



Clinical Guidelines

Status Epilepticus

Document Control Information

Author	Emma Sturgess E Randle	Author Position	Advanced Nurse Practitioner Consultant
Document Owner	E. Polke	Document Owner Position	Service Coordinator
Document Version	Version 5	Replaces Version	January 2018
First Introduced		Review Schedule	2 Yearly
Active Date	January 2020	Next Review	January 2022
CATS Document Number			
Applicable to	All CATS employees		



1. Assessment

Aetiology

- Febrile convulsion
- Known epileptic + acute illness
- Meningoencephalitis
- Metabolic/electrolyte abnormality (glucose, calcium, sodium)
- Drug, intoxication, poisoning
- Stroke / bleed
- Trauma (including NAI)
- Secondary to raised intracranial pressure i.e. blocked VP shunt, space-occupying lesion. CATS can facilitate a conference call with Neurosurgical team if required.
- Duration of fitting
- Nature of fit (generalised or focal)
- Treatment given

2. Initial management

- Ensure patent airway
- Give 100% oxygen
- Check **glucose** before giving anticonvulsants
- Stop seizures using the APLS (2017) protocol shown below. **Give enough time for drugs to work to avoid respiratory depression from benzodiazepine overdose**
- Investigations - Check urea, electrolytes, calcium and magnesium. Consider blood cultures if child had fever. Consider taking early urine sample for toxicology
- Maintain normothermia. Treat fever with paracetamol +/- ibuprofen and cooling
- Ceftriaxone (cefotaxime for age <1 year), acyclovir and erythromycin are recommended if aetiology is uncertain (ie meningo-encephalitis is a possibility) and acyclovir should be used for focal fits of unknown cause
- Consider mannitol 0.25g/kg and/or 3ml/kg 3% or 2.7% NaCl (aim Na 145 mmol/l) if signs of raised intracranial pressure (bradycardia, hypertension, pupillary signs) this should be discussed with neurosurgery
- **Avoid Lumbar puncture in a child with a reduced level of consciousness**
- Consider CT scan +/- contrast if seizures atypical, focal or aetiology uncertain

3. Indications for intubation

- Child in refractory convulsive status epilepticus after completion of IV phenytoin/ IV phenobarbitone
- Airway compromised at any time
- Hypoxia
- Glasgow coma score remains <8
- To establish neuroprotection (CO₂ control) in a child requiring a CT scan and pending results

4. Management of the child requiring intubation

- Rapid sequence induction with thiopentone and suxamethonium (if no hyperkalemia, myopathy or kidney injury)
- Insert NGT or OGT if not already in situ. Place on free drainage
- Initiate infusions of morphine and midazolam once ETT in situ
- If seizures continue consider further administration of thiopentone (discuss with CATS consultant on call)
- In collaboration with on call CATS and Neurology Consultant - IV Levetiracetam
- Administer IV fluids at 60% maintenance

5. Transport considerations

Not all children who require intubation (particularly those intubated for temporary respiratory depression after benzodiazepines) will require transfer to a PICU.

- Ventilate to normocarbica (neuroprotection strategies)
- Infusion or bolus drugs for breakthrough seizures available en route (benzodiazepines, thiopentone)
- Monitor glucose
- Consider mannitol or 2.7% NaCl if signs of raised ICP (bradycardia, hypertension, pupil changes) and discuss with neurosurgery
- Muscle relaxation to assist ventilation and prevent accidental extubation during transport
- Take copies of CT scans or send them electronically if these have been performed
- Prepare Adrenaline infusion

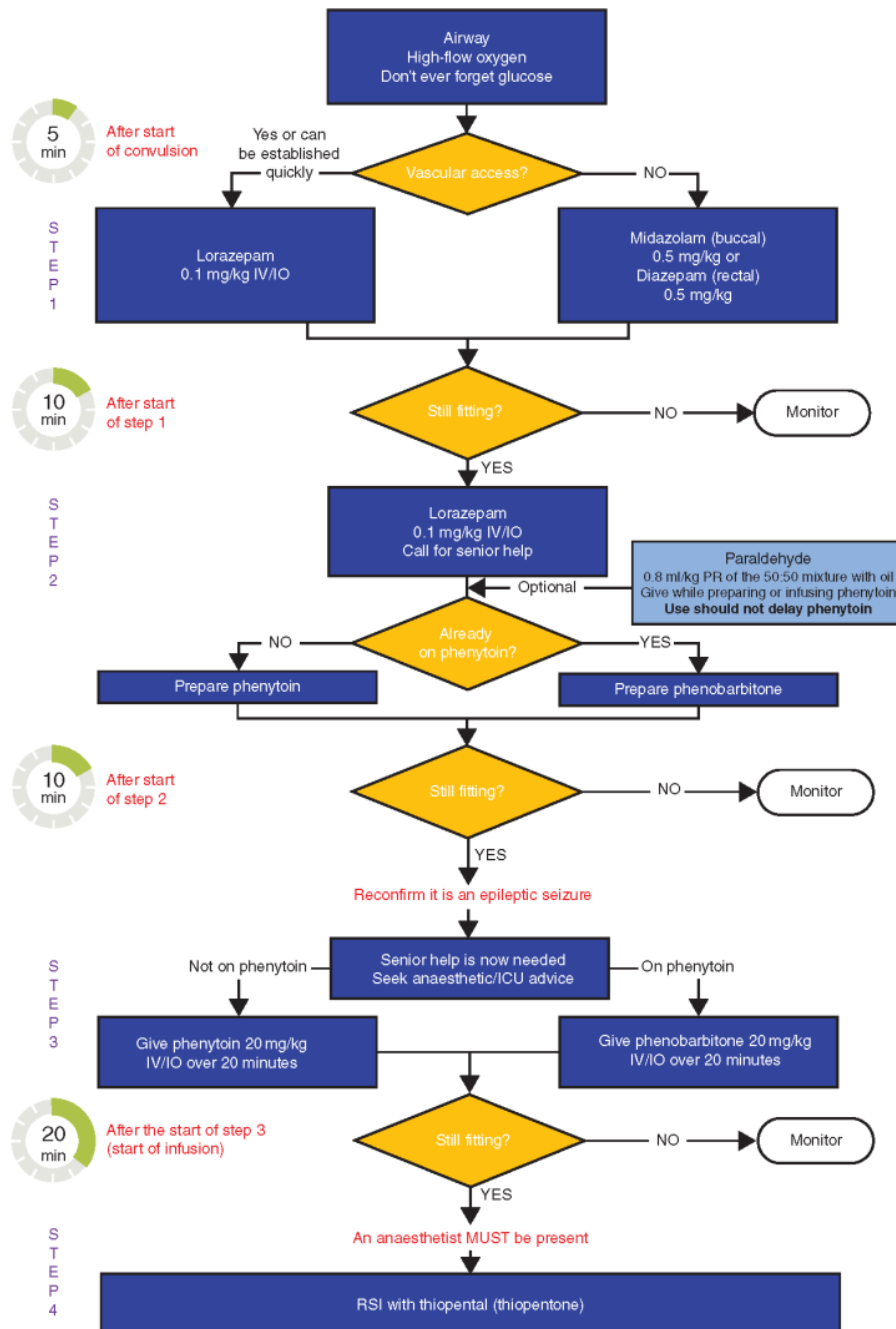


Figure 9.1 Status epilepticus algorithm. [ICU, intensive care unit; RSI, rapid sequence induction]