Sepsis

For use by healthcare professionals only

Clinical Assessment/Management tool for Children

Healthier Together

NHS

Primary and Community Care Settings

Initial Assessment

- In any child presenting with suspected infection or abnormal observations with no clinical cause Think sepsis
- Sepsis can be hard to spot and symptoms can be vague.
- Think sepsis if a child looks very unwell, is deteriorating or has abnormal observations
- They can be like symptoms of other conditions, including flu or a chest infection
- Sepsis can be especially hard to spot in babies and young children, children and young people with a learning disability and families who have difficulty communicating (or English is not their first language)
- Pay attention to families and carers concerns

Red Flags

- The very young (<1 year)
- Not immunised
- Recent (<6 weeks) trauma or surgery or invasive procedure
- Impaired immunity due to illness or drugs
- Indwelling lines/catheters, any breach of skin integrity
- Chronic disease (neuro disability, chest disease)
- Recent Pregnancy or termination of pregnancy

CLINICAL FINDINGS	GREEN –sepsis not suspected	AMBER - possible sepsis	RED - sepsis suspected
Respiratory	• Respiratory - normal RR for age, • no respiratory distress, • oxygen saturations sats >/= 95%	• Tachypnoea - see table below • Oxygen saturation 92% - 94% in air • Signs of Mild Respiratory Distress (i.e. nasal flaring, mild chest recession)	• Tachypnoea: - see table below • Oxygen saturations < 92% • Signs of moderate or severe respiratory distress (i.e. moderate or severe chest recession, grunting)
Circulation and Hydration	• normal HR for age, • central capillary refill < 2s, • no signs of dehydration, • has passed urine in last 12 hours • normal skin and eyes	• Tachycardia - see table below • Central capillary refill 2-3 seconds • Mild signs of dehydration—Dry mucous membranes • Has not passed urine in last 12 hours	• Severe or persistent tachycardia • Central capillary refill >3 seconds • Moderate or severe signs of dehydration - reduced skin turgor, sunken eyes, sunken fontanelle • Very reduced or no urine output
Colour and Activity	• Normal colour of skin, lips and tongue • Responds normally to social cues • Stays awake or awakens quickly • Content / smiles • Strong normal cry / not crying	• Pallor reported by parent/carer • Reduced response to social cues • Wakes only with prolonged stimulation • Decreased activity • Poor feeding in infants	• Pale/mottled/ashen/blue • Non-blanching rash • No response to social cues • Unable to rouse or if roused does not stay awake • Weak, high pitched or continuous cry • Appears ill to a healthcare professional
Other symptoms, and signs	No amber or red symptoms or signs	• temp ≥ 39°C Age 3-6 months with no clear focus of infection • Fever for ≥ 5 days • A new lump ≥ 2 cm • Swelling of a limb or joint • Additional parental/carer support required? *If 1-3 months of age with fever within 48 hours of Men B vaccine and clinically well, consider safety netting	• Temp ≥ 38°C in babies under 3 months* • Low temperature (below 36°C) • Bulging fontanelle or neck stiffness • Focal seizures or Focal neurological signs • Bile-stained vomiting • Non-weight bearing or not using an extremity Note children under 1 month of age at highest risk of sepsis/ meningitis

GREEN ACTION	AMBER URGENT ACTION	RED IMMEDIATE ACTION
•Where a definitive condition affecting the child can be identified, use clinical judgment to treat using NICE guidance relevant to their diagnosis when available. • **If clinical concern of possible sepsis remains, seek advice even if trigger criteria not met** • Arrange follow up and re-assessment as clinically appropriate • Provide information about symptoms to monitor and how to access medical care	• Refer immediately for urgent review according to local pathway (hospital ED or Paediatrician unit) • Alert Paediatrician • Commence relevant treatment to stabilise child for transfer	• Give oxygen • Call 999 • Contact paediatrician/PED

This guidance has been reviewed and adapted by healthcare professionals across Humber and North Yorkshire with consent from the Hampshire development groups

Normal Vital Sign Values and Dehydration Risk and Management Charts

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Normal Vital Sign Values

Back to Pathway

Age	Heart Rate	Respiratory Rate	Blood Pressure (systolic)
1 month	110-180	30-50	70-104
1 year	80-160	20-30	72-110
10 years	70-110	16-20	90-121
12 years	60-110	16-20	90-126
14 years	60-100	16-20	92-130
2 years	80-140	20-28	74-110
3 months	110-180	30-45	70-104
4 years	80-120	20-26	78-112
6 months	110-180	25-35	72-110
6 years	75-115	18-24	82-115
8 years	70-110	18-22	86-118
Newborn	90-180	40-60	60-90

Source: Team DFTB . Normal vital sign values, Don't Forget the Bubbles, 2021. Available at: https://doi.org/10.31440/DFTB.1225

Children at increased risk of dehydration are those

- Aged < 6 month age group)
- Have not taken or have not been able to tolerate fluids before presentation
- Have vomited three times or more in the last 24 hours
- Has had six or more episodes of diarrhoea in the past 24 hours
- History of faltering growth

Management of Clinical Dehydration

- Trial of oral rehydration fluid (ORS) 2 mls/kg every 10 mins
- Consider checking blood glucose, esp in < 6month age group
- Consider referral to acute paediatric community nursing team if available
- If child fails to improve within 4 hours, refer to paediatrics