Ashford and St. Peter's Hospitals
NHS Foundation Trust

Guideline for the management of children following first afebrile seizure - Under 18

Author: Dr Clare Hill

Contact details: clare.hill3@nhs.net

Guideline History		
Date	**Comments**	**Approved By**
Feb 2017	Ratified	Governance Meeting
Dec 2019	Reviewed	
Feb 2022	Reviewed – comment added regarding NAI	Paediatric Guidelines Committee
Sept 2023	Reviewed – addition of information regarding investigations and admission and discharge criteria	Paediatric Guidelines Committee November 2023

Contents **Page**

1. Guideline

a. Introduction 3

b. First Afebrile seizure in child or young person <18 4

2. Supporting References 7

3. Supporting Trust Guidelines 7

4. Guideline Governance 8

a. Scope

b. Purpose

c. Duties and Responsibilities

d. Approval and Ratification

e. Dissemination and Implementation

f. Review and Revision Arrangements

g. Equality Impact Assessment

h. Document Checklist

Guideline for the management of afebrile seizures in children under age 18

Introduction

- For any child with a first seizure, it is crucial to provide written and verbal information regarding first aid, safety, and follow-up.
- Always provide families with RCPCH first seizure leaflet on discharge

Indication for use

- Afebrile seizures
- For children under the age of 1 month consider using in conjunction with **Neonatal seizure guidelines for medical investigation and management of acute seizures**
- This Guideline is to be used in conjunction with the **APLS Status Epilepticus Guideline** for emergency management of seizures lasting longer than five minutes.

Cautions

- Children under 1 month should consider treatment/investigation as per neonatal guidelines.
- Children over aged 17 may also refer to adult guidance for acute treatment, management, and onward referral.

First afebrile seizure in a child or young person <18

History
Important that accurate/detailed history is obtained

Features more suggestive of seizure
Aura Cyanosis/colour change Vocalisations Loss of Sphincter control Post ictal period

Differentials to consider	
Vasovagal	Precipitated by heat/standing/sight of blood etc
Reflex anoxic seizure	Minor trauma preceding the episode
Blue breath holding	Silent cry/apnoea/cyanosis
Self-gratification	Repetitive movements, typically involving lower limbs, distractable

Examination	THINK – RED FLAGS
Cardiovascular examination including BP	Cardiovascular causes
Full neurological examination, CN, cerebellar signs, PNS	Space occupying lesion, stroke, head injury Non accidental injury
Plot height/weight/head circumference	SOL hydrocephalus
Fever/petechial rash	Sepsis/meningitis
Hepatosplenomegaly	Metabolic
Papillodema/Bruising/signs of injuries	Raised intracranial pressure/Non accidental injury
Neurocutaneous stigmata, café au lait spots, hypopigmented macules	Tuberous sclerosis/Neurofibromatosis/Sturge-Weber Syndrome
Toxins/Poisons	Accidental/Intentional/Induced

Investigations

ECG – in all ensure QTc is documented, and ECG uploaded.
Bloods - Venous Blood gas & Capillary Blood Glucose, FBC, U&E, LFT, Bone Profile, Magnesium
Neuroimaging – consider if there are urgent indications for neuroimaging, CT Brain scan.

Indications for urgent cranial imaging – CT Brain scan Discuss with ED or Paediatric consultant
• Persistent focal neurological signs • Focal seizure with signs of raised intracranial pressure. • Trauma • Concerns regarding possible non accidental injury. • Consider in all children under 1 • VP Shunt with signs of shunt blockage or infection

Indications for Admission
• < 1 year of age • Clinically unwell • Prolonged post-ictal phase • More than one seizure at initial presentation • Focal or prolonged seizure • Abnormal examination • Suspicion of infantile spasm • Consider admission for significant parental anxiety

Discharge
Child can be safely discharged home if a first seizure is suspected, and they are clinically well. Provide safety advice – around water, heights, crossing roads, bathing & management of a further seizure. Advise the family to try and video any further episodes. Advise family to return to ED if they have any further seizures before outpatient clinic review. Provide the RCPCH leaflet – ***Following a first seizure without fever in children and young people***.
There is no need to routinely request any additional investigations following a first afebrile seizure. Do not request MRI or EEG from ED unless discussed with paediatric consultant who will take responsibility for the result of the investigation.

Referral to First Seizure Clinic
All children with a suspected first afebrile seizure should be referred to the Paediatric First Seizure clinic. **Please complete the paper referral form in paediatric ED** **Children over 17 should be referred to Adult Neurology Dr K Kammen - stating referral is for a first afebrile seizure - asp-tr.neurologyqueries@nhs.net** **If a child is awaiting an appointment and presents with a second afebrile seizure, please e mail the paediatric epilepsy team: asp-tr.paediatric.epilepsy.service@nhs.net** **If the patient is known to a consultant general or developmental paediatrician, please inform them by e mail**.

Additional Guidance

Observations at triage on all:

Temp, BP, O2 saturations, AVPU or GCS, glucose

History:

Establish whether this is likely to be a seizure.
Eyewitness description
Video - gold standard
Before the event

- Aura
- Pallor
- Symptoms suggestive of pre-syncope (dizziness/sweating/pallor

During the event

- Progression focal onset or generalised
- Eyes – open/closed/flickering/uprolling
- Limb Movements
- Responsiveness
- Incontinence/tongue biting
- Duration

After the event

- Confusion/drowsiness or lack of it
- Post ictal paralysis (Todds palsy)

Development and learning

Examination:

Assess Orientation and level of responsiveness (AVPU and GCS)
Dysmorphic features
Neurocutaneous stigmata – café au lait patches, Woods light
Full neurological assessment – focal neurology
Full cardiology examination – beware bradycardia

Consider:

Always consider whether the seizure could have occurred because of a non-accidental injury. CT brain scan may be necessary even when the seizure is generalised, especially in the under 1 year olds.

If infantile spasms are suspected ALWAYS admit. Discuss with Dr Clare Hill Dr Jen Browne or consultant on call. EEG is indicated within 24 hours to look for hypsarrhythmia.

2. Supporting References

- *NICE Guidance: Epilepsies Diagnosis and management: Clinical Guideline [CG137]*
- *https://www.nice.org.uk/guidance/cg137*

3. Supporting relevant trust guidelines

- Neonatal seizure guidelines
- APLS Status Epilepticus Guideline
- STRS Status Epilepticus Guideline

2. Guideline Governance

a. Scope

This guideline is relevant to all staff caring for all children from 0-18 years old across the emergency department, inpatient ward and outpatient department.

b. Purpose

i. This guidelines aims to facilitate a common approach to the management of children. At times deviation from the guideline may be necessary, this should be documented and is the responsibility of the attending consultant.

ii. This guideline is subject to regular review to ensure ongoing evidence based practice.

c. Duties and Responsibilities

All healthcare professionals responsible for the care of all children 0-18years should be aware of practice according to this guideline.

d. Approval and Ratification

This guideline will be approved and ratified by the Paediatric Guidelines Group.

e. Dissemination and Implementation

i. This guideline will be uploaded to the trust intranet 'Paediatric Guidelines' page and thus available for common use.
ii. This guideline will be shared as part of ongoing education within the Paediatric Department for both medical and nursing staff.
iii. All members of staff are invited to attend and give comments on the guideline as part of the ratification process.

f. Review and Revision Arrangements

a. This policy will be reviewed on a 3 yearly basis by the appropriate persons.
b. If new information comes to light prior to the review date, an earlier review will be prompted.
c. Amendments to the document shall be clearly marked on the document control sheet and the updated version uploaded to the intranet. Minor amendments will be ratified through the Paediatric Guidelines Group. A minor amendment would consist of no major change in process, and includes but is not limited to, amendments to documents within the appendices.

g. Equality Impact Assessment

Background • Who was involved in the Equality Impact Assessment
Author
Methodology • A brief account of how the likely effects of the policy was assessed (to include race and ethnic origin, disability, gender, culture, religion or belief, sexual orientation, age) • The data sources and any other information used • The consultation that was carried out (who, why and how?)
All groups of staff and patients were taken into consideration and there is no bias towards or against any particular group.
Key Findings • Describe the results of the assessment • Identify if there is adverse or a potentially adverse impacts for any equalities groups
There is no evidence of discrimination.
Conclusion • Provide a summary of the overall conclusions
There is no evidence of discrimination.
Recommendations • State recommended changes to the proposed policy as a result of the impact assessment • Where it has not been possible to amend the policy, provide the detail of any actions that have been identified • Describe the plans for reviewing the assessment
This guideline is appropriate for use.

h. Document Checklist

To be completed (electronically) and attached to any document which guides practice when submitted to the appropriate committee for approval or ratification.

Title of the document: Guideline for the management of afebrile seizures in children 1 month- 17 years

Policy (document) Author: Dr Kate Irwin

Executive Director: N/A

		Yes/No/ Unsure/NA	Comments
1.	**Title**		
	Is the title clear and unambiguous?	**Y**	
	Is it clear whether the document is a guideline, policy, protocol or standard?	**Y**	
2.	**Scope/Purpose**		
	Is the target population clear and unambiguous?	**Y**	
	Is the purpose of the document clear?	**Y**	
	Are the intended outcomes described?	**Y**	
	Are the statements clear and unambiguous?	**Y**	
3.	**Development Process**		
	Is there evidence of engagement with stakeholders and users?	**N/A**	
	Who was engaged in a review of the document (list committees/ individuals)?		**Paediatric Guidelines Committee** **15/11/2023** **Dr K Kammen, Neurology Consultant**
	Has the policy template been followed (i.e. is the format correct)?	**Y**	
4.	**Evidence Base**		

		Yes/No/ Unsure/NA	Comments
	Is the type of evidence to support the document identified explicitly?	**Y**	
	Are local/organisational supporting documents referenced?	**Y**	
5.	**Approval**		
	Does the document identify which committee/group will approve/ratify it?	**Y**	
	If appropriate, have the joint human resources/staff side committee (or equivalent) approved the document?	**N/A**	
6.	**Dissemination and Implementation**		
	Is there an outline/plan to identify how this will be done?	**Y**	
	Does the plan include the necessary training/support to ensure compliance?	**N/A**	
7.	**Process for Monitoring Compliance**		
	Are there measurable standards or KPIs to support monitoring compliance of the document?	**N/A**	
8.	**Review Date**		
	Is the review date identified and is this acceptable?	**Y**	
9.	**Overall Responsibility for the Document**		
	Is it clear who will be responsible for coordinating the dissemination, implementation and review of the documentation?	**Y**	
10.	**Equality Impact Assessment (EIA)**		

		Yes/No/ Unsure/NA	**Comments**
	Has a suitable EIA been completed?	Y	

Committee Approval (Paediatric Guidelines Group)			
If the committee is happy to approve this document, please complete the section below, date it and return it to the Policy (document) Owner			
Name of Chair	**Dr Claire Mitchell**	**Date**	**15/11/2023**
Ratification by Management Executive (if appropriate)			
If the Management Executive is happy to ratify this document, please complete the date of ratification below and advise the Policy (document) Owner			
Date: n/a			