ST HELENS CARES | NHS

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

CONTENTS

This guidance was developed to support the St Helens Pathways for the management of children and young people. It has been agreed through consideration and discussion of NHS national clinical guidance, locally agreed pathways and local clinical review and input. The Clinical Assessment Tools are designed to support local healthcare professionals in accessing the appropriate support for unwell children and young people for these agreed pathways. The guidance does not, however, override the individual responsibility of the healthcare professional to make decisions appropriate to the circumstances and clinical presentation of the individual patient, in consultation with the patient and/or guardian or carer and/or another professional.

If you would one of the Advice Sheets in an alternative formats for your patient, for example large print or easy read, or if you need help with communicating with us, for example because you use British Sign Language, please let us know. You can call us on 01744 627596 or email engagement@sthelensccg.nhs.uk

The Big 6

Dear Colleague

This booklet has been developed to help all clinicians when faced with a presenting unwell child whether that is in the home, community, primary care, or urgent care setting.

Clinicians and representatives from local Primary, Secondary and Community Care in St Helens, have worked in collaboration with NHS St Helens Clinical Commissioning Group (CCG) to localise the enclosed 'Big 6' paediatric pathways, originally developed by Gloucestershire Children's Clinical Programme Group, with 3 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 and emergency scenario;
- To build consistency across St Helens, 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 National Institute for Health and Care Excellence (NICE) and Scottish Intercollegiate Guidelines Network (SIGN) publications, along-side local policies and protocols, and have been subject to clinical scrutiny. 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 the 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.

Kind regards
Dr Hilary Flett, GP Clinical Lead for Planned Care
NHS St Helens CCG

Clinical Assessment Tool

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

- If a child presents with signs or symptoms that indicate infection, even if they do not have a high temperature, always think could this be sepsis?
- Be aware that children with sepsis may have non-specific, non-localised presentations (for example, feeling very unwell).
- Pay particular attention to concerns expressed by the child and their family or carer.
- Take particular care in the assessment of a child who might have sepsis if they, or their parents or carers, are unable to give a good history (for example, people with English as a second language or people with communication problems).

Child/young person presenting with suspected sepsis

↓

Assess people with suspected infection to identify:

- possible source of infection
- risk factors for sepsis (see Traffic Light System in Table 1 – children under 5 years – page 6, Table 2 – children aged 5-11 years – page 7, and Table 3 – young people aged 12-17 years – page 8)
- indicators of clinical of concern such as new onset abnormalities of behaviour, circulation or respiration.

Healthcare professionals performing a remote assessment of a child with suspected infection should seek to identify factors that increase risk of sepsis or indications of clinical concern (see Traffic Light System in Table 1 – children under 5 years – page 6, Table 2 – children aged 5-11 years – page 7, and Table 3 – young people aged 12-17 years – page 8).

If all green features and no amber or red

↓

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 (give Advice Sheet to Parents/Carers - pages 9 - 11).

If any amber features and no red

↓

Is immunity compromised?

↓

No / Yes → Send child for urgent assessment in Accident and Emergency Department. Ring 999.

↓

Can definitive condition be diagnosed and treated in an out of hospital setting?

↓

Yes / No → Send child for urgent assessment in Accident and Emergency Department. Ring 999.

↓

Treat definitive condition and/or provide information to safety net. Advice and guidance is available from the on-call Paediatric Registrar via the switchboard at Whiston Hospital 0151 426 1600.

If any red features

↓

Send child for urgent assessment in Accident and Emergency Department.

Ring 999.

Table 1: Traffic light system for identifying risk of serious illness for children aged under 5 years with suspected Sepsis

Category	Age	Green – low risk	Amber – Intermediate risk	Red – high risk
Behaviour	Any	• Responds normally to social cues • Content or smiles • Stays awake or awakens quickly • Strong normal cry or not crying	• Not responding normally to social cues • No smile • Wakes only with prolonged stimulation • Decreased activity • Parent or carer concern that child is behaving differently from usual	• 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	Any	• No red or amber criteria met	• Oxygen saturation of less than 95% in air or increased oxygen requirement over baseline • Nasal flaring • Crackles on the chest	• Grunting • Apnoea • Oxygen saturation of less than 90% in air or increased oxygen requirement over baseline
	Under 1 year		• Raised respiratory rate: 50–59 breaths per minute	• Raised respiratory rate: 60 breaths per minute or more
	1-2 years		• Raised respiratory rate: 40–49 breaths per minute	• Raised respiratory rate: 50 breaths per minute or more
	3-4 years		• Raised respiratory rate: 35–39 breaths per minute	• Raised respiratory rate: 40 breaths per minute or more
Circulation and hydration	Any	• No red or amber criteria met	• Capillary refill time of 3 seconds or more • Reduced urine output • For catheterised patients, passed less than 1 ml/kg of urine per hour • Dry mucous membrane	• Bradycardia: heart rate less than 60 beats per minute
	Under 1 year		• Rapid heart rate: 150–159 beats per minute	• Rapid heart rate: 160 beats per minute or more
	1-2 years		• Rapid heart rate: 140–149 beats per minute	• Rapid heart rate: 150 beats per minute or more
	3-4 years		• Rapid heart rate: 130–139 beats per minute	• Rapid heart rate: 140 beats per minute or more
Skin	Any	• Normal colour	• Pallor of skin, lips or tongue	• Mottled or ashen appearance • Cyanosis of skin, lips or tongue • Non-blanching rash of skin
Temperature	Any			• Less than 36°C
	Under 3 months			• 38°C or more
	3–6 months		• 38.5°C or more	
Other	Any	• No red or amber criteria met	• Leg pain • Cold hands or feet • Swelling of limb or joint • Not weight bearing or not using extremity • A new lump > 2 cm • Age 3-6 months	• Age 0-3 months • Bulging fontanelle • Neck stiffness • Status epilepticus • Facial neurological signs • Facial seizures

This table is adapted from NICE's guideline NG51.

Table 2: Traffic light system for identifying risk of serious illness for children aged 5-11 years with suspected Sepsis

Category	Age	Green – low risk	Amber – Intermediate risk	Red – high risk
Behaviour	Any	• Behaving normally	• Not behaving normally • Decreased activity • Parent or carer concern that the child is behaving differently from usual	• Objective evidence of altered behaviour or mental state • Appears ill to a healthcare professional • Does not wake or if roused does not stay awake
Respiratory	Any	• No red or amber criteria met	• Oxygen saturation of less than 92% in air or increased oxygen requirement over baseline	• Oxygen saturation of less than 90% in air or increased oxygen requirement over baseline
	Aged 5 years		• Raised respiratory rate: 24–28 breaths per minute or more	• Raised respiratory rate: 29 breaths per minute or more
	Aged 6-7 years		• Raised respiratory rate: 24–26 breaths per minute or more	• Raised respiratory rate: 27 breaths per minute or more
	Aged 8-11 years		• Raised respiratory rate: 22–24 breaths per minute or more	• Raised respiratory rate: 25 breaths per minute or more
Circulation and hydration	Any	• No red or amber criteria met	• Capillary refill time of 3 seconds or more • Reduced urine output • For catheterised patients, passed less than 1 ml/kg of urine per hour	• Heart rate less than 60 beats per minute
	Aged 5 years		• Raised heart rate: 120–129 beats per minute	• Raised heart rate: 130 beats per minute or more
	Aged 6-7 years		• Raised heart rate: 110–119 beats per minute	• Raised heart rate: 120 beats per minute or more
	Aged 8-11 years		• Raised heart rate: 105–114 beats per minute	• Raised heart rate: 115 beats per minute or more
Temperature			• Tympanic temperature less than 36°C	
Skin	Any			• Mottled or ashen appearance • Cyanosis of skin, lips or tongue • Non-blanching rash of skin
Other	Any	• No red or amber criteria met	• Leg pain • Cold hands or feet	

This table is adapted from NICE's guideline NG51.

Table 3: Traffic light system for identifying risk of serious illness for young people aged 12-17 years with suspected Sepsis

Category	Green – low risk	Amber – Intermediate risk	Red – high risk
History	• Normal Behaviour	• History from patient, friend or relative of new onset of altered behaviour or mental state • History of acute deterioration of functional ability • Impaired immune system (illness or drugs including oral steroids) • Trauma, surgery or invasive procedures in the last 6 weeks	• Objective evidence of new altered mental state
Respiratory	• No red or amber criteria met	• Raised respiratory rate: 21–24 breaths per minute	• Raised respiratory rate: 25 breaths per minute or more • New need for oxygen (40% FiO2 or more) to maintain saturation more than 92% (or more than 88% in known chronic obstructive pulmonary disease)
Blood pressure	• No red or amber criteria met	• Systolic blood pressure 91–100 mmHg	• Systolic blood pressure 90 mmHg or less or systolic blood pressure more than 40 mmHg below normal
Circulation and hydration	• No red or amber criteria met	• Raised heart rate: 91–130 beats per minute (for pregnant women 100–130 beats per minute) or new onset arrhythmia • Not passed urine in the past 12–18 hours • For catheterised patients, passed 0.5–1 ml/kg of urine per hour	• Raised heart rate: more than 130 beats per minute • Not passed urine in previous 18 hours. • For catheterised patients, passed less than 0.5 ml/kg of urine per hour
Temperature		• Tympanic temperature less than 36°C	
Skin	• No non-blanching rash	• Signs of potential infection, including redness, swelling or discharge at surgical site or breakdown of wound	• Mottled or ashen appearance • Cyanosis of skin, lips or tongue • Non-blanching rash of skin

This table is adapted from NICE's guideline NG51.

Sepsis Advice Sheet

Name of child: Age: Date/Time advice given:

Further advice/Follow-up:

Name of professional: Signature of professional:

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
- If your child is less than 6 months old

You need to contact a doctor or nurse today.
Please ring your GP surgery or call NHS 111– dial 111.

Green

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

If you need advice.
Please contact NHS 111– dial 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.

GET IT ON Google Play | Download on the App Store

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

catch
Common Approach To Children's Health

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 syptoms mean you need to see a doctor.

To find your local pharmacy and open times visit
www.sthelenscares.co.uk

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.

Sepsis Advice Sheet

What is Sepsis?

Sepsis is a rare but serious reaction to an infection. If your baby/child gets an infection, their body's immune system responds by trying to fight it. Sepsis is when this immune system response becomes overactive and starts to cause damage to the body itself.

It can be hard to tell if your baby/child has sepsis. They might not even have a fever or high temperature, they may just feel very unwell.

Sepsis needs to be treated urgently because it can quickly get worse and lead to septic shock. Septic shock is very serious, as it can cause organ failure and death.

Anyone with an infection can get sepsis. But some people have a higher chance of getting it than others.

Who is more at risk of Sepsis?

- Premature babies and babies younger than 1
- Babies/children with diabetes
- Babies/children with weak immune systems e.g. those having chemotherapy, steroid treatment, chicken pox
- Indwelling medical devices e.g. catheters/central lines
- Skin wounds e.g. burns
- Children who have complex health needs
- Children who have neurological conditions
- Children who have recently had surgery or serious illness.

What are the symptoms?

Sepsis can initially look like flu, gastroenteritis or a chest infection. Babies and children often have a fever or very low temperature (or have had a fever in the last 24 hours). There is no one sign, and symptoms present differently.

A child may have sepsis if he or she:

1. Is breathing very fast
2. Has a 'fit' or convulsion
3. Looks mottled, bluish, or pale
4. Has a rash that does not fade when you press it
5. Is very lethargic or difficult to wake
6. Feels abnormally cold to touch

A child under 5 years of age may have sepsis if he or she:

1. Is not feeding
2. Is vomiting repeatedly
3. Hasn't had a wee or wet nappy for 12 hours

Sepsis Advice Sheet... continued

Is it likely that my baby/child has Sepsis

It's important to remember that not everyone who gets sepsis has a high temperature or fever. So if your baby/child feels very unwell but has a normal temperature you should still speak to your healthcare professional.

If your baby/child is likely to be more at risk of sepsis or if it looks as though they might have an infection, your healthcare professional should think about whether they might have sepsis.

They should check for anything that could mean your baby/child might have sepsis, such as:

- feeling or acting differently than normal
- problems with, or changes in, your circulation (blood flow)
- problems with, or changes in, your breathing.

As sepsis can be hard to spot, anything you can tell your healthcare professional can help them to help your baby/child.

They should also ask about how your baby/child has been lately and if they have had any recent illnesses or injuries.

Depending on your answers to the questions, the healthcare professional may also check your baby's/child's heart rate, blood pressure and breathing.

They will use all the information they collect to decide:

- whether your baby/child has suspected sepsis,
- how high your risk is of life-threatening illness from sepsis, and
- if your baby/child needs to have urgent treatment or more checks.

Looking for Sepsis in babies and children

If your healthcare professional decides that your baby/child might have sepsis they should:

- ask you if they have been acting differently
- ask you if they seem more upset
- ask if they have been crying in a different way
- ask if they seem a lot more sleepy than normal
- ask how many wet nappies they've had, or how often they have gone to the toilet
- check their temperature, breathing and heart rate
- make sure they're responding to what's going on around them.

They will also look for signs of infection, such as:

- blue skin, lips or tongue (this is called cyanosis)
- a blotchy (mottled) or very pale or grey (ashen) appearance
- cold hands or feet
- a rash that doesn't go away when you press on the skin (non-blanching).

As a parent or carer you know your child best. If you feel your child is still not well or isn't getting better you should seek medical help even if they've been seen by a healthcare professional already.

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 – see Table 1 Traffic Light System)

No

Look for traffic light features and symptoms and signs of specific diseases (Table 1 Traffic Light System – page 13, and Appendix 1 – page 42). Document temperature, heart rate, respiratory rate, capillary refill time, colour, activity and hydration status. Always check urine in unexplained fever.

If meningococcal disease is suspected then administer parenteral antibiotics and refer urgently to hospital. Check blood glucose if possible.

If all green features and no amber or red

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 (give Advice Sheet to Parents/Carers - pages 14 -15).

Remember to check urine in unexplained fever

If any amber features and no diagnosis reached

Look for symptoms and signs of specific diseases.

Advice and guidance is available from the on-call Paediatric Registrar via the switchboard at Whiston Hospital 0151 426 1600.

If remotely assessed then arrange assessment in face to face setting.

Yes

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

If any red features

Administer parenteral antibiotics if sepsis or meningitis is suspected and refer urgently to hospital

Send child for urgent assessment in Accident and Emergency Department.

Consider appropriate transport means (999). If remotely assessed

1. Send child to be assessed in face to face setting within 1 hour taken by ambulance

2. If indicated refer urgently to a paediatric specialist by appropriate mode of transport

Table 1: Traffic light system for identifying severity of illness

Category	Green – low risk	Amber – Intermediate risk	Red – high risk
Colour of skin, lips or tongue	• Normal colour	• Pallor reported by parent/carer	• Pale/mottled/ashen/blue
Activity	• Responds normally to social cues • Content/smiles • Stays awake or awakens quickly • Strong normal cry/not crying	• Not responding normally to social cues • Wakes only with prolonged stimulation • Decreased activity • No smile	• 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	• No red or amber criteria met	• Nasal flaring • Tachypnoea: - RR > 50 breaths/minute, age 6–12 months - RR > 40 breaths/minute, age >12 months • Oxygen saturation < 95% in air • Crackles in the chest	• Grunting • Tachypnoea: RR > 60 breaths/minute • Moderate or severe chest indrawing
Circulation and hydration	• Normal skin and eyes • Moist mucous membranes	• Dry mucous membrane • Poor feeding in infants • CRT > 3 seconds • Tachycardia - >160 beats/minute age < 12 months - >150 beats/minute age 12–24 months - >140 beats/minute age 2-5 years • Reduced urine output	• Reduced skin turgor
Other	• None of the amber or red symptoms or signs	• Age 3–6 months, temperature ≥ 39°C* • Fever for ≥ 5 days • Rigors • Swelling of a limb or joint • Non-weight bearing limb/not using an extremity	• Age 0-3 months, temperature > 38°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

Fever Advice Sheet

Name of child: Age: Date/Time advice given:

Further advice/Follow-up:

Name of professional: Signature of professional:

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
- If your child is less than 6 months old

You need to contact a doctor or nurse today. Please ring your GP surgery or call NHS 111– dial 111.

Green

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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.

Fever Advice Sheet

Fever advice for children and young people in St Helens

What is fever?

- A fever is an increase in body temperature. This in itself is not dangerous. Your child's body temperature is normally between 36˚C and 37˚C, variations between 0.5 and 1˚C are common.
- 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 of a healthcare professional.

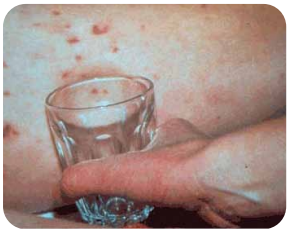
Working out the cause of the fever

- If you are talking 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 breastfeeding 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 them, cold bathing and tepid sponging can cause discomfort and 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. These medicines should not be given together. 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.
- The rash is harder to see on dark skin so check paler areas such as the palms of hands and soles of feet.

Clinical Assessment Tool

Babies/Children under 2 years with suspected Bronchiolitis

Assess, look for life threatening symptoms and signs and symptoms
(See Table 1 Traffic Light System - below and Table 2 Signs and Symptoms - page 17)

If all green features and no amber or red

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 (give Advice Sheet to Parents/Carers - pages 18 - 19).

If unsure, advice and guidance is available from the on-call Paediatric Registrar via switchboard at Whiston Hospital 0151 426 1600.

If any amber features and no red

Oxygen support required? (SATS in air < 92%)

No → Is feeding sufficient to maintain hydration?

Yes → Is feeding sufficient to maintain hydration?

Yes

No → Send child for urgent assessment in Accident and Emergency Department. Consider appropriate transport means (999).

Commence relevant treatment to stabilise baby/child for transfer if appropriate.

Consider commencing high flow oxygen support.

If any red features

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

Commence relevant treatment to stabilise baby/child for transfer if appropriate.

Consider commencing high flow oxygen support.

Consider discharge according to clinical and social circumstance.

Provide a safety net for the parents/carers by using one or more of the following:

- Written or verbal Information on warning symptoms and accessing further healthcare.
- Arrange appropriate follow up.
- Liaise with other professionals to ensure parent/carer has direct access to further assessment.
- If unsure please contact the On-Call paediatric registrar via switchboard at Whiston Hospital 0151 426 1600.

Table 1 Traffic light system for identifying severity of illness

Category	Green – low risk	Amber – Intermediate risk	Red – high risk
Behaviour	• Alert • Normal	• Irritable • Not responding normally to social cues • Decreased activity • No smile	• 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	• CRT < 2 secs	• CRT 2 - 3 secs	• CRT over 3 secs
Skin	• Normal colour skin, lips & tongue • Moist mucous membranes	• Pallor colour reported by parent/ carer cool peripheries	• Pale/mottled /ashen blue • Cyanotic lips and tongue
Respiratory Rate	• Under 12mths < 50 breaths/minute • Over 12 mths < 40 breaths/minute • No respiratory distress	• < 12 mths 50-60 breaths/minute • > 12 months 40-60 breaths/minute	• All ages > 60 breaths/minute
SATS in air	• 95% or above	• 92 - 94%	• < 92%
Chest Recession	• None	• Moderate	• Severe
Nasal Flaring	• Absent	• May be present	• Present
Grunting	• Absent	• Absent	• Present
Feeding Hydration	• Normal – no vomiting	• 50-75% fluid intake over 3-4 feeds • +/- vomiting. Reduced urine output	• < 50% fluid intake over 2-3 feeds +/- vomiting. • Significantly reduced urine output.
Apnoeas	• Absent	• Absent	• 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

Clinical Assessment Tool

Babies/Children under 2 years with suspected Bronchiolitis

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

- Complex needs
- Pre-existing lung disease, congenital heart disease, neuromuscular weakness, immune-incompetence
- Age < 6 weeks
- Prematurity
- Social concerns
- Re-attendance
- Duration of illness is less than 3 days and Amber – may need to admit
- Children attending after midnight.

Table 2 – Signs and Symptoms can include:

- Rhinorrhoea (Runny nose)
- Cough
- Poor Feeding
- Vomiting
- Pyrexia
- Respiratory distress
- Apnoea
- Inspiratory crackles +/- wheeze
- Cyanosis

Bronchiolitis Advice Sheet – Babies/Children under 2 years

Name of child: Age: Date/Time advice given:

Further advice/Follow-up:

Name of professional: Signature of professional:

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

- Reduced fluid intake: less than three quarters of what they would normally have over 3 – 4 feeds e.g. if your baby usually takes 100 ml bottle but they are taking less than 75ml and this happens over 3 – 4 feeds and they are passing less urine than normal
- 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 38.5°C (or above 38°C for babies less than 3 months old)

You need to contact a doctor or nurse today.
Please ring your GP surgery or call NHS 111– dial 111.

Green

- If none of the above features are present, most children with can be safely managed at home.

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

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.

GET IT ON Google Play | Download on the App Store

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

catch
Common Approach To Children's Health

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 syptoms mean you need to see a doctor.

To find your local pharmacy and open times visit
www.sthelenscares.co.uk

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.

Bronchiolitis Advice Sheet – Babies/Children under 2 years

What is Bronchiolitis?

Bronchiolitis is an infectious disease when the tiniest airways in your baby/child's lungs become swollen. This can make it more difficult for your baby/child to breathe. Usually, bronchiolitis is caused by a virus. It is common in winter months and usually only causes mild, 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.

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 make more effort to breathe.
- Sometimes, in the very young babies, Bronchiolitis may cause them to have brief pauses in their breathing. If you are concerned see the amber box overleaf.
- As 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.
- If your baby/child has a fever, to manage the distress, you can give him or her paracetamol in the recommended doses. If your child is older than 3 months and greater than 5 kg 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, you should carry on using these.
- If you find it difficult to get your baby/child to take them, ask your doctor for advice.
- Bronchiolitis is caused by a virus so antibiotics won't help.
- Make sure your baby/child is not exposed to tobacco smoke. Passive smoking can seriously damage your baby/child's health. It makes breathing problems like bronchiolitis worse.
- Remember 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.
- 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, call NHS 111 – dial 111 or discuss this with your doctor.

Clinical Assessment Tool

Suspected Croup in child 0 - 6 years

Child presenting with barking cough – assess for signs of severity

Do symptoms suggest an immediately life threatening condition... such as epiglottitis?

No

Look for traffic light features (see Table 1 - page 21)

Yes

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

Child can be managed at home with appropriate care and advice. Single dose of oral dexamethasone (0.15 mg per kg body weight). Alternative is oral prednisolone 1 - 2 mg per kg body weight and consider second dose if residual symptoms of stridor are present the following day. Always provide verbal/written information about warning signs and when to seek further advice (give Advice Sheet to Parents/Carers - pages 22 - 23).

If any amber features and no red

Advice and guidance is available from the on-call Paediatric Registrar via the switchboard at Whiston Hospital 0151 426 1600.

Start treatment as per green box or as per advice from the on-call Paediatric Registrar.

If any red features

Start treatment as per green box and give controlled supplementary oxygen to all children with symptoms of severe illness or impending respiratory failure. Consider giving oral dexamethasone if available (0.15 mg per kg body weight).

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

Start treatment as per green box.

Table 1: Traffic light system for identifying severity of illness

Category	Green – low risk	Amber – Intermediate risk	Red – high risk
Colour	• Normal • Child alert	• Quieter than normal	• Pale • Activity Child alert Quieter than normal • Lethargy • Distress/agitation
Respiratory	• Under 12 months < 50 breaths/minute • Over 12 months < 40 breaths/minute • Sats 95% or above	• Under 12 months 50-60 breaths/minute • Over 12 months 40-60 breaths/minute • Sats 92 - 94%	• > 60 (all ages) • Sats < 92%
Cough	• Occasional barking cough • No stridor	• Frequent barking cough and stridor	• Struggling with persistent cough
Chest recession	• No chest recession	• Subcostal and retrosternal recession	• Marked subcostal and retrosternal recession
Circulation and hydration	• CRT < 2 secs	• CRT 2 - 3 secs	• CRT over 3 secs
Age			• < 3months
Westley score	• 0 - 2	• 3 - 5	• 6 - 11 • 12+ Impending respiratory failure
Other		• 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	

Croup Advice Sheet

Name of child: Age: Date/Time advice given:

Further advice/Follow-up:

Name of professional: Signature of professional:

Red

- Blue lips
- Unresponsive and very irritable
- Finding it difficult to breathe with heaving of chest
- Pauses in breathing or irregular breathing patterns

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 laboured (chest 'indrawing')
- Persisting fevers

You need to contact a doctor or nurse today.
Please ring your GP surgery or call NHS 111– dial 111.

Green

- If none of the above features are present, most children with can be safely managed at home.

Self Care.
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Croup Advice Sheet - Babies/Children aged 0-6 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).
- A cool environment such as taking your child outside at night for a brief period may help.
- 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.
  - Put clothes on the child if the room is 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.

Clinical Assessment Tool

Child with Acute Asthma 2-16 Years

Child presenting with suspected acute exacerbation of asthma

Consider other diagnosis if any of the following are present:
• Fever • Dysphagia • Productive Cough • Breathlessness with light headiness and peripheral tingling (hyperventilation) • Asymmetry on auscultation • Excessive vomiting • Inspiratory Stridor

No → Suspected acute exacerbation of asthma: assess signs of severity (see Table 1 - page 25)

Yes → It may not be asthma: seek expert help (consider use of another pathway)

If all green features and no amber or red

Moderate Exacerbation
- Give 2-10 puffs of ß agonist via a spacer (with a facemask in younger children using tidal breathing).
- Use patient own spacer where available.
- Increase ß agonist dose by 2 puffs every 2 minutes upto 10 puffs according to response.
- Consider an appropriate dose of Prednisolone (see Table 5 overleaf).
- Assess response.

Good Response (Green features)

Deterioration? Consider if now amber/red

Good Response:
- Advise patient to continue using ß agonist via spacer as needed—but not exceeding 4 hourly.
- Give asthma discharge management advice leaflet.
- Arrange GP follow up.
- Review inhaler technique.
- Give asthma management advice sheet (see Advice Sheet pages 26 – 27) and include a weaning or step down plan.

If any amber features and no diagnosis reached

Severe Exacerbation
- Give Oxygen via a facemask/nasal prongs to achieve Sp0 94-98%.
- Give ß agonist 10 puffs via spacer ± facemask or nebulised salbutamol at an appropriate dose driven by oxygen (see Table 4 overleaf).
- Give an appropriate dose of oral Prednisolone (see Table 5 overleaf).

If symptoms are controlled, review after 4 hours or if this is not possible, contact the on-call Paediatric Registrar via the switchboard at Whiston Hospital 0151 426 1600 for advice and guidance and to refer to the Children's Observation Unit (ChObs) for observation.

Lower threshold for admission if:
- Attack in late afternoon or at night.
- Recent hospital admission or previous severe attack.
- Concern over social circumstances or ability to cope at home.

If any red features

Life Threatening
- Call 999 for an Ambulance and send child for urgent assessment in Accident and Emergency
- Give Oxygen via a facemask to achieve Sp0 94-98%.
- Give Nebulised ß agonist and ipratropium at an appropriate dose driven by oxygen (see Table 4).
- Give an appropriate dose of Prednisolone (see Table 5).
- Repeat ß agonist up to every 20-30 minutes while waiting for ambulance to arrive.
- Continually assess the child after each intervention.
- Ensure continuous oxygen delivery.
- Stay with the child whilst waiting or ambulance to arrive.
- Arrange asthma clinic follow up within 48 hours.

If symptoms are not controlled

Clinical Assessment Tool... continued

Child with Acute Asthma 2-16 Years

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)	• > 140 beats/min (2-5 years) • > 125 beats/min (> 5 years) • Consider influence of fever &/or Salbutamol	
Respiratory	• < 40 breaths/min 2-5 years • < 30 breaths/min 5-12 years • < 25 breaths/min 12-16 years	• > 40 breaths/min 2-5 years • > 30 breaths/min > 5 years • Silent Chest	
Sa02	• ≥ 95% in air	• 92 – 94% in air	• < 92% in air
PEFR	• > 50% of predicted (see Table 3)	• 33 - 50% of predicted (see Table 3)	• <33% of predicted (see Table 3)
Westley score	• 0 – 2	• 3 – 5	• 6 – 11 • 12+ impending respiratory failure

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

Table 2: Normal Paediatric Values:

Age	Respiratory Rate at Rest	Systolic Blood Pressure	Heart Rate
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

Table 3: 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 4: Guidelines for nebuliser

- Significantly low sats despite inhaler and spacer use
- Oxygen Saturations persistently below 92%
- Requiring oxygen
- Unable to use volumatic/spacer device
- Severe respiratory distress

Salbutamol
2-5 years: 2.5 mg, 5-12 years: 2.5 - 5 mg, 12-16 years: 5 mg

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

Table 5: Prednisolone Dosing Guidance

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: 40-50 mg daily for at least 5 days.

BTS guidelines 2019: (if weight not available)

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

Asthma Advice Sheet

Name of child: Age: Date/Time advice given:

Further advice/Follow-up:

Name of professional: Signature of professional:

Red

- Drowsy
- Has severe wheeze
- Unable to speak in sentences
- Unable to take fluids and is getting tired
- Is unable to respond with loss in consciousness
- Breathless, 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.
Please ring your GP surgery or call NHS 111– dial 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 to see a doctor or a nurse to discuss your child's asthma.
Ring for an urgent appointment

Useful information

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Asthma Advice Sheet

What is Asthma?

Asthma is caused by inflammation of the airways. These are the small tubes, called bronchi, which carry air in and out of the lungs. If you have asthma, the bronchi will be inflamed and more sensitive than normal.

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 go into spasm 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. Some people call this 'viral-induced wheeze' or 'wheezy bronchitis', whilst others call it asthma. 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 eg animals
- Pollens and mold particularly in hayfever season
- Cigarette smoke
- Extremes of temperature
- Stress
- Exercise (However, sport and exercise are good for you if you have asthma. If necessary, an inhaler can be used before exercise to prevent symptoms from developing)

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

- 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 one to two puffs of their reliever inhaler (usually blue), immediately – use a spacer if they need it.**
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 999.**
5. **If an ambulance does not arrive within 10 minutes and they are still feeling unwell, repeat step 3.**

If your child's symptoms improve and you do not need to call 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.

Clinical Assessment Tool

Child with suspected Gastroenteritis

Child presenting with diarrhoea and vomiting
Assess for signs of dehydration, See Table 1 Traffic Light System – page 29 (consider Boxes 1 and 2 - Appendix 2 – page 43)

If all green features and no amber or red

No clinical dehydration

Preventing Dehydration:

- Continue breastfeeding and other milk feeds.
- Encourage fluid intake.
- Discourage fruit juices and carbonated drinks – especially those children in Box 2 (Appendix 2 – page 43).
- Offer Oral Rehydration solution (ORS) as supplemental fluid to those at increased risk of dehydration (Appendix 2 –page 43).
- Refer to Box 4 (Appendix 2 – page 43) for stool microbiology advice.

Always provide verbal/written information about warning signs and when to seek further advice (see Advice Sheet pages 30 – 31).

If any amber features and no diagnosis reached

Clinical dehydration

Depending on severity of child and social circumstances in this category based on clinical judgement (Consider Box 2 - Appendix 2 – page 43)

If there is blood or mucus in the stool or a suspicion of septicaemia or if the child is immunocompromise, advice and guidance is available from the on-call Paediatric Registrar via the switchboard at Whiston Hospital 0151 426 1600.

- Home with advice to give oral rehydration solution over 4 hours without delay, often and in small amounts (see Appendix 3 – page 44).
- Continue breastfeeding.
- Consider supplementing with usual fluids (including milk feeds/water, but not fruit juices or carbonated drinks).
- If after 2 hours child is not tolerating ORS/vomiting parents should be instructed to attend A&E.
- Refer to Box 4 (Appendix 2 – page 43) for microbiology advice.
  *Give advice sheet (give Advice Sheet to Parents/Carers - pages 30 – 31).

If any red features

Clinical shock suspected or confirmed

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

Commence relevant treatment to stabilise baby/child for transfer if appropriate.

Table 1 Traffic light system for identifying severity of illness

Category	Green – Low risk	Amber – Intermediate risk	Red – high risk
Activity	• Responds normally to social cues • Content/Smiles • Stays awake/awakens quickly • Strong normal cry/not crying	• Altered response to social cues • Decreased activity • No smile	• 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	• Normal skin colour • Normal turgor	• Normal skin colour • Warm extremities	• Pale/Mottled/Ashen blue • Cold extremities
Respiratory	• Normal breathing	• Tachypnoea	• Tachypnoea
Hydration	• CRT≤ 2 secs • Moist mucous membranes (except after a drink) • Normal urine	• CRT 2 – 3 secs • Dry mucous membranes (except after a drink) • Reduced urine output	• CRT > 3 seconds
Pulses/Heart Rate	• Heart rate normal • Peripheral pulses normal	• Tachycardic • Peripheral pulses weak	• Tachycardic • Peripheral pulses weak
Blood Pressure	• Normal	• Normal	• Hypotensive
Eyes	• Normal eyes	• Sunken Eye	

Please refer to Appendix 3 for normal values.

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

Gastroenteritis Advice Sheet (Diarrhoea and/or Vomiting)

Name of child: Age: Date/Time advice given:

Further advice/Follow-up:

Name of professional: Signature of professional:

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

You need to contact a doctor or nurse today. Please ring your GP surgery or call NHS 111– dial 111.

Green

If none of the above features are present, most children with Diarrhoea and/or Vomiting can be safely managed at home.

N.B. Some children are more likely to become dehydrated including: children younger than 1 year old or if they had a low birth weight. In these cases or if you still have concerns about your child please contact your GP surgery or call NHS – dial 111).

Most children with diarrhoea and/or vomiting get better very quickly, but some children can get worse. You need to regularly check your child and follow the advice given to you by your healthcare professional and/or as listed on this sheet.

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

Useful information

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Gastroenteritis Advice Sheet (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 to carry out its normal functions. If the 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 and children with malnutrition or with faltering growth.

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 eg. 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.
- If your child is due routine immunisations please discuss this with your GP or practice nurse, as they may not need to be delayed.
- **Hand washing is the best way to stop gastroenteritis spreading.**

After Care

Once your child is rehydrated and no longer vomiting:

- Reintroduce the child's usual food.
- If dehydration recurs, start giving ORS again.
- Anti-diarrhoeal medicines (also called Antimotility drugs) should not be given to children.

Preventing the spread of Gastroenteritis (diarrhoea 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

Clinical Assessment Tool

Head Injury

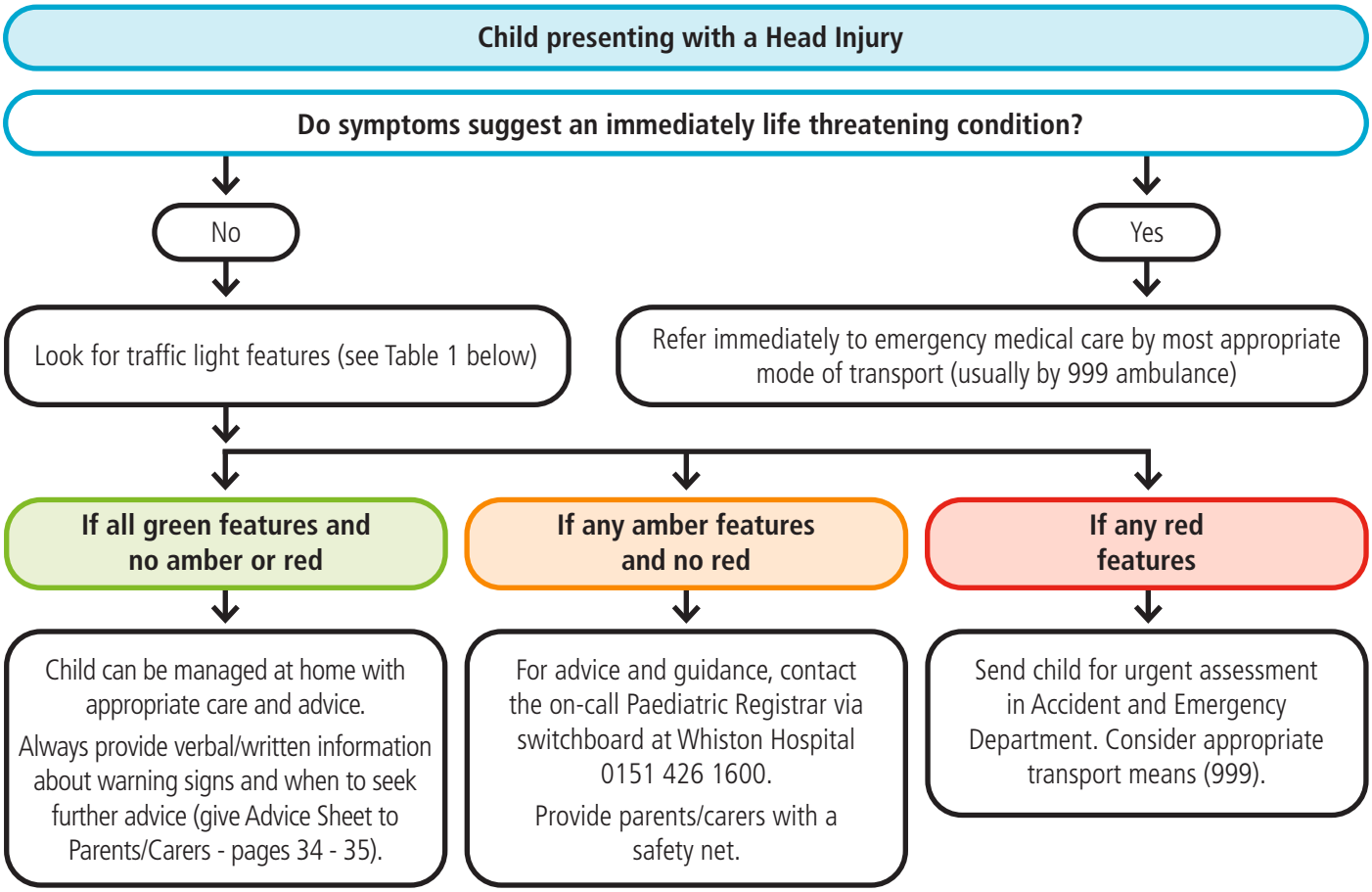

Table 1 Traffic light system for identifying severity of illness

Green – low risk	Amber – Intermediate risk	Red – high risk
• Has not been knocked out at any time	• Has had a persistent headache since the injury	• Witnessed loss of consciousness lasting more than 5 minutes
• Is alert and interacts with you	• Has a blood clotting disorder	• Amnesia lasting more than 5 minutes
• Has been sick but only once		• Abnormal drowsiness
• Has bruising or minor cuts to the head		• 3 or more discrete episodes of vomiting
• Cried immediately but is otherwise normal		• Clinical suspicion of non-accidental injury
• 15 on GCS		• Post traumatic seizure but no history of epilepsy
• Safeguarding check - consider mechanism of injury in a non-mobile child		• 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 under 1 year, presence of bruise, swelling or laceration of more than 5 cm on the head
		• Any sign of basal skull fracture (haemotympanum, "panda" eyes, cerebrospinal fluid leakage from ears or nose, Battle's sign)
		• Focal neurological deficit
		• Dangerous mechanism of injury (high speed road traffic accident, fall from > 3m, high speed injury from a projectile or an object)

GCS – Glasgow Coma Scale (see overleaf)

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.

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.

P = Responds to pain.

U = Unresponsive.

Head Injury Advice Sheet

Name of child: Age: Date/Time advice given:

Further advice/Follow-up:

Name of professional: Signature of professional:

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

You need to contact a doctor or nurse today. Please ring your GP surgery or call NHS 111– dial 111.

Green

- If none of the above features are present, most children with can be safely managed at home.

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

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.

GET IT ON Google Play | Download on the App Store

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

catch
Common Approach To Children's Health

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 syptoms mean you need to see a doctor.

To find your local pharmacy and open times visit
www.sthelenscares.co.uk

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.

Head Injury Advice Sheet

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 children's liquid 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 – water is best, and lukewarm drinks can also be soothing.
- Keep the room they are in at a comfortable temperature, but well ventilated
- It is OK to allow your child to sleep, but observe them regularly and check 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 you are concerned about them you should seek further advice.

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.

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.

Clinical Assessment Tool

Abdominal Pain

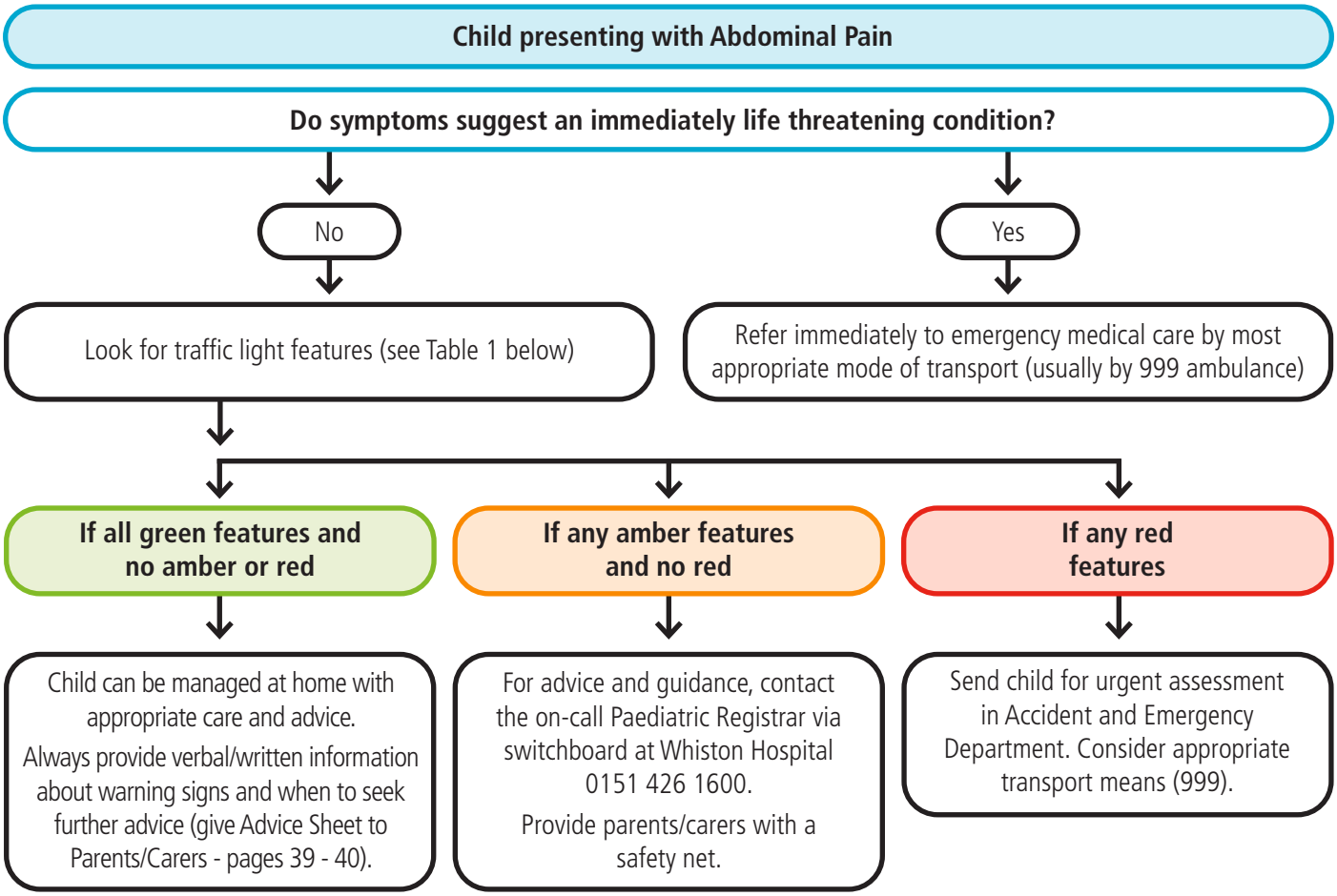

Table 1: Traffic light system for identifying severity of illness

Category	Green – low risk	Amber – Intermediate risk	Red – high risk
Activity	• Active/responds normally to social cues		• Drowsy/no response to social cues
Respiratory	Respiratory Rate Normal (RR) • Infant 40 breaths/min • Toddler 35 breaths/min • Pre-school 31 breaths/min • School age 27 breaths/min	• Under 12 months 50 – 60 breaths/ minute • Over 12 months 40 – 60 breaths/minute	Respiratory rate • > 60 breaths/min (all ages)
Sa02	• 95% in air	• 92 - 94% in air	• < 92% in air
Circulation and hydration	CRT < 2 seconds Heart rate normal • Infant 120 – 170 beats/min • Toddler 80 – 110 beats/min • Pre-school 70 – 110 beats/min • School age 70 – 110 beats/min	• CRT 2 – 3 seconds	• CRT > 3 seconds
Other	• No fever • Normal urine output • Normal Stool • Feeding normally	• Fever (see separate guide) • Abdominal distension • Sexually active/missed period • Palpable abdominal mass • Localised pain • Jaundice • Blood in urine or stool	• < 3 months of age

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

Signs and Symptoms of Specific Illnesses

Common causes of Abdominal Pain by Age

< 2 years	2 to 12 years	12 to 16 years
Gastroenteritis Constipation Intussusception Infantile colic Urinary Tract Infection Incarcerated Inguinal Hernia Trauma Pneumonia Diabetes	Gastroenteritis Mesenteric adenitis Constipation Urinary Tract Infection Onset of menstruation Psychogenic Trauma Pneumonia Diabetes Acute Appendicitis	Mesenteric adenitis Acute appendicitis Menstruation Mittelschmerz Ovarian Cyst Torsion Urinary Tract Infection Pregnancy Ectopic Pregnancy Testicular Torsion Psychogenic trauma Pneumonia Diabetes

Diagnosis to be considered	Symptoms and signs in conjunction with abdominal pain
Gastroenteritis	Vomiting Diarrhoea (does not exclude other conditions eg intussusception, pelvic appendicitis, pelvic abscess and inflammatory bowel disease)
Intestinal obstruction eg Intussusception or volvulus	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	Blood mixed with stools – ask about travel history and recent anti-biotic therapy
Inflammatory bowel disease	Blood in stools
Midgut volvulus (shocked child)	Blood in stools
Henoch schonlein purpura	Blood in stools
Haemolytic uremic syndrome	Blood in stools
Anorexia	Loss of appetite
Lower lobe pneumonia	Fever Cough Tachypnoea Desaturation
Poisoning	Ask about history of possible ingestions and what drugs and other toxic agents are available at home
Irreducible inguinal hernia	Examine inguinoscrotal region

Torsion of the testis	This is a surgical emergency and if suspected the appropriate surgeon should be consulted immediately
Jaundice	Hepatitis may present with pain due to liver swelling
Urinary Tract Infection	Routine urine analysis for children presenting with abdominal pain
Bites and stings	Ask about possibly bites and stings. Adder envenomation can result in abdominal pain and vomiting.
Peritonitis	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	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 post-menarchal female	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	Previous abdominal surgery (adhesions) Nephrotic syndrome (primary peritonitis) Mediterranean background (familial mediterranean fever Hereditary spherocytosis (cholethiasis) Cystic fibrosis (meconium ileus equivalent) Cystinuria Porphyria.

Abdominal Pain Advice Sheet

Name of child: Age: Date/Time advice given:

Further advice/Follow-up:

Name of professional: Signature of professional:

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

You need to contact a doctor or nurse today.
Please ring your GP surgery or call NHS 111– dial 111.

Green

- If none of the above features are present, most children with can be safely managed at home

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

Useful information

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Abdominal Pain Advice Sheet

About Abdominal Pain in children

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, bowel obstruction or intussusception (telescoping of part of the gut). Suspect appendicitis if pain low on the right side, walks bent over, won't hop or jump, and prefers to lie still.
- Period pain – some girls can have pain before their periods start.
- Poisoning – such as spider bites, dishwasher tablets, toilet discs, eating soap or smoking.
- 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 paediatric paracetamol oral suspension: avoid giving aspirin.
- Help your child drink plenty of clear fluids such as cooled boiled water or juice.
- 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.
- Place a gently heated wheatbag/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.

Paediatrics Support Provided by St Helens and Knowsley Teaching Hospitals NHS Trust

Within this booklet it is clearly indicated in which circumstances advice and guidance from colleagues in Paediatrics may be useful; mainly when the child has 'amber features and no diagnosis is reached' when using the Clinical Assessment Tool for each presenting condition.

Advice and guidance and referral to the Children's Observation Unit (ChObs)

Advice and guidance is available from the Children's Observation Unit (ChObs) from the on-call Registrar via the switchboard at Whiston Hospital 0151 426 1600. Telephone and ask for the paediatric doctor accepting GP referrals; switchboard will then bleep the doctor.

Patient information required

The Registrar will take the patient's history from the GP and will require the following information about the child:

- Child's details: name, DOB, NHS Number, reason for referral, parent/carers name and contact details.
- Basic observations: Temperature, Heart rate, Respiratory rate, Capillary Refill Time, SATS in air and Blood pressure.

What happens next?

The Registrar will provide advice on whether it is an appropriate referral for ChObs informed by the information you share.

If the referral is accepted then the GP should give the child's Parent/Carer a letter and **include the name of the Registrar/Senior House Officer (SHO) who accepted the referral** and the time of the telephone call.

GPs **MUST** give clear instructions to send the child **WITH A LETTER** to Ward 4F, CHObs, Whiston Hospital.

N.B. All referrals to ChObs must be discussed with the on-call Registrar. Direct referrals to ChObs without discussion and agreement with the on-call Registrar put the patient at risk; for some cases referral to a tertiary centre e.g. Alder Hey Children's NHS Foundation Trust is clinically indicated.

APPENDIX 1: Symptoms and signs of specific illnesses causing fever/pyrexia

Always check urine in unexplained fever

If meningococcal disease is suspected then administer parenteral antibiotics and refer urgently to hospital

Check blood glucose if possible

Diagnosis to be considered	Symptoms and signs in conjunction with fever
Meningococcal disease	Non-blanching rash, particularly with one or more of the following: ● An ill-looking child ● Lesions larger than 2 mm in diameter (purpura) ● CRT > 3 seconds ● Neck stiffness
Meningitis[1]	Neck stiffness ● Bulging fontanelle ● Decreased level of consciousness ● Convulsive status epilepticus
Herpes simplex encephalitis	Focal neurological signs ● Focal seizures ● Decreased level of consciousness
Pneumonia	● Tachypnoea, measured as: - 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]	● Vomiting ● Poor feeding ● Lethargy ● Irritability ● Abdominal pain or tenderness ● Urinary frequency or dysuria ● Offensive urine or haematuria
Septic arthritis/ osteomyelitis	● Swelling of a limb or joint ● Not using an extremity ● Non-weight bearing
Kawasaki disease[3]	Fever lasting longer than 5 days and at least four of the following: ● 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.

APPENDIX 2: Gastroenteritis

Box 1 Consider the following that may indicate diagnoses other then 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 tachypneoa
- Altered conscious state
- Neck-stiffness
- Abdominal distension or rebound tenderness
- History/Suspicion of poisoning
- Bulging fontanele (in infants)
- Non-blanching rash
- Blood and/or mucus in stool
- Bilious (green) vomit
- Severe or localised abdominal pain
- History of head injury

Box 2 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 diarrhoeal 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.

Box 3 Normal Paediatric Values:

Mean Respiratory Rate:	**Mean Heart Rate:**
Infant: 40	Infant: 120-170 bpm
Toddler: 35	Toddler: 80-110 bpm
Pre-School: 31	Pre-School: 70-110 bpm
School age: 27	School age: 70-110 bpm

Box 4 Stool Microbiology Advice:

Consider performing stool microbiological investigations if:

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

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 (ChObs).

Child's weight in kg	Maintenance fluid volume – ml per hour
2	8
3	12
4	16
5	20
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

Child's weight in kg	Maintenance fluid volume – ml per hour
31	71
32	72
33	73
34	74
35	75
36	76
37	77
38	78
39	79
40	80
41	81
42	82
43	83
44	84
45	85
46	86
47	87
48	88
49	89
50	90
51	91
52	92
53	93
54	94
55	95
56	96
57	97
58	98
59	99

APPENDIX 4: Advice Sheet – Children's Oral Fluid Challenge

Dear Parent / carer,

Your child needs to drink fluid in order to prevent dehydration.

Date .....

Name .....

ED Number/ Hospital .....

Number/ NHS Number .....

Dob.....

Weight .....

Please give your child …… ml of the suggested fluid, given by usual method of feeding every ten minutes

You need to tick the boxes below each time your child has a drink, and also mark down if your child vomits or has diarrhoea. Show this chart to the Doctor when your child is seen.

Thank you.

Time	Fluid given (tick please)	Vomit or diarrhoea?

The Big 6

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