## **Treatment of Prolonged Paediatric Seizures**

### IS THERE EVIDENCE OF ANY OF THE FOLLOWING:

A: Airway obstruction requiring a jaw thrust, airway adjunct or the application of PEEP

**B**: Respiratory failure

C: Shock

D: Signs or symptoms of raised intracranial pressure, trauma, encephalopathy or focal neurology



ANAESTHETISE TO TERMINATE SEIZURE: INTUBATE to secure airway **VENTILATE** to restore gas exchange **REVERSE shock NEURO PROTECT** 

Ketamine 2mg/kg & Rocuronium 1mg/kg

Followed by infusion of Propofol if haemodynamically stable and no metabolic disorders suspected (see drug calculator)



### Intravenous access: YES

Lorazepam IV 0.1mg/kg (Max 4mg)

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Midazolam Buccal *OR* Diazepam PR (See BNFc or SORT drug calculator)

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IO if still no IV access

### Is the child still seizing > 15 mins?

5 mins from

se iz ure

onset

10 mins from

se iz ure

NO

IV Levetiracetam 40mg/kg (max 2.5g) infusion over 5 minutes Full loading dose to be given EVEN if the child is already taking background oral levetiracetam OR

IV Phenytoin 20mg/kg over 20mins

# Call SORT (023 8077 5502)

### URGENT INTERVENTIONS

- Check Glucose
- Treat hyponatraemia with 3-5 mls/kg of 2.7% sodium chloride
- Maintain normothermia
- Treat meningoencephalitis with: IV ceftriaxone 80mg/kg & aciclovir
- Check ammonia DO NOT LUMBAR PUNCTURE

#### REASSESSMENT

- If seizures persist see management of refractory seizures below
- If seizures controlled, physiology normal and serious reversible causes excluded plan to extubate locally (with SORT advice)

### INDICATIONS FOR CT SCAN

- Suspected raised ICP
- Suspect space occupying lesion
- Refractory seizures
- VP shunt in-situ
- Trauma
- New focal seizure
- New neurological deficit
- New prolonged seizure
- Intracranial infection Remember to request a contrast enhanced scan if suspicion of venous sinus thrombosis or abscess

### MANAGEMENT OF REFRACTORY SEIZURES AFTER INTUBATION AND VENTILATION

- Commence midazolam infusion: 100 mcg/kg bolus and start at 100 mcg/kg/hr
- Repeat midazolam 100 mcg/kg bolus every 5 minutes **and** increase infusion rate by 100 mcg/kg/hr until seizures controlled
- Consider addition of Phenytoin or Levetiracetam (if not already received) or load with Phenobarbital
- Consider Thiopentone infusion after discussion with SORT consultant
  - Obtain central access as hypotension will develop & vasopressors may be required
- Find and treat cause

References Levetira cetam versus phenytoin for second-line treatment of paediatric convul s status epilepticus (EcLiPSE): a multicentre, open-label, randomised trial. Lytile et

Levetira cetam versus phenytdin for second-linetreatment of convulsive status epilepticus in children (ConSEPT): an open-label, multicentre, randomised cont trial. Dalzi el et al.

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