MEASUREMENT

Infants < 4 weeks

- use electronic thermometer in the axilla

Aged 4 weeks to 5 years: use:

- electronic thermometer in axilla
- chemical dot thermometer in axilla
- infrared tympanic thermometer

Parental perception of a fever

- should be considered valid and taken seriously

Oral /rectal /temperature measurements

Do not routinely use in children aged 0–5 years

F**orehead chemical thermometers**

Unreliable - should not be used

CLINICAL ASSESSMENT OF THE CHILD WITH FEVER

First identify any immediately life-threatening features, including

- compromise of the airway
- breathing or circulation
- decreased level of consciousness

Then assess of risk of serious illness Use the traffic light system

[Children with learning difficulties → take the LD into account when interpreting the table].

Following symptoms or signs are HIGH-RISK GROUP FOR SERIOUS ILLNESS:

- **pale/mottled/ashen/blue skin, lips or tongue**
- **no response to social cues**
- **appearing ill to a healthcare professional**
- **does not wake or if roused does not stay awake**
- **weak, high-pitched or continuous cry**
- **grunting**
- **respiratory rate greater than 60 breaths per minute**
- **moderate or severe chest indrawing**
- **reduced skin turgor**
- **bulging fontanelle**

Following symptoms or signs are ≥ INTERMEDIATE-RISK FOR SERIOUS ILLNESS:

- **pallor of skin, lips or tongue reported by parent or carer**
- **not responding normally to social cues**
- **no smile**
- **wakes only with prolonged stimulation**
- **decreased activity**
- **nasal flaring**
- **dry mucous membranes**
- **poor feeding in infants**
- **reduced urine output**
- **rigors**

Capillary refill time [CRT] ≥ 3 secs = intermediate-risk for serious illness ('amber' sign).
*[Check **blood pressure** if the HR or CRT abnormal and facilities to measure BP available.]*

Children with all of the following are low-risk for serious illness:
[if they have none of the high- or intermediate-risk features]

- **normal colour of skin, lips and tongue**
- **responds normally to social cues**
- **content/smiles**
- **stays awake or awakens quickly**
- **strong normal cry or not crying**
- **normal skin and eyes**
- **moist mucous membranes**

Children < 3 months with temp ≥ 38°C are **high-risk for serious illness**
Children 3–6 months with temp ≥ 39°C are at **≥ intermediate-risk for serious illness**.

[Children > 6 months do not use height of temperature alone to identify serious illness].

Duration of fever – do not use this to predict the likelihood of serious illness.
However, if fever lasting > 5 days, the child should be assessed for Kawasaki disease.

ReTCH
Measure and record [Resp rate, Temp , Cap refill, Heart rate]
as a routine in every child with fever.

Tachycardia is an important sign.
It indicates an intermediate or severe risk of serious illness.

Advanced Paediatric Life Support (APLS) criteria re tachycardia:

Age	**Heart rate HR (bpm)**
<1 year	> 160
1–2 years	>150
2–5 years	>140

Assess for signs of dehydration.
Look for:

- prolonged capillary refill time
- abnormal skin turgor
- abnormal respiratory pattern
- weak pulse
- cool extremities

SYMPTOMS AND SIGNS OF SPECIFIC ILLNESSES

Meningococcal disease:

Suspect if fever + a non-blanching rash, esp if any of these present:

- ill-looking child
- lesions > 2 mm (purpura)
- capillary refill time of 3 seconds or longer
- neck stiffnesS

Meningitis:

Suspect if child with fever + any of the following:

- neck stiffness
- bulging fontanelle
- decreased level of consciousness
- convulsive status epilepticus

[NOTE - classic signs of meningitis (neck stiffness, bulging fontanelle, high-pitched cry) are often absent in infants with bacterial meningitis]

Herpes simplex encephalitis:

Consider if children with fever + any of:

- focal neurological signs
- focal seizures
- decreased level of consciousness

Pneumonia:

Consider if children with fever + any of:

- crackles in the chest
- nasal flaring, chest indrawing
- cyanosis, O2 Sats 95% or less on air
- tachypnoea

Tachypnoea is RR> 60 [age 0–5 months] > 50 [age 6–12 months] > 40 [age over 1 year]

Urinary tract infection

Consider in any child < 3 months with fever.

Consider UTI in a child ≥3 months + fever and 1 or more of:

- vomiting, poor feeding
- lethargy, irritability
- abdominal pain or tenderness
- urinary frequency or dysuria

Septic arthritis/osteomyelitis

Consider if children with fever + any of the following:

- swelling of a limb or joint, not using an extremity
- non-weight bearing

Kawasaki disease

Consider if children with fever lasting > 5 days + 4 of the following 5:

- bilateral conjunctival injection
- change in mucous membranes in the upper respiratory tract (e.g. injected pharynx, dry cracked lips, strawberry tongue)
- change in the extremities (e.g. oedema, erythema or desquamation)
- polymorphous rash
- cervical lymphadenopathy

[NB - in rare cases, Kawasaki disease may be diagnosed with fewer features]

Imported infections

Ask about recent travel consider possibility of imported infections.

The following tables have not aligned correctly so please check the originical NICE guidelines.

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: RR >50 breaths/ minute, age 6–12 months RR >40 breaths/ minute, age >12 months Oxygen saturation ≤95% in air Crackles in the chest	Grunting Tachypnoea: RR >60 breaths/minute Moderate or severe chest indrawing	
Circulation and hydration	Normal skin and eyes Moist mucous membranes	Tachycardia: >160 beats/minute, age <1 year >150 beats/minute, age 1–2 years >140 beats/minute, age	Reduced skin turgor

		2–5 years CRT ≥3 seconds Dry mucous membranes Poor feeding in infants Reduced urine output

Feverish illness in children: NICE guideline DRAFT November 2012

Green – low risk	**Amber – intermediate risk**	**Red – high risk**
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		Non-blanching rash Bulging fontanelle Neck stiffness Status epilepticus Focal neurological signs Focal seizures

CRT, capillary refill time; RR, respiratory rate

Summary table for symptoms and signs suggestive of specific diseases **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 > 2 mm in diameter (purpura)
	capillary refill time of ≥3 seconds
	neck stiffness
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 (RR >60 breaths/minute, age 0–5 months; RR >50 breaths/minute, age 6–12 months; RR >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

MANAGEMENT BY REMOTE ASSESSMENT

Aim to identify symptoms and signs of serious illness and specific diseases.

Symptoms of immediately life-threatening illness

→ emergency care (usually 999 ambulance).

'Red' features but not deemed immediately life-threatening

→ urgent face-to-face assessment within 2 hours.

'Amber' but no 'red' features

→ face-to-face assessment [urgency based on clinical judgement].

'Green' features [and no 'amber' or 'red'] → can be cared for at home.

Give appropriate advice inc when/how to seek further attention.

MANAGEMENT BY THE NON-PAEDIATRIC PRACTITIONER

'Amber' features + no diagnosis → give parents/carers a 'safety net' or refer to paeds.

Safety net = one of:

- verbal/written information on warning symptoms + how to access further healthcare
- follow-up at a specified time and place
- *liaise with healthcare profs, inc OOH, re direct access if further assessment needed.*

'Red' features + not considered immediately life-threatening → urgently referral to paediatric specialist.

'Amber' features + no diagnosis → give parents/carers a 'safety net' or refer to paediatric care.

TESTS BY NON-PAEDIATRIC PRACTITIONER

Clinically pneumonia but not admitted → should not have a CXR routinely

Test urine as advised in 'Urinary tract infection in children' (NICE guideline 54).

USE OF ANTIBIOTICS BY THE NON-PAEDIATRIC PRACTITIONER

Do not give oral antibiotics in fever without apparent source.

Children with suspected meningococcal disease → give parenteral antibiotics ASAP (benzylpenicillin or a third-generation cephalosporin).

ADMISSION TO HOSPITAL

Consider these factors in addition to clinical factors when deciding whether to admit a child

- social and family circumstances
- other illnesses that affect the child or other family members
- parental anxiety and instinct (based on their knowledge of their child)
- contacts with other people who have serious infectious diseases
- recent travel abroad [to areas with risk of endemic infectious disease]
- parent/carer's concern which causes them to seek healthcare advice repeatedly
- family has experienced a previous serious illness or death due to feverish illness
- no clear cause for fever + child ill longer than expected for a self-limiting illness

If not admitted + no diagnosis → give safety net if any 'red' or 'amber' features present.

ANTIPYRETIC INTERVENTIONS

Physical interventions

Tepid sponging is not recommended.

Do not underdress or over-wrap the child.

ANTIPYRETIC INTERVENTIONS

Do not prevent febrile convulsions. Do not use specifically for this.

Do not use antipyretic agents with the sole aim of reducing body temperature.

Paracetamol or ibuprofen in children with fever

- continue only as long as the child seems distressed
- change to the other if distress not improved
- do not give both together
- consider alternating only if the distress persists, or recurs before the next dose

ADVICE FOR HOME CARE

Advised offering the child regular fluids (if breastfed the most appropriate fluid is breast milk)

Advise how to detect signs of dehydration by looking for:

- sunken fontanelle
- dry mouth
- sunken eyes
- absence of tears
- poor overall appearance

Advise

- 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 child away from nursery/school while the fever persists and to notify the school nursery of the illness

WHEN TO SEEK FURTHER HELP

Advise parents/carers to seek further advice if the:

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