

TIME

0

3 Min

8 Min

20 Min

Witnessed or suspected seizure GOAL IS TO PREVENT seizure from lasting > 5 minutes

STABILIZE AND ASSESS THE PATIENT

1. Check ABC's

- a. Evaluate and secure the airway
- b. Provide 100% oxygen (non-rebreather)Assess and support ventilation
- c. Check and establish monitoring of vital signs; cardiac & POX monitoring
- 2. Obtain IV access
- 3. Note the time and check time of seizure onset
- 4. Check bedside glucose
 - a. If glucose <70 mg/di, administer 2 ml/kg D25%W or 5 ml/kg D10%W
- 5. Administer antipyretics as indicated
- 6. Determine if benzo was given by EMS

SEIZURE DURATION NOW 5 MINUTES

1. LORAZEPAM IV or IO

0.1 mg/kg

Maximum 4 mg/dose

OR

2. MIDAZOLAM

IM or IN 0.2 mg/kg IV or IO 0.1 mg/kg Maximum 10 mg/dose Maximum 5 mg/dose

Repeat in 5 minutes if seizure continues (If not given PTA)

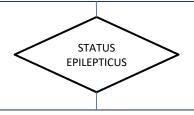


1. LOAD with:

- a. Levetiracetam 40-60 mg/kg (Max 4500 mg) over 5 minutes
- b. Fosphenytoin 20 mgPE/kg (Max 1500 mg) over 10 minutes

Neonates (<1 month age)
Load with Phenobarbital 20 mg/kg IV
(Max 1000mg) over 20 minutes

- 2. ASSESS NEED FOR INTUBATION
- 3. RE-ASSESS ABC's
- 4. PAGE NEUROLOGY



1. LOAD with a 2nd line alternative 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: 5-10 mg/kg
- 2. CALL Peds Hospitalist/Intensivist

General Principles

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

Key to effective treatment

- 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

- Electrolytes (Glucose, Na, Ca, Mg). Consider blood gas for STAT electrolytes
- 2. Antiepileptic drug levels
- 3. CBC
- 4. Urine tox screen



- 1. Check vital signs
- 2. Additional diagnostic testing
- Consider maintenance medications with Neurology



<u>Refractory Status Epilepticus in Neonates</u>

50-100 mg pyridoxine IV with EEG monitoring. If no response, then Add empirically Pyridoxal phosphate

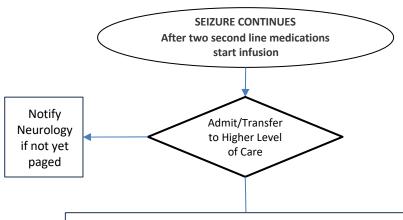
Obtain serum and urine organic acids

Midazolam (see dosing)

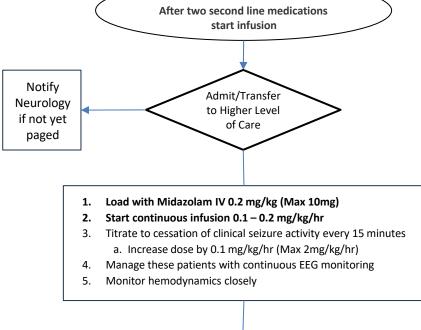
30 mg/kg/d po or ng

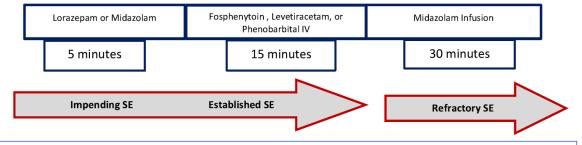
Folic acid

pre and post treatment



- If Midazolam contraindicated (allergy or history of seizure exacerbation) use IV Pentobarbital
 - a. Loading dose: 5 mg/kg IV over 10 minutes
 - b. Continuous infusion: 1 5 mg/kg/hr
 - i. If breakthrough seizure give additional 5 mg/kg
 - Increase rate 0.5 1 mg/kg/hr q 12 hrs
- 2. Alternatively initiate pentobarbital coma in PICU with CVEEG





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

* For inpatients, consider these critical labs: rapid glucose test, electrolytes, magnesium, phosphorus, Ca/iCa, CBC w/ diff, blood and urine culture, urine ketones if hypoglycemia, LFT, PT/PTT, BUN, Creatinine, AED levels, urine tox screen, serum ammonia, lactate, pyruvate, plasma and urine organic acids