



# 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
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## 1. Assessment

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### 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 OGT if not already in situ. Place on free drainage.
- Initiate infusions of morphine and midazolam once ETT in situ.
- NB Midazolam IVI is useful as an anticonvulsant.
- 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 10mg/kg, max dose 2.5g may be considered.
- 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 normocarbia (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.
- Paralysis to assist ventilation and prevent accidental extubation during transport.
- Take copies of CT scans or send them electronically if these have been performed.
- Prepare Dopamine infusion.

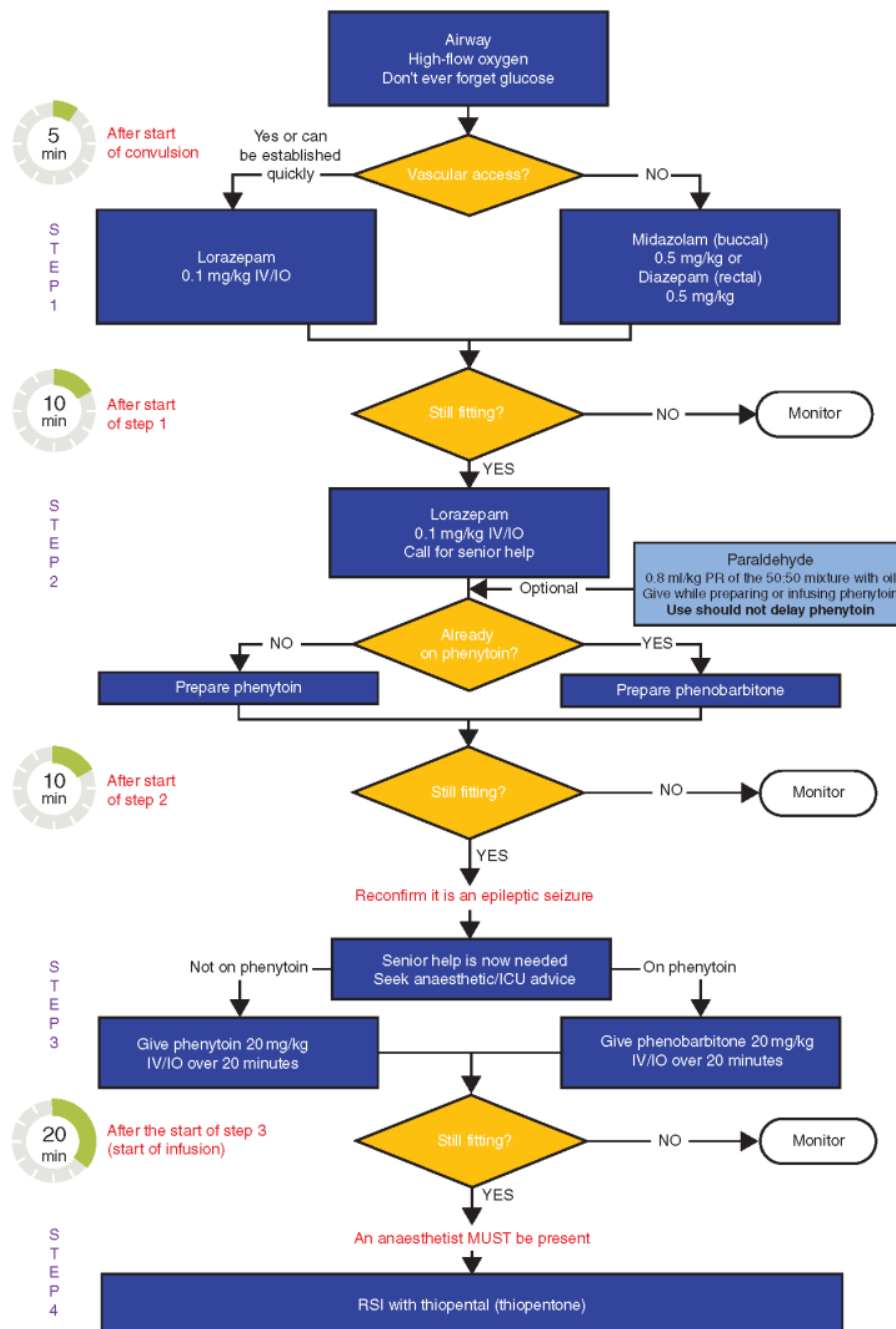


Figure 9.1 Status epilepticus algorithm. [ICU, intensive care unit; RSI, rapid sequence induction]