

Supporting parents to recognise sepsis

What is Sepsis?

Sepsis is a rare but serious condition that arises when the body's response to infection causes injury to its own tissues and organs¹. It is also known as blood poisoning or septicaemia.

This Good Practice Point (GPP) aims to equip health visitors in their work supporting parents to recognise the signs of sepsis. It sets out what health visitors need to know about sepsis and is designed to raise awareness of the condition. Sepsis can be potentially life-threatening; parents know their children best and their concerns need to be taken seriously.

Sepsis can occur in anyone at any time and from any type of infection affecting any part of the body. The NHS website states that sepsis “can be hard to spot” and “there are lots of possible symptoms. They can be like symptoms of other conditions, including flu or a chest infection”¹. We know that identifying symptoms of sepsis early is vital and reduces the risk of death and long-term effects.

Health visitors are not expected to provide emergency care, or diagnosis. However, when they see an unwell child or a parent is concerned, it is important that they have the knowledge to support parents to make a decision about the most appropriate course of action and signpost them to the appropriate help based on the child's presenting symptoms^{2,3}.

Symptoms of sepsis in babies and children

Initial symptoms of sepsis are often non-specific and may include fever, cough, sore throat, vomiting and diarrhoea. As the illness progresses, any combination of the following signs and symptoms may develop. The NHS advises that you call 999 or go to A&E if a baby or young child has any of these symptoms of sepsis:

- Blue, pale or blotchy skin, lips or tongue – on brown or black skin, blueness may be easier to see on the lips, tongue or gums, under the nails or around the eyes
- A rash that does not fade when you roll a glass over it, the same test used for meningitis
- Difficulty breathing (you may notice grunting noises or their stomach sucking under their ribcage), breathlessness or breathing very fast
- A weak, high-pitched cry that's not like their normal cry
- Not responding like they normally do, or not interested in feeding or normal activities
- Being sleepier than normal or difficult to wake

Please note, babies and children may not have all these symptoms.

See the NICE flowchart on page 2 which is useful in identifying how urgently a child needs to be assessed.

More information on page 2

For additional resources see www.ihv.org.uk

The information in this resource was updated on 04/09/2023.

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Risk factors in children that could lead to sepsis¹

- Children under the age of 1 year
- Children who are immunocompromised, for example they:
 - » are being treated for cancer with chemotherapy
 - » are taking long-term steroids
 - » are diabetic
 - » have sickle cell disease
- Children who have had recent surgery or invasive procedures in the last 6 weeks
- Children with a breach of skin integrity such as cuts, burns, blisters or skin infections
- Children with indwelling lines or catheters.

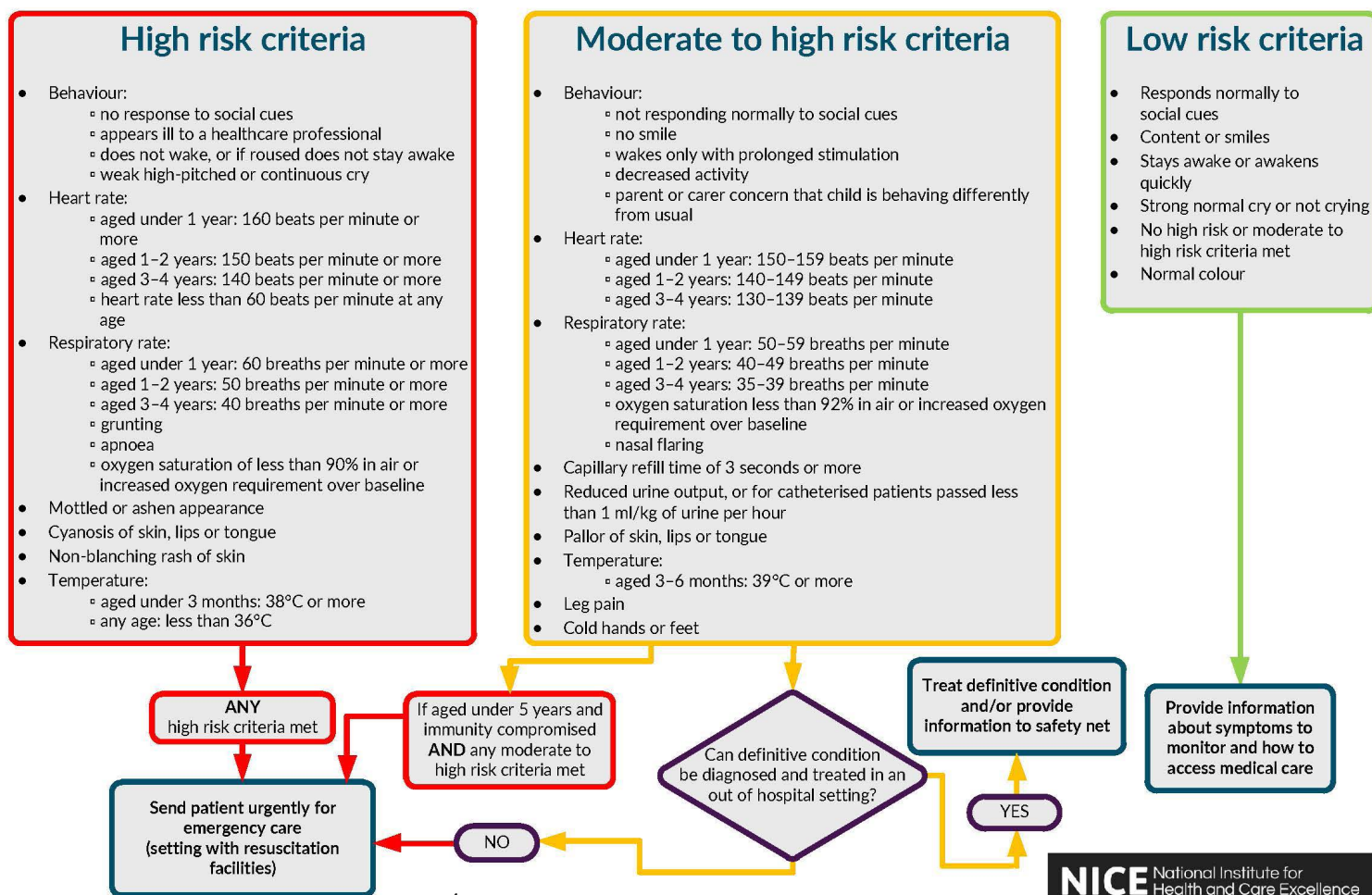
There are additional risk factors that make neonates particularly susceptible to life-threatening infections, and these include¹:

- Group B streptococcal infection in this pregnancy or in a previous baby
- Premature rupture of membranes
- A baby born before 37 weeks gestation
- Maternal fever of 38°C during labour
- Suspected intra-amniotic infection
- If the mother has received treatment for suspected sepsis in the 24 hours before or after birth
- Suspected infection in another baby in the case of a multiple pregnancy.

Identifying Sepsis

Prompt identification of sepsis symptoms is vital in order to ensure treatment is started and the risk of mortality is reduced. This flowchart developed by NICE is used in primary care to identify how serious the symptoms are and the treatment pathway¹:

Sepsis risk stratification tool: children aged under 5 years out of hospital



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NICE National Institute for Health and Care Excellence

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Institute of Health Visiting c/o Royal Society for Public Health, John Snow House, 59 Mansell St, London E1 8AN.

Email: info@ihv.org.uk Phone: 020 7265 7352 Registered Charity: 1149745

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Supporting parents to recognise Sepsis

The following RAG-rated resource, 'When should you worry?' produced by Healthier Together⁵, provides a simple tool that can support decision making and the conversations that health visitors have with families about sepsis.



If your child has any of the following:

- Is pale, mottled and feels abnormally cold to touch
- Has blue lips
- Too breathless to talk/ eat or drink
- Has a fit/ seizure
- Is extremely agitated (crying inconsolably despite distraction), confused or very lethargic (difficult to wake)
- Has a rash that does not disappear with pressure (the 'Glass Test')

You need urgent help.

Go to the nearest Hospital Emergency (A&E) Department or phone 999



If your child has any of the following:

- Is finding it hard to breathe
- Seems dehydrated (sunken eyes, drowsy or not passed urine for 12 hours)
- Is drowsy (excessively sleepy) or irritable (unable to settle them with toys, TV, food or picking up) – especially if they remain drowsy or irritable despite their fever coming down
- Has extreme shivering or complains of muscle pain
- Is 3-6 months of age with a temperature of 39°C / 102.2°F or above (but fever is common in babies up to 2 days after they receive vaccinations)
- Continues to have a fever of 38.0°C or above for more than 5 days
- Has had chickenpox in the past few days and is now getting more unwell with a high fever and spreading red rash
- Is getting worse or if you are worried

You need to contact a doctor or nurse today.

Please ring your GP surgery or call NHS 111 - dial 111

If symptoms persist for 4 hours or more and you have not been able to speak to either a member of staff from your GP practice or to NHS 111 staff, recheck that your child has not developed any red features.



If none of the above features are present

For support about infant crying, parents are signposted to the ICON website.

bit.ly/3laBZCB

ICON stands for:

I	Infant crying is normal
C	Comforting methods can help
O	It's ok to walk away
N	Never, ever shake a baby

Self care

Continue providing your child's care at home. If you are still concerned about your child, speak to your health visitor, local pharmacist or call NHS 111– dial 111

Children and young people who are unwell and have a high temperature should stay at home. They can go back to school, college or childcare when they no longer have a high temperature, and they are well enough to attend.

Supporting parents in practice

As Specialist Community Public Health Nurses, health visitors work with parents to improve their health literacy and confidence in managing childhood illnesses. Health visitors in most areas do not provide a diagnostic service but, when an unwell child attends their service, the practitioner should have the knowledge to support parents to make a decision about the most appropriate course of action and signpost them to the appropriate help based on the child's presenting symptoms.

- **Consideration when measuring temperature** – can be easily recorded using the correct equipment. However, not all thermometers are suitable for use in children. NICE¹ makes the following recommendations:

- Oral and rectal thermometers should not be used in children aged 0-5 years
- In infants under 4 weeks of age, an electronic thermometer should be used in the axilla

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- In children aged 4 weeks to 5 years, one of the following methods should be used:
 - » Electronic thermometer in the axilla
 - » Chemical dot thermometer in the axilla
 - » Infrared tympanic thermometer
- Forehead chemical thermometers are unreliable and should not be used
- A reported parental perception of a fever should be considered valid in the absence of a true thermometer reading¹. A fever of 38°C or greater in a child under 3 months is a high risk criteria for serious illness. A fever of 39°C or greater in a child aged 3-6 months is a moderate to high risk criteria for serious illness¹.

Good Practice Points for Health Visitors

- Fevers in babies and children are common and NICE guidance² helps clarify when a fever may be a sign of serious illness.
- Be aware of the clinical signs, symptoms and risk factors of sepsis in babies and young children, and of relevant national guidelines.
- Advise parents/carers that sepsis is rare and most fevers do not develop into a serious or life-threatening infection. Almost all children will recover quickly and without problems. Parents/ carers are advised to watch their child carefully when they are unwell, and follow the following advice²:
 - regular fluids including breast milk where appropriate
 - being able to recognise signs of dehydration
 - knowing how to test for a non-blanching rash including rashes in darker skin colours
 - the importance of checking on their child regularly during the night
 - light clothing is recommended
 - parents should keep their child away from childcare settings until the fever has resolved.
- Babies and young children who are unwell require regular monitoring as symptoms can change and they may deteriorate rapidly.
- Parents/carers should seek medical advice if their child has worsened
- Parents/ carers should be advised to seek urgent medical advice if their child has any of the 'red' signs/ symptoms in the Healthier Together 'When should you worry?'⁵ chart. If your child has any of the following:
 - Is pale, mottled and feels abnormally cold to touch
 - Has blue lips
 - Too breathless to talk/ eat or drink
 - Has a fit/ seizure
 - Is extremely agitated (crying inconsolably despite distraction), confused or very lethargic (difficult to wake)
 - Has a rash that does not disappear with pressure (the 'Glass Test')
- It is now recognised that tepid sponging can cause distress and is not effective compared to the safe administration of paracetamol or ibuprofen which follows the manufacturer's instructions. Advise parents/ carers to note the time and which medicine has been given.
- Paracetamol and Ibuprofen should not be given at the same time. If the child is still distressed before the next dose is due, the other medicine can be offered instead.
- The UK Sepsis Trust has many useful resources including some e-learning on sepsis in children. For more information, please visit: <https://bit.ly/3RBLU6e>
- Please see the following leaflet from The UK Sepsis Trust: <https://bit.ly/3lezjLq>

References

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4. National Institute for Health and Care Excellence (NICE) Risk stratification tools (2019) Available from: <https://bit.ly/3KTHg1i> [Accessed 05/01/2023]
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AUTHOR:

Elizabeth Tinsley FiHV, Senior Sister Paediatric A&E