# Princess Margaret Hospital for Children Emergency Department Guideline

PAEDIATRIC ACUTE CARE GUIDELINE			
Status Epilepticus			
Scope (Staff):	All Emergency Department Clinicians		
Scope (Area):	Emergency Department		

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## **Status Epilepticus**

Convulsive status epilepticus is defined as a generalised tonic-clonic convulsion lasting more than 30 minutes, or repeated tonic-clonic convulsions over a 30 minute period without recovery of consciousness between each convulsion.

## **Background**

- Status epilepticus is the most common neurological medical emergency
- It is the first seizure in 30% of status epilepticus patients
- Mortality is 1-3%



#### **General**

• The estimated incidence is 20 per 100 000 children per year.

## **Causes of Status Epilepticus:**

- Prolonged febrile convulsion
- Epilepsy
- Central nervous system infection (e.g. meningitis)
- Trauma
- Metabolic
- Poisons

## **History**

- Description of the manifestation of the seizures obtained from the eyewitnesses (parent, carer, etc)
- Any impairment or loss of consciousness
- Motor effects, muscular contractions
- Parts of the body that are affected
- Focal or tonic/clonic seizure
- · Length of seizure
- Multiple clusters of seizure activity

#### **Examination**

- Full systems examination including neurological examination
- Examine for underlying causes that can precipitate seizures

## **Investigations**

- Always do a blood glucose level (BGL)
- Venous blood gas
- Consider other investigations according to the possible underlying aetiology e.g. infectious screen, anti-epileptic drug levels

## **Management**

- Assess ABC first
- The approach to a child who presents with a tonic-clonic convulsion > **5 minutes** should be the same as for the child with established status epilepticus
- This guideline addresses the treatment of status epilepticus and **not** the underlying cause once the seizure has been terminated, investigate as required

## Initial management

- ΔRC
- Airway adjuncts consider an oropharyngeal or nasopharyngeal airway as required
- High flow oxygen
- Vascular access (and check BGL)

## **Medications**

See Seizure - Medication

## **Nursing**

- Follow the Status Epilepticus Flowchart and prepare drugs as required
- Any child having a prolonged seizure should be nursed in resuscitation room if possible
- Prepare to insert 2 x intravenous cannulae or intraosseous needles
- Check BGL and inform doctor

#### **Observations**

#### **Baseline Observations:**

- Temperature
- Heart Rate
- Respiratory Rate
- Blood Pressure
- GCS
- Pupil reaction

## **During A Phenytoin Infusion:**

- 5 minutely BP, HR, respiratory rate, during infusion and flush for 30 minutes post-flush
- Advise doctor immediately if any change in patients condition
- Infusion may need to be slowed or stopped in case of hypotension, impaired respiratory effort or bradycardia

## **Post Ictal Stage:**

- Observe closely for further seizure activity
- 1/2 hourly neurological observations until GCS 15

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