NICE National Institute for Health and Care Excellence

NICE guideline

Suspected sepsis in people aged 16 or over: recognition, assessment and early management

NICE guideline
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Your responsibility

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the Yellow Card Scheme.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

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This guideline replaces NG51.

This guideline is the basis of QS213.

Overview

This guideline covers the recognition, diagnosis and early management of suspected sepsis in people aged 16 or over who are not and have not recently been pregnant. It includes recommendations on recognition and early assessment, initial treatment, escalating care, finding and controlling the source of infection, early monitoring, information and support, and training and education.

NICE has also produced guidelines on:

- suspected sepsis in pregnant or recently pregnant people and
- suspected sepsis in people under 16.

See the visual summaries on evaluating and managing suspected sepsis in people aged 16 or over.

Who should use this guidance?

- People aged 16 or over with suspected sepsis who are not and have not recently been pregnant, their families and carers
- Healthcare professionals working in primary, secondary and tertiary care

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Could this be sepsis?

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Healthcare professionals should follow our general guidelines for people delivering care:

- Babies, children and young people's experience of healthcare
- Decision making and mental capacity
- Medicines adherence
- Medicines optimisation
- Multimorbidity
- Patient experience in adult NHS services
- Shared decision making.

1.1 When to suspect sepsis

1.1.1 Think 'could this be sepsis?' if a person presents with symptoms or signs that indicate possible infection. **[2016]**

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

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temperature. **[2016]**

1.1.3 Pay particular attention to concerns expressed by the person and their family or carers, for example changes from usual behaviour. **[2016]**

1.1.4 Assess people who might have sepsis with extra care if there is difficulty in taking their history, for example people with English as a second language or people with communication challenges (such as those associated with neurodiversity, cognitive impairment, learning disabilities, severe mental health conditions or brain injury). **[2016, amended 2025]**

1.1.5 Assess people with any suspected infection to identify:

- possible source of infection (see the recommendations on finding and controlling the source of infection)
- factors that increase risk of sepsis (see people who are most vulnerable to sepsis)
- any indications of clinical concern, such as new-onset abnormalities of behaviour, circulation or respiration. **[2016]**

For a short explanation of why the committee amended this recommendation in 2025 and how it might affect practice, see the rationale and impact section on people who are most vulnerable to sepsis.

Full details of the evidence and the committee's discussion are in evidence review I: sepsis risk factors.

1.1.6 During a remote assessment, when deciding whether to offer a face-to-face assessment and, if so, on the urgency of it, identify:

- factors that increase risk of sepsis (see people who are most vulnerable to sepsis) and
- indications of clinical concern such as new-onset abnormalities of behaviour, circulation or respiration. **[2016]**

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1.1.7 Use a structured set of observations to assess people in a face-to-face setting to stratify risk if sepsis is suspected. (See the recommendations on face-to-face assessment and the recommendations on evaluating risk). **[2016]**

1.1.8 Use the national early warning score (NEWS2) to assess people with suspected sepsis who are aged 16 or over, are not and have not recently been pregnant, and are in an acute hospital setting, acute mental health setting or ambulance. **[2024]**

For a short explanation of why the committee made the 2024 recommendation on using NEWS2 and how it might affect practice, see the rationale and impact section on evaluating risk level in people with suspected sepsis in acute hospital settings, acute mental health settings and ambulances.

Full details of the evidence and the committee's discussion are in evidence review A: stratifying risk of severe illness or death from sepsis.

1.1.9 Consider using an early warning score to assess people with suspected sepsis who are 16 or over, in a community or custodial setting. **[2016, amended 2024]**

1.1.10 Suspect neutropenic sepsis in people who become unwell and:

- are having or have had systemic anticancer treatment within the last 30 days
- are receiving or have received immunosuppressant treatment for reasons unrelated to cancer; use clinical judgement (based on the person's specific condition, medical history, or both, and on the treatment they received) to determine whether any past treatment may still be likely to cause neutropenia. **[2016, amended 2024]**

1.1.11 Refer patients with suspected neutropenic sepsis immediately for assessment in secondary or tertiary care. [This recommendation is from NICE's guideline on neutropenic sepsis in people with cancer.] **[2012]**

1.1.12 Treat people with neutropenic sepsis, regardless of cause, in line with NICE's guideline on neutropenic sepsis in people with cancer. **[2016, amended 2024]**

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For a short explanation of why the committee amended the neutropenic sepsis recommendations and how these might affect practice, see the rationale and impact section on people with neutropenia or immunosuppression.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

1.2 People who are most vulnerable to sepsis

1.2.1 Take into account the factors that may increase the risk of developing sepsis or sepsis not being identified promptly. These include:

- age: being 75 or over
- ethnicity: being from an ethnic minority background
- clinical features such as:
  - frailty
  - multimorbidities or severe chronic conditions
  - impaired immune function because of illness or medical treatment
  - surgery or invasive procedures in the past 6 weeks
  - indwelling catheters
  - repeated antibiotic use
  - breach of skin integrity
- communication challenges, such as with people:
  - with learning disabilities
  - with cognitive impairment
  - who need an interpreter

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- drugs or alcohol misuse
- social, economic or environmental factors such as:
  - homelessness
  - living in deprived areas.

    See also recommendation 1.1.10 on when to suspect neutropenic sepsis. **[2025]**

For a short explanation of why the committee made the 2025 recommendation and how it might affect practice, see the rationale and impact section on people who are most vulnerable to sepsis.

Full details of the evidence and the committee's discussion are in evidence review I: sepsis risk factors.

For specific risk in pregnant or recently pregnant people, see NICE's guideline on suspected sepsis in pregnant or recently pregnant people.

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Face-to-face assessment

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- Multimorbidity
- Patient experience in adult NHS services
- Shared decision making.

1.3 Initial assessment and examination

1.3.1 Assess temperature, heart rate, respiratory rate, blood pressure, level of consciousness and oxygen saturation in people with suspected sepsis. **[2016]**

1.3.2 In community settings, measure oxygen saturation if equipment is available and taking a measurement does not cause a delay in assessment or treatment. **[2016]**

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1.3.3 Examine people with suspected sepsis for:

- mottled or ashen appearance
- cyanosis of the skin, lips or tongue
- non-blanching petechial or purpuric rash
- any breach of skin integrity (for example, cuts, burns or skin infections)
- other rash indicating potential infection.

For signs and symptoms of meningococcal disease, see the NICE guideline on bacterial meningitis and meningococcal disease. **[2016, amended 2024]**

1.3.4 Ask the person or their family or carers how often the person urinated in the past 18 hours. **[2016]**

1.3.5 Ask the person with suspected sepsis and their family or carers about any recent fever or rigors. **[2016]**

1.3.6 Ask the person or their family or carers if the person has recently presented (for example to their GP or to hospital) with symptoms or signs that could indicate sepsis. **[2024]**

For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the rationale and impact section on initial assessment and examination.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

1.3.7 As part of the initial assessment, carry out a thorough clinical examination to look for sources of infection, including sources that might need drainage or other interventions. Follow the recommendations on finding and controlling the source of infection. **[2016, amended 2024]**

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For a short explanation of why the committee amended this recommendation and how it might affect practice, see the rationale and impact section on finding and controlling the source of infection.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

1.4 Interpreting findings

Temperature in suspected sepsis

1.4.1 Do not rely on fever or hypothermia alone to rule sepsis either in or out. **[2016]**

1.4.2 Take into account that some groups of people with sepsis may not develop a raised temperature. These include:

- people who are older or very frail
- people having treatment for cancer
- people severely ill with sepsis
- people with a spinal cord injury. **[2016, amended 2024]**

1.4.3 Take into account that a rise in temperature can be a physiological response, for example after surgery or trauma. **[2016]**

Heart rate in suspected sepsis

1.4.4 Interpret the heart rate of a person with suspected sepsis in context, taking into account that:

- baseline heart rate may be lower in young people and adults who are fit
- older people with an infection may not develop an increased heart rate

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- older people may develop a new arrhythmia in response to infection rather than an increased heart rate
- heart rate response may be affected by medicines such as beta-blockers. **[2016]**

Blood pressure in suspected sepsis

1.4.5 Interpret blood pressure in the context of a person's previous blood pressure, if known. Be aware that the presence of normal blood pressure does not exclude sepsis in young people. **[2016]**

Confusion, mental state and cognitive state in suspected sepsis

1.4.6 Interpret a person's mental state in the context of their normal function and treat changes as being significant. **[2016]**

1.4.7 Be aware that changes in cognitive function may be subtle and assessment should include history from the person and their family or carers. **[2016]**

1.4.8 Take into account that changes in cognitive function may present as changes in behaviour or irritability in adults with a learning disability or dementia. **[2016, amended 2024]**

1.4.9 Take into account that changes in cognitive function in older people may present as acute changes in functional abilities. **[2016]**

Oxygen saturation in suspected sepsis

1.4.10 Take into account that if peripheral oxygen saturation is difficult to measure in a person with suspected sepsis, this may indicate poor peripheral circulation because of shock. **[2016]**

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Be aware that some pulse oximeters can underestimate or overestimate oxygen saturation levels, especially if the saturation level is borderline. Overestimation has been reported in people with dark skin. See also the NHS England Patient Safety Alert on the risk of harm from inappropriate placement of pulse oximeter probes.

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Evaluating risk

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- Patient experience in adult NHS services
- Shared decision making.

1.5 In community and custodial settings

1.5.1 For people aged 16 or over in the community and in custodial settings, grade risk of severe illness or death from sepsis using the person's:

- history
- physical examination results and

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- criteria based on age (for people aged 16 or over who are not and have not recently been pregnant; see table 1. **[2016, amended 2024]**

1.5.2 Recognise that people aged 16 or over with suspected sepsis in the community and in custodial settings are at:

- high risk of severe illness or death from sepsis if they meet any of the high-risk criteria in table 1
- moderate to high risk of severe illness or death from sepsis if they meet any of the moderate- to high-risk criteria in table 1. **[2016, amended 2024]**

1.5.3 If people aged 16 or over with suspected sepsis in the community and in custodial settings do not meet any high-risk or moderate- to high-risk criteria, see them as being at low risk of severe illness or death from sepsis. **[2016, amended 2024]**

Criteria for stratification of risk from sepsis in people aged 16 or over in non-acute settings

Table 1: Criteria for stratification of risk of severe illness or death from sepsis in people aged 16 or above if they are in a community or custodial setting

Category	High-risk criteria	Moderate- to high-risk criteria
History	Objective evidence of new altered mental state	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

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Category	High-risk criteria	Moderate- to high-risk criteria
Respiratory	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 chronic hypercapnic respiratory failure) See recommendation 1.4.10 for safety warnings about the use of pulse oximeters	Raised respiratory rate: 21 to 24 breaths per minute
Blood pressure	Systolic blood pressure 90 mmHg or less or systolic blood pressure more than 40mmHg below normal	Systolic blood pressure 91 to 100 mmHg
Circulation and hydration	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	Raised heart rate: 91 to 130 beats per minute (100 to 130 beats per minute in pregnancy) or new-onset arrhythmia Not passed urine in the past 12 to 18 hours For catheterised patients, passed 0.5 ml/kg to 1 ml/kg of urine per hour
Temperature	–	Tympanic temperature less than 36°C
Skin	Mottled or ashen appearance Cyanosis of skin, lips or tongue Non-blanching petechial or purpuric rash For signs and symptoms of meningococcal disease, see the NICE guideline on bacterial meningitis and meningococcal disease	Signs of potential infection, including redness, swelling or discharge at surgical site or breakdown of wound

This table is also downloadable as a visual summary on evaluating risk of severe illness or

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death in community or custodial settings.

1.6 In acute hospital settings, acute mental health settings and ambulances

NICE has also produced a visual summary on evaluating risk of severe illness or death in acute healthcare settings with NEWS2.

1.6.1 In people aged 16 or over, grade risk of severe illness or death from sepsis using the person's:

- history
- physical examination results (especially symptoms and signs of infection – in line with the recommendations on when to suspect sepsis) and
- NEWS2 score.

  Interpret the NEWS2 scores within the context of the person's underlying physiology and comorbidities. **[2024]**

1.6.2 When evaluating the risk of severe illness or death from sepsis in people aged 16 or over with suspected or confirmed infection, use clinical judgement to interpret the NEWS2 score and recognise that:

- a score of 7 or more suggests high risk of severe illness or death from sepsis
- a score of 5 or 6 suggests a moderate risk of severe illness or death from sepsis
- a score of 1 to 4 suggests a low risk of severe illness or death from sepsis
- a score of 0 suggests a very low risk of severe illness or death from sepsis
- if a single parameter contributes 3 points to their NEWS2 score, request a high-priority review by a clinician with core competencies in the care of acutely ill patients (FY2 or above), for a definite decision on the person's level of risk of severe illness or death from sepsis. **[2024]**

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1.6.3 Consider evaluating the person's risk of severe illness or death from sepsis as being higher than suggested by their NEWS2 score alone if any of the following is present:

- mottled or ashen appearance
- non-blanching petechial or purpuric rash
- cyanosis of skin, lips or tongue. **[2024]**

1.6.4 Consider evaluating the person's risk of severe illness or death from sepsis as being higher than suggested by their NEWS2 score alone if there is cause for concern because of deterioration or lack of improvement of the person's condition since:

- any previous NEWS2 score was calculated
- any interventions have taken place.

  This should include taking into account any NEWS2 score calculated or intervention carried out before initial assessment in the emergency department. **[2024]**

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the rationale and impact section on evaluating risk level in people with suspected sepsis in acute hospital settings, acute mental health settings and ambulances.

Full details of the evidence and the committee's discussion are in evidence review A: stratifying risk of severe illness or death from sepsis.

When to recalculate a NEWS2 score

1.6.5 Recalculate the NEWS2 score and re-evaluate risk of sepsis periodically, in line with the AoMRC statement on the initial antimicrobial treatment of sepsis (2022):

- every 30 minutes, for those at high risk of severe illness or death from sepsis

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- every hour, for those at moderate risk of severe illness or death from sepsis
- every 4 to 6 hours, for those at low risk of severe illness or death from sepsis
- when standard observations are carried out, in line with local protocol, for those at very low risk of severe illness or death from sepsis. **[2024]**

1.6.6 If there is deterioration or an unexpected change in the person's condition, recalculate the NEWS2 score and re-evaluate their risk of sepsis. **[2024]**

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the rationale and impact section on evaluating risk level in people with suspected sepsis in acute hospital settings, acute mental health settings and ambulances.

Full details of the evidence and the committee's discussion are in evidence review A: stratifying risk of severe illness or death from sepsis.

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Managing suspected sepsis

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- Shared decision making.

1.7 Outside acute hospital settings

NICE has also produced visual summaries on:

- Managing risk of severe illness or death in community or custodial settings.
- Managing risk of severe illness or death in an acute mental health setting.
- Managing risk of severe illness or death in an ambulance.

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When to transfer immediately to an acute hospital setting

In community and custodial settings

1.7.1 If they meet any high-risk criteria, refer people aged 16 or over with suspected sepsis in the community and in custodial settings for emergency medical care (see table 1).

Use the most appropriate means of transport (usually 999 ambulance).

Emergency care requires facilities for resuscitation to be available and, depending on local services, may be an emergency department or medical admissions unit. **[2016, amended 2024]**

1.7.2 Pre-alert secondary care (through GP or ambulance service) when any high-risk criteria are met in a person aged 16 or over with suspected sepsis in the community or in a custodial setting and transfer them immediately. **[2016, amended 2024]**

In acute mental health settings

1.7.3 For people in an acute mental health setting who are aged 16 or over and are at high risk of severe illness or death from sepsis, refer for emergency medical care. **[2024, amended 2025]**

For a short explanation of why the committee made this recommendation and how it might affect practice, see the rationale and impact section on when to transfer immediately: people in mental health settings.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

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Transfer by ambulance for people with consecutive NEWS2 scores of 5 or above

1.7.4 Ambulance crews should consider a time-critical transfer and pre-alerting the hospital for people aged 16 or over with suspected or confirmed infection who **either** have consecutive NEWS2 scores of 5 or above **or** show cause for significant clinical concern. **[2024]**

1.7.5 When deciding whether a time-critical transfer and pre-alerting the hospital is needed for someone aged 16 or over with consecutive NEWS2 scores of 5 or above and suspected or confirmed infection, take into account:

- local guidelines and protocols in relation to clinician scope of practice
- agreements on transfer to hospital
- advance care planning
- end of life care planning. **[2024]**

For a short explanation of why the committee made these recommendations and how they might affect practice, see the rationale and impact section on transfer by ambulance for people with consecutive NEWS2 scores of 5 or above.

Full details of the evidence and the committee's discussion are in evidence review B: managing and treating suspected sepsis in acute hospital settings; antibiotic treatment in people with suspected sepsis.

Managing the condition while awaiting transfer

1.7.6 In ambulances and acute hospital settings, on taking over care for someone whose risk of severe illness or death from sepsis has originally been evaluated in the community or in a custodial setting, evaluate their risk of severe illness or death from sepsis using NEWS2. **[2024]**

1.7.7 In remote and rural locations where transfer time to emergency department is routinely more than 1 hour, ensure GPs have mechanisms in place to give

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antibiotics to people with high-risk criteria in pre-hospital settings. For high-risk criteria, see table 1. **[2016, amended 2024]**

1.7.8 In remote and rural locations where combined transfer and handover times to emergency department are greater than 1 hour:

- ambulance services should consider whether they need to put mechanisms in place to be able to give antibiotics to people at high risk of severe illness or death from sepsis if antibiotics have not been given before by a GP (see recommendation 1.6.1 on evaluating risk of severe illness or death from sepsis).
- paramedics who are thinking about giving antibiotics should follow local guidelines. **[2016, amended 2024]**

  See also the recommendations on choice of antibiotic therapy.

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the rationale and impact section on managing suspected sepsis while awaiting transfer to an acute hospital setting.

Full details of the evidence and the committee's discussion are in evidence review B: managing and treating suspected sepsis in acute hospital settings; antibiotic treatment in people with suspected sepsis.

If immediate transfer is not required

In community or custodial settings

1.7.9 In the community and in custodial settings, assess people aged 16 or over with suspected sepsis who meet any moderate- to high-risk criteria (as per table 1) to:

- make a definitive diagnosis of their condition
- decide whether their condition can be treated safely outside hospital.

  If a definitive diagnosis is not reached or the person's condition cannot be

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treated safely outside an acute hospital setting, refer them urgently for emergency care. **[2016, amended 2024]**

1.7.10 In the community and in custodial settings, provide information about the following to people aged 16 or over with suspected sepsis who do not meet any high-risk or moderate- to high-risk criteria:

- symptoms to monitor and
- how to access medical care if they are concerned.

Also see information at discharge for people assessed for suspected sepsis, but not diagnosed with sepsis. **[2016, amended 2024]**

In acute mental health settings

1.7.11 For people in acute mental health settings who are aged 16 or over and are at moderate risk of severe illness and death from sepsis (see recommendation 1.6.1 on evaluating risk of severe illness or death from sepsis):

- get medical advice and
- decide whether their condition can be treated without transfer. **[2016, amended 2025]**

1.7.12 If the person's condition cannot be treated in an acute mental health setting, refer for emergency medical care. **[2016, amended 2025]**

1.7.13 In acute mental health settings, provide information about the following to people aged 16 or over who are at low or very low risk of sepsis:

- symptoms to monitor and
- how to access medical care if they are concerned.

Also see information at discharge for people assessed for suspected sepsis, but not diagnosed with sepsis. **[2016, amended 2024]**

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For a short explanation of why the committee made the 2025 recommendations and how they might affect practice, see the rationale and impact section on managing suspected sepsis when immediate transfer is not required for people in mental health settings.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

1.8 In acute hospital settings

NICE has also produced a visual summary on managing risk of severe illness or death in acute hospital settings with NEWS2.

Initial investigations to find the source of infection

1.8.1 For people in hospital who have suspected infections:

- start looking for the source of infection (see the section on finding and controlling the source of infection)
- take microbiological and blood samples before giving an antimicrobial.

See the UK standards for microbiology investigations. **[2016, amended 2024]**

For a short explanation of why the committee amended this recommendation and how it might affect practice, see the rationale and impact section on finding and controlling the source of infection.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

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High risk of severe illness or death from sepsis

A person is at high risk of severe illness or death from sepsis if they have suspected or confirmed infection and a NEWS2 score of 7 or above.

A person is also at high risk of severe illness or death from sepsis if they have suspected or confirmed infection, a NEWS2 score below 7, and:

- a single parameter contributes 3 points to their NEWS2 score and a medical review has confirmed that they are at high risk (see recommendation 1.6.2 on evaluating risk of severe illness or death from sepsis) or
- there are any other clinical reasons for concern (see recommendations 1.6.3 and 1.6.4 on taking causes for clinical concern into account when evaluating risk of severe illness or death from sepsis).

1.8.2 For people aged 16 or over who are at high risk of severe illness or death from sepsis:

- arrange for a clinician with core competencies in the care of acutely ill patients (FY2 level or above) to urgently assess the person's condition and think about alternative diagnoses to sepsis
- carry out a venous blood test, including for:
  - blood gas, including glucose and lactate measurement
  - blood culture
  - full blood count
  - C-reactive protein
  - urea and electrolytes
  - creatinine
  - liver function tests
  - a clotting screen

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- give antibiotics in line with recommendation 1.8.3 and the recommendations on choice of antibiotic therapy
- refer to the senior clinical decision maker as soon as possible
- use clinical judgement to decide whether to discuss with a consultant. **[2024]**

For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the rationale and impact section on managing suspected sepsis in acute hospital settings: high and moderate risk of severe illness or death from sepsis.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

Antibiotics

1.8.3 Give people aged 16 or over who are at high risk of severe illness or death from sepsis broad-spectrum intravenous antibiotic treatment, within 1 hour of calculating the person's NEWS2 score on initial assessment in the emergency department or on ward deterioration. Only give antibiotics if they have not been given before for this episode of sepsis (see recommendations 1.7.7 and 1.7.8 on managing the condition while awaiting transfer).

Also see the recommendations on finding and controlling the source of infection and choice of antibiotic therapy. **[2024]**

For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the rationale and impact section on managing suspected sepsis: type and timing of antibiotics.

Full details of the evidence and the committee's discussion are in evidence review B: managing and treating suspected sepsis in acute hospital settings; antibiotic treatment in people with suspected sepsis.

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Intravenous fluids

1.8.4 Give an intravenous fluid bolus without delay (within 1 hour of identifying that they are at high risk) to people aged 16 or over with a high risk of severe illness or death from sepsis, unless contraindicated. **[2025]**

Type of fluid

1.8.5 If people aged 16 or over need intravenous fluid resuscitation, use an isotonic electrolyte crystalloid solution (a balanced solution such as Hartmann's, or 0.9% saline if a balanced solution is not available). **[2025]**

Volume of fluid

1.8.6 Give an initial bolus of 250 ml. Ideally, give this over 10 to 15 minutes. **[2025]**

1.8.7 Give further 250 ml boluses if needed, up to 1,000 ml total (including any fluids previously given). **[2025]**

1.8.8 Reassess after each fluid bolus. **[2025]**

1.8.9 If the person has not improved enough (for example, increased blood pressure, improved consciousness level) after 1,000 ml has been given, get advice from a senior clinical decision maker. **[2025]**

1.8.10 If using a pump or flow controller to deliver intravenous fluids for resuscitation to people over 16 years with suspected sepsis who need fluids in bolus form ensure the device is capable of delivering fluid at the required rate for example at least 2,000 ml/hour in adults. **[2016]**

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For a short explanation of why the committee made the 2025 recommendations and how they might affect practice, see the rationale and impact section on fluids.

Full details of the evidence and the committee's discussion are in:

- evidence review F: Indicators of organ hypoperfusion in people with suspected sepsis
- evidence review G: intravenous fluids for resuscitation.

Vasopressors

1.8.11 Discuss with the critical care team or, if not available, with the senior clinical decision maker:

- whether vasopressors should be given and, if so
- whether they should be started peripherally, if central access is not available. **[2025]**

1.8.12 Before starting vasopressors, make a shared decision with the person and, if appropriate, their family and carers (and, if possible, their specialist or critical care team) about whether escalation is appropriate. Take into account:

- their overall condition
- any advance care or treatment escalation plans (also see the NICE guidelines on end of life care services and care of dying adults in the last days of life)
- how urgently they need critical care – some of these discussions may not be possible in the time available. **[2025]**

1.8.13 If starting vasopressors peripherally:

- follow local policies on choice of vasopressor, dose, concentration, and monitoring
- ensure the peripheral line and cannula are visible and

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- monitor them for any signs of adverse events (in particular extravasation). **[2025]**

Note: not all vasopressors are licensed for this indication, so use would be off-label. See NICE's information on prescribing medicines.

For a short explanation of why the committee made the 2025 recommendations and how they might affect practice, see the rationale and impact section on vasopressors.

Full details of the evidence and the committee's discussion are in:

- evidence review G: intravenous fluids for resuscitation
- evidence review H: safety of peripheral administration of vasopressors.

Monitoring and escalation

1.8.14 Recalculate the NEWS2 score periodically, in line with the recommendations on when to recalculate a NEWS2 score. **[2024]**

1.8.15 If a person aged 16 years or over who is at high risk of severe illness or death from sepsis does not respond within 1 hour of any intervention:

- ensure the senior clinical decision maker attends in person and
- refer to or discuss with a critical care specialist or team and
- inform the responsible consultant. **[2024]**

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For a short explanation of why the committee made these recommendations and how they might affect practice, see the rationale and impact section on managing suspected sepsis in acute hospital settings: high and moderate risk of severe illness or death from sepsis.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

Moderate risk of severe illness or death from sepsis

A person is at moderate risk of severe illness or death from sepsis if they have suspected or confirmed infection and a NEWS2 score of 5 or 6.

A person is also at moderate risk of severe illness or death from sepsis if they have suspected or confirmed infection, a NEWS2 score below 5, and:

- a single parameter contributes 3 points to their NEWS2 score, and a medical review has confirmed that they are at moderate risk (see recommendation 1.6.2 on evaluating risk of severe illness or death from sepsis) or
- there are any other clinical reasons for concern (see recommendations 1.6.3 and 1.6.4 on taking causes for clinical concern into account when evaluating risk of severe illness or death from sepsis).

1.8.16 For people aged 16 or over with a moderate risk of severe illness or death from sepsis:

- carry out a venous blood test, including for:
  - blood gas, including glucose and lactate measurement
  - blood culture
  - full blood count
  - C-reactive protein

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  - urea and electrolytes
  - creatinine
  - liver function tests
  - a clotting screen

- arrange for a clinician with core competencies in the care of acutely ill patients (FY2 level or above) to review the person's condition and venous lactate results within 1 hour of the person being assessed as at moderate risk. **[2024]**

For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the rationale and impact section on managing suspected sepsis in acute hospital settings: high and moderate risk of severe illness or death from sepsis.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

1.8.17 For people at moderate risk of severe illness or death from sepsis, a clinician with core competencies in the care of acutely ill patients (FY2 level or above) should consider:

- deferring administration of a broad-spectrum antibiotic treatment for up to 3 hours after calculating the person's first NEWS2 score on initial assessment in the emergency department or on ward deterioration and
- using this time to gather information for a more specific diagnosis (see recommendations on finding and controlling the source of infection and choice of antibiotic therapy)
- discussing with a senior clinical decision maker.

  Once a decision is made to give antibiotics, do not delay administration any further. **[2024]**

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1.8.18 For someone with a NEWS2 score of 5 or 6 and a single parameter contributing 3 points to their total NEWS2 score, use clinical judgement to determine the likely cause of the 3 points in one parameter. If the likely cause is:

- the current infection, manage as high risk and give broad-spectrum antibiotic treatment in line with recommendation 1.8.3
- something else (such as a pre-existing condition), manage as moderate risk and follow recommendation 1.8.17. **[2024]**

For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the rationale and impact section on managing suspected sepsis: type and timing of antibiotics.

Full details of the evidence and the committee's discussion are in evidence review B: managing and treating suspected sepsis in acute hospital settings; antibiotic treatment in people with suspected sepsis.

1.8.19 For people aged 16 or over at moderate risk of severe illness or death from sepsis:

- recalculate the NEWS2 score periodically, in line with the recommendations on when to recalculate a NEWS2 score
- if there is further cause for concern (such as deterioration or no improvement), escalate care to a clinician with core competencies in the care of acutely ill patients (FY2 level or above). **[2024]**

For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the rationale and impact section on managing suspected sepsis in acute hospital settings: high and moderate risk of severe illness or death from sepsis.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

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Evidence of hypoperfusion

1.8.20 For people aged 16 or over with a moderate risk of severe illness or death from sepsis and evidence of hypoperfusion (for example, lactate over 2 mmol/litre or evidence of acute kidney injury), treat their condition as if they were at high risk of severe illness or death from sepsis. **[2025]**

No evidence of hypoperfusion

1.8.21 Consider giving intravenous fluids, after clinical assessment, to people aged 16 or over with a moderate risk of severe illness or death from sepsis and no evidence of hypoperfusion. See the recommendations on type and volume of fluid. **[2025]**

For a short explanation of why the committee made the 2025 recommendations and how they might affect practice, see the rationale and impact section on fluids.

Full details of the evidence and the committee's discussion are in evidence review F: indicators of organ hypoperfusion in people with suspected sepsis.

Low risk of severe illness or death from sepsis

A person is at low risk of severe illness or death from sepsis if they have suspected or confirmed infection and a NEWS2 score of 1 to 4 (see recommendation 1.6.2 on evaluating risk of severe illness or death from sepsis), **or** a NEWS2 score of 0 and cause for clinical concern (see recommendations 1.6.3 and 1.6.4 on taking causes for clinical concern into account when evaluating risk of severe illness or death from sepsis).

1.8.22 For people aged 16 or over at low risk of severe illness or death from sepsis:

- arrange for registered health practitioner review within 1 hour of the person being assessed as at low risk
- perform blood tests if indicated. **[2024]**

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For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the rationale and impact section on low or very low risk of severe illness or death from sepsis.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

1.8.23 For people at low risk of severe illness or death from sepsis, request assessment by a clinician with core competencies in the care of acutely ill patients (FY2 level or above) for them to consider:

- deferring administration of a broad-spectrum antibiotic treatment for up to 6 hours after calculating the person's first NEWS2 score on initial assessment in the emergency department or on ward deterioration and
- using this time to gather information for a more specific diagnosis (see recommendations on finding and controlling the source of infection and choice of antibiotic therapy).

  Once a decision is made to give antibiotics, do not delay administration any further. **[2024]**

1.8.24 For someone with a NEWS2 score of 3 or 4 and a single parameter contributing 3 points to their total NEWS2 score, use clinical judgement to determine the likely cause of the 3 points in one parameter. If the likely cause is:

- the current infection, manage as moderate or high risk and:
  - for moderate risk, give broad-spectrum antibiotic treatment in line with recommendation 1.8.17
  - for high risk, give broad-spectrum antibiotic treatment in line with recommendation 1.8.3
- something else (such as a pre-existing condition), manage as low risk and follow recommendation 1.8.23. **[2024]**

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For a short explanation of why the committee made the 2024 recommendations and how they might affect practice, see the rationale and impact section on managing suspected sepsis: type and timing of antibiotics.

Full details of the evidence and the committee's discussion are in evidence review B: managing and treating suspected sepsis in acute hospital settings; antibiotic treatment in people with suspected sepsis.

1.8.25 For people aged 16 or over at low risk of severe illness or death from sepsis:

- recalculate the NEWS2 score periodically, in line with the recommendations on when to recalculate a NEWS2 score
- if there is deterioration or no improvement, escalate care to a clinician with core competencies in the care of acutely ill patients (FY2 level or above). **[2024]**

For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the rationale and impact section on low or very low risk of severe illness or death from sepsis.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

Very low risk of severe illness or death from sepsis

A person is at very low risk of severe illness or death from sepsis if they have suspected or confirmed infection and a NEWS2 score of 0 (see recommendation 1.6.2 on evaluating risk of severe illness or death from sepsis).

1.8.26 For people who are at very low risk of severe illness or death from sepsis:

- arrange for review by a registered health practitioner
- use clinical judgement to manage their condition and escalate if appropriate

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- recalculate the NEWS2 score periodically, in line with the recommendations on when to recalculate a NEWS2 score. **[2024]**

For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the rationale and impact section on low or very low risk of severe illness or death from sepsis.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

Discharge

1.8.27 Before discharging people who have been assessed for suspected sepsis, provide information on:

- the management of their definitive condition (if identified) and
- warning signs for sepsis (see information at discharge for people assessed for suspected sepsis). **[2024]**

For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the rationale and impact section on managing suspected sepsis in acute hospital settings: discharge.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

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Antibiotic therapy, intravenous fluid and oxygen

People have the right to be involved in discussions and make informed decisions about their care, as described in NICE's information on making decisions about your care.

Making decisions using NICE guidelines explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Healthcare professionals should follow our general guidelines for people delivering care:

- Babies, children and young people's experience of healthcare
- Decision making and mental capacity
- Medicines adherence
- Medicines optimisation
- Multimorbidity
- Patient experience in adult NHS services
- Shared decision making.

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1.9 Choice of antibiotic therapy for people with suspected sepsis

Everyone

1.9.1 When the source of infection is confirmed or microbiological results are available:

- review the choice of antibiotic(s) and
- change the antibiotic(s) according to results, using a narrower-spectrum antibiotic, if appropriate. **[2024]**

For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the rationale and impact section on managing suspected sepsis: type and timing of antibiotics.

Full details of the evidence and the committee's discussion are in evidence review B: managing and treating suspected sepsis in acute hospital settings; antibiotic treatment in people with suspected sepsis.

1.9.2 For all people with suspected sepsis and a clear source of infection, use existing local antimicrobial guidance. **[2016]**

1.9.3 For guidance on antibiotics for meningococcal disease, see the NICE guideline on bacterial meningitis and meningococcal disease:

- outside of hospital, see the section on transfer to hospital and antibiotics before arrival at hospital
- in hospital, see the section on antibiotics for meningococcal disease in hospital. **[2016, amended 2025]**

1.9.4 Follow the recommendations in NICE's guideline on antimicrobial stewardship: systems and processes for effective antimicrobial medicine use when prescribing and using antibiotics to treat people with suspected or confirmed sepsis. **[2016]**

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Under 18s

1.9.5 For people aged 16 to 18 with suspected community acquired sepsis of any cause, give ceftriaxone 80 mg/kg once a day with a maximum dose of 4 g daily at any age. **[2016, amended 2024]**

1.9.6 For people aged 16 to 18 with suspected sepsis who are already in hospital, or who are known to have previously been infected with or colonised with ceftriaxone-resistant bacteria, consult local guidelines for choice of antibiotic. **[2016, amended 2024]**

People aged 18 or over

1.9.7 For people aged 18 years or over who need an empirical intravenous antimicrobial for suspected sepsis but who have no confirmed diagnosis, use an intravenous antimicrobial from the agreed local formulary and in line with local (where available) or national guidelines. **[2016]**

1.10 Using oxygen for people with suspected sepsis

1.10.1 Give oxygen to achieve a target saturation of 94% to 98% for people aged 18 years or over or 88% to 92% for those at risk of hypercapnic respiratory failure. **[2016]**

1.10.2 Oxygen should be given to people aged 16 to 18 with suspected sepsis who have signs of shock or oxygen saturation (SpO2) of less than 92% when breathing air. Treatment with oxygen should also be considered for children with an SpO2 of greater than 92%, as clinically indicated. **[2016]**

Be aware that some pulse oximeters can underestimate or overestimate oxygen saturation levels, especially if the saturation level is borderline. Overestimation has been reported in people with dark skin. See also the NHS England Patient Safety Alert on the risk of harm from inappropriate placement of pulse oximeter probes.

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Finding and controlling the source of infection

People have the right to be involved in discussions and make informed decisions about their care, as described in NICE's information on making decisions about your care.

Making decisions using NICE guidelines explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Healthcare professionals should follow our general guidelines for people delivering care:

- Babies, children and young people's experience of healthcare
- Decision making and mental capacity
- Medicines adherence
- Medicines optimisation
- Multimorbidity
- Patient experience in adult NHS services
- Shared decision making.

1.11 Everyone

1.11.1 Tailor investigations of the sources of infection to the person's clinical history and to findings from examination. **[2016]**

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1.11.2 Consider urine analysis and chest X-ray to identify the source of infection in all people with suspected sepsis. **[2016]**

1.11.3 Consider imaging of the abdomen and pelvis if no likely source of infection is identified after clinical examination and initial tests. **[2016]**

1.11.4 Involve the relevant surgical team early on if surgical or radiological intervention is suitable for the source of infection. The surgical team or interventional radiologist should:

- seek senior advice about the timing of intervention
- carry the intervention out as soon as possible, in line with the advice received. **[2024]**

For guidance on contraindications to lumbar puncture, see the section on lumbar puncture in the NICE guideline on bacterial meningitis and meningococcal disease.

For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the rationale and impact section on finding and controlling the source of infection.

Full details of the evidence and the committee's discussion are in evidence review C: early management of suspected sepsis (except antibiotic therapy) in the NEWS2 population, in acute hospital settings.

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Information and support for all people with suspected sepsis

People have the right to be involved in discussions and make informed decisions about their care, as described in NICE's information on making decisions about your care.

Making decisions using NICE guidelines explains how we use words to show the strength (or certainty) of our recommendations, and has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

Healthcare professionals should follow our general guidelines for people delivering care:

- Babies, children and young people's experience of healthcare
- Decision making and mental capacity
- Medicines adherence
- Medicines optimisation
- Multimorbidity
- Patient experience in adult NHS services
- Shared decision making.

1.12 Communicating and sharing information

1.12.1 In discussions with people with suspected sepsis or their family or carers, and when sharing information with them:

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- follow the recommendations in NICE's guidelines on patient experience in adult NHS services
- ensure that the information given supports shared decision making, and follow the recommendations in NICE's guideline on shared decision making
- tailor the timing, content and delivery of information to the person's needs and preferences, paying particular attention to people with additional needs such as autism or learning disabilities, or people whose first language is not English. **[2024]**

1.13 People who have sepsis and their families and carers

1.13.1 Ensure a care team member is nominated to give information to families and carers, particularly in emergency situations such as in the emergency department. This should include:

- an explanation that the person has sepsis, and what this means
- an explanation of any investigations and the management plan
- regular and timely updates on treatment, care and progress. **[2016]**

1.13.2 Ensure information is given without using medical jargon. Check regularly that people understand the information and explanations they are given. **[2016]**

1.13.3 Give people with sepsis and their family members and carers opportunities to ask questions about diagnosis, treatment options, prognosis and complications. Be willing to repeat any information as needed. **[2016]**

1.13.4 Give people with sepsis and their families and carers information about national charities and support groups that provide information about sepsis and the causes of sepsis. **[2016]**

1.14 Information at discharge for people assessed

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for suspected sepsis, but not diagnosed with sepsis

1.14.1 Give people who have been assessed for sepsis but have been discharged without a diagnosis of sepsis (and their family or carers, if appropriate) verbal and written information about:

- what sepsis is, and why it was suspected
- what tests and investigations have been done
- instructions about which symptoms to monitor
- when to get medical attention if their illness continues
- how to get medical attention if they need to seek help urgently. **[2016]**

1.14.2 Confirm that people understand the information they have been given, and what actions they should take to get help if they need it. **[2016]**

1.15 Information at discharge for people at increased risk of sepsis

1.15.1 Ensure people who are at increased risk of sepsis (for example after surgery) are told before discharge about symptoms that should prompt them to get medical attention and how to get it. **[2016]**

See NICE's guideline on neutropenic sepsis for information for people with neutropenic sepsis.

1.16 Information at discharge for people who have had sepsis

1.16.1 Ensure people and their families and carers have been informed that they have had sepsis. **[2016]**

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1.16.2 Ensure discharge notifications to GPs include the diagnosis of sepsis. **[2016]**

1.16.3 Give people who have had sepsis (and their families and carers, when appropriate) opportunities to discuss their concerns. These may include:

- why they developed sepsis
- whether they are likely to develop sepsis again
- if more investigations are necessary
- details of any community care needed, for example, related to peripherally inserted central venous catheters (PICC) lines or other intravenous catheters
- what they should expect during recovery
- arrangements for follow-up, including specific critical care follow-up if relevant
- possible short-term and long-term problems. **[2016]**

1.16.4 Give people who have had sepsis and their families and carers information about national charities and support groups that provide information about sepsis and causes of sepsis. **[2016]**

1.16.5 Advise carers they have a legal right to have a carer's assessment of their needs, and give them information on how they can get this.

See NICE's guideline on rehabilitation after critical illness in adults for recommendations on rehabilitation and follow-up after critical illness.

See NICE's guideline on bacterial meningitis and meningococcal disease for follow-up of people who have had meningococcal disease.

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Training and education

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Healthcare professionals should follow our general guidelines for people delivering care:

- Babies, children and young people's experience of healthcare
- Decision making and mental capacity
- Medicines adherence
- Medicines optimisation
- Multimorbidity
- Patient experience in adult NHS services
- Shared decision making.

1.17 Healthcare staff involved in assessing clinical condition

1.17.1 Ensure all healthcare staff and students involved in assessing people's clinical condition are given regular, appropriate training in identifying people who might have sepsis. This includes primary, community care and hospital staff including

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those working in care homes. **[2016]**

1.18 Healthcare professionals involved in triage or early management

1.18.1 Ensure all healthcare professionals involved in triage or early management are given regular appropriate training in identifying, assessing and managing suspected sepsis. This should include:

- risk stratification strategies
- local protocols for early treatments, including antibiotics and intravenous fluids
- criteria and pathways for escalation, in line with their health care setting. **[2016]**

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Terms used in this guideline

Critical care specialist or team

An intensivist or critical care outreach team, or a specialist in intensive care or paediatric intensive care.

Not responding to intravenous fluid resuscitation

Signs that the person is not responding to resuscitation include lack of improvement or worsening:

- tachycardia
- level of consciousness
- blood pressure
- respiratory rate
- blood lactate
- urine output
- peripheral perfusion
- blood gases.

Recently pregnant

Someone is considered to have recently been pregnant:

- in the 24 hours following a termination of pregnancy or miscarriage
- for 4 weeks after giving birth.

Clinical judgement is needed after miscarriage (particularly in the second trimester) or termination (particularly in the second or third trimester), because it is not clear how

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quickly people's physiology returns to pre-pregnancy levels in these situations.

Sepsis

Sepsis is a life-threatening organ dysfunction due to a dysregulated host response to infection.

Suspected sepsis

Suspected sepsis is used to indicate people who might have sepsis and require face-to-face assessment and consideration of urgent intervention.

Senior clinical decision maker

A 'senior clinical decision maker' for people under 18 is a paediatric or emergency care qualified doctor of grade ST4 or above or equivalent.

A 'senior clinical decision maker' for people aged 18 years or over is a clinician of grade ST3 or above or equivalent.

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Recommendations for research

Key recommendations for research

1 Epidemiological study on presentation and management of sepsis in England

What is the incidence, presentation and management of sepsis in the United Kingdom? **[2016]**

Why this is important

The lack of robust UK based epidemiological studies on the incidence and outcomes from sepsis have been clear throughout the guideline development process. A large epidemiological study to collect information about where sepsis is being treated, patient interventions and patient outcomes would provide population-based statistics on epidemiology of sepsis which are necessary to support evaluation of interventions, planning of services and service redesign. The mortality and morbidity and service complexity associated with severe infection and sepsis, and the need to use broad-spectrum antimicrobials to treat sepsis, justifies the cost required to set up such a study.

2 Association between NEWS2 bands (0, 1 to 4, 5 to 6, 7 or above) and risk of severe illness or death

In adults and young people (16 and over) with suspected sepsis in acute hospital settings, ambulance trusts and acute mental health facilities, what is the association between NEWS2 bands (0, 1 to 4, 5 to 6, 7 or above) and risk of severe illness or death? In adults and young people (16 and over) with suspected sepsis in acute hospital settings, ambulance trusts and acute mental health facilities, what is the association between the NEWS2 score of 3 in a single parameter and risk of severe illness or death? **[2024]**

Why this is important

The NEWS2 has been introduced in 2017 and is widely used across the NHS pre-hospital and acute care settings. However, evidence on the NEWS2 was not found. It is important

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to investigate, over a 5- to 10-year period, the success, safety and possible implications on people with suspected sepsis and clinical staff of using the NEWS2 to stratify the risk of severe illness or death from sepsis.

Lack of data to stratify risk of severe illness or death from sepsis and estimate possible risk of deterioration in people with a single parameter contributing 3 points to their NEWS2 score is also of great concern. Data relating to this is scarce and its interpretation contradictory.

3 Derivation of clinical decision rules in suspected sepsis

Is it possible to derive and validate a set of clinical decision rules or a predictive tool to rule out sepsis which can be applied to patients presenting to hospital with suspected sepsis? **[2016]**

Why this is important

In primary care and emergency departments people with suspected sepsis are often seen by relatively inexperienced doctors. Many of these people will be in low and medium risk groups but evidence is lacking as to who can be sent home safely and who needs intravenous or oral antibiotics. The consequences of getting the decision making wrong can be catastrophic and therefore many patients are potentially over-investigated and admitted inappropriately. Current guidance is dependent on use of individual variables informed by low quality evidence.

Other recommendations for research

4 Rapid microbiological testing

How can rapid microbiological testing guide management in people with suspected sepsis? This should include:

- consideration of good antimicrobial stewardship
- the clinical and cost effectiveness of the tests
- the time taken to do the test and get a result. **[2025]**

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Why this is important

Diagnosing and treating an underlying infection could prevent serious illness or death in a person who has or is at risk of developing sepsis. However, starting treatment too early could lead to people without an infection being given antibiotics, or people being given inappropriate antibiotics for their infection.

Early use of rapid microbiological tests could help diagnose infection faster, leading to quicker, more targeted treatment and better patient outcomes. These tests are currently used in the NHS, but more research is needed to measure their utility in people with suspected sepsis.

For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the rationale section on rapid antigen and rapid PCR testing.

Full details of the evidence and the committee's discussion are in:

- evidence review D: rapid tests for assessing infection in people with suspected sepsis
- evidence review E: clinical and cost effectiveness of rapid antigen tests (RAT) and polymerase chain reaction (PCR) tests for guiding treatment in people with suspected sepsis.

5 Vasopressors

In people assessed as being at moderate or high risk of severe illness or death from suspected sepsis, how safe is the peripheral administration of different infusion durations, doses and concentrations of vasopressors? **[2025]**

Why this is important

Vasopressors are part of the treatment for hypotension and hypotensive shock in people with sepsis. Research is needed into the safety of administering these peripherally. This includes details on the safety of different durations, doses and concentrations, which would give clinicians more information to make decisions on whether to start vasopressors

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peripherally when these are needed.

For a short explanation of why the committee made the 2024 recommendation and how it might affect practice, see the rationale section on vasopressors.

Full details of the evidence and the committee's discussion are in evidence review H: safety of peripheral administration of vasopressor.

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Rationale and impact

These sections briefly explain why the committee made the updated recommendations and how they might affect practice.

People with neutropenia or immunosuppression

Recommendations 1.1.10 and 1.1.12

Why the committee made the recommendations

The committee carefully thought about care for people with neutropenia or immunosuppression, such as those on anticancer treatment and immunosuppressant therapies, because sepsis shares many of the same signs and symptoms as neutropenic sepsis. The committee agreed that people with suspected neutropenic sepsis are at very high risk and should have treatment in line with NICE's guideline on neutropenic sepsis in people with cancer.

Return to recommendations

People who are most vulnerable to sepsis

Why the committee made the recommendations

Recommendations 1.1.4 and 1.2.1

Quality of the evidence

The evidence on risk factors for sepsis was of very low certainty. There was a high risk of bias, inconsistency and indirectness. Some studies included other populations in addition to the one covered in this guideline. The committee made strong recommendations even though the evidence was uncertain because, in a life-threatening situation, based on their experience, the potential benefit may save lives.

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Groups that are at higher risk

Evidence, while uncertain, suggested that certain risk factors are associated with developing sepsis. The committee considered this evidence and the risk factors that had been identified in the existing recommendation. Because many factors may increase the risk of developing sepsis, the committee decided that grouping these into key categories would be the most helpful approach. Within these categories, examples have been provided, but do not form an exhaustive list.

The committee flagged that people with conditions such as learning disabilities, dementia or severe mental health conditions can find it challenging to communicate their history or symptoms. This may lead to a delay in the diagnosis of sepsis.

How the recommendations might affect practice

The recommendations will raise awareness among healthcare professionals about groups that are most vulnerable to sepsis. It is anticipated this increased awareness will lead to improved outcomes and a better use of healthcare resources as a result of timely care which will reduce more costly severe consequences. The recommendations are not expected to increase costs or resource use.

Return to recommendation 1.1.4

Return to recommendation 1.2.1

Initial assessment and examination

Recommendation 1.3.6

Why the committee made the recommendation

The committee agreed that the initial assessment is an important opportunity to identify people who are most at risk of sepsis. They noted that sepsis is hard to recognise (particularly in the initial stages), because the signs and symptoms are not specific. So when people who are unwell present multiple times to a GP or hospital with non-specific signs and symptoms, they may not initially be identified as at risk of sepsis. However, the committee agreed that this group is more likely to have sepsis, and they highlighted the need to ask people if they have presented before.

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How the recommendation might affect practice

Asking people about multiple presentations can be done as part of the existing initial assessment, so should not require additional resources to implement. This information could allow sepsis to be diagnosed and treatment started earlier. This could reduce costs, because fewer critical care interventions would be needed at a later point.

Return to recommendation

Evaluating risk level in people with suspected sepsis in acute hospital settings, acute mental health settings and ambulances

Recommendation 1.1.8 and recommendations 1.6.1 to 1.6.6

Why the committee made the recommendations

Using the NEWS2 to evaluate risk from sepsis

Evidence showed an increased risk of intensive care unit (ICU) admission and mortality in people with suspected sepsis aged 16 and over associated with a NEWS2 score of 5 or more. This supports the findings of the 2022 Academy of Medical Royal Colleges (AoMRC) statement on the initial antimicrobial treatment of sepsis. It is also in line with the clinical experience of the committee.

The committee agreed, based on their knowledge and experience, that:

- the 4 NEWS2 score bands outlined in the 2022 AoMRC statement should be used to determine the level of risk from sepsis for someone in any of the settings where NEWS2 has been endorsed by NHS England (acute hospital settings, acute mental health settings and ambulances) **[2024]**
- a person's risk level should be re-evaluated each time new observations are made, in line with observation frequencies in the AoMRC report **[2024]**
- a person's risk level should be re-evaluated when there is deterioration or an unexpected change. **[2024]**

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Interpreting NEWS2 scores

The committee discussed the importance of clinical judgement when interpreting the NEWS2 scores. They agreed that the NEWS2 should be used as a tool to support clinical decision making, not to replace clinical judgement. A NEWS2 score should thus be interpreted within the context of the patient's history and physical examination results.

The committee also acknowledged that NEWS2 can be less accurate in people with certain conditions, such as people with spinal injury or heart or lung disease, because of their altered baseline physiology.

The committee also highlighted that mottled or ashen appearance, non-blanching rash or cyanosis of skin, lips or tongue can be signs of meningococcal disease. **[2024]**

NEWS2 score of 0

The committee discussed the care for someone with a NEWS2 score of 0. They were concerned that a score of 0 may be interpreted as indicating that there was no risk and no action was needed. They emphasised that people with a possible or confirmed infection and a NEWS2 score of 0 are still at risk of sepsis and should receive routine NEWS2 score monitoring in line with local practice.

They also agreed that acute illness is a dynamic state and treatment priorities must be adjusted over time. They agreed to highlight that deterioration or lack of improvement in the person's condition might indicate the need to take more urgent actions than suggested by their NEWS2 score alone, depending on any previous NEWS2 score or action already taken. **[2024]**

Single parameter contributing 3 points to a NEWS2 score

In the NEWS2 framework as defined by the Royal College of Physicians, for the assessment of acute illness severity (that is, not specific to sepsis), specific attention is given to a NEWS2 score of 3 in a single parameter, which is classified as low-medium risk. The AoMRC report on the initial antimicrobial treatment of sepsis uses the NEWS2 to evaluate risk of severe illness or death from sepsis. It does not support systematic use of a single parameter contributing 3 points to a NEWS2 score to escalate care but does state that 'abnormal single parameters should be used to alert clinicians to the need for more detailed observation and investigation'.

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The committee considered this issue at length. Despite the lack of evidence, and based on their clinical expertise, they agreed that:

- a single parameter contributing 3 points to a NEWS2 score is an important red flag suggesting an increased risk of organ dysfunction and further deterioration and
- in the presence of such a parameter, clinical judgement is key to carefully consider the likely cause of its extreme value and whether the person's condition needs to be managed as per a higher risk level than that suggested by their NEWS2 score alone. **[2024]**

How the recommendations might affect practice

The NEWS2 is already in use in most NHS acute care settings, emergency departments, ambulance services and mental health facilities in England. The committee agreed that recommending its use to evaluate risk of severe illness or death from sepsis in these settings would further improve consistency in the detection of and response to acute illness due to sepsis (for people for whom the NEWS2 can be used), at no further cost. **[2024]**

Return to recommendation 1.1.8

Return to recommendations 1.6.1 to 1.6.6

Managing suspected sepsis outside acute hospital settings

Recommendations 1.7.3 to 1.7.8, 1.7.11 and 1.7.12

Why the committee made the recommendations

When to transfer immediately: people in mental health settings

There was no evidence identified for acute mental health settings, so the committee made a recommendation based on their own experience. People at high risk of severe illness or death from sepsis cannot have treatment in an acute mental health unit and need emergency transfer to hospital. **[2024, amended 2025]**

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Transfer by ambulance for people with consecutive NEWS2 scores of 5 or above

The committee considered:

- settings and situations where a clinician with core competencies in the care of acutely ill patients may not be present, such as ambulances and mental health facilities
- important issues faced in rural areas, where transport to the nearest appropriate acute setting might take longer than in urban areas
- existing local and personal arrangements.

Because evidence shows a higher risk of acute deterioration in people with suspected sepsis and a persistent NEWS2 score of 5 or more, which would require timely management and treatment, they agreed that time-critical transfer and pre-alerting the hospital should be considered for these people. **[2024]**

Managing the condition while awaiting transfer

To guide the appropriate timing for delivering antibiotics, the committee discussed what constitutes time zero (see the rationale on when to count time from [time zero]). While doing this, the committee raised concerns about possible inequalities and delays in clinical assessment and subsequent reviews that may be due to:

- geographical variability in transfer time and
- the high influx of patients and already strained NHS system. **[2024]**

They recognised that, in remote and rural locations, there can be a long delay between a person initially being assessed as at high risk of severe illness or death from sepsis, and the assessment in the emergency department. To address this issue, the committee made recommendations on giving antibiotics outside of hospital. **[2016, amended 2024]**

In ambulance crews, only some paramedics are able to prescribe antibiotics. There is also variation in how services are organised across the country. Because of this, the committee did not think they could make detailed recommendations for all ambulance services, so they recommended following local guidelines. **[2024]**

The committee discussed the importance of antimicrobial stewardship and the potential

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for the recommendations to increase the use of broad-spectrum antibiotics. The committee did not think this would be an issue because:

- the recommendations only cover people at high risk of severe illness or death from sepsis, which narrows the group that could potentially receive broad-spectrum antibiotics
- this group will be narrowed further because broad-spectrum antibiotics will only be given to people if combined transfer and handover times to emergency departments are greater than 1 hour.

If immediate transfer is not required: people in mental health settings

No evidence was identified for acute mental health settings, so the committee made recommendations based on their expertise and experience.

There is variation in the medical expertise available to mental health services. In some cases, services will be able to care for people at moderate risk of severe illness or death from sepsis without transfer. **[2025]**

How the recommendations might affect practice

The committee carefully considered the threshold at which to prompt immediate transfer, to avoid an excessively high volume of referrals, that would put undue pressure on emergency departments and acute hospital wards, while also avoiding geographical inequalities associated with transfer time. The committee strived to create a better balance while avoiding a negative impact on current practice. **[2024]**

Mental health settings

The recommendation will provide guidance for healthcare professionals in mental health settings. The recommendation is not a change to practice and is providing clarity based on the risk level of the patient, given that most mental health settings would not have the facilities to diagnose or care for people with a high risk of sepsis. The recommendation is not expected to increase costs or resource use. **[2025]**

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Ambulance settings

If not already in place, rural ambulance services may need to produce local guidance or put mechanisms in place to ensure antibiotics can be prescribed for people at high risk of severe illness or death from sepsis. This may involve:

- setting up processes for purchasing and storing broad-spectrum antibiotics
- collecting information from GPs, acute mental health settings or the emergency operator during a handover
- assessing existing resources within ambulance crews and how they are used across the service.

The recommendations may represent a big change in practice for some services, but once the relevant mechanisms are in place, the resource impact on services would be minimal.

Return to recommendations

Managing suspected sepsis in acute hospital settings

High and moderate risk of severe illness or death from sepsis

Recommendations 1.8.2, 1.8.14, 1.8.15, 1.8.16 and 1.8.19

Why the committee made the recommendations

The committee noted the importance of clear escalation pathways for care of people at high and moderate risk of severe illness or death from sepsis.

The committee recommended that clinicians with core competencies in the care of acutely ill patients (FY2 or above) conduct the initial assessment, because they have the competencies needed for this and should be able to assess people more urgently.

People at high risk are severely ill and may benefit from additional expertise in the management of their condition. Referral to the senior clinical decision maker is recommended because these senior doctors would be able to provide a more accurate

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diagnosis. Consultants can bring further expertise, but they may have limited availability, so the committee recommended that clinical judgement should be used when deciding if a discussion with a consultant is needed. **[2024]**

For people at high risk, the committee broadened the 2016 recommendation on escalation to cover lack of response within 1 hour of any intervention (the original recommendation only covered response to fluids and antibiotics). Given the level of risk for this group, the committee also felt it was appropriate to involve the senior clinical decision maker, the responsible consultant and the critical care specialist or team.

For people at moderate risk whose NEWS2 score remains the same or goes up following reassessment, there is a higher risk of poor outcomes and prompt intervention may be needed. Because of this, the committee recommended that care for this group should be escalated to a clinician with core competencies in the care of acutely ill patients.

How the recommendations might affect practice

The recommendation on initial assessment will ensure people are assessed quickly by a clinician with core competencies in the care of acutely ill patients and are able to start treatment without having to wait for a more senior doctor. This will allow treatment to start sooner and reduce pressure on more senior doctors.

The updated recommendation on escalation will reduce the number of referrals to critical care, as this is now only recommended for people who are not responding to interventions. The involvement of the senior clinical decision maker and responsible consultant is already current practice for people who are not responding to interventions, so this will not have a resource impact.

For people at moderate risk whose condition has not improved or deteriorated, escalation to a clinician with core competencies in the care of acutely ill patients is already current practice and so will not have a resource impact.

Return to recommendations

Type and timing of antibiotics

Recommendations 1.8.3, 1.8.17, 1.8.18, 1.8.23, 1.8.24 and 1.9.1

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Why the committee made the recommendations

Timing of antibiotics

Given the lack of direct evidence, the committee decided, by consensus, to recommend adopting the initial antimicrobial treatment of sepsis outlined in the 2022 AoMRC statement. That is, antibiotics should be offered to people with low, moderate and high risk of severe illness or death from sepsis, within a timeframe that depends on risk level. They should also be offered to people at very low risk, on a need for basis, in line with local practice.

The committee highlighted that:

- the purpose of deferring antibiotic delivery is not to delay treatment, but to have extra time to gather information for a more specific diagnosis, allowing for more targeted treatment
- the 1-, 3- and 6-hour time limits are a maximum (rather than an aim) for each risk level
- clinical judgement is key when considering someone's specific care needs.

This explains why they also recommended that once a decision is made to give antimicrobials, administration should not be delayed any further.

The committee agreed that basing the risk evaluation and antibiotic delivery time on the NEWS2 would ensure due consideration is given to both patient safety and antimicrobial stewardship. **[2024]**

Single parameter contributing 3 points to a NEWS2 score

The committee agreed that a single parameter contributing 3 points to a person's NEWS2 score may be suggestive of organ dysfunction. The dysfunction may be caused either:

- by something other than the current infection or
- by the body's dysregulated response to the infection leading to organ failure (that is, by sepsis).

Based on their clinical expertise, the committee concluded that, if the likely cause of the 3 points in 1 parameter is the current infection, the person's risk of severe illness or death

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from sepsis is higher than that indicated by their NEWS2 score alone and the timeframe for antibiotic treatment should be adjusted accordingly. **[2024, amended 2024]**

When to count time from (time zero)

To guide the appropriate timing for delivering antibiotics, the committee discussed what constitutes time zero. After careful consideration, they agreed to define it as 'a first NEWS2 score calculated on initial assessment in the emergency department or on ward deterioration' and accompanied by suspected or confirmed infection. This is in line with the AoMRC report.

However, the committee raised concerns about possible inequalities and delays in clinical assessment and subsequent reviews that may be due to:

- geographical variability in transfer time and
- the high influx of patients and already strained NHS system. **[2024]**

They recognised that a long time might elapse between the moment a patient is first deemed to be at high risk and that of initial assessment in an emergency department, so they also agreed to make recommendations to address this issue. To this end, they wrote a new recommendation and amended, by consensus, an existing recommendation from the 2016 guideline to take account of situations where not only transfer time but also possible delays between arrival and initial assessment in the emergency department take more than 1 hour. For more information, see the explanation of the recommendations on managing the condition while awaiting transfer.

Type of antibiotics

As part of giving due consideration to both patient safety and antimicrobial stewardship, the committee agreed that:

- for people with suspected sepsis for whom the source of infection is unknown, broad-spectrum antibiotic treatment should be given within the recommended timeframe for the person's risk category
- once the source of infection is confirmed, source specific antibiotics should be used instead. **[2024]**

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How the recommendations might affect practice

For ambulance services, mental health settings, and acute hospitals that are already using the NEWS2, the recommendations will not have a major impact on practice. Basing risk stratification and timing of antibiotics on NEWS2 score will balance patient safety, antimicrobial stewardship and resource capacity constraints. **[2024]**

Return to recommendations 1.8.3, 1.8.17, 1.8.18, 1.8.23, 1.8.24

Return to recommendation 1.9.1

Rapid antigen and rapid PCR testing

Why the committee did not make recommendations

The evidence for rapid urinary antigen testing was very low quality. The studies did not include people with suspected sepsis, and the evidence only included tests for streptococcus pneumoniae, so the evidence was not generalisable to other infections. The sensitivity of the tests was also too low to support any clinical decision making.

The evidence for multiplex polymerase chain reaction (PCR) testing was low quality, as there was only 1 small study on the topic. While the committee thought that there is potential in the use of multiplex PCR, they agreed there was insufficient evidence to make a recommendation. They also noted that the availability of multiplex PCR varies across the country. There was no evidence on how the use of these tests could impact on prognostic outcomes for people with suspected sepsis.

Given the limitations of the evidence, the committee agreed they could not make any recommendations for practice, the committee made a recommendation for further research in this area.

Fluids

Recommendations 1.8.4 to 1.8.9 and 1.8.20 and 1.8.21

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Why the committee made the recommendations

When to give fluids

The committee reviewed evidence on indicators of hypoperfusion, to see if these could be used to guide intravenous fluid administration. The evidence was all low or very low certainty. There was a high risk of bias, and the evidence did not cover all of the indicators of hypoperfusion specified in the review protocol.

Evidence was available for lactate, mottled skin and capillary refill time, but the committee agreed that these could not be used to guide treatment decisions in isolation. Lactate could be high for numerous reasons. Assessments of mottled skin can be quite subjective and needs to be interpreted with caution in people with brown or black skin. The committee agreed that the person's risk should be categorised using their NEWS2 score.

- People assessed as being at high risk should be given intravenous fluids, unless giving fluids is contraindicated (for example in people with cardiac or renal failure).
- For people at moderate risk, the committee agreed that indicators of organ hypoperfusion such as a high lactate or acute kidney injury could be used as additional markers to help decision making. However, the committee also agreed that dependent on the assessment of the individual a moderate risk score without other indicators of hypoperfusion was sufficient evidence of illness for clinicians to consider giving fluids.

Type of fluid

The overall certainty of the evidence on fluid type was very low, because:

- there was a high risk of bias
- some of the evidence was indirect: many of the studies looked at people in intensive care units, and this group is not covered by the guideline
- some of the populations in the studies were small.

The committee noted that:

- one systematic review could not differentiate between balanced crystalloids and

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normal saline

- a post-hoc analysis in the same systematic review favoured balanced crystalloids
- one feasibility randomised controlled trial comparing 5% human albumin solution with balanced crystalloids was unable to differentiate between them.

Following discussion of the evidence, and based on their experience, the committee agreed that isotonic electrolyte crystalloid solutions should be used as the initial fluid.

Fluid resuscitation can start before people arrive at hospital. Ambulance services usually only have 0.9% saline available, so the committee included this in the recommendation to ensure that ambulance services would continue to give fluids when needed. The recommendations are about initial management, but fluid management may be adapted later in the patient's care pathway as more clinical information becomes available.

Fluid volume

The evidence reviewed was unable to differentiate between lower or higher fluid volumes. The studies used different fluid protocols and measured total fluid volumes at different times. In most of the studies, people had been given initial fluids before randomisation.

The committee agreed that the overall volumes needed would differ for each person, and that people need to be reassessed after each bolus and that where there is not improvement, senior clinical advice will be needed. The committee agreed a stepped approach to receiving fluid in boluses of 250 ml. The committee agreed if a person had received 1,000 ml of fluid and there had been no or limited change to indicators of hypoperfusion, then advice should be sought due to the risk of fluid overload.

How the recommendations might affect practice

The 2025 recommendations will not have a substantial impact. People at high risk of severe illness or death from sepsis will be given fluids in practice. Using NEWS2 rather than lactate to make decisions on fluids and escalation may support decision making and improve consistency.

For people at moderate risk, the recommendation on considering fluids when there are no indicators of hypoperfusion may lead to people getting fluids faster, before possible deterioration.

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Crystalloids were already recommended; this is not a change in practice. Services that have access to balanced solutions may use these more often, which may be a small cost increase compared with using 0.9% saline.

Human albumin solution is not routinely used for initial resuscitation, so removing this recommendation should have little impact.

The initial fluid bolus volume has been reduced from the 2016 recommendation (from 500 ml to 250 ml). However, the maximum volume of fluid has not changed, so there should be no extra cost impact. Assessing people after each 250 ml of fluid will ensure they receive the appropriate amount of fluid for their needs. Healthcare professionals should already be closely monitoring the condition of people at high risk of severe illness or death from sepsis, so the time spent doing this is unlikely to increase.

Return to recommendations 1.8.4 to 1.8.9

Return to recommendations 1.8.20 and 1.8.21

Vasopressors

Why the committee made the recommendations

Recommendations 1.8.11 to 1.8.13

There was limited evidence on the safety of peripheral administration of vasopressors. The committee discussed the evidence and further used their own expertise to develop the recommendations. For some people at high risk of severe illness or death from sepsis, peripheral administration of vasopressors can provide benefits in managing hypotension and septic shock if initial management via fluid administration does not appear to be working. The committee noted that, while vasopressors are not licensed for peripheral administration, they are used in practice. The committee highlighted that decisions about whether to give a vasopressor and whether to administer it peripherally should be made with the critical care team, (and if not available, the senior clinical decision maker) given the potential risks associated with vasopressors.

The committee discussed the risk of extravasation, and how various factors might affect this (such as how long the intravenous cannula has been in place, and vasopressor dosage and concentration). However, adverse events were inconsistently reported in the studies,

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and overall event numbers were usually small, so it was not possible to make more specific recommendations. Based on their experience, the committee recommended that if a peripheral line is used, it should be visible and regularly monitored.

The committee agreed that local policies should be followed on the type, dose and concentration of vasopressor used. To address the limited evidence on this area, the committee also made a recommendation for research on vasopressors.

Shared decision making is important when discussing possible vasopressor administration. People who are approaching the end of their life may not want more invasive interventions, and they may also have pre-existing advance care or treatment escalation plans that need to be taken into account.

How the recommendations might affect practice

For some clinicians, the use of peripheral administration for vasopressors will be a change in practice. Clinicians may also need to consider which level of care is needed or available for people receiving vasopressors peripherally.

Return to recommendations

Low or very low risk of severe illness or death from sepsis

Recommendations 1.8.22, 1.8.25 and 1.8.26

Why the committee made the recommendations

The committee agreed, based on their experience, that, all registered health practitioners would be capable of conducting the initial assessment for people at low or very low risk of suspected sepsis.

Antibiotics are more likely to be needed for people whose NEWS2 score remains the same or goes up following reassessment. Because of this, the committee recommended that care for this group should be escalated to a clinician with core competencies in the care of acutely ill patients.

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How the recommendations might affect practice

The recommendations may free up senior clinician capacity.

Return to recommendations

Discharge

Recommendation 1.8.27

Why the committee made the recommendation

By consensus, the committee removed recommendations on discharge for people at moderate and low risk of severe illness or death from sepsis. The committee did not think that the initial management period was the right time to consider discharge for people at these risk levels. The section of the 2016 recommendations on providing information and safety netting was retained, as this is applicable to everyone with suspected sepsis when they are eventually ready for discharge.

How the recommendation might affect practice

This change to the recommendations is not expected to have a significant impact on practice, because safety netting information should already be provided to people who have had suspected sepsis.

Return to recommendation

Finding and controlling the source of infection

Recommendations 1.3.7, 1.8.1 and 1.11.4

Why the committee made the recommendations

The previous recommendation on involving surgical teams only covered intra-abdominal and pelvic infections. Infections at other sites can be treated surgically or radiologically, and the committee expanded the recommendation by consensus to address this.

The committee discussed the timing of interventions and agreed that this would vary

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depending on:

- the patient
- where the source of infection was
- if the intervention would be surgical or radiological
- if an interventional radiologist was available.

Because of this, the committee could not recommend a specific timeframe for interventions. However, they agreed that interventions should be carried out as soon as possible.

How the recommendations might affect practice

Prompt source control could mean fewer critical care interventions are needed at a later point, which would reduce costs.

Return to recommendation 1.3.7

Return to recommendation 1.8.1

Return to recommendation 1.11.4

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Finding more information and committee details

To find NICE guidance on related topics, including guidance in development, see the NICE topic pages on sepsis and antimicrobial stewardship.

For full details of the evidence and the guideline committee's discussions, see the evidence reviews. You can also find information about how the guideline was developed, including details of the committee.

NICE has produced tools and resources to help you put this guideline into practice. For general help and advice on putting our guidelines into practice, see resources to help you put NICE guidance into practice.

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Update information

January 2026: We have amended the recommendations to refer to 'learning disabilities' rather than 'learning difficulties'.

November 2025: We have split the sepsis guideline, that covered all age groups, into 3 guidelines (including this one). See also NICE's guidelines on suspected sepsis in under 16s: recognition, diagnosis and early management and suspected sepsis in pregnant or recently pregnant people.

In this guideline, we have reviewed the evidence on rapid antigen testing and PCR tests, indicators of organ hypoperfusion, intravenous fluid therapy, vasopressors, and risk factors for sepsis.

Recommendations are marked **[2025]** if the evidence has been reviewed.

We have also made some changes without an evidence review:

- the recommendation on assessing people with communication challenges who might have sepsis has been updated for better inclusivity
- recommendations on managing suspected sepsis in acute mental health settings have been amended to reflect the facilities and expertise available in these settings.

These recommendations are marked **[2016, amended 2025]** and **[2024, amended 2025]**.

Recommendations marked **[2016]** or **[2024]** last had an evidence review in that year. In some cases, minor changes have been made to the wording to bring the language and style up to date, without changing the meaning.

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