Fever Pathway

Clinical Assessment / Management Tool for Children

Management - Primary Care and Community Settings

Healthier Together
Local advice and support to help manage and improve the health and wellbeing of babies, children, and young people

NHS

Patient presents with or has a history of fever Temp ≥38⁰

Do the symptoms and/or signs suggest an **immediately life threatening (high risk)** illness?

Yes

- **Refer immediately** to emergency care by **999**
- Alert Paediatrician
- Stay with child whilst waiting and prepare documentation

No

Is the child older or younger than **3 months of age**?

Younger

Older

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 • Poor feeding in infants	• 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	• None of the amber or red symptoms or signs	• Nasal flaring • Tachypnoea: RR 40-50 if 1-5 years; RR 25-30 if 6-11 years; RR 20-25 if >=12 years • Oxygen saturation ≤ 95% in air • Crackles	• Grunting • Tachypnoea: RR >60 breaths/min if aged <12 months; RR >50 if 1-5 years; RR >30 if 6-11 years; RR >25 if >=12 years • Moderate or severe chest indrawing
Circulation and Hydration	• Normal skin and eyes	• Tachycardia: HR > 160 beats/min if age < 1 yr; HR > 150 beats/min if age 1 - 2 years; HR > 140 beats/min if age 3 - 5 years; HR> 120 beats/min if 6-11years; HR >100 beats/min if age >12 years • Dry mucous membranes • Reduced urine output • Central refill 2-3 seconds	• Reduced skin turgor • Capillary refill >3 seconds
Other	• None of the amber or red symptoms or signs	• Fever for ≥ 5 days • Swelling of a limb or joint • Non-weight bearing / not using an extremity • A new lump ≥ 2 cm • Age 3-6 months temp ≥39°C (102.2°F) with no clear focus of infection • Additional parental/carer support required? • Recent return from malaria endemic area in preceding 3 months	• Bulging fontanelle • Neck stiffness • Focal seizures • Sustained tachycardia • Non-blanching rash • Focal neurological signs • Bile-stained vomiting Age 0•3 months with axillary temp ≥ 38°C (100.4°F) - note children under 1 month of age at highest risk of sepsis/ meningitis. If 1-3 months of age with fever within 48 hours of Men B vaccine and clinically well, consider safety netting Limb pain

Green Action

Perform:

- Assess for focus of infection - If no focus in child under 5 years of age, consider clean catch urine specimen and evaluate for **Urinary Tract Infection**.

Provide advice to send home

Provide the parent/carer with appropriate parent advice sheet and advise on signs, symptoms and changes - signpost the parent/carer where to go, should things change.

Amber Action

If no focus of fever in child under 5 years of age, consider clean catch urine specimen and evaluate for **urinary tract infection**. Advice from Paediatrician should be sought and/or a clear management plan agreed with parents.

Refer

Manage

Management Plan

- Provide the parent/carer with appropriate parent advice sheet **fever and advise** on signs, symptoms and changes - signpost the parent/ carer 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 – consider 999

Alert Paediatrician

Commence relevant treatment to stabilise child for transfer

Send relevant documentation

Hospital Emergency Department / Paediatric Unit

GMC Best Practice recommends: Record your findings (See "Good Medical Practice" http://bit.ly/1DPXl2b)

First Version May 2021 Review Date: May 2023

CS51313

This writing of this guideline involved extensive consultation with healthcare professionals in Frimley, Wessex and Wexham

Fever Pathway

Clinical Assessment / Management Tool for Children

Management - Primary Care and Community Settings

Healthier Together
Local advice and support to help manage and improve the health and wellbeing of babies, children, and young people

NHS

Table 2

Normal Paediatric Values:

(APLS†)	Respiratory Rate at rest: [b/min]	Heart Rate [bpm]	Systolic Blood Pressure [mmHg]
< 1 year	30 - 40	110 - 160	70 - 90
1-2 years	25 - 35	100 - 150	80 - 95
> 2-5 years	25 - 30	95 - 140	80 - 100
5-12 years	20 - 25	80 - 120	90 - 110
>12 years	15 - 20	60 - 100	100 - 120

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

Glossary of Terms	
ABC	Airways, Breathing, Circulation
APLS	Advanced Paediatric Life Support
AVPU	Alert Voice Pain Unresponsive
B/P	Blood Pressure
CPD	Continuous Professional Development
CRT	Capillary Refill Time
ED	Hospital Emergency Department
GCS	Glasgow Coma Scale
HR	Heart Rate
MOI	Mechanism of Injury
PEWS	Paediatric Early Warning Score
RR	Respiratory Rate
WBC	White Blood Cell Count

Symptoms and Signs of Specific Disease

Diagnoses to be considered	Symptoms and signs in conjunction with fever	
Meningococcal septicaemia	**Non blanching rash** (this may not be the first sign), particularly with one or more of the following: • An ill-looking child • Lesions larger than 2mm in diameter (purpura)	• CRT =3 secs • Neck stiffness • Limb pain
Meningitis	• Neck stiffness • Bulging fontanelle	• Decreased level of consciousness • Convulsive status epilepticus • Cold extremities
Herpes simplex encephalitis	• Focal neurological signs • Focal seizures • Decreased level of consciousness	
Pneumonia	Tachypnoea, measured as: • 0 – 5 mths - RR >60 breaths/min • 6 – 12 mths - RR >50 breaths/min • >12 mths - RR >40 breaths/min	• Crackles in the chest • Nasal flaring • Chest recession • Cyanosis • Oxygen saturation =95%
Urinary tract infection (in children aged older than 3 months)	• Vomiting • Abdominal pain or tenderness • Lethargy • Urinary frequency or dysuria • Irritability • Offensive urine, haematuria • Poor feeding	
Septic arthritis/ osteomyelitis	• Swelling of a limb or joint • Non-weight bearing • Not using an extremity	
Kawasaki disease	Fever lasting longer than 5 days and at least 4 of the following: • Bilateral conjunctival injection • Change in upper respiratory tract mucous membranes (e.g. injected pharynx, dry cracked lips or strawberry tongue)	• Change in the peripheral extremities (e.g. oedema, erythema or desquamation) • Polymorphous rash

Classical sign (neck stiffness, bulging fontanelle, high pitched cry) are often absent in infants with bacterial meningitis

Urinary tract infection should be considered in any child aged younger than 3 months with fever (See urinary tract infection in Children, NICE clinical guideline CG054, August 2007)

Note: in rare cases, incomplete / atypical Kawasaki disease may be diagnosed with fewer features.

Thompson MJ, Ninis N, Perera R, et al. Clinical recognition of meningococcal disease in children and adolescents. Lancet. 2006; 367 (9508): 397-403.

CS50526