NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Health and social care directorate

Quality standards and indicators

Briefing paper

Quality standard topic: Feverish illness in children (from birth to 5 years)
Output: Prioritised quality improvement areas for development.
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Contents

1 Introduction

This briefing paper presents a structured overview of potential quality improvement areas for feverish illness in children. It provides the Committee with a basis for discussing and prioritising quality improvement areas for development into draft quality statements and measures for public consultation.

1.1 Structure

This briefing paper includes a brief description of the topic, a summary of each of the suggested quality improvement areas and supporting information.

If relevant, recommendations selected from the key development source below are included to help the Committee in considering potential statements and measures.

1.2 Development source

The key development source referenced in this briefing paper is:

Feverish illness in children. NICE clinical guideline 160 (2013).

2 Overview[1]

2.1 Focus of quality standard

This quality standard will cover the assessment and initial management of feverish illness in children from birth to 5 years.

2.2 Definition

Feverish illness in young children usually indicates an underlying infection of some kind and, as such, the condition is a cause of concern for parents and carers. In most cases, the illness is due to a self-limiting virus infection and the child will recover quickly without intervention. However fever may also be the presenting feature of serious bacterial illnesses such as meningitis, septicaemia, urinary tract infections and pneumonia.

[1] Section 2.1 to 2.4 is taken from Feverish illness in children: Assessment and initial management in children younger than 5 years. Clinical Guideline, CG160. May 2013.

2.3 Incidence and prevalence

Feverish illness is very common in young children, with between 20 and 40% of parents reporting such an illness each year. Fever is probably the commonest reason for a child to be taken to the doctor. Feverish illness is also the second most common reason for a child being admitted to hospital.

In a study of 1% of the national child population, the mean general practice (GP) consultation rate was 3.7 per child per year and almost double that rate for children aged under 4 years. Infections and respiratory disorders made up over 40% of the consultations. In the fourth national study of morbidity in general practice, which included nearly 10 000 children, the annual consultation rates for infections were 60% of the population aged less than 12 months, 36% aged 1–4 years and 20% aged 5–15 years. Fever in children is also a common reason for seeking health advice out of hours. In one service, 34% of calls concerned children under 5 years of age. Fever was a concern in 52% of calls about children aged under 12 months and in 64% of calls about children aged 1–5 years.

Feverish illness is also one of the most common reasons for children to be seen in hospital emergency departments and it is a leading cause of admission to children's wards. On children's wards, at least 48% of admissions are associated with infection. Most of these infections present with a feverish illness with or without other symptoms such as breathing difficulty, fit, rash or cough. Feverish illness is second only to breathing difficulty as the most common presenting problem leading to acute hospital admission in childhood.

2.4 Management

Feverish illness in young children can be a diagnostic challenge for healthcare professionals because it is often difficult to identify the cause. In some children with fever there will be symptoms and signs that suggest a particular infection, such as an inflamed eardrum in a child with otitis media or a non-blanching rash in a child with meningococcal septicaemia. When these features are identified, the diagnosis can be established relatively easily and the child can be treated appropriately. There will remain a significant number of children, however, who have no obvious cause of fever despite careful assessment and investigation. These children with fever without

apparent source are a particular concern to healthcare professionals because it is especially difficult to distinguish between simple viral illnesses and life threatening bacterial infections in this group. This tends to be a problem in young children, and the younger the child the more difficult it is to establish a diagnosis and assess the severity of illness.

The clinical picture can often change rapidly in young children. The condition of young children with serious illness may deteriorate within hours of onset or an ill-appearing child with a viral illness may make a rapid recovery.

The introduction of new vaccination programmes in the UK may have significantly reduced the level of admissions to hospital; early analysis of the pneumococcal vaccination programme in England shows that the incidence of pneumococcal-related disease has fallen 98% in children younger than 2 years since vaccination was introduced. However, evidence suggests a 68% increase in the prevalence of disease caused by subtypes of bacteria not covered by vaccination programmes. Also, potentially serious cases of feverish illness are likely to be rare, so it is important that information is in place to help healthcare professionals distinguish these from mild cases.

See appendix 1 for the associated tables from NICE clinical guideline CG160.

2.5 National Outcome Frameworks

Tables 1–2 show the outcomes, overarching indicators and improvement areas from the frameworks that the quality standard could contribute to achieving.

Table 1 NHS Outcomes Framework 2014/15

Domain	Overarching indicators and improvement areas
1 Preventing people from dying prematurely	***Overarching indicator*** 1a Potential Years of Life Lost (PYLL) from causes considered amenable to healthcare ii Children and young people Improvement areas Reducing deaths in babies and young children 1.6i Infant mortality*
3 Helping people to recover form episodes of ill health or following injury	***Improvement areas*** **Preventing lower respiratory tract infections (LRTI) in children from becoming serious** 3.2 Emergency admissions for children with LRTI
4 Ensuring that people have a positive experience of care	***Improvement areas*** **Improving children and young people's experience of healthcare** 4.8 Children and young people's experience of outpatient services
Alignment across the health and social care system * Indicator shared with Public Health Outcomes Framework (PHOF)	

Table 2 Public health outcomes framework for England, 2013–2016

Domain	Objectives and indicators
4 Healthcare public health and preventing premature mortality	***Objective*** Reduced numbers of people living with preventable ill health and people dying prematurely, while reducing the gap between communities ***Indicators*** 4.1 Infant mortality*
Alignment across the health and social care system * Indicator shared with NHS Outcomes Framework (NHSOF)	

3 Summary of suggestions

3.1 Responses

In total 7 stakeholders responded to the 2-week engagement exercise between 22/10/2013-5/11/2013.

Stakeholders were asked to suggest up to 5 areas for quality improvement. Specialist committee members were also invited to provide suggestions. The responses have been merged and summarised in table 3 for further consideration by the Committee.

Full details on the suggestions provided are given in appendix 4 for information.

Table 3 Summary of suggested quality improvement areas

Suggested area for improvement	Stakeholders
The use of thermometers	RCPCH
Clinical assessment of fever • Vital signs and documentation of observations • Traffic light table • Symptoms and signs of specific illnesses	SCM1 SCM2 SCM3 RCPCH
Access to services • Primary care and out of hours services • Access to chest X-rays	RCPCH
Management of fever • Urine testing • Antibiotic treatment	RCPCH
Antipyretic interventions	JJC SCM1 SCM2
Advice for home care • Safety net information	MN RCPCH SCM1 SCM2
RCPCH, Royal College of Paediatrics and Child Health SCM, Specialist Committee Member JJC, Johnson and Johnson Consumer MN, Meningitis Now	

4 Suggested improvement areas

4.1 The use of thermometers

4.1.1 Summary of suggestions

Stakeholders report correct use of thermometers in GP surgeries and urgent care settings would ensure that serious illnesses are not missed and would lead to a reduction in unnecessary referrals onwards to secondary services.

4.1.2 Selected recommendations from development source

Table 4 below highlights recommendations that have been provisionally selected from the development source(s) that may support potential statement development. These are presented in full after table 4 to help inform the Committee's discussion.

Table 4 Specific areas for quality improvement

Suggested quality improvement area	Suggested source guidance recommendations
The use of thermometers	**Thermometers and the detection of fever** NICE CG160 Recommendation 1.1.2.1 NICE CG160 Recommendation 1.1.2.2 (KPI) NICE CG160 Recommendation 1.1.2.3 NICE CG160 Recommendation 1.1.2.4

Thermometers and the detection of fever

NICE CG160 – Recommendation 1.1.2.1

In infants under the age of 4 weeks, measure body temperature with an electronic thermometer in the axilla. **[2007]**

NICE CG160 – Recommendation 1.1.2.2 (key priority for implementation)

In children aged 4 weeks to 5 years, measure body temperature by one of the following methods:

- electronic thermometer in the axilla
- chemical dot thermometer in the axilla

- infra-red tympanic thermometer. **[2007]**

NICE CG160 – Recommendation 1.1.2.3

Healthcare professionals who routinely use disposable chemical dot thermometers should consider using an alternative type of thermometer when multiple temperature measurements are required. **[2007]**

NICE CG160 – Recommendation 1.1.2.4

Forehead chemical thermometers are unreliable and should not be used by healthcare professionals. **[2007]**

4.1.3 Current UK practice

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

4.2 Clinical assessment of fever

4.2.1 Summary of suggestions

Vital signs and documentation of observations

Stakeholders report that increased recording of observations leads to improved recognition of feverish illness and improved standards of care. Stakeholders identified the importance of recording and monitoring heart rate as part of the vital signs measurements.

Traffic light table

Stakeholders have identified that it is important to ensure the traffic light system used. Stakeholders report that early identification and assessment of children with a fever is key to reduce morbidity and mortality.

Symptoms and signs of specific illnesses

Stakeholders have identified that the recognition of specific illnesses and when to refer to paediatric units needs to be improved among non-specialists.

4.2.2 Selected recommendations from development source

Table 5 below highlights recommendations that have been provisionally selected from the development source(s) that may support potential statement development. These are presented in full after table 5 to help inform the Committee's discussion.

Table 5 Specific areas for quality improvement

Suggested quality improvement area	Selected source guidance recommendations
Vital signs and documentation of observations	**Clinical assessment of the child with fever** NICE CG160 Recommendation 1.2.1.1 NICE CG160 Recommendation 1.2.2.6 (KPI) NICE CG160 Recommendation 1.2.2.13 (KPI) **Management by the paediatric specialist** NICE CG160 Recommendation 1.5.2.1

Traffic light table	**Clinical assessment of the child with fever** NICE CG160 Recommendation 1.2.2.1 (KPI)
Symptoms and signs of specific illnesses	**Clinical assessment of the child with fever** NICE CG160 Recommendation 1.2.3.1

Clinical assessment of the child with fever

NICE CG160 Recommendation 1.2.1.1

First, healthcare professionals should identify any immediately life-threatening features, including compromise of the airway, breathing or circulation, and decreased level of consciousness. **[2007]**

NICE CG160 Recommendation 1.2.2.1 (key priority for implementation)

Assess children with feverish illness for the presence or absence of symptoms and signs that can be used to predict the risk of serious illness using the traffic light system (see appendix 1: table 1). **[2013]**

NICE CG160 Recommendation 1.2.2.6 (key priority for implementation)

Measure and record temperature, heart rate, respiratory rate and capillary refill time as part of the routine assessment of a child with fever. **[2007]**

NICE CG160 Recommendation 1.2.2.13 (key priority for implementation)

Recognise that children with tachycardia are in at least an intermediate-risk group for serious illness. Use the Advanced Paediatric Life Support (APLS) criteria below to define tachycardia: **[new 2013]**

Age	**Heart rate (bpm)**
<12 months	>160
12–24 months	>150
2–5 years	>140

NICE CG160 Recommendation 1.2.3.1

Look for a source of fever and check for the presence of symptoms and signs that are associated with specific diseases (see appendix1: table 2). **[2007]**

Management by the paediatric specialist

NICE CG160 Recommendation 1.5.2.1

Infants younger than 3 months with fever should be observed and have the following vital signs measured and recorded:

- temperature
- heart rate
- respiratory rate. **[2007]**

4.2.3 Current UK practice

Vital signs and documentation of observations

An observational study in 15 GP surgeries in UK[2], assessed notes of 850 children aged 1mnth to 16yrs presenting with acute infection. They found that 31.6% had one or more numerical vital signs recorded and 54.1% had at least one recorded by free text. Numerically recorded signs were temperature 24.7%, heart rate 7.3%, respiratory rate 6.8% and capillary refill time 4.2%. The study found that vital signs were recorded using numbers or text significantly more often in children under 5 years, compared to those 5–16 years of age and respiratory rate and capillary refill time were also reported more frequently in infants (<1 year) compared to children aged >1 year. The study concluded that although GPs record vital sign using words and numerical methods, the overall documentation of vital signs is infrequent in children presenting with acute infections.

In another study which reviewed 241 face to face contacts for children aged under 5 with fever[3], temperature or heart rate was measured and recorded on 90% (216/241)

[2] Blacklock et al, (2012). When and how do GPs record vital signs in children with acute infections? A cross-sectional study. British Journal of General Practice, Volume 62, Number 603: e679-e686(8).
[3] Maguire et al (2011). Which urgent care services do febrile children use and why? Archives of Disease in Childhood 96: 810-816.

of occasions. Heart rate was found to be far less commonly recorded in primary care settings compared to secondary care services.

Traffic light system

The 2010 RCPCH research report[4] found that implementation of the fever management traffic light system in the NICE Feverish Illness in Children Guideline was disappointingly low in some settings and parents were generally unaware of its existence. Within the report none of the 314 case notes documented specifically that they had used the NICE Guideline 'traffic light' system in predicting the risk of serious illness although in 3 cases some reference to the NICE guideline was made. The report did find that individual symptoms and signs from the traffic light system were being recorded.

Symptoms and signs of specific illnesses

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

[4] To understand and improve the experiences of parents and carers who need assessment when a child has a fever (high temperature). Research Report 2010. RCPCH funded by the Department of Health. London.

4.3 Access to services

4.3.1 Summary of suggestions

Primary care and out of hours services

Stakeholders report that inappropriate admission to hospital needs to be reduced and this could be done through better access to primary care and out of hours services and by developing alternative paediatric care pathways.

Access to chest X-rays

Stakeholders identified that a lack of access for GP and walk-in centres to chest X-rays can lead to delays in the diagnosis of pneumonia.

4.3.2 Selected recommendations from development source

Table 6 below highlights recommendations that have been provisionally selected from the development source(s) that may support potential statement development. These are presented in full after table 6 to help inform the Committee's discussion.

Table 6 Specific areas for quality improvement

Suggested quality improvement area	Selected source guidance recommendations
Primary care and out of hours services	Not directly covered by NICE CG160 and no recommendations are presented.
Access to chest X-rays	**Management by the non-paediatric practitioner** NICE CG160 Recommendation 1.4.3.1

Management by the non-paediatric practitioner

NICE CG 160 Recommendation 1.4.3.1

Children with symptoms and signs suggesting pneumonia who are not admitted to hospital should not routinely have a chest X-ray. **[2007]**

4.3.3 Current UK practice

Primary care and out of hours services

The 2010 RCPCH research report[5] underlines the essential role of general practice in provision of urgent care for children within its outcomes. It suggests that parents would rather see their GP when their child becomes unwell with a fever than use other services. It also concluded that when GPs assess children, the majority have no or one further referral onwards to a secondary service. It reported that within the study considered parents were satisfied with access to their local GP practice and where also aware of and used the range of services available locally to them. It found that where parents had several contacts with health professionals during the same episode of fever this was usually because of referrals between services rather than parent initiated and that these families found it to be time consuming, disruptive and stressful.

The 2013 RCPCH audit of acute paediatric service standards in the UK[6] carried out in the summer and autumn of 2012 asked 32 UK acute paediatric units questions about the 10 paediatric standards published by the RCPCH in 2011, units also were carried out a retrospective case note analysis of 20 admissions and in addition 14 units were subject to a deep dive visit. This study found that there is still a need to look at more innovative models of paediatric service delivery to provide more care within the community.

Access to chest X-rays

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience. The recommendation from NICE CG160 (1.4.3.1), which covers X-rays for diagnosis of pneumonia does not support this suggested aspect of quality improvement. The clinical guideline development group felt that in the presence of clinical signs of pneumonia or bronchiolitis, a chest X-ray is of no added benefit.

[5] To understand and improve the experiences of parents and carers who need assessment when a child has a fever (high temperature). Research Report 2010. RCPCH funded by the Department of Health. London.
[6] RCPCH (2013). Back to facing the future: An audit of acute paediatric service standards in the UK.

4.4 Management of fever

4.4.1 Summary of suggestions

Urine testing

Stakeholders report that there needs to be greater use of clean catch urine or catheter samples for diagnosis of UTI by primary and emergency care.

Antibiotic treatment

Stakeholders identified that survival rates for sepsis correlate to timeliness of antibiotics and delays in treating with antibiotics are due to unavailability of staff, IV cannulas and drugs.

4.4.2 Selected recommendations from development source

Table 7 below highlights recommendations that have been provisionally selected from the development source(s) that may support potential statement development. These are presented in full after table 7 to help inform the Committee's discussion.

Table 7 Specific areas for quality improvement

Suggested quality improvement area	Selected source guidance recommendations
Urine testing	**Management by the non-paediatric practitioner** NICE CG160 Recommendation 1.4.3.2 **Management by the paediatric specialist** NICE CG160 Recommendation 1.5.2.2 (KPI) NICE CG160 Recommendation 1.5.3.1 NICE CG160 Recommendation 1.5.3.3 NICE CG160 Recommendation 1.5.3.4 NICE CG160 Recommendation 1.5.4.1
Antibiotic treatment	**Management by the paediatric specialist** NICE CG160 Recommendation 1.5.2.5 NICE CG160 Recommendation 1.5.6.2 NICE CG160 Recommendation 1.5.6.3

Urine testing

Management by the non-paediatric practitioner

NICE CG160 Recommendation 1.4.3.2

Test urine in children with fever as recommended in Urinary tract infection in children (NICE clinical guideline 54). **[2007]**

Management by the paediatric specialist

NICE CG160 Recommendation 1.5.2.2 (key priority for implementation)

Perform the following investigations in infants younger than 3 months with fever:

- full blood count
- blood culture
- C-reactive protein
- urine testing for urinary tract infection
- chest X-ray only if respiratory signs are present
- stool culture, if diarrhoea is present. **[2013]**

NICE CG160 Recommendation 1.5.3.1

Perform the following investigations in children with fever without apparent source who present to paediatric specialists with 1 or more 'red' features:

- full blood count
- blood culture
- C-reactive protein
- urine testing for urinary tract infection. **[2013]**

NICE CG160 Recommendation 1.5.3.3

Children with fever without apparent source presenting to paediatric specialists who have 1 or more 'amber' features, should have the following investigations performed unless deemed unnecessary by an experienced paediatrician.

- urine should be collected and tested for urinary tract infection[6]
- blood tests: full blood count, C-reactive protein and blood cultures
- lumbar puncture should be considered for children younger than 1 year
- chest X-ray in a child with a fever greater than 39°C and WBC greater than 20 × 109/litre. **[2007]**

NICE CG160 Recommendation 1.5.3.4

Children who have been referred to a paediatric specialist with fever without apparent source and who have no features of serious illness (that is, the 'green' group), should have urine tested for urinary tract infection and be assessed for symptoms and signs of pneumonia (see appendix1: table 2). **[2007]**

NICE CG160 Recommendation 1.5.4.1

Febrile children with proven respiratory syncytial virus or influenza infection should be assessed for features of serious illness. Consideration should be given to urine testing for urinary tract infection. **[2007]**

Antibiotic treatment

Management by the paediatric specialist

NICE CG160 Recommendation 1.5.2.5

Give parenteral antibiotics to:

- infants younger than 1 month with fever
- all infants aged 1–3 months with fever who appear unwell
- infants aged 1–3 months with WBC less than 5 × 109/litre or greater than 15 × 109/litre. **[2007, amended 2013]**

NICE CG160 Recommendation 1.5.6.2

Give immediate parenteral antibiotics to children with fever presenting to specialist paediatric care or an emergency department if they are:

- shocked
- unrousable
- showing signs of meningococcal disease. **[2007]**

NICE CG160 Recommendation 1.5.6.3

Immediate parenteral antibiotics should be considered for children with fever and reduced levels of consciousness. In these cases symptoms and signs of meningitis

and herpes simplex encephalitis should be sought (see appendix 1: table 2 and Bacterial meningitis and meningococcal septicaemia [NICE clinical guideline 102]). **[2007]**

4.4.3 Current UK practice

Urine testing

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

NICE Quality standard 36 (2013) Urinary tract infection in infants, children and young people under 16 contains the following;

Statement 1: Infants, children and young people presenting with unexplained fever of 38°C or higher have a urine sample tested within 24 hours.

This quality standard used the following recommendations from NICE clinical guideline 54: Urinary tract infection in children during development:

NICE CG54 Recommendation 1.1.1.1

Infants and children presenting with unexplained fever of 38°C or higher should have a urine sample tested after 24 hours at the latest.

NICE CG54 Recommendation 1.1.5.1 (key priority for implementation)

The urine-testing strategies shown in tables 2–5 are recommended.

Table 2 Urine-testing strategy for infants younger than 3 months

All infants younger than 3 months with suspected UTI (see table 1) should be referred to paediatric specialist care and a urine sample should be sent for urgent microscopy and culture. These infants should be managed in accordance with the recommendations for this age group in Feverish illness in children (NICE clinical guideline 47).

Table 3 Urine-testing strategies for infants and children 3 months or older but younger than 3 years

Urgent microscopy and culture is the preferred method for diagnosing UTI in this age group; this should be used where possible.	
If the infant or child has specific urinary symptoms	Urgent microscopy and culture should be arranged and antibiotic treatment should be started. When urgent microscopy is not available, a urine sample should be sent for microscopy and culture, and antibiotic treatment should be started.
If the symptoms are non-specific to UTI	• For an infant or child with a high risk of serious illness: the infant or child should be urgently referred to a paediatric specialist where a urine sample should be sent for urgent microscopy and culture. Such infants and children should be managed in line with Feverish illness in children (NICE clinical guideline 47). • For an infant or child with an intermediate risk of serious illness: if the situation demands, the infant or child may be referred urgently to a paediatric specialist. For infants and children who do not require paediatric specialist referral, urgent microscopy and culture should be arranged. Antibiotic treatment should be started if microscopy is positive (see table 5). When urgent microscopy is not available, dipstick testing may act as a substitute. The presence of nitrites suggests the possibility of infection and antibiotic treatment should be started (see table 4). In all cases, a urine sample should be sent for microscopy and culture. • For an infant or child with a low risk of serious illness: microscopy and culture should be arranged. Antibiotic treatment should only be started if microscopy or culture is positive.

NB: Feverish illness in children NICE clinical guideline 160 updates and replaces NICE clinical guideline 47. The relevant recommendations referred to within the UTI in children guidance from NICE CG47 remain current in the updated Feverish illness in children guidance CG160.

Antibiotic treatment

No published studies on current practice were highlighted for this suggested area for quality improvement; this area is based on stakeholder's knowledge and experience.

4.5 Antipyretic interventions

4.5.1 Summary of suggestions

Stakeholders reported there may be benefits to using ibuprofen and paracetamol in the same treatment regimen for an episode of fever. Stakeholders identified that if this practice is recommended by healthcare professionals it is critical that parents do not get confused by the dosing regimen and start to dose their child inappropriately.

Stakeholders report that the advice provided by healthcare professionals to families on the use of antipyretics should be consistent to ensure a reduction in inappropriate use.

4.5.2 Selected recommendations from development source

Table 8 below highlights recommendations that have been provisionally selected from the development source(s) that may support potential statement development. These are presented in full after table 8 to help inform the Committee's discussion.

Table 8 Specific areas for quality improvement

Suggested quality improvement area	Selected source guidance recommendations
Antipyretic interventions	**Antipyretic interventions** NICE CG160 Recommendation 1.6.3.1 NICE CG160 Recommendation 1.6.3.2 NICE CG160 Recommendation 1.6.3.3 (KPI)

Antipyretic interventions

NICE CG160 Recommendation 1.6.3.1

Consider using either paracetamol or ibuprofen in children with fever who appear distressed. **[new 2013]**

NICE CG160 Recommendation 1.6.3.2

Do not use antipyretic agents with the sole aim of reducing body temperature in children with fever. **[new 2013]**

NICE CG160 Recommendation 1.6.3.3 (key priority for implementation)

When using paracetamol or ibuprofen in children with fever:

- continue only as long as the child appears distressed
- consider changing to the other agent if the child's distress is not alleviated
- do not give both agents simultaneously
- only consider alternating these agents if the distress persists or recurs before the next dose is due. [new 2013]

4.5.3 Current UK practice

A 2010 manufacturer sponsored audit[7] of the practice of using paracetamol and ibuprofen in the same treatment regimen conducted 230 telephone interviews with healthcare professionals, including GPs, Health visitors, Practice nurses and Pharmacists. The study found that most healthcare professionals would suggest parents use paracetamol and ibuprofen in the same treatment regimen although health visitors were the least likely to do so. Healthcare professional would attach limitations to their advice mainly based on age. Most healthcare professionals would suggest that parents administer paracetamol and ibuprofen at set times or administer paracetamol first then ibuprofen later.

A survey report from 2013[8] reviewed 570 contacts with urgent and emergency services in 3 localities over 6 months for febrile children under 5 years. Within the study parents reported a need to be given accurate, consistent, written advice regarding fever and antipyretics.

[7] Health Care Professional Targeting Research, Calpol, Johnson and Johnson 2010.
[8] Maguire et al (2011). Which urgent care services do febrile children use and why? Archives of Disease in Childhood 96: 810-816.

4.6 Advice for home care

4.6.1 Summary of suggestions

Safety net information

Stakeholders identified the importance of clear and accurate written information, it is vital as verbal information is often forgotten. Stakeholders identified that safety netting advice allows for confident care at home and for parents and carers to appropriately seek further advice if their child's condition changes and that early identification and treatment can reduce mortality and morbidity.

Stakeholders reported an incomplete evidence base on the best methodology of delivering safety netting advice.

4.6.2 Selected recommendations from development source

Table 9 below highlights recommendations that have been provisionally selected from the development source(s) that may support potential statement development. These are presented in full after table 9 to help inform the Committee's discussion.

Table 9 Specific areas for quality improvement

Suggested quality improvement area	Selected source guidance recommendations
Safety net information	**Management by the paediatric specialist** NICE CG160 Recommendation 1.5.8.2 **Advice for home care** NICE CG160 Recommendation 1.7.1.2 NICE CG160 Recommendation 1.7.2.1

Management by the paediatric specialist

NICE CG160 Recommendation 1.5.8.2

If it is decided that a child does not need to be admitted to hospital, but no diagnosis has been reached, provide a safety net for parents and carers if any 'red' or 'amber' features are present. The safety net should be 1 or more of the following:

- providing the parent or carer with verbal and/or written information on warning symptoms and how further healthcare can be accessed (see section 1.7.2)

- arranging further follow-up at a specified time and place
- liaising with other healthcare professionals, including out-of-hours providers, to ensure direct access for the child if further assessment is required. **[2007]**

Advice for home care

NICE CG160 Recommendation 1.7.1.2

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. **[2007]**

NICE CG160 Recommendation 1.7.2.1

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 longer than 5 days
- the parent or carer is distressed, or concerned that they are unable to look after their child. **[2007]**

4.6.3 Current UK practice

The 2010 RCPCH research report [9] found that parents were clear they wished their concerns to be listened to and not dismissed. Parents highlighted their need for access to straight-forward and consistent advice on how to assess illness in their child, the treatment options available, how to use medicines safely and what should prompt them to return to the doctor. The report also concluded a more effective strategy was needed to ensure that the public is aware of NICE's information for parents on feverish illness and how to access it.

A survey report from 2013[10] found that of parents who received safety netting advice, 81%, were less likely to represent to urgent and emergency care services than those who didn't recall receiving safety netting advice (35% vs 52%). The study also found that parents reported a need to be given accurate, consistent, written advice regarding fever and antipyretics.

The Children and Young People's Health Outcomes Forum: Report by the Acutely Ill Children Subgroup[11] found that good consistent safety net advice is crucial in the current triage and assessment systems that have developed to respond to acute illness in children. They identified that if children and young people are to be able to access the right services at the right time, they and their families need access to a safety net of information in a form that they can understand which enables them to determine whether or not they can care for their sick child at home, or require health care.

NICE quality standard 19, Bacterial meningitis and meningococcal septicaemia in children and young people published in 2012 contains the following:
Quality statement 1: Parents and carers of children and young people presenting with non-specific symptoms and signs are given 'safety netting' information that includes information on bacterial meningitis and meningococcal septicaemia.

[9] To understand and improve the experiences of parents and carers who need assessment when a child has a fever (high temperature). Research Report 2010. RCPCH funded by the Department of Health. London.
[10] Maguire et al (2011). Which urgent care services do febrile children use and why? Archives of Disease in Childhood 96: 810-816.
[11] Children and Young People's Health Outcomes Forum: Report by the acutely ill themed group. (2012) Department of Health.

This quality standard used the following recommendations from the Feverish illness in children NICE clinical guideline during development. At the time the recommendations were taken from NICE CG47 but all remain current within the updated version of Feverish illness in children CG160.

NICE CG160 Recommendation 1.4.2.3 (key priority for implementation)

If any 'amber' features are present and no diagnosis has been reached, provide parents or carers with a 'safety net' or refer to specialist paediatric care for further assessment. The safety net should be 1 or more of the following:

- providing the parent or carer with verbal and/or written information on warning symptoms and how further healthcare can be accessed
- arranging further follow-up at a specified time and place
- liaising with other healthcare professionals, including out-of-hours providers, to ensure direct access for the child if further assessment is required. **[2007]**

NICE CG160 Recommendation 1.5.8.2

If it is decided that a child does not need to be admitted to hospital, but no diagnosis has been reached, provide a safety net for parents and carers if any 'red' or 'amber' features are present. The safety net should be 1 or more of the following:

- providing the parent or carer with verbal and/or written information on warning symptoms and how further healthcare can be accessed (see section 1.7.2)
- arranging further follow-up at a specified time and place
- liaising with other healthcare professionals, including out-of-hours providers, to ensure direct access for the child if further assessment is required. **[2007]**

NICE CG160 Recommendation 1.7.2.1

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 longer than 5 days
- the parent or carer is distressed, or concerned that they are unable to look after their child. **[2007]**

Appendix 1: Additional information

Table 1: Traffic light system for identifying risk of serious illness [new 2013]

Children with fever and **any** of the symptoms or signs in the red column should be recognised as being at high risk. Similarly, children with fever and any of the symptoms or signs in the amber column and none in the red column should be recognised as being at intermediate risk. Children with symptoms and signs in the green column and none in the amber or red columns are at low risk. The management of children with fever should be directed by the level of risk.

This traffic light table should be used in conjunction with the recommendations in this guideline on investigations and initial management in children with fever.

	Green – low risk	**Amber – intermediate risk**	**Red – high risk**
Colour (of skin, lips or tongue)	• Normal colour	• Pallor reported by parent/carer	• Pale/mottled/ashen/blue
Activity	• Responds normally to social cues • Content/smiles • Stays awake or awakens quickly • Strong normal cry/not crying	• Not responding normally to social cues • No smile • Wakes only with prolonged stimulation • Decreased activity	• 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
Respiratory		• Nasal flaring • Tachypnoea:	• Grunting • Tachypnoea:

		respiratory rate ○ >50 breaths/minute, age 6–12 months; ○ >40 breaths/minute, age >12 months • Oxygen saturation ≤95% in air • Crackles in the chest	respiratory rate >60 breaths/minute • Moderate or severe chest indrawing
Circulation and hydration	• Normal skin and eyes • Moist mucous membranes	• Tachycardia: ○ >160 beats/minute, age <12 months ○ >150 beats/minute, age 12–24 months ○ >140 beats/minute, age 2–5 years • Capillary refill time ≥3 seconds • Dry mucous membranes • Poor feeding	• Reduced skin turgor

		in infants • Reduced urine output	
Other	• None of the amber or red symptoms or signs	• Age 3–6 months, temperature ≥39°C • Fever for ≥5 days • Rigors • Swelling of a limb or joint • Non-weight bearing limb/not using an extremity	• Age <3 months, temperature ≥38°C • Non-blanching rash • Bulging fontanelle • Neck stiffness • Status epilepticus • Focal neurological signs • Focal seizures

Table 2: Summary table for symptoms and signs suggestive of specific diseases [2013]

Diagnosis to be considered	**Symptoms and signs in conjunction with fever**
Meningococcal disease	Non-blanching rash, particularly with 1 or more of the following: • an ill-looking child • lesions larger than 2 mm in diameter (purpura) • capillary refill time of ≥3 seconds • neck stiffness
Bacterial meningitis	Neck stiffness

	Bulging fontanelle Decreased level of consciousness Convulsive status epilepticus
Herpes simplex encephalitis	Focal neurological signs Focal seizures Decreased level of consciousness
Pneumonia	Tachypnoea (respiratory rate >60 breaths/minute, age 0–5 months; >50 breaths/minute, age 6–12 months; >40 breaths/minute, age >12 months) Crackles in the chest Nasal flaring Chest indrawing Cyanosis Oxygen saturation ≤95%
Urinary tract infection	Vomiting Poor feeding Lethargy Irritability Abdominal pain or tenderness Urinary frequency or dysuria
Septic arthritis	Swelling of a limb or joint Not using an extremity Non-weight bearing

Kawasaki disease	Fever for more than 5 days and at least 4 of the following: • bilateral conjunctival injection • change in mucous membranes • change in the extremities • polymorphous rash • cervical lymphadenopathy

Appendix 2: Key priorities for implementation (CG160)

Recommendations that are key priorities for implementation in the source guideline and that have been referred to in the main body of this report are highlighted in grey.

Thermometers and the detection of fever

In children aged 4 weeks to 5 years, measure body temperature by one of the following methods:

- electronic thermometer in the axilla
- chemical dot thermometer in the axilla
- infra-red tympanic thermometer. **[2007]** [recommendation 1.1.2.2]

Reported parental perception of a fever should be considered valid and taken seriously by healthcare professionals. **[2007]** [recommendation 1.1.3.1]

Clinical assessment of the child with fever

Assess children with feverish illness for the presence or absence of symptoms and signs that can be used to predict the risk of serious illness using the traffic light system (see appendix 1: table 1). **[2013]** [recommendation 1.2.2.1]

Measure and record temperature, heart rate, respiratory rate and capillary refill time as part of the routine assessment of a child with fever. **[2007]** [recommendation 1.2.2.6]

Recognise that children with tachycardia are in at least an intermediate-risk group for serious illness. Use the Advanced Paediatric Life Support (APLS) criteria below to define tachycardia: **[new 2013]** [recommendation 1.2.2.13]

Age	Heart rate (bpm)
<12 months	>160
12–24 months	>150
2–5 years	>140

Management by remote assessment

Children with any 'red' features but who are not considered to have an immediately life-threatening illness should be urgently assessed by a healthcare professional in a face-to-face setting within 2 hours. **[2007]** [recommendation 1.3.1.3]

Management by the non-paediatric practitioner

If any 'amber' features are present and no diagnosis has been reached, provide parents or carers with a 'safety net' or refer to specialist paediatric care for further assessment. The safety net should be 1 or more of the following:

- providing the parent or carer with verbal and/or written information on warning symptoms and how further healthcare can be accessed
- arranging further follow-up at a specified time and place
- liaising with other healthcare professionals, including out-of-hours providers, to ensure direct access for the child if further assessment is required. **[2007]** [recommendation 1.4.2.3]

Management by the paediatric specialist

Perform the following investigations in infants younger than 3 months with fever:

- full blood count
- blood culture
- C-reactive protein
- urine testing for urinary tract infection
- chest X-ray only if respiratory signs are present
- stool culture, if diarrhoea is present. **[2013]** [recommendation 1.5.2.2]

Antipyretic interventions

Antipyretic agents do not prevent febrile convulsions and should not be used specifically for this purpose. **[2007]** [recommendation 1.6.1.1]

When using paracetamol or ibuprofen in children with fever;

- continue only as long as the child appears distressed
- consider changing to the other agent if the child's distress is not alleviated
- do not give both agents simultaneously
- only consider alternating these agents if the distress persists or recurs before the next dose is due. **[new 2013]** [recommendation 1.6.3.3]

Appendix 3: Suggestions from stakeholder engagement exercise

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
1	Meningitis Now	Provision of information for parents or carers (safety netting) 1.5.8.2 and 1.7 in guideline	Clear and accurate written information is vital so that parents/carers can confidently care for a child at home and appropriately seek further advice or assessment. In the case of remote assessments, parents should be directed to find this information easily online or be encouraged to write down what is being said during the phone call.	When parents are anxious and concerned about their child, verbal information can be forgotten or not clearly understood. Written information could overcome this problem.	We have no formal information to support this, but callers to our helpline often feel that they have not been given clear information about what to look out for and what to do if their child has been assessed and then sent home. They often report verbal information being given, but not being able to recall all of it.
2	Johnson & Johnson Consumer	The use of ibuprofen and paracetamol in the same fever episode.	There may be benefits to using ibuprofen and paracetamol together in the same episode of fever. Some benefit was found in the PITCH study. However it is critical that parents do not get confused by the dosing regimen and start to dose their child inappropriately. A simple set of guidelines is required which is applied consistently by healthcare professionals (HCPs).	Our anecdotal experience is that parents do not receive a consistent message from HCPs on this topic and that terms have no consistent definition. For example “alternate dosing” may or may not include an initial dose of both actives or it may mean dosing in a strict regimen or according to response. This is further confused when one active is usually administered every 3six hours and the other every eight. Regimens which try to accommodate this difference (e.g. the regimen used in the PITCH study) can be over complicated and difficult to follow.	The PITCH study can be seen at: http://www.ncbi.nlm.nih.gov/pubmed/19454182

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
				Johnson & Johnson conducted a survey of 230 healthcare professionals in 2010 in order to gain more insight into this and other issues. The relevant portion of presentation of these results is included.	
3	Royal College of Paediatrics and Child Health	Time between parents seeking help and child being seen by a health professional	Children with significant bacterial infections can deteriorate rapidly; therefore children with feverish illness need access to out of hours care.	Parents can have difficulty accessing primary care and seeing appropriate health professionals who have experience in the assessment of children, especially out of hours.	• Surviving sepsis • NICE guideline feverish illness in under 5's/meningitis/UTI/ • BTS community acquired pneumonia
4	Royal College of Paediatrics and Child Health	Safety netting	Most children with feverish illness have viral infections but parents should know what to do if their child's condition changes / deteriorates and should be allowed to return for further assessment or advice.	Recording of information about what has been said to parents is often poor. Parents may have been falsely reassured by a health professional. There should never be a financial disincentive to healthcare organisations encouraging parents to return for further advice.	• NICE guidance meningitis/UTI/feverish illness
5	Royal College of Paediatrics and Child Health	Time between diagnosis of probable bacterial infection/sepsis and administration of first dose of antibiotics	Survival rates for sepsis correlate to the timeliness of appropriate antibiotic treatment	Delays often occur due to unavailability of appropriate staff / IV cannulas / drugs.	• Audits of door to needle times for surviving sepsis • NICE guidelines meningitis
6	Royal College of Paediatrics and Child Health	Collection of urine samples	GP surgeries often do not collect urine samples, A&E departments may collect urine samples but then discard them without sending	Clean catch urine or catheter specimens should be the gold standard for diagnosis of UTI and should be collected before starting antibiotics if possible.	• NICE guideline UTI/feverish illness

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
			cultures		
7	Royal College of Paediatrics and Child Health	Appropriateness of Chest X Rays	GP / walk in centres often unable to access chest X Rays to diagnose pneumonia in children, especially out of hours	Delays in the diagnosis of pneumonia can lead to the rising prevalence of empyema, but equally over prescribing antibiotics for viral illnesses can encourage antibiotic resistance.	• BTS guideline community acquired pneumonia and empyema
8	Royal College of Paediatrics and Child Health	Identification of unusual causes of feverish illness or atypical infections	GP's and A&E departments need clear guidelines about when to refer to a paediatric unit e.g. suspected Kawasaki disease / TB / malaria	Paediatric expertise is required in the diagnosis of these conditions/infections.	• NICE guidelines TB/feverish illness • BTS community acquired pneumonia • Kawasaki disease guidelines
9	Royal College of Paediatrics and Child Health	Use of correct thermometers by General Practice and Urgent Care staff in measuring fever in less than 3 month olds	NICE Guidance is clear on the correct way to measure fever in neonates and young infants. All health care providers should follow this guidance	Incorrect temperature measurement risks missing serious illness or resulting in unnecessary referrals.	
10	Royal College of Paediatrics and Child Health	NICE Fever guidance being applied to those with a source of fever	NICE Guidance on Fever is clear that the traffic light table applies to those children WITHOUT a source. It is important that although the matrix is useful for defining acuity of illness is shouldn't be used an evidence base if the cause of fever is established.	Inappropriate use of the guidance risks missing serious illness or resulting in unnecessary referrals.	
11	Royal College of Paediatrics and Child	Provision and documentation of safety net advice	There is an incomplete evidence base on the best methodology for delivering safety net advice.	Previously published evidence has emphasised the importance of the delivery of safety net advice. A robust standard with	

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
	Health			a clear definition may prevent morbidity and prevent unnecessary return.	
12	Royal College of Paediatrics and Child Health	Documentation of observations	NICE Guidance required a minimum observation data set in keeping with published evidence on physiological derangement being an indicator of potential serious illness	Increased recording of observations would improve recognition of illness and improve standards of general care in acute and urgent care settings.	
13	Royal College of Paediatrics and Child Health	Safely reducing the inappropriate admission of young children to hospital in children with amber risk factors	Over 25% of all attendance to A&E in England and Wales are in children (HES) with highest rates in under 1's (50% of children attend A&E in first year of life). There has been an over 50% increase in hospital admissions for children aged under 1 year. These admissions are of a very short duration – with a doubling of zero day admissions in under 1s. These potentially avoidable admissions are highest in the under 1 age group (104% increase). These short stay admissions are mostly due to minor paediatric infections. There is virtually no published evidence to inform methods of reducing inappropriate admissions - the little evidence available is subject to substantial bias (Coon). NICE 2013 could find no adequate	Restructuring of paediatric care is a major priority for RCPCH and NHS England – Nationally, a recent audit of current service provision by the RCPCH, Back to Facing the Future (RCPCH 2013 www.rcpch.ac.uk) has highlighted the urgent need for a reduction of unnecessary acute hospital admissions for minor infections that could be better managed in the community Regionally, Better Services Better Values (2013) review for children's services in SWL aims to provide the best quality services for all patients 24 hours a day, 7 days a week through the creation of Paediatric Assessment Units, improved patient satisfaction of our services and better access to primary care.	• Potentially the Childhood Acute Bacterial Infection Network (CABIN) will reduce hospital admissions by developing alternative acute care pathways, integrating primary and secondary care, improving education amongst medical professionals and parents and feed into adult acute admission pathway workstreams. Locally, we will work together with stakeholders in SWL as part of the Academic Health and Science Network, including SW regional RCPCH and

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
			studies on how to reduce hospital admissions in children.		our partners in acute paediatric units across SW London to improve the services we provide to all paediatric patients by safely reducing hospital admissions.
14	Royal College of Paediatrics and Child Health	Establish current rates of invasive bacterial infections presenting from the community in healthy children in the UK	Following the introduction of conjugate childhood vaccines and declining trends in meningococcal disease over the past decade, community-acquired serious invasive bacterial infections in children have become less common but hospital admissions continue to rise.	Rates of blood stream infection are much rarer than quoted in the NICE guidance. In our study of bloodstream infections in London during 2009-11, 44,118 children had 46,039 admissions (25.8 admissions per 1,000 children resident). Blood/CSF cultures were obtained during 44.7% (n=20,578) of admissions and 7.4% (n=1,530) had a positive culture. Of these, only 571 were defined as a clinically, equivalent to 37.3% of positive blood/CSF cultures, 2.8% of all blood/CSF cultures taken and 1.2% of all hospital admissions. A third of the invasive bacterial infections (208/571, 36.4%), were hospital-acquired and, of the community-acquired infections, more than two-thirds (252/363, 69.4%) occurred in children with co-morbidities. The incidence of community-acquired invasive bacterial infections in previously healthy children was only 6.2/100,000. Although a invasive bacterial infections was suspected in almost half of all childhood hospital admissions a significant pathogen was identified in only 3%, mainly	Establish current rates of invasive bacterial infections presenting from the community in healthy children in the UK

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
				among children with pre-existing co-morbidities. Improved targeting of children at very low risk of a SBI at presentation will facilitate increased management of unwell children in the home.	
15	Royal College of Nursing	General	There is nothing much to add at this stage. The reference materials to inform the topic overview are high quality; evidence based and reviews of good practice. There is acceptance that the UK needs to improve outcomes for children and NICE is central to the drive towards this ambition. Quality standard for feverish illness in children is very timely and welcome.		Please note that the following cited RCN's publications are being updated. We have indicated their likely publication dates below: Standards for assessing, measuring and monitoring vital signs in infant, children and young people (December 2011) [Anticipated publication date is mid November]. Caring for children with fever: RCN Good Practice guidance for nurses working with infants, children and young people (2008) [Anticipated publication date is December]
16	SCM1	Safety net advice	To ensure that this is clear and		

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
			consistent, standard should recommend that all parents receive written or verbal advice.		
17	SCM1	Parental advice for home care	To ensure that parents feel confident in managing their child at home and to reduce number of inappropriate attendances at A & E.		
18	SCM1	Use of antipyretics	To ensure consistency and prevent inappropriate use of medication. Need to change the culture of antipyretic use.		
19	SCM1	Assessment recommendations Traffic light table	Ensuring that all health care professionals consider the traffic light table when assessing a child for signs of serious illness. Issues due to table only available online. Anecdotally - less staff accessing guidelines and assessment tools.		
20	SCM1	Assessment recommendations Primary care	GP's often refer children for specialist assessment but have failed to measure child's vital signs. Need to encourage/enable GP's to perform physical assessment of children with fever.		
21	SCM2	Parents/carers of feverish children are given clear and consistent advice on when and how to	Current guidance is that antipyretics should not be used to reduce fever. Antipyretic agents do not prevent febrile convulsions and should not	Many parents/carers still believe it is necessary to reduce a fever with antipyretics and many still alternate antipyretic agents on a regular basis. Anecdotal evidence that many carers are	NICE Guideline 160 recommends: When using paracetamol or ibuprofen in children with fever;

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
		administer antipyretics in line with the current NICE Guideline.	be used specifically for this purpose. Although both paracetamol and ibuprofen are safe when used correctly, they may be harmful if too large a dose is given or if given too often.	still told by health professionals to use antipyretics to reduce temperature and to alternate paracetamol and ibuprofen.	•continue only as long as the child appears distressed •consider changing to the other agent if the child's distress is not alleviated •do not give both agents simultaneously •only consider alternating these agents if the distress persists or recurs before the next dose is due. [new 2013]
22	SCM2	All children under 5 who present to a healthcare professional with a fever of unknown source to be assessed for symptoms and signs using the NICE traffic light system.	The early identification and treatment of serious illness is essential to reduce morbidity and mortality in children with fever. The updated NICE traffic light table is based on latest available evidence with regards to signs and symptoms of serious illness.	Infections are the leading cause of death in children under 5 in the UK. The traffic light table has recently been revised and it can help health professionals with the early identification of the signs and symptoms of serious illness.	See sections 5.3, 5.4 and 5.5 of the NICE Feverish Illness in Children Guideline - May 2013.
23	SCM2	Parents / carers who are advised to care for a feverish child at home are given safety-netting advice which includes information on warning signs and symptoms of serious illness and how to access further	The early identification and treatment of serious illness is essential to reduce morbidity and mortality in children with fever.	If parents/carers are always given clear safety netting advice it will increase instances of early detection of serious illness.	Ties in with quality standard on bacterial meningitis and meningococcal septicaemia in children and young people. http://publications.nice.org.uk/qualitystandard-for-bacterial-meningitis-

ID	Stakeholder	Suggested key area for quality improvement	Why is this important?	Why is this a key area for quality improvement?	Supporting information
		healthcare if required.			andmeningococcal-septicaemia-in-childrenand-young-qs19/quality-statement-1-safety-netting-information
24	SCM3	The importance of recording and acting on vital signs in children with fever.	This is particularly pertinent to heart rate. The 2007 guideline recommended recording and acting on vital signs, including heart rate. The guideline was criticised at the time partly because, it was claimed, there was not sufficient evidence to advise doctors in primary care to record and act on heart rate (ref 1). The 2013 guideline contains new evidence on heart rate that should overcome that concern and it is, essential that we get this message across in the NICE guideline standards.		Harnden A. Recognising serious illness in feverish young children in primary care. BMJ 2007; 335: 409