Status Epilepticus

STABILIZE AND ASSESS THE PATIENT

1. Check ABC’s
   Evaluate and secure the airway
   Provide 100% oxygen (non-rebreather)
   Assess and support ventilation
   Check and establish monitoring of vital signs
2. Check vascular access
3. Note the time and check time of seizure onset
4. Check bedside glucose
   If glucose <60 mg/dl, administer 2 ml/kg D25%W or 5 ml/kg D10%W
5. Administer antipyretics as indicated

SEIZURE DURATION NOW 5 MINUTES

1. LOREZAPAM IV or IO
   0.05-0.1 mg/kg
   Maximum 2 mg/dose
   OR
2. MIDAZOLAM
   IM or IN 0.2 mg/kg
   Maximum 10 mg/dose
   IV OR IO 0.1 mg/kg
   Maximum 5 mg/dose
   Repeat as needed every 3-5 minutes if seizure continues

SEIZURE CONTINUES

1. LOAD with:
   a. Levetiracetam 40-60 mg/kg (Max 4500 mg)
   OR
   b. Fosphenytoin 20 mgPE/kg (Max 1500 mg)
      i. If home medication 10mgPE/kg
2. ASSESS NEED FOR INTUBATION
3. RE-ASSESS ABC’s
4. PAGE NEUROLOGY

SEIZURE CONTINUES

1. LOAD with a 2nd medication
   a. Levetiracetam 40-60 mg/kg (Max 4500 mg)
   OR
   b. Fosphenytoin 5-10 mgPE/kg (Max 1500 mg)
   OR
   c. Phenobarbital 20 mg/kg (Max 1500 mg)
      i. Neonates: 20 mg/kg; repeat 5-10 mg/kg x 1 if persists
2. CALL PICU
3. Consider Intubation

General Principles

1. Remember ABC’s
2. Get a good history and description from a witness
3. Determine time of onset of seizure and whether this is a seizure
4. Follow sequence of benzodiazepine, fosphenytoin, midazolam.
5. Substitute phenobarbital for fosphenytoin in neonates.

Key to effective treatment

1. Begin treatment early, within 3-5 minutes of seizure onset
2. Use adequate doses of effective drugs
3. Prepare next line drug

Select initial labs

1. Electrolytes (Glucose, Na, Ca, Mg).
   Consider blood gas for STAT electrolytes
2. AED levels
3. CBC

Neonates (<1 month age)
Load with Phenobarbital 20 mg/kg IV

SEIZURE RESOLVED

1. Check vital signs
2. Additional diagnostic testing
3. Consider maintenance
   Fosphenytoin: 5mg/kg/d ±q8 hr
   or Phenobarbital 3-5 mg/kg/d

Created by
S. Herron, R. Coates
Department
Pediatric Emergency Department
Creation Date
May 2018
Version Date
05/2023

https://www.advocatechildrenshospital.com/healthcare-professionals/peds-pathways
Refractory Status Epilepticus

**Laboratory Studies**
1. Electrolytes
2. Toxicology (serum/urine)
3. LFT’s, Coags, Albumin
4. Metabolic screens
   Lactate, Pyr, CPK, ketones, NH3, acylcarnitine, amino, organic acids
5. Blood and urine cultures
6. CSF (meningoencephalitis panel, HHV6, EBV, CMV, cytology, lactate)
7. Antiepileptic levels
8. Imaging as indicated when patient is stable

**Refractory Status Epilepticus in Neonates**
1. Midazolam (see dosing)
2. 50-100 mg pyridoxine IV with EEG monitoring. If no response, then
3. Add empirically Pyridoxal phosphate 30 mg/kg/d po or ng
   Obtain serum and urine organic acids pre and post treatment
4. Folinic acid

**RISK ASSESSMENT FOR STATUS EPILEPTICUS**
1. Acute Symptomatic SE (eg. TBI, Meningitis, ICH, Stroke, Encephalitis, Toxin)
   Highest mortality and morbidity
2. Febrile Status Epilepticus or Complex Febrile Seizures
   Increased long-term risk of mesial temporal sclerosis
3. Remote Symptomatic Epilepsy – history of previous neurologic injury with new onset seizures
4. Known Epilepsy
   Low mortality and morbidity
5. First Seizure in Idiopathic Epilepsy

**Secure airway, give oxygen, glucose (if indicated), monitor blood pressure, IV access, check electrolytes**