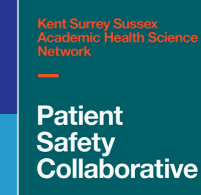
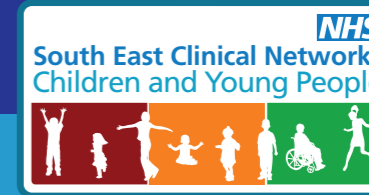


Fever Pathway for Children Younger than 5 years

Clinical Assessment / Management Tool

December 2016
Kent, Surrey & Sussex Version



Management - Primary Care and Community Settings

Think Sepsis

Patient presents with or has a history of fever (see definition and initial assessment guidance) [see Table 3 overleaf] (Consider additional vulnerability to sepsis) [see Table 4 overleaf] and AVPU [see Table 5 overleaf]

Do the symptoms and/or signs suggest an immediately life threatening (high risk) illness? or any risk of neutropenic sepsis?

Yes

• Refer immediately to emergency care by 999
• Alert Paediatric Emergency Service*
• Stay with child whilst waiting and prepare documentation

No

Table 1

Clinical Findings	Green - low risk	Amber - intermediate risk	Red - high risk
Colour	• Normal colour of skin, lips and tongue	• 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	• Reduced response to social cues • Wakes only with prolonged stimulation • Decreased activity • No smile	• No response to social cues • Unable to rouse or if roused does not stay awake • Weak, high pitched or continuous cry • Appears ill to a healthcare professional
Respiratory Rate <small>Measured at rest for 30 seconds</small>	• None of the amber or red symptoms or signs	• Nasal flaring • Tachypnoea: - Age < 1 yr RR 50 - 59 breaths/min - Age 1 - 2 yr RR 40 - 49 breaths/min - Age 3 - 4 yr RR 30 - 39 breaths/min • Oxygen saturation ≤ 95% in air • Crackles	• Grunting • Tachypnoea: - Age < 1 yr RR ≥ 60 breaths/min - Age 1 - 2 yr RR ≥ 50 breaths/min - Age 3 - 4 yr RR ≥ 40 breaths/min
Circulation and Hydration	• Normal skin and eyes • Moist mucous membranes • Normal feeding - Tolerating 75% of fluid	• Tachypnoea: - Age < 1 yr HR 150 - 159 beats/min - Age 1 - 2 yr HR 140 - 149 beats/min - Age 3 - 4 yr HR 130 - 139 beats/min • Dry mucous membranes • Poor feeding in infants • 50 - 75% fluid intake over 3 - 4 feeds • Reduced urine output / nappies significantly drier than normal • Cool extremities • CRT ≥ 3 seconds	• Sustained Tachycardia - Age < 1 yr HR ≥ 160 beats/min - Age 1 - 2 yr HR ≥ 150 beats/min - Age 3 - 4 yr HR ≥ 140 beats/min • Hypotension • CRT > 4 seconds • Reduced skin turgor • <50% fluid intake over 2 - 3 feeds / 12 hours or appears dehydrated • no urine output/dry nappies for > 18 hours
Other	• None of the amber or red symptoms or signs	• Age 3-6 months temp ≥ 39°C (102.2°F) • Fever for ≥ 5 days • Swelling of a limb or joint • Non-weight bearing / not using an extremity • A new lump ≥ 2 cm • Rigors • Septicaemia maybe associated with low temperature < 36°C	• Age 0-3 months, temp ≥ 38°C (100.4°F) • Bulging fontanelle • Status epilepticus • Focal seizures • Non-blanching rash • Neck stiffness • Focal neurological signs • Bile-stained vomiting

Table 2 Normal Paediatric Values:

(APLS†)	Respiratory Rate at rest: [b/min]	Heart Rate [bpm]
< 1 year	30 - 40	110 - 160
1-2 years	25 - 35	100 - 150
3 & 4 years	25 - 30	95 - 140

†Advanced Paediatric Life Support: The Practical Approach Fifth Edition
Advanced Life Support Group Edited by Martin Samuels; Susan Wieteska
Wiley-Blackwell / 2011 BMJ Books.

Record your findings. GMC Best Practice recommendation <http://bit.ly/1DPX12b>

Green Action

Perform:
• Assess for focus of infection - If no focus, consider clean catch urine specimen and evaluate for Urinary Tract Infection. (www.nice.org.uk/CG054fullguideline)

Provide advice to send home

Provide appropriate and clear guidance to the parent / carer and refer them to the patient advice sheet. Confirm they are comfortable with the decisions / advice given and then think "Safeguarding" before sending home.

*Please see overleaf for telephone numbers

Amber Action

Advice from Paediatrician-On-Call* should be sought and/or a clear management plan agreed with parents.

Management Plan

- Provide the parent/carer with a safety net: use the patient advice sheet and advise on signs and symptoms and changes and signpost as to where to go should things change
- Arrange any required follow up or review
- Send any relevant documentation to the provider of follow up or review

Urgent Action

Refer immediately to emergency care by 999
Alert Paediatric Emergency Service following local hospital referral pathway
Commence relevant treatment to stabilise child for transfer
Send relevant documentation

Hospital Emergency Department / Paediatric Unit

999

This guidance is written in the following context:

This document was arrived at after careful consideration of the evidence available including but not exclusively NICE, SIGN, EBM data and NHS evidence, as applicable. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. The guidance does not, however, override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient in consultation with the patient and / or carer.

What is a fever (Definition)?

NICE CG160 Guidance states: In children, a temperature of over 37.5°C is a fever. Reported parental perception of a fever should be considered valid and taken seriously by healthcare professionals.

Assessment of a child with sepsis

- When a child presents with signs or symptoms of infection:

Table 3 - Initial Assessment Guidance

- Child presents with signs and/or symptoms of infection**
- **Think sepsis**, even if they do not have a high temperature
 - Be aware that children with sepsis may have non-specific, non-localising presentations
 - **Pay particular attention to concerns expressed by the child and family/carer**
 - Take particular care in the assessment of children, who might have sepsis, who are unable, or their parent/carer is unable, to give a good history

Table 4

- Consider additional vulnerability to sepsis:**
- the very young (<1yr)
 - non-immunised
 - recent (<6 weeks) trauma or surgery or invasive procedure
 - Impaired immunity due to illness or drugs
 - Indwelling lines/catheters, any breach of skin integrity e.g. any cuts, burns, blisters or skin infections.
- If at risk of neutropenic sepsis - refer to secondary care**

The assessment of a child with fever should include measurement of Temperature, Heart Rate (HR), Respiratory Rate (RR) at rest and Oxygen saturations & Blood Pressure where available.

Table 5

Status		Behaviour Assessment
A	ALERT	Child is active and responds appropriately to clinician and other external stimuli. [GCS equivalent score 15]
V	VOICE	Responds only when his or her name is called by clinician.
P	PAIN	Responds only when painful stimuli is received such as pinching the nail bed.
U	UNRESPONSIVE	No response at all. [GCS equivalent score 3]

Level of Consciousness Assessment "AVPU"

The AVPU scale is a system for measuring and recording a patient's responsiveness in order to indicate their level of consciousness. It is a simplification of the Glasgow Coma Scale, using three measures to assess a patient's response: eyes, voice, and motor skills. The AVPU scale should be assessed using these three identifiable traits, looking for the best response for each. It has four possible outcomes for recording and the clinician should always work from best (A) to worst (U) to avoid unnecessary tests on patients who are clearly conscious. On the other hand, it should not be used for long-term follow up of neurological status.

Glossary of Terms and Abbreviations

- CPD** Continuous Professional Development
- HR** Heart Rate
- CRT** Capillary Refill Time
- RR** Respiratory Rate
- ED** Hospital Emergency Department

Where can I learn more about paediatric assessment?

We also recommend signing up to the online and interactive learning tool **Spotting the Sick Child**. It is free of charge. It was commissioned by the Department of Health to support health professionals in the assessment of the acutely sick child. It is also CPD certified.

www.spottingthesickchild.com



*GP / Clinician Priority Phonelines / Contact Numbers at Local Hospitals

Surrey and Sussex Area Hospitals

- Ashford and St Peter's Hospital NHS Foundation Trust**, Chertsey **01932 872000**
- Brighton and Sussex University Hospitals NHS Trust** Royal Alexandra Hospital, Brighton **01273 523230**
- East Sussex Healthcare NHS Trust** Conquest Hospital, Hastings **01424 755255** Eastbourne District General Hospital **01323 417400**
- Frimley Park Hospital NHS Foundation Trust**, Camberley **01276 604604 Bleep 100**
- Royal Surrey County Hospital NHS Foundation Trust**, Guildford **01483 571122**
- Surrey and Sussex Healthcare NHS Trust** East Surrey Hospital, Redhill **01737 231807**

Western Sussex Hospitals NHS Trust St Richards Hospital, Chichester **01243 536180/1** Worthing Hospital **01903 285060**

Kent and Medway Area Hospitals

- Dartford and Gravesham NHS Trust** Darent Valley Hospital / Queen Marys Hospital Sidcup / Erith and District Hospital **01322 428100 Bleep 316** (same number applies to both hospital sites)
- East Kent Hospitals NHS Trust** Queen Elizabeth The Queen Mother Hospital, Margate / William Harvey Hospital, Ashford **01227 783190** (same number applies to both hospital sites)
- Maidstone and Tonbridge Wells NHS Trust** **01622 723011** Medway Maritime Hospital, Gillingham **01634 825000**

Dear Colleague,

We are delighted to present you with this **Fever Pathway Clinical Assessment / Management Tool for Children Younger than 5 years – in Primary Care and Community Settings**.

The local clinical groups who played such an important role in creating these tools, starting from 2010, have included representatives from acute, community and primary care as well as parents, education and social care. In particular we would also like to thank Wessex SCN and Paediatrics and Emergency Medicine colleagues for their support in finalising these versions for circulation.

To feedback or for further information including how to obtain more copies (Please Quote Ref: F2) of this document we have one mailbox for these queries on behalf of the South East Clinical Networks area (Kent, Surrey and Sussex).

Please email: CWSCCG.cypSECpathways@nhs.net

Yours sincerely

The Network

