LRI Emergency Department and Children's Hospital

Management of Febrile Convulsion in Children

Staff relevant to:	ED medical and nursing staff, Children's Hospital medical and nursing staff
Team approval date:	June 2022
Version:	3
Revision due:	June 2025
Reviewed by:	D Roland R Radcliffe
Trust Ref:	D11/2019

This guideline does not provide information on immediate management of seizures

Who this guideline applies to

This guideline is for all clinical staff working within the Children's ED. This includes, but is not limited to Emergency Department and Paediatric staff

Introduction and Key Points

Simple Febrile Convulsions, once confirmed by a thorough history and examination, rarely require further investigation and can be managed with observation and parental re-assurance.

Be wary of ascribing the diagnosis of febrile convulsion to the child with neither history or documentation of fever. A proportion of children with febrile convulsions have serious bacterial illness. Be meticulous and thorough in your examination.

Related documents:

Sepsis UHL Childrens Hospital Guideline

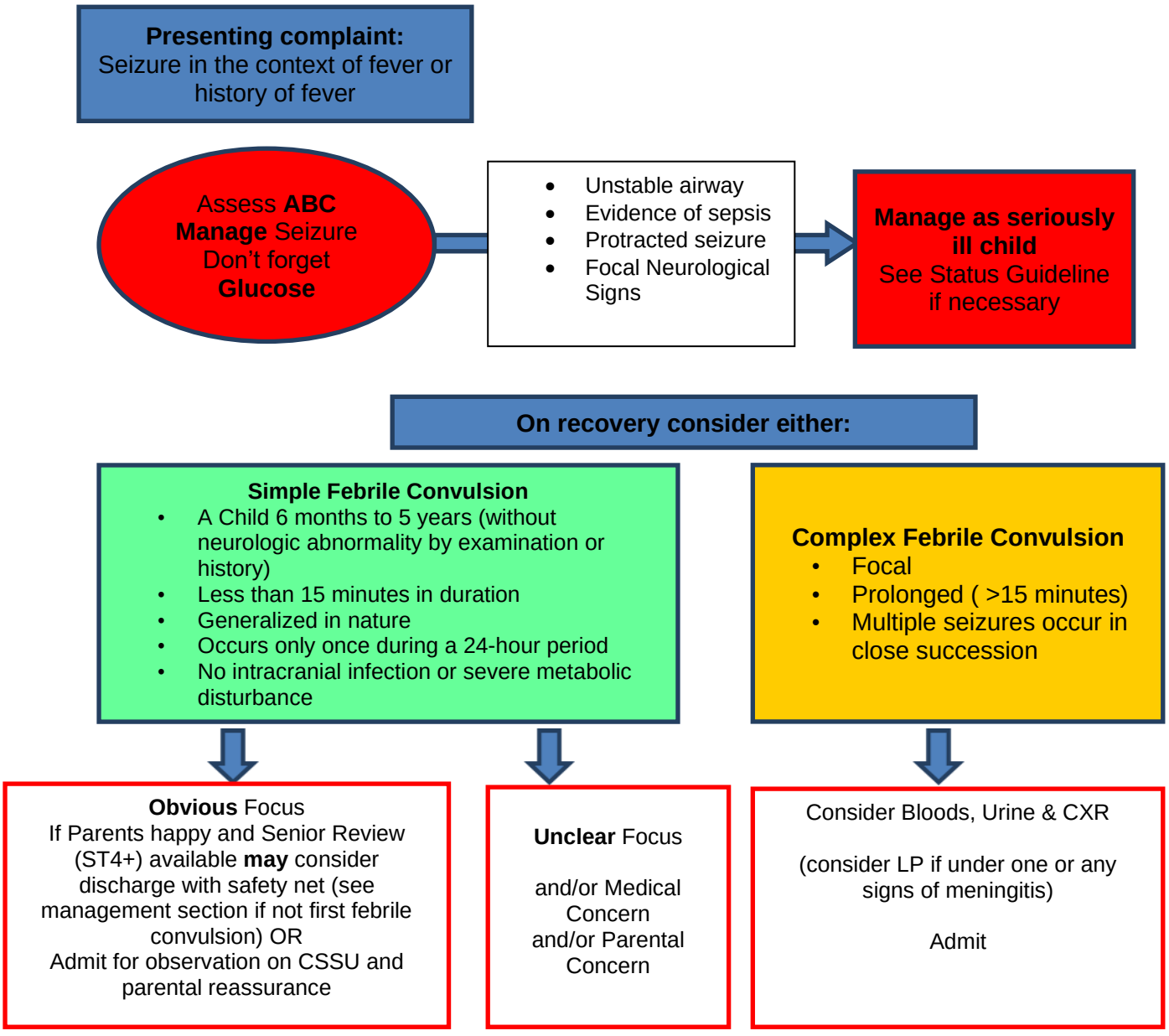
Meningitis UHL Childrens Medical Guideline

Encephalitis UHL Childrens Medical Guideline

Status Epilepticus UHL Childrens Hospital Guideline

Kawasaki Disease UHL Childrens Medical Guideline

Febrile Convulsion in Children



Febrile Convulsion in Children

Background

Febrile seizures are the most common type of seizure and occur in approximately 3 - 5% of children

Definition

A simple febrile seizure occurs is defined by the following parameters:

- A Child 6 months to 5 years (without neurologic abnormality by examination or history)
- Less than 15 minutes in duration
- Generalized in nature
- Occurs only once during a 24-hour period
- No intracranial infection or severe metabolic disturbance

Children (6 months to 5 years) who have either either focal or prolonged (>15 minutes), or multiple seizures occur in close succession are described as having complex febrile seizures.

Children with underlying neurological deficits or a seizure disorder are often more prone to seizures when they are unwell or have a fever. Technically these are not febrile convulsions.

Investigations

A focus for the fever should be actively sought. The absence of a clear focus even in a very well looking child should mandate senior review.

Take care with the child less than a year as they have a slightly higher risk of having an underlying more serious cause. **Children who are currently on antibiotics may have a partially treated bacterial illness** so care should be taken with this group.

If there is a clear focus, the child has completed recovered and the parents are happy with their behavior then there is no mandatory requirement for blood tests, EEG or lumbar puncture in first or subsequent febrile seizures. The risk of meningitis is the same for first and subsequent simple febrile seizures (very low at approximately 0.3%).

There should be a low threshold for investigation of the potential presence of serious bacterial illness if there are concerns with the behavior or examination of the child. Most children are completely back to normal in 1-2 hours.

Children with complex febrile convulsions have a low threshold for investigation. Investigations should be as the Feverish illness in children guideline

Turn over for management pathways

Management

The most important step in management is a thorough explanation to the parents who are often quite traumatised by the experience. It is important to listen to, but allay, anxieties. A considerable period of observation in hospital is needed for some families even if the child is very well.

All complex febrile convulsions should be admitted to hospital.

Children presenting with seizures lasting more than 5 minutes have often been treated with anti-seizure medication and therefore it is not always clear if the seizure is simple or complex. Children who require medication to stop the seizure who may have had a febrile convulsion should always be admitted to hospital.

It is the general practice that a first simple febrile convulsion should be admitted to hospital however a child who has had a simple febrile convulsion who has been observed, and has returned to their normal behaviour with the parents confirming this, may be discharged if reviewed by a consultant or ST4+

A child with a subsequent febrile convulsion, occurring in a separate illness, who has a clear focus and parents are happy, may be discharged following discussion with a senior. Ensure this second event is a febrile convulsion and the child does not have a seizure disorder.

A protracted recovery following a febrile convulsion should prompt further examination and investigations as necessary. Please refer and consider Sepsis, Meningitis/Encephalitis or other guidance where necessary.

Discharge Advice

All children should receive a febrile convulsion leaflet and fever safety net advice.
https://yourhealth.leicestershospitals.nhs.uk/
The use of regular anti-pyretic does NOT prevent febrile convulsions and parents should be advised of this. Although evidence varies the following is a guide for parents about future risk:

A child who is 1 year old at the time of the first convulsion has a 50% chance of one or more recurrences.

A child who is 2 years old has a 30% chance of recurrences.
In the absence of an underlying neuro-developmental disorders of a Family History of the risk of subsequent epilepsy for a child with febrile convulsions is approximately 1% (approximately the same as the population risk).

Parents should be given practical advice on what to do if their child has a fever prior to discharge. Discharge can only occur (from the ED or Children's Hospital) once the child has returned to their normal neurological state, an ST4 and above has reviewed AND the parent are adequately educated and reassured

Education and Training

No specific clinical skills or bespoke training are required to deliver the clinical care suggested in this guideline. It is important staff are aware of high risk presentations as highlighted in the general management section and it is recommended this guideline is highlighted in trainings sessions for emergency department and paediatric staff.

Monitoring and Audit Criteria

Key Performance Indicator	Method of Assessment	Frequency	Lead
100% of discharged patients received safety net advice and information leaflet	Audit of discharge records	3 Yearly	Audit Lead

Supporting Documents and Key References

Nice 2019 (updated 26/11/21) Fever in under 5s: assessment and initial management (NG 143)

https://www.nice.org.uk/guidance/ng143

Sepsis UHL Childrens Hospital Guideline UHL Trust ref: B29/2016

Meningitis UHL Childrens Medical Guideline UHL Trust ref: C22/2014

Encephalitis UHL Childrens Medical Guideline UHL Trust ref: C21/2014

Status Epilepticus UHL Childrens Hospital Guideline UHL Trust ref: D1/2022

Kawasaki Disease UHL Childrens Medical Guideline UHL Trust ref: C34/2005

Key Words

Febrile convulsions

The Trust recognises the diversity of the local community it serves. Our aim therefore is to provide a safe environment free from discrimination and treat all individuals fairly with dignity and appropriately according to their needs.
As part of its development, this policy and its impact on equality have been reviewed and no detriment was identified.

CONTACT AND REVIEW DETAILS	
Guideline Lead (Name and Title) D Roland - Consultant R Radcliffe - Consultant	**Executive Lead** Chief Medical Officer
Details of Changes made during review: **June 2022** **Updated references and related documents**	