

# Fever in under 5s

Quality standard

Published: 24 July 2014

Last updated: 27 July 2022

[www.nice.org.uk/guidance/qs64](https://www.nice.org.uk/guidance/qs64)

# Contents

Quality statements .....	4
Quality statement 1: Risk of serious illness.....	5
Quality statement.....	5
Rationale .....	5
Quality measures.....	5
What the quality statement means for different audiences.....	6
Source guidance.....	6
Definitions of terms used in this quality statement .....	7
Equality and diversity considerations .....	7
Quality statement 2: Measuring and recording vital signs .....	9
Quality statement.....	9
Rationale .....	9
Quality measures.....	9
What the quality statement means for different audiences.....	10
Source guidance.....	11
Definitions of terms used in this quality statement .....	11
Quality statement 3: Urine testing.....	12
Quality statement 4: Safety net advice.....	13
Quality statement.....	13
Rationale .....	13
Quality measures.....	13
What the quality statement means for different audiences.....	14
Source guidance.....	15
Definitions of terms used in this quality statement .....	15
Equality and diversity considerations .....	16
Update information .....	17

About this quality standard .....	18
Resource impact.....	18
Diversity, equality and language.....	19

This standard is based on NG143.

This standard should be read in conjunction with QS37, QS19, QS36, QS75, QS112, QS121, QS122, QS131 and QS161.

## Quality statements

Statement 1 Infants and children under 5 years with unexplained fever have their risk of serious illness assessed and recorded using the traffic light system.

Statement 2 Infants and children under 5 years who are seen in person by a healthcare professional have their temperature, heart rate, respiratory rate and capillary refill time measured and recorded if fever is suspected.

Statement 3 This statement has been removed. For more details see [update information](#).

Statement 4 Parents and carers who are advised that they can care for an infant or child under 5 years with unexplained fever at home are given safety net advice, including information on when to seek further help.

# Quality statement 1: Risk of serious illness

## Quality statement

Infants and children under 5 years with unexplained fever have their risk of serious illness assessed and recorded using the traffic light system.

## Rationale

The condition of an infant or child with a serious illness can deteriorate within hours of onset. It is therefore important that risk of serious illness is assessed when infants and children present to healthcare professionals with unexplained fever. The traffic light system helps healthcare professionals, in conjunction with their professional judgement and the information provided by the parents and carers, to assess the risk of serious illness in a child with unexplained fever.

## Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured, and can be adapted and used flexibly.

## Structure

Evidence of local arrangements to ensure that healthcare professionals are using the traffic light system to assess and record the risk of serious illness in infants and children under 5 years presenting with unexplained fever.

**Data source:** Local data collection.

## Process

Proportion of infants and children under 5 years with unexplained fever who have their risk of serious illness assessed and recorded using the traffic light system.

Numerator – the number in the denominator who have their risk of serious illness assessed and recorded using the traffic light system.

Denominator – the number of infants and children under 5 years with unexplained fever.

**Data source:** Local data collection.

## Outcome

Early identification of serious illness in infants and children under 5 years.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (such as general practice and emergency departments) ensure that healthcare professionals assess and record the risk of serious illness using the traffic light system in infants and children under 5 years with unexplained fever.

**Healthcare professionals** ensure that they assess and record the risk of serious illness using the traffic light system in infants and children under 5 years with unexplained fever.

**Commissioners** (clinical commissioning groups and NHS England) ensure that the services they commission can demonstrate the use of the traffic light system to assess and record the risk of serious illness in infants and children under 5 years with unexplained fever (for example, through auditing).

**Infants and children under 5 years with unexplained fever** have their risk of serious illness assessed and recorded by a healthcare professional using a system that groups signs and symptoms into high (red), medium (amber) and low (green) risk. This is called the traffic light system.

## Source guidance

Fever in under 5s: assessment and initial management. NICE guideline NG143 (2019, updated 2021), recommendation 1.2.3

## Definitions of terms used in this quality statement

### Fever

Fever is an elevation of body temperature above the normal daily variation. Healthcare professionals should take any parental reports of suspected fever seriously. [[NICE's 2013 full guideline on fever in under 5s, section 1.2 definitions](#)]

### Serious illness

An illness that could cause death or disability if there were a delay in diagnosis and treatment. [[NICE's 2013 full guideline on fever in under 5s, section 1.2 definitions](#)]

### Traffic light system

A system that stratifies risk of serious illness in infants and children under 5 years with fever according to vital signs and clinical symptoms.

Infants and children under 5 years with fever and any of the 'red' symptoms or signs should be recognised as at high risk. Infants and children under 5 years with fever and any of the 'amber' symptoms or signs should be recognised as at intermediate risk. Those with only 'green' symptoms and signs are at low risk. The management of fever in infants and children under 5 years should be directed by the level of risk.

Vital signs can be measured only during face-to-face contact. If an infant or child's condition is being assessed remotely this will rely on identifying symptoms rather than measuring vital signs.

The traffic light system can be found in [table 2 of NICE's guideline on fever in under 5s](#). [Adapted from [NICE's guideline on fever in under 5s](#)]

## Equality and diversity considerations

Care should be taken when using the traffic light system to assess the risk of serious illness in children with unexplained fever who have learning disabilities, autism spectrum disorder or other mental health problems. This is because it may not be possible to apply all parts of the system to these children.

It may be difficult to assess pallor or a pale, mottled, ashen or blue appearance in infants and children with darker skin. Healthcare professionals should be aware that it may be easier to assess pallor on the lips or tongue.

A non-blanching rash may also be harder to detect in infants and children with darker skin tones, and healthcare professionals should be aware that it may be easier to identify a rash on the palms of the hands, the conjunctivae and the soles of the feet.

Care should be taken when assessing infants and children remotely when their parent's or carer's first language is not English. Efforts should be made to provide an interpreter and for the infant or child to be seen in person.

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](#). [NICE's guideline on fever in under 5s, recommendation 1.2.28]



# Quality statement 2: Measuring and recording vital signs

## Quality statement

Infants and children under 5 years who are seen in person by a healthcare professional have their temperature, heart rate, respiratory rate and capillary refill time measured and recorded if fever is suspected.

## Rationale

Measuring and recording vital signs is an essential step in assessing the risk of serious illness, aiding diagnosis and ensuring the correct course of action. Measuring vital signs includes taking the child's temperature and measuring heart rate, respiratory rate and capillary refill time. Temperature, heart rate and respiratory rate should be measured using the correct equipment for the child's age. To ensure an accurate reading, it is important that a healthcare professional measures the child's temperature even if the parent or carer has already done this. Parental or carer reports of fever should be acted on.

## Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured, and can be adapted and used flexibly.

## Structure

Evidence of local arrangements to ensure that temperature, heart rate, respiratory rate and capillary refill time of infants and children under 5 years with suspected fever can be measured using the correct equipment and recorded.

**Data source:** Local data collection.

## Process

Proportion of infants and children under 5 years seen by a healthcare professional and suspected of having a fever who have their temperature, heart rate, respiratory rate and capillary refill time measured and recorded.

Numerator – the number in the denominator who have their temperature, heart rate, respiratory rate and capillary refill time measured and recorded.

Denominator – the number of infants and children under 5 years seen by a healthcare professional and suspected of having a fever.

**Data source:** Local data collection.

## Outcome

Early identification of serious illness in infants and children under 5 years.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (such as general practice and emergency departments) ensure that the correct equipment for measuring temperature, heart rate, respiratory rate and capillary refill time is available to healthcare professionals who see infants and children under 5 years with suspected fever.

**Healthcare professionals** ensure that they measure and record temperature, heart rate, respiratory rate and capillary refill time using the correct equipment in infants and children under 5 years with suspected fever.

**Commissioners** (clinical commissioning groups and NHS England) ensure that the services they commission provide the correct equipment and training so that healthcare professionals can measure and record the temperature, heart rate, respiratory rate and capillary refill time of infants and children under 5 years with suspected fever.

**Infants and children under 5 years with suspected fever** have their temperature, pulse and breathing rate measured when they are seen by a healthcare professional. The healthcare professional also checks for signs of dehydration and shock, and makes sure that all measurements and observations are added to the patient records.

## Source guidance

Fever in under 5s: assessment and initial management. NICE guideline NG143 (2019, updated 2021), recommendation 1.2.8

## Definitions of terms used in this quality statement

### Suspected fever

Fever is suspected when there is reason to believe that body temperature is raised above the normal daily variation. Healthcare professionals should take any parental reports of suspected fever seriously. [[NICE's 2013 full guideline on fever in under 5s](#), section 1.2 definitions]

### Correct equipment

Temperature should be measured using appropriate thermometers. [[NICE's guideline on fever in under 5s](#), section 1.1]

## Quality statement 3: Urine testing

This statement has been removed. For more details see [update information](#).

# Quality statement 4: Safety net advice

## Quality statement

Parents and carers who are advised that they can care for an infant or child under 5 years with unexplained fever at home are given safety net advice, including information on when to seek further help.

## Rationale

Sometimes a healthcare professional advises parents and carers to care for their child at home. This may be because the child is at low risk of serious illness or they may have been stratified as medium risk but the decision has been made to care for them at home. Advice about what to do and what to look out for (safety net advice) empowers parents and carers to seek help if the child's condition deteriorates further or if they need more support. If a child's condition deteriorates it is important that they are seen again quickly.

## Quality measures

The following measures can be used to assess the quality of care or service provision specified in the statement. They are examples of how the statement can be measured, and can be adapted and used flexibly.

## Structure

Evidence of local arrangements to ensure that safety net advice, which includes information on when to seek further help, is available for parents and carers who are advised they can care for an infant or child under 5 years with unexplained fever at home.

**Data source:** Local data collection.

## Process

Proportion of infants and children under 5 years with unexplained fever who are being

cared for at home after assessment by a healthcare professional, whose parents and carers are given safety net advice, including information on when to seek further help.

Numerator – the number of infants and children in the denominator whose parents and carers receive safety net advice that includes information on when to seek further help.

Denominator – the number of infants and children under 5 years with unexplained fever who are being cared for at home after assessment by a healthcare professional.

**Data source:** Local data collection.

## Outcome

Parent and carer experience of services.

**Data source:** Local data collection.

## What the quality statement means for different audiences

**Service providers** (such as general practice and emergency departments) ensure that written and verbal safety net advice is given to parents and carers when infants and children under 5 years with unexplained fever are cared for at home. This information should explain when the parent or carer should seek further help and should be available in formats that take account of literacy, language and other communication barriers.

**Healthcare professionals** provide parents and carers with safety net advice when an infant or child under 5 years with unexplained fever is cared for at home. This advice should include information on when the parent or carer should seek further help and should be given in a format the parents and carers can understand. The advice should usually be given as written material with some verbal discussion of the content.

**Commissioners** (clinical commissioning groups and NHS England) ensure that the services they commission can demonstrate that parents and carers are provided with safety net advice in an appropriate format when infants and children under 5 years with unexplained fever are cared for at home. This could include evidence that the advice accounts for any literacy, language or other communication barriers.

**Parents and carers who are caring for an infant or child under 5 years with unexplained fever at home** are given advice about what to do, what to look out for and when to get further help.

## Source guidance

Fever in under 5s: assessment and initial management. NICE guideline NG143 (2019, updated 2021), recommendations 1.3.5, 1.4.4, 1.4.5 and 1.5.25

## Definitions of terms used in this quality statement

### Fever

Fever is an elevation of body temperature above the normal daily variation. Healthcare professionals should take any parental reports of suspected fever seriously. [[NICE's 2013 full guideline on fever in under 5s, section 1.2 definitions](#)]

### Safety net advice

Advise parents or carers looking after a feverish child at home:

- to offer the child regular fluids (where a baby or child is breastfed the most appropriate fluid is breast milk)
- how to detect signs of dehydration by looking for the following features:
  - sunken fontanelle
  - dry mouth
  - sunken eyes
  - absence of tears
  - poor overall appearance
- to encourage their child to drink more fluids and consider seeking further advice if they detect signs of dehydration

- how to identify a non-blanching rash
- to check their child during the night
- to keep their child away from nursery or school while the child's fever persists but to notify the school or nursery of the illness.

[[NICE's guideline on fever in under 5s](#), recommendation 1.7.2]

## When to seek further help

Following contact with a healthcare professional, parents and carers who are looking after their feverish child at home should seek further advice if:

- the child has a fit
- the child develops a non-blanching rash
- the parent or carer feels that the child is less well than when they previously sought advice
- the parent or carer is more worried than when they previously sought advice
- the fever lasts 5 days or longer
- the parent or carer is distressed, or concerned that they are unable to look after their child.

[[NICE's guideline on fever in under 5s](#), recommendation 1.7.3]

See also the [discharge advice template for NICE's guideline on fever in under 5s](#).

## Equality and diversity considerations

Healthcare professionals should take into consideration the communication needs of the parents and carers when deciding on the best format for safety net advice.

A non-blanching rash may be harder to detect in infants and children with darker skin tones, and healthcare professionals should inform parents and carers that it may be easier to identify a rash on the palms of the hands, the conjunctivae and the soles of the feet.



## Update information

**July 2022:** Changes have been made to align this quality standard with the updated [NICE guideline on urinary tract infection in under 16s](#). Statement 3 on urine testing has been removed because it is no longer supported by the source guidance. Links, definitions and source guidance sections have also been updated throughout.

### Minor changes since publication

**March 2023:** We added text to the equality and diversity considerations in statement 1 to indicate that pulse oximetry may be less reliable in people with dark skin. We also added a link to the NHS patient safety alert on the risk of harm from inappropriate placement of pulse oximeter probes.

**November 2019:** Source guidance references have been updated to align this quality standard with the updated [NICE guideline on fever in under 5s](#). References and links have also been updated throughout.

## 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.

Expected levels of achievement for quality measures are not specified. Quality standards are intended to drive up the quality of care, and so achievement levels of 100% should be aspired to (or 0% if the quality statement states that something should not be done). However, this may not always be appropriate in practice. Taking account of safety, shared decision-making, choice and professional judgement, desired levels of achievement should be defined locally.

Information about [how NICE quality standards are developed](#) is available from the NICE website.

See our [webpage on quality standards advisory committees](#) for details about our standing committees. Information about the topic experts invited to join the standing members is available from the [webpage for this quality standard](#).

NICE has produced a [quality standard service improvement template](#) 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 guidance and quality standards apply in England and Wales. Decisions on how they apply in Scotland and Northern Ireland are made by the Scottish government and Northern Ireland Executive. NICE quality standards may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

## 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 [resource impact statement for NICE's guideline on fever in under 5s](#) to help estimate local costs.

## Diversity, equality and language

Equality issues were considered during development and [equality assessments for this quality standard](#) 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.

ISBN: 978-1-4731-0674-1

## Endorsing organisation

This quality standard has been endorsed by NHS England, as required by the Health and Social Care Act (2012)

## Supporting organisations

Many organisations share NICE's commitment to quality improvement using evidence-based guidance. The following supporting organisations have recognised the benefit of the quality standard in improving care for patients, carers, service users and members of the public. They have agreed to work with NICE to ensure that those commissioning or providing services are made aware of and encouraged to use the quality standard.

- [Meningitis Research Foundation](#)
- [Meningitis Now](#)
- [Royal College of General Practitioners \(RCGP\)](#)
- [Royal College of Psychiatrists \(RCPsych\)](#)
- [Royal Pharmaceutical Society](#)
- [Royal College of Paediatrics and Child Health](#)