Seizures and Status Epileptics

**Definition:**

One of the following:

1. Continuous seizures for >5 minutes
2. Two or more discrete seizures between which patient does not regain consciousness

**Immediate Treatment**

Many seizures will spontaneously remit in 2 minutes; initial supportive management may be appropriate.

Once seizures have continued for >2 minutes, IV benzodiazepines should be administered.

- IV lorazepam, 4 mg, can repeat once
- Diazepam, 20 mg rectally (if no IV access is available)
- Intramuscular midazolam, 10 mg if IV access unavailable

If seizures continue, urgent neurology consultation and choose among the following agents:

- Fosphenytoin, 20 PE/kg at 100-150 mg/min (max 1500 PE)
- Phenytoin, 20 mg/kg at 50 mg/min (monitor for hypotension and cardiac arrhythmias)
- Valproic acid, 40 mg/kg IV at 6 mg/min (max 3000 mg)
- Levetiracetam, 60 mg/kg at 100 mg/min (max 4500 mg)
- Simultaneously prepare IV infusion of midazolam or propofol.

If seizures continue:

- Intubate
- Midazolam, 0.2 mg/kg bolus, followed by 0.1 mg/kg/h titrated up by 0.1 mg/kg/h q5 min until seizure cessation (max 2 mg/kg/h)
- Propofol, 1-2 mg/kg bolus, followed by 20 µg/kg/min titrated up by 10 µg/kg/min q5 min until seizure cessation. Caution with doses > 70 µg/kg/min.
- Transfer to ICU and initiate video electroencephalographic monitoring

1. Establish team leader and call for HELP.
2. Check pulse and vital signs.
   - If pulseless, initiate Advanced Cardiovascular Life Support.
3. Start supplemental oxygen; set up suction.
4. Obtain intravenous (IV) or intraosseous access.
5. Perform focused physical exam.
   - Pupillary exam
   - Cardiopulmonary exam
6. Check glucose via finger stick; if <70 mg/dL, give 50 mL dextrose 50%.
7. Obtain diagnostic testing.
   - Complete blood count, basic metabolic panel, magnesium level, phosphorus level, liver function tests, antiepileptic drug levels, arterial blood gas measurement
   - Urine toxicology
8. If febrile, treat with rectal acetaminophen, 650 mg. Give thiamine 100 mg IV before D5W.