# Princess Margaret Hospital for Children Emergency Department Guideline

PAEDIATRIC ACUTE CARE GUIDELINE			
Seizure - First			
Scope (Staff):	All Emergency Department Clinicians		
Scope (Area):	Emergency Department		

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# Seizure - First

- A seizure is the physical and behavioural changes that occur after an episode of abnormal activity in the brain or part of the brain
- It is a symptom not a diagnosis

# **Background**

- By the age of 16 years approximately 1% of the population will have suffered a seizure **without** a fever
- Recurrence risk:
  - 50% will have a second afebrile seizure
  - 75% of those will have a third afebrile seizure
  - 88% of these are within two years



## **Assessment**

## History

General history, plus consideration of:

• Neurological state and behaviour prior to seizure

- Duration of seizure, focal features
- · Recent trauma
- Poisons / drug ingestion
- Co-morbidities e.g. ventriculoperitoneal (VP) shunt
- Developmental history
- Determine if the child has had a vacination in the past 14 days. If so, a <u>WAVSS</u> WA Vaccine Safety Surveillance: Adverse Reaction Reporting Form needs to be completed.

#### **Examination**

- Full systems examination including neurological
- Assess for meningism

#### **Investigations**

- Glucose
- U&E, Calcium, Magnesium, Phosphate
- CT if clinically indicated (seek Emergency Department Senior Doctor advice)
- ECG
- EEG (as outpatient)
- Metabolic screen if clinically indicated

## **Differential diagnoses**

- Breath holding
- Syncope
- Gastro-oesophageal reflux (GOR)
- Arryhthmias
- Stroke
- Panic attack
- Migraine
- Psychosis
- Pseudoseizures

# Management

- Most seizures will terminate within 5 minutes. Those that last longer are likely to continue.
- If a seizure is still in progress on arrival to the Emergency Department, treatment should commence as per ED Guideline: <u>Status Epilepticus</u>.

#### **Admission criteria**

- Prolonged seizure > 15 minutes
- GCS < 15 (1 hour post seizure)
- Age < 1 year
- > 1 seizure
- Focal seizures
- Signs of raised intracranial pressure (ICP)
- Meningism
- Signs of aspiration
- NAI
- High parental/carer anxiety

#### Discharge criteria

- Parents should be warned that all children or adolescents who have had seizures should be supervised when bathing, swimming, riding a bicycle on the road, and should avoid tree climbing.
- Parents should be advised of first aid measures and given parent information sheet First Aid for Seizures.
- Arrange referral to General Paediatric Clinic and EEG request (PMH complete green form).

#### **Tags**

afebrile, aspiration, bgl, breath holding, bsl, convulsion, ct, eeg, febrile, fit, fitting, focal, gcs, glucose, head, hypoglycaemia, icp, ingestion, injury, intracranial pressure, meningitis, nai, non accidental injury, poisons, pseudoseizures, seizure, seizures, status, status epilepticus, syncope, tonic clonic, trauma, vp shunt

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