

# STATUS EPILEPTICUS

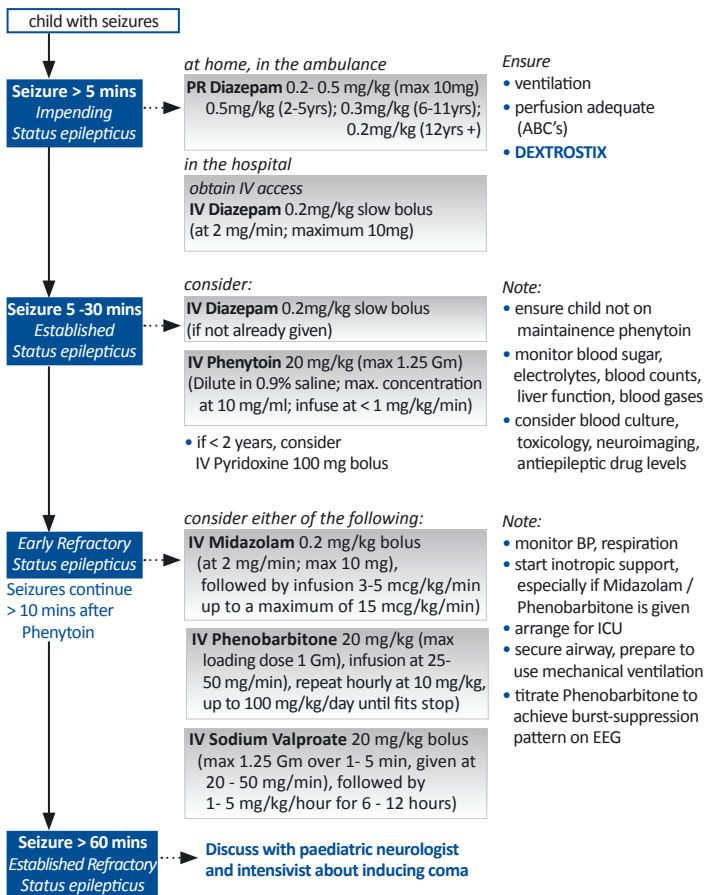
## Definition

- any seizure lasting > 30 minutes *or*
- intermittent seizures, without regaining full consciousness in between, for > 30 minutes

However, any seizure > 5 minutes is unlikely to abort spontaneously, and should be treated aggressively. Furthermore, there is evidence of progressive, time-dependent development of pharmaco-resistance if seizures continue to perpetuate.

*Refractory status epilepticus*: seizures lasting for >60 minutes or not responding to adequate doses of benzodiazepine and second line medications.

Figure 1. Algorithm for Status Epilepticus



## Salient Points

- apart from terminating seizures, management of SE should include, identifying and treating underlying cause
- presence of SE may mask usual signs and symptoms of meningitis or encephalitis, resulting in a danger of overlooking life-threatening infections.
- common mistakes in failing to treat status epilepticus (SE) are *under-dosing* of anticonvulsant and *excessive time lag* between doses/steps of treatment

## APPROACH TO A CHILD WITH A FIRST UNPROVOKED SEIZURE

### Definition

One or multiple *unprovoked afebrile* seizures within 24 hours with recovery of consciousness between seizures

### Notes:

- 30-50% of first unprovoked seizures in children will recur
- 70-80% of second seizure will recur
- detailed history to determine if event is a seizure or a paroxysmal non-epileptic event - e.g. syncope, breath holding spell, gastro-esophageal reflex.
- thorough clinical examination to look for any possible underlying aetiology
- need to exclude acute provoking factors

### What Investigations Need To Be Done?

- routine investigations such as FBC, BUSE, Ca, Mg, RBS if
  - child unwell (vomiting, diarrhoea etc)
  - child not 'alert', lethargic or failure to return to baseline alertness
- lumbar puncture indicated if there is suspicion of brain infection
- toxicology screening considered if there is suspicion of drug exposure
- EEG is recommended after all first *afebrile unprovoked* seizure
  - EEG helps classify seizure type, epilepsy syndrome and predict recurrence
- neuroimaging (MRI preferred) indicated for:
  - persisting postictal focal deficit (Todd's paresis)
  - condition of child not returned to baseline within several hours after seizure

### Is Treatment Required?

- treatment with anticonvulsant NOT indicated in all first afebrile seizure as it does not prevent development of epilepsy or influence long term remission
- treatment after first unprovoked seizure can be considered if:
  - neurological deficit in child
  - unequivocal epileptic activity on EEG
  - risks of having further seizures unacceptable
  - brain imaging shows structural abnormality