing condition	<ul style="list-style-type: none"> • Previous abdominal surgery (adhesions) • Nephrotic syndrome (primary peritonitis) • Mediterranean background (familial mediterranean fever) • Hereditary spherocytosis (cholethiasis) • Cystic fibrosis (meconium ileus equivalent) • Cystinuria • Porphyrinuria

