





# Sepsis for Clinical Staff

Version:	Owner:	Created:
1.0	J Godfrey	23.2.23
Published:	Approving Director:	Next Review

## **Contents**

### Identifying people with suspected sepsis

This guidance should be used together with the <u>algorithms organised by age</u> group and treatment location and the risk stratification tools. There are algorithms for:

- children under 5 out of hospital
- children aged 5 to 11 years out of hospital
- children and young people aged 12 to 17 out of hospital
- adults aged 18 and over out of hospital

There are also risk stratification tools for:

- children under 5
- children aged 5 to 11 years
- adults, children and young people aged 12 years and over
- 1.1.1Think 'could this be sepsis?' if a person presents with signs or symptoms that indicate possible infection.
- 1.1.2 Take into account that people with sepsis may have non-specific, non-localised presentations, for example feeling very unwell, and may not have a high temperature.
- 1.1.3 Pay particular attention to concerns expressed by the person and their family or carers, for example changes from usual behaviour.
- 1.1.4Assess people who might have sepsis with extra care if they cannot give a good history (for example, people with English as a second language or people with communication problems).
- 1.1.5 Assess people with any suspected infection to identify:
  - possible source of infection
  - factors that increase risk of sepsis (see section 1.2 on risk factors for sepsis)



- any indications of clinical concern, such as new onset abnormalities of behaviour, circulation or respiration.
- 1.1.6 Identify factors that increase risk of sepsis (see section 1.2 on risk factors for sepsis) or indications of clinical concern such as new onset abnormalities of behaviour, circulation or respiration when deciding during a remote assessment whether to offer a face-to-face-assessment and if so, on the urgency of face-to-face assessment.
- 1.1.7Use a structured set of observations (see <u>section 1.3 on 1.3 face-to-face assessment on people with suspected sepsis</u>) to assess people in a face-to-face setting to stratify risk (see <u>section 1.4 on stratifying risk of severe illness or death from sepsis</u>) if sepsis is suspected.
- 1.1.8Consider using an early warning score (<u>NEWS2</u> has been endorsed by NHS England) to assess people with suspected sepsis in acute hospital settings.
- 1.1.9 Suspect neutropenic seps is in patients having anticancer treatment who become unwell. [This recommendation is from <u>NICE's guideline on neutropenic seps is</u>.]
- 1.1.10Refer patients with suspected neutropenic sepsis immediately for assessment in secondary or tertiary care. [This recommendation is from <u>NICE's guideline on neutropenic sepsis</u>.]
- 1.1.11Treat people with neutropenic seps is in line with <u>NICE's guideline on neutropenic seps is</u>.

### 1.2 Risk factors for sepsis

- 1.2.1 Take into account that people in the groups below are at higher risk of developing seps is:
  - the very young (under 1 year) and older people (over 75 years) or people who are very frail
  - people who have impaired immune systems because of illness or drugs, including:
    - o people being treated for cancer with chemotherapy (see recommendation 1.1.9 in the section on identifying people with suspected sepsis)



- people who have impaired immune function (for example, people with diabetes, people who have had a splenectomy, or people with sickle cell disease)
- o people taking long-term steroids
- o people taking immunosuppressant drugs to treat nonmalignant disorders such as rheumatoid arthritis
- people who have had surgery, or other invasive procedures, in the past 6 weeks
- people with any breach of skin integrity (for example, cuts, burns, blisters or skin infections)
- people who misuse drugs intravenously
- people with indwelling lines or catheters.
- 1.2.2 Take into account that women who are pregnant, have given birth or had a termination of pregnancy or miscarriage in the past 6 weeks are in a high risk group for seps is. In particular, women who:
  - have impaired immune systems because of illness or drugs (see recommendation 1.1.5 in the section on identifying people with suspected sepsis)
  - have gestational diabetes or diabetes or other comorbidities
  - needed invasive procedures (for example, caesarean section, forceps delivery, removal of retained products of conception)
  - had prolonged rupture of membranes
  - have or have been in close contact with people with group A streptococcal infection, for example, scarlet fever
  - have continued vaginal bleeding or an offensive vaginal discharge.
- 1.2.3 Take into account the following risk factors for early-onset neonatal infection:
  - invasive group B streptococcal infection in a previous baby
  - maternal group B streptococcal colonisation, bacteriuria or infection in the current pregnancy
  - prelabour rupture of membranes
  - preterm birth following spontaneous labour (before 37 weeks' gestation)
  - suspected or confirmed rupture of membranes for more than 18 hours in a preterm birth
  - intrapartum fever higher than 38°C, or confirmed or suspected chorioamnionitis



- parenteral antibiotic treatment given to the woman for confirmed or suspected invasive bacterial infection (such as septicaemia) at any time during labour, or in the 24-hour periods before and after the birth (this does not refer to intrapartum antibiotic prophylaxis)
- suspected or confirmed infection in another baby in the case of a multiple pregnancy.

[This recommendation is from <u>NICE's guideline on neonatal</u> infection.]

### 1.3 Face-to-face assessment of people with suspected sepsis

- 1.3.1 Assess temperature, heart rate, respiratory rate, blood pressure, level of consciousness and oxygen saturation in young people and adults with suspected sepsis.
- 1.3.2Assess temperature, heart rate, respiratory rate, level of consciousness, oxygen saturation and capillary refill time in children under 12 years with suspected sepsis. [This recommendation is adapted from <u>NICE's guideline on fever in under 5s.</u>]
- 1.3.3 Measure blood pressure of children under 5 years if heart rate or capillary refill time is abnormal and facilities to measure blood pressure, including a correctly-sized blood pressure cuff, are available. [This recommendation is adapted <u>NICE's guideline on fever in under 5s.</u>]
- 1.3.4 Measure blood pressure of children aged 5 to 11 years who might have seps is if facilities to measure blood pressure, including a correctly-sized cuff, are available.
- 1.3.5Only measure blood pressure in children under 12 years in community settings if facilities to measure blood pressure, including a correctly-sized cuff, are available and taking a measurement does not cause a delay in assessment or treatment.
- 1.3.6 Measure oxygen saturation in community settings if equipment is available and taking a measurement does not cause a delay in assessment or treatment.
- 1.3.7Examine people with suspected sepsis for mottled or ashen appearance, cyanosis of the skin, lips or tongue, non-blanching rash of the skin, any breach



of skin integrity (for example, cuts, burns or skin infections) or other rash indicating potential infection.

1.3.8 Ask the person, parent or carer about frequency of urination in the past 18 hours.

#### 1.4 Stratifying risk of severe illness or death from sepsis

1.4.1Use the person's history and physical examination results to grade risk of severe illness or death from sepsis using criteria based on age (see tables 1, 2 and 3).

Adults, children and young people aged 12 years and over

#### References

https://www.nice.org.uk/guidance/ng51/chapter/Recommendations#risk-factors-for-sepsis https://www.rcplondon.ac.uk/projects/outputs/national-early-warning-score-news-2 News score

<u>https://www.clinicaltoolkit.co.uk/work/national-early-warning-score-news/</u> - Bris doc interactive tool

https://www.nice.org.uk/guidance/ng143/resources/support-for-education-and-learning-educational-resource-traffic-light-table-pdf-6960664333 - traffic light system for identifying illness under 5 Nice 2019

https://www.clinicaltoolkit.co.uk/knowledgebase/pediatric-reference-ranges/?highlight=paediatric+reference+card – Paediatric Ref card

<u>https://www.nice.org.uk/guidance/ng143/chapter/Recommendations</u> - Under 5's assessment and initial management Nice 2019

#### **Version Control**

Date	Version	Author	Change Details
23/02/23	1	K Shepherd	New SOP.

