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

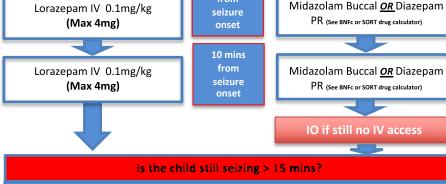
Intravenous access: YES



INTUBATE to secure airway
VENTILATE to restore gas exchange
REVERSE shock
NEUROPROTECT

Ketamine 2mg/kg & Rocuronium 1mg/kg

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



YES

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**

NO

5 mins

from

IV Phenytoin 20mg/kg over 20mins

Child still seizing >30mins

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

Intravenous access: NO

- Suspected raised ICP
- · Suspect space occupying lesion
- · Refractory seizures
- VP shunt in-situ
- Trauma
- New focal seizure
- · New neurological deficit
- New prolonged seizure
- NAI
- 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

Levetiracetam versus phenytoin for second-line treatment of paediatric convulsive status epilepticus (EcLiPSE): a multicentre, open-label, randomised trial. Lyttle et al.

Levetiracetam versus phenytoin for second-line treatment of convulsive status epilepticus in children (ConSEPT): an open-label, multicentre, randomised controlle trial. Dalziel et al.

SORT Nov 2020 Review 2024 www.sort.nhs.uk