# **Sepsis**

# **NICE** quality standard

# **Draft for consultation**

March 2017

**This quality standard covers** the recognition, diagnosis and early management of sepsis for all populations. It describes high-quality care in priority areas for improvement.

**It is for** commissioners, service providers, health, public health and social care practitioners, and the public.

This is the draft quality standard for consultation (from 10 March to 07 April 2017). The final quality standard is expected to publish in August 2017.

# **Quality statements**

<u>Statement 1</u> People with suspected sepsis are assessed to stratify risk of severe illness or death using a structured set of observations.

<u>Statement 2</u> People with suspected sepsis in acute hospital settings and at least 1 criteria indicating high risk of severe illness or death are reviewed by a senior clinical decision-maker within 1 hour of risk being identified.

<u>Statement 3</u> People with suspected sepsis in acute hospital settings and at least 1 criteria indicating high risk of severe illness or death have antibiotic treatment within 1 hour of risk being identified.

<u>Statement 4</u> People with suspected sepsis in acute hospital settings, at least 1 criteria indicating high risk of severe illness or death, and with lactate over 2 mmol/litre, have an intravenous fluid bolus within 1 hour of risk being identified.

<u>Statement 5</u> People who have been seen by a healthcare professional and assessed as at low risk of sepsis are given information about symptoms to monitor and how to access medical care.

NICE has developed guidance and a quality standard on patient experience in adult NHS services (see the NICE pathway on <u>patient experience in adult NHS services</u>), which should be considered alongside these quality statements.

Other quality standards that should be considered when commissioning or providing sepsis services include:

- Antimicrobial stewardship (2016) NICE quality standard 121.
- Healthcare-associated infections (2016) NICE quality standard 113.
- Neonatal infection (2014) NICE quality standard 75.
- Fever in under 5s (2014) NICE quality standard 64.
- Infection prevention and control (2014) NICE quality standard 61.

A full list of NICE quality standards is available from the <u>quality standards topic</u> library.

### Questions for consultation

## Questions about the quality standard

**Question 1** Does this draft quality standard accurately reflect the key areas for quality improvement?

**Question 2** Are local systems and structures in place to collect data for the proposed quality measures? If not, how feasible would it be for these to be put in place?

**Question 3** Do you have an example from practice of implementing the NICE guideline(s) that underpins this quality standard? If so, please submit your example to the <a href="NICE local practice case studies">NICE local practice case studies</a> on the NICE website. Examples of using NICE quality standards can also be submitted.

**Question 4** Do you think each of the statements in this draft quality standard would be achievable by local services given the net resources needed to deliver them? Please describe any resource requirements that you think would be necessary for any statement. Please describe any potential cost savings or opportunities for disinvestment.

# Questions about the individual quality statements

**Question 5** For draft quality statement 1: Given that the definition of suspected sepsis is broad, can we be more specific about which people should be assessed?

**Question 6** For draft quality statement 3: Is it clear from draft statement 3 that the full course of antibiotics should be delivered within 1 hour?

DRAFT

**Quality statement 1: Assessment** 

Quality statement

People with suspected sepsis are assessed to stratify risk of severe illness or death

using a structured set of observations.

Rationale

Sepsis is a serious life-threatening condition that needs prompt identification and

rapid treatment. Using a structured set of observations for assessment of

physiological symptoms should ensure that people at risk of severe illness or death

from sepsis receive timely and appropriate treatment.

Quality measures

**Structure** 

Evidence of local arrangements to ensure that a structured set of observations are

used to stratify risk of severe illness or death from sepsis.

**Data source:** Local data collection. Services can consider using an early warning

score (such as NEWS) to inform local arrangements and written clinical protocols.

**Process** 

a) Proportion of people with sepsis in acute hospital settings who were assessed to

stratify risk of severe illness or death from sepsis using a structured set of

observations.

Numerator – the number in the denominator who were assessed to stratify risk of

severe illness or death from sepsis using a structured set of observations.

Denominator – the number of people diagnosed with sepsis in acute hospital

settings.

**Data source:** Local data collection.

b) The percentage of patients who met the criteria for sepsis screening and were

screened for sepsis.

Numerator – the number in the denominator who were screened for sepsis.

Denomiator – the number of patients presenting to emergency departments and other units that directly admit emergencies, and acute inpatients services who met the criteria of the local protocol on Early Warning Scores (usually NEWS greater than or equal to 3) (excluding those where an alternative diagnosis is clinically more likely, e.g. major trauma).

Data source: This is collected by NHS Engalnd's National 2017/19 CQUIN.

#### **Outcome**

a) Rates of admission to critical care for people with sepsis.

**Data source:** Local data collection for example using <u>Hospital Episode Statistics</u>.

b) In hospital mortality for people with sepsis.

**Data source:** Local data collection for example using <u>Hospital Episode Statistics</u> and <u>Office for National Statistics mortality database</u>.

# What the quality statement means for different audiences

**Service providers** (such as primary, ambulatory and secondary care services) ensure that written protocols are in place (such as using an early warning score) for people with suspected sepsis to be assessed using a structured set of observations to stratify risk.

**Healthcare professionals** (such as GPs, paramedics and healthcare professionals working in emergency departments) use a structured set of observations to stratify risk in people with suspected sepsis.

**Commissioners** (such as clinical commissioning groups and NHS England) ensure that they commission services in which people presenting with symptoms that suggest sepsis are assessed to stratify risk using a structured set of observations.

**People with symptoms that suggest sepsis** are assessed to see whether they have a high risk of life-threatening illness from sepsis, and if urgent treatment or more checks are needed.

### Source guidance

<u>Sepsis: recognition, diagnosis and early management</u> (2016) NICE guideline NG51, recommendation 1.1.7.

### Definitions of terms used in this quality statement

#### Structured set of observations

Everyone with suspected sepsis should be examined for:

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

The person, parent or carer should also be asked about the frequency of urination in the past 18 hours. [NICE's guideline on <u>sepsis</u>, recommendations 1.3.7 and 1.3.8].

Everyone with suspected sepsis should also have the following assessed:

- temperature
- heart rate
- respiratory rate
- level of consciousness
- oxygen saturation.

Children under 12 years should have capillary refill assessed [NICE's guideline on sepsis, recommendations 1.3.1 and 1.3.2].

Blood pressure should be measured:

- in adults and young people over 12 years
- in children aged 5 to 11 years if facilities, including a cuff of correct size, are available
- in children under 5 years if heart rate or capillary refill time are abnormal and facilities to measure blood pressure, including a cuff of correct size, are available.

[NICE's guideline on sepsis, recommendations 1.3.1, 1.3.3 and 1.3.4]

#### Suspected sepsis

Suspected sepsis is used to indicate people who might have sepsis and require face-to-face assessment and consideration of urgent intervention. [NICE's guideline on <a href="mailto:sepsis">sepsis</a>]

### Equality and diversity considerations

People with suspected sepsis should be assessed with extra care if they cannot give a good history of their signs and symptoms (for example, people with English as a second language or people with communication problems). People should have access to an interpreter or advocate if needed.

#### Question for consultation

Given that the definition of suspected sepsis is broad, can we be more specifc about which people should be assessed?

DRAFT

**Quality statement 2: Senior review** 

Quality statement

People with suspected sepsis in acute hospital settings and at least 1 criteria

indicating high risk of severe illness or death are reviewed by a senior clinical

decision-maker within 1 hour of risk being identified.

Rationale

Sepsis is a medical emergency and needs immediate senior review to identify the

source of infection and ensure that people receive appropriate treatment. A senior

decision-maker is also more likely to recognise if there is another potential cause for

the person's severe illness.

Quality measures

**Structure** 

Evidence of local arrangements to ensure that people with suspected sepsis in acute

hospital settings and at least 1 criteria indicating high risk of severe illness or death

from sepsis are reviewed by a senior clinical decision-maker within 1 hour of risk

being identified.

**Data source:** Local data collection.

**Process** 

Proportion of people people with suspected sepsis in acute hospital settings and at

least 1 criteria indicating high risk of severe illness or death from sepsis who are

reviewed by the senior clinical decision-maker within 1 hour of risk being identified.

Numerator – the number in the denominator who are reviewed by a senior clinical

decision-maker within 1 hour of of risk being identified.

Denominator – the number of people with suspected sepsis in acute hospital settings

and at least 1 criteria indicating high risk of severe illness or death from sepsis.

**Data source:** Local data collection.

#### Outcome

a) Rates of antibiotic prescribing in people with suspected sepsis within 1 hour.

**Data source:** Local data collection for example using local prescribing data.

b) In hospital mortality for people with sepsis.

**Data source:** Local data collection for example using <u>Hospital Episode Statistics</u> and <u>Office for National Statistics mortality database</u>.

### What the quality statement means for different audiences

**Service providers** (secondary care services) ensure that a senior clinical decision-maker is available to review the care of people with suspected sepsis and at least 1 criteria indicating high risk of severe illness or death within 1 hour of risk being identified.

**Healthcare professionals** (such as healthcare professionals working in emergency departments) seek a review from a senior clinical decision-maker within 1 hour of identifying at least 1 criteria indicating high risk of severe illness or death from sepsis.

**Commissioners** (such as clinical commissioning groups) ensure that they commission services in acute hospital settings in which the care of people with suspected sepsis and at least 1 criteria indicating high risk of severe illness or death is reviewed within 1 hour of risk being identified.

**People with symptoms that suggest life-threating illness from sepsis** have a review by a senior healthcare professional within 1 hour to make sure that they have the best treatment as soon as possible.

# Source guidance

<u>Sepsis: recognition, diagnosis and early management</u> (2016) NICE guideline NG51, recommendations 1.6.1, 1.6.16, 1.6.31 and expert consensus.

## Definitions of terms used in this quality statement

### Criteria indicating high risk of severe illness or death from sepsis

Adults, children and young people aged 12 years and over with suspected sepsis and any of the symptoms or signs below are at high risk of severe illness or death from sepsis:

- objective evidence of new altered mental state
- respiratory rate of 25 breaths per minute or above, or new need for 40% oxygen or more to maintain oxygen saturation more than 92% (or more than 88% in known chronic obstructive pulmonary disease)
- heart rate of 130 beats per minute or above
- systolic blood pressure of 90 mmHg or less, or systolic blood pressure more than
  40 mmHg below normal
- not passed urine in previous 18 hours (for catheterised patients, passed less than 0.5 ml/kg/hour)
- mottled or ashen appearance
- cyanosis of the skin, lips or tongue
- non-blanching rash of the skin.

[NICE's guideline on sepsis, recommendation 1.4.2].

Children aged 5 to 11 years with suspected sepsis and any of the symptoms or signs below are at high risk of severe illness or death from sepsis:

- has objective evidence of altered behaviour or mental state, or appears ill to a healthcare professional, or does not wake (or if roused, does not stay awake)
- respiratory rate:
  - aged 5 years, 29 breaths per minute or more
  - aged 6 to 7 years, 27 breaths per minute or more
  - aged 8 to 11 years, 25 breaths per minute or more
  - oxygen saturation of less than 90% in air or increased oxygen requirement over baseline
- heart rate:
  - aged 5 years, 130 beats per minute or more

- aged 6 to 7 years, 120 beats per minute or more
- aged 8 to 11 years, 115 beats per minute or more
- or heart rate less than 60 beats per minute at any age
- mottled or ashen appearance
- cyanosis of the skin, lips or tongue
- non-blanching rash of the skin.

[NICE's guideline on <u>sepsis</u>, recommendation 1.4.5].

Children aged under 5 years with suspected sepsis and any of the symptoms or signs below are at high risk of severe illness or death from sepsis:

#### behaviour:

- no response to social cues
- appears ill to a healthcare professional
- does not wake, or if roused does not stay awake
- weak, high-pitched or continuous cry

#### · heart rate:

- aged under 1 year, 160 beats per minute or more
- aged 1 to 2 years, 150 beats per minute or more
- aged 3 to 4 years, 140 beats per minute or more
- heart rate less than 60 beats per minute at any age

#### respiratory rate:

- aged under 1 year, 60 breaths per minute or more
- aged 1 to 2 years, 50 breaths per minute or more
- aged 3 to 4 years, 40 breaths per minute or more
- grunting
- apnoea
- oxygen saturation of less than 90% in air or increased oxygen requirement over baseline
- mottled or ashen appearance
- cyanosis of the skin, lips or tongue
- non-blanching rash of the skin
- aged under 3 months and temperature 38°C or more

temperature less than 36°C.

[NICE's guideline on <u>sepsis</u>, recommendation 1.4.8].

#### Senior clinical decision-maker

Depending on local arrangements the senior clinical decision-maker for people aged 18 years or over should be someone who is authorised to prescribe antibiotics, such as a doctor of grade CT3/ST3 or above or equivalent, or an advanced nurse practitioner with antibiotic prescribing responsibilities [NICE's guideline on sepsis, recommendation 1.6.1].

The senior decision-maker for people aged 5 to 17 years is a paediatric or emergency care qualified doctor of grade ST4 or above or equivalent [NICE's guideline on <u>sepsis</u>, recommendations 1.6.1 and 1.6.16].

The senior clinical decision-maker for children under 5 years is a paediatric qualified doctor of grade ST4 or above [NICE's guideline on sepsis, recommendation 1.6.31].

### Suspected sepsis

Suspected sepsis is used to indicate people who might have sepsis and require face-to-face assessment and consideration of urgent intervention. [NICE's guideline on <a href="mailto:sepsis">sepsis</a>]

DRAFT

**Quality statement 3: Antibiotic treatment** 

Quality statement

People with suspected sepsis in acute hospital settings and at least 1 criteria

indicating high risk of severe illness or death have antibiotic treatment within 1 hour

of risk being identified.

Rationale

Prompt antibiotic treatment increases the chance of surviving an episode of sepsis.

For people at high risk of severe illness or death from sepsis, the clinical benefits of

providing antibiotics within an hour outweigh any risks associated with possible

antimicrobial resistance.

Quality measures

Structure

Evidence of local arrangements to ensure that people with suspected sepsis in acute

hospital settings and at least 1 criteria indicating high risk of severe illness or death

from sepsis have antibiotic treatment within 1 hour of risk being identified.

**Data source:** Local data collection for example using hospital board reports.

**Process** 

a) Proportion of people with suspected sepsis in acute hospital settings and at least

1 criteria indicating high risk of severe illness or death from sepsis who recieve

antibiotic treatment within 1 hour of risk being identified.

Numerator – the number in the denominator who receive antibiotic treatment within 1

hour of risk being indentified.

Denominator – the number of people with suspected sepsis in acute hospital settings

and at least 1 criteria indicating high risk of severe illness or death from sepsis.

**Data source:** Local data collection for example using local prescribing data.

b) The percentage of patients who were found to have sepsis and received IV antibiotics within 1 hour.

Numerator – the number in the denominator who received IV antibiotics within 1 hour of the diagnosis of sepsis.

Denominator – the number of patients who were diagnosed with sepsis in emergency departments and acute inpatient services.

Data source: This is collected by NHS Engalnd's National 2017/19 CQUIN.

#### **Outcome**

In hospital mortality for people with sepsis.

**Data source:** Local data collection for example using <u>Hospital Episode Statistics</u> and <u>Office for National Statistics mortality database</u>.

### What the quality statement means for different audiences

**Service providers** (secondary care services) ensure that systems are in place for people with suspected sepsis and at least 1 criteria indicating high risk of severe illness or death to have antibiotics within 1 hour of risk being identified. Primary care and ambulance services should ensure that systems are in place to give antibiotics to these people in locations where transfer time to secondary care is more than 1 hour.

**Healthcare professionals** (such as healthcare professionals working in emergency departments) deliver antibiotics to people with at least 1 criteria indicating high risk of severe illness or death from sepsis within 1 hour of identifying risk.

**Commissioners** (such as clinical commissioning groups) ensure that they commission services in which people have antibiotic treatment within 1 hour of identifying at least 1 criteria indicating high risk of severe illness or death from sepsis.

People with symptoms that suggest life-threating illness from sepsis have antibiotics within an hour. If it will take more than an hour to get to hospital, the

antibiotics may be given by healthcare professionals in primary care or ambulance staff.

### Source guidance

<u>Sepsis: recognition, diagnosis and early management</u> (2016) NICE guideline NG51, recommendations 1.7.2 and 1.7.3

### Definitions of terms used in this quality statement

#### Criteria indicating high risk of severe illness or death from sepsis

Adults, children and young people aged 12 years and over with suspected sepsis and any of the symptoms or signs below are at high risk of severe illness or death from sepsis:

- objective evidence of new altered mental state
- respiratory rate of 25 breaths per minute or above, or new need for 40% oxygen or more to maintain oxygen saturation more than 92% (or more than 88% in known chronic obstructive pulmonary disease)
- heart rate of 130 beats per minute or above
- systolic blood pressure of 90 mmHg or less, or systolic blood pressure more than
  40 mmHg below normal
- not passed urine in previous 18 hours (for catheterised patients, passed less than
  0.5 ml/kg/hour)
- mottled or ashen appearance
- cyanosis of the skin, lips or tongue
- non-blanching rash of the skin.

[NICE's guideline on <u>sepsis</u>, recommendation 1.4.2].

Children aged 5 to 11 years with suspected sepsis and any of the symptoms or signs below are at high risk of severe illness or death from sepsis:

- has objective evidence of altered behaviour or mental state, or appears ill to a healthcare professional, or does not wake (or if roused, does not stay awake)
- respiratory rate:

- aged 5 years, 29 breaths per minute or more
- aged 6 to 7 years, 27 breaths per minute or more
- aged 8 to 11 years, 25 breaths per minute or more
- oxygen saturation of less than 90% in air or increased oxygen requirement over baseline

#### heart rate:

- aged 5 years, 130 beats per minute or more
- aged 6 to 7 years, 120 beats per minute or more
- aged 8 to 11 years, 115 beats per minute or more
- or heart rate less than 60 beats per minute at any age
- mottled or ashen appearance
- cyanosis of the skin, lips or tongue
- non-blanching rash of the skin.

[NICE's guideline on <u>sepsis</u>, recommendation 1.4.5].

Children aged under 5 years with suspected sepsis and any of the symptoms or signs below are at high risk of severe illness or death from sepsis:

#### behaviour:

- no response to social cues
- appears ill to a healthcare professional
- does not wake, or if roused does not stay awake
- weak, high-pitched or continuous cry

#### heart rate:

- aged under 1 year, 160 beats per minute or more
- aged 1 to 2 years, 150 beats per minute or more
- aged 3 to 4 years, 140 beats per minute or more
- heart rate less than 60 beats per minute at any age

#### · respiratory rate:

- aged under 1 year, 60 breaths per minute or more
- aged 1 to 2 years, 50 breaths per minute or more
- aged 3 to 4 years, 40 breaths per minute or more
- grunting

- apnoea
- oxygen saturation of less than 90% in air or increased oxygen requirement over baseline
- mottled or ashen appearance
- cyanosis of the skin, lips or tongue
- non-blanching rash of the skin
- aged under 3 months and temperature 38°C or more
- temperature less than 36°C.

[NICE's guideline on sepsis, recommendation 1.4.8].

### Suspected sepsis

Suspected sepsis is used to indicate people who might have sepsis and require face-to-face assessment and consideration of urgent intervention. [NICE's guideline on <a href="mailto:sepsis">sepsis</a>]

#### Question for consultation

Is it clear from draft statement 3 that the full course of antibiotics should be delivered within 1 hour?

# **Quality statement 4: Intravenous fluids**

### Quality statement

People with suspected sepsis in acute hospital settings, at least 1 criteria indicating high risk of severe illness or death, and with lactate over 2 mmol/litre, have an intravenous fluid bolus within 1 hour of risk being identified.

#### Rationale

Early intervention with intravenous fluids is vital to the initial management of sepsis. It can help to reverse septic shock and to restore cardiovascular stability for people who are at high risk of severe illness or death from sepsis. This will improve short term outcomes such as heart failure and associated long-term disability.

### Quality measures

#### **Structure**

Evidence of local arrangements and written clinical protocols to ensure that people with suspected sepsis in acute hospital settings, at least 1 criteria indicating high risk of severe illness or death from sepsis, and with lactate over 2 mmol/litre, have an intravenous fluid bolus within 1 hour of risk being identified.

**Data source:** Local data collection for example using hospital board reports.

#### **Process**

Proportion of people with suspected sepsis in acute hospital settings, at least at least 1 criteria indicating high risk of severe illness or death from sepsis, and with lactate over 2 mmol/litre, who receive an intravenous fluid bolus within 1 hour of risk being identified.

Numerator – the number in the denominator who receive an intravenous fluid bolus within 1 hour of risk being identified.

Denominator – the number of people with suspected sepsis in acute hospital settings, at least 1 criteria indicating high risk of severe illness or death from sepsis, and with lactate over 2 mmol/litre.

Data source: Local data collection

#### Outcome

a) Rates of heart failure in people with suspected sepsis.

**Data source:** Local data collection for example using Hospital Episode Statistics.

b) Rates of acute kidney injury in people with suspected sepsis.

**Data source:** Local data collection for example using <u>Hospital Episode Statistics</u>.

c) Rates of 28 day all cause mortality in people with sepsis.

**Data source:** Local data collection for example using <u>Hospital Episode Statistics</u> and Office for National Statistics mortality database.

### What the quality statement means for different audiences

**Service providers** (secondary care services) ensure that systems are in place for people with suspected sepsis and at least 1 criteria indicating high risk of severe illness or death from sepsis, and with lactate over 2 mmol/litre, to have an intravenous fluid bolus within 1 hour of risk being identified.

Healthcare professionals (such as healthcare professionals working in emergency departments) give an intravenous fluid bolus to people with at least 1 criteria indicating high risk of severe illness or death from sepsis, and with lactate over 2 mmol/litre, within 1 hour of identifying risk.

**Commissioners** (such as clinical commissioning groups) ensure that they commission services in which people with lactate over 2 mmol/litre have an intravenous fluid bolus within 1 hour of identifying at least 1 criteria indicating high risk of severe illness or death from sepsis.

People with symptoms that suggest life-threating illness from sepsis have extra fluids in hospital through a drip or injection no more than an hour after they have been diagnosed as being at high risk.

### Source guidance

<u>Sepsis: recognition, diagnosis and early management</u> (2016) NICE guideline NG51, recommendations 1.6.2, 1.6.3, 1.6.17, 1.6.18, 1.6.32 and 1.6.33.

### Definitions of terms used in this quality statement

#### Criteria indicating high risk of severe illness or death from sepsis

Adults, children and young people aged 12 years and over with suspected sepsis and any of the symptoms or signs below are at high risk of severe illness or death from sepsis:

- objective evidence of new altered mental state
- respiratory rate of 25 breaths per minute or above, or new need for 40% oxygen or more to maintain oxygen saturation more than 92% (or more than 88% in known chronic obstructive pulmonary disease)
- heart rate of 130 beats per minute or above
- systolic blood pressure of 90 mmHg or less, or systolic blood pressure more than
  40 mmHg below normal
- not passed urine in previous 18 hours (for catheterised patients, passed less than 0.5 ml/kg/hour)
- mottled or ashen appearance
- cyanosis of the skin, lips or tongue
- non-blanching rash of the skin.

[NICE's guideline on <u>sepsis</u>, recommendation 1.4.2].

Children aged 5 to 11 years with suspected sepsis and any of the symptoms or signs below are at high risk of severe illness or death from sepsis:

- has objective evidence of altered behaviour or mental state, or appears ill to a healthcare professional, or does not wake (or if roused, does not stay awake)
- respiratory rate:
  - aged 5 years, 29 breaths per minute or more
  - aged 6 to 7 years, 27 breaths per minute or more
  - aged 8 to 11 years, 25 breaths per minute or more

 oxygen saturation of less than 90% in air or increased oxygen requirement over baseline

#### heart rate:

- aged 5 years, 130 beats per minute or more
- aged 6 to 7 years, 120 beats per minute or more
- aged 8 to 11 years, 115 beats per minute or more
- or heart rate less than 60 beats per minute at any age
- mottled or ashen appearance
- cyanosis of the skin, lips or tongue
- non-blanching rash of the skin.

[NICE's guideline on <u>sepsis</u>, recommendation 1.4.5].

Children aged under 5 years with suspected sepsis and any of the symptoms or signs below are at high risk of severe illness or death from sepsis:

#### behaviour:

- no response to social cues
- appears ill to a healthcare professional
- does not wake, or if roused does not stay awake
- weak, high-pitched or continuous cry

#### heart rate:

- aged under 1 year, 160 beats per minute or more
- aged 1 to 2 years, 150 beats per minute or more
- aged 3 to 4 years, 140 beats per minute or more
- heart rate less than 60 beats per minute at any age

#### · respiratory rate:

- aged under 1 year, 60 breaths per minute or more
- aged 1 to 2 years, 50 breaths per minute or more
- aged 3 to 4 years, 40 breaths per minute or more
- grunting
- apnoea
- oxygen saturation of less than 90% in air or increased oxygen requirement over baseline

- mottled or ashen appearance
- cyanosis of the skin, lips or tongue
- non-blanching rash of the skin
- aged under 3 months and temperature 38°C or more
- temperature less than 36°C.

[NICE's guideline on sepsis, recommendation 1.4.8].

### Suspected sepsis

Suspected sepsis is used to indicate people who might have sepsis and require face-to-face assessment and consideration of urgent intervention. [NICE's guideline on <a href="mailto:sepsis">sepsis</a>]

# Quality statement 5: Information for people at low risk

### Quality statement

People who have been seen by a healthcare professional and assessed as at low risk of sepsis are given information about symptoms to monitor and how to access medical care.

#### Rationale

People who have been seen by a healthcare professional and assessed as at low risk of sepsis need to know which symptoms to look out for and what to do if these symptoms develop. This iwill enable rapid management to take place if symptoms become worse.

### Quality measures

#### Structure

Evidence of local arrangements to ensure that people who have been seen by a healthcare professional and assessed as at low risk of sepsis are given information about symptoms to monitor and how to access medical care.

**Data source:** Local data collection for example using hospital electronic patient records and local primary care systems.

#### **Process**

Proportion of people who have been seen by a healthcare professional and assessed as at low risk of sepsis who are given information about symptoms to monitor and how to access medical care.

Numerator – the number in the denominator who are given information about symptoms to monitor and how to access medical care.

Denominator – the number of people who have been seen by a healthcare professional and assessed as at low risk of sepsis.

**Data source:** Local data collection for example using hospital electronic patient records and local primary care systems.

#### Outcome

Patient satisfaction in people with suspected sepsis.

Data source: Local data collection for example using local patient surverys.

### What the quality statement means for different audiences

**Service providers** (such as primary and secondary care services) ensure that information is available about symptoms to monitor and how to access medical care for people who have been seen by a healthcare professional and assessed as at low risk of sepsis.

**Healthcare professionals** (such as GPs and healthcare professionals working in emergency departments) discuss which symptoms to monitor and how to access medical care with people they have seen and assessed as at low risk of sepsis. They also give information about this.

**Commissioners** (such as clinical commissioning groups and NHS England) ensure that they commission services with protocols in place to provide information about symptoms to monitor and how to access medical care for people who have been seen by a healthcare professional and assessed as at low risk of sepsis. They also ensure that services have healthcare professionals who can assess and treat symptoms of sepsis when people are concerned about these.

People with symptoms that suggest they have a low risk of life-threating illness from sepsis are given information about what to do if they still feel unwell, important signs to look out for and where to get help if they are worried about their condition.

### Source guidance

<u>Sepsis: recognition, diagnosis and early management</u> (2016) NICE guideline NG51, recommendation 1.5.3 and 1.11.5.

# Definitions of terms used in this quality statement

#### Low risk criteria of severe illness or death from sepsis

People who do not meet any high or moderate to high risk criteria of severe illness or death from sepsis [NICE's guideline on <u>sepsis</u> recommendations 1.4.4, 1.4.7 and 1.4.10].

### Equality and diversity considerations

Information about symptoms to monitor and how to access medical care should be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English. People should have access to an interpreter or advocate if needed.

# About this quality standard

NICE quality standards describe high-priority areas for quality improvement in a defined care or service area. Each standard consists of a prioritised set of specific, concise and measurable statements. NICE quality standards draw on existing NICE or NICE-accredited guidance that provides an underpinning, comprehensive set of recommendations, and are designed to support the measurement of improvement.

Information about <u>how NICE quality standards are developed</u> is available from the NICE website.

See <u>quality standard advisory committees</u> on the website for details of standing committee 1 members who advised on this quality standard. Information about the topic experts invited to join the standing members is available on the <u>quality</u> <u>standard's webpage</u>.

This quality standard will be incorporated into the NICE pathway on sepsis.

NICE has produced a <u>quality standard service improvement template</u> to help providers make an initial assessment of their service compared with a selection of quality statements. This tool is updated monthly to include new quality standards.

NICE produces guidance, standards and information on commissioning and providing high-quality healthcare, social care, and public health services. We have agreements to provide certain NICE services to Wales, Scotland and Northern Ireland. Decisions on how NICE guidance and other products apply in those countries are made by ministers in the Welsh government, Scottish government, and Northern Ireland Executive. NICE guidance or other products may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

# Improving outcomes

This quality standard is expected to contribute to improvements in the following outcomes:

Mortality rates for people with sepsis.

- Length of hospital stay for people with sepsis.
- Length of ICU stay for people with sepsis.
- Long-term disability for people with sepsis.
- Organ failure in people with sepsis.

It is also expected to support delivery of the Department of Health's outcome frameworks:

- Adult social care outcomes framework 2015–16
- NHS outcomes framework 2016–17
- Public health outcomes framework for England, 2016–19.

## Resource impact

NICE quality standards should be achievable by local services. The potential resource impact is considered by the quality standards advisory committee, drawing on resource impact work for the source guidance. Organisations are encouraged to use the <u>resource impact template</u> and <u>resource impact report</u> for the NICE guideline on sepsis to help estimate local costs.

# Diversity, equality and language

During the development of this quality standard, equality issues were considered and equality assessments are available. Any specific issues identified during development of the quality statements are highlighted in each statement.

Commissioners and providers should aim to achieve the quality standard in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this quality standard should be interpreted in a way that would be inconsistent with compliance with those duties.

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