

# Seizures – Adult

1. ABCDE's
2. IV lines
3. Do finger prick glucose and take Temperature.
4. Draw blood for CBC, LFT, Calcium, Magnesium
5. If glucose < 3, give Glucose 50 ml of 50% (25 gms) over 5 minutes IV
6. **Thiamine** 100 mg IV, IM
7. **Ativan** 2 – 4 mg IV or **Valium** 2 – 10 mg IV or **Midazolam** 0.1 – 0.2 mg/kg IV (5 – 10 mg)
8. If unable to establish IV, may use **Midazolam** 0.05 – 0.2mg/Kg IM  
(10 mg IM may be more effective than Ativan)
9. For Status Epilepticus:
  - A. **Phenytoin** (Dilantin) 20-30 mg/Kg IV at max. 50 mg/min  
Patient should be on cardiac monitor to watch for QRS width. Stop drug is QRS > 50% baseline width. Watch also for hypotension. May repeat 10 min after loading dose. **Not** for use in alcohol withdrawal seizures. (see Alcohol Withdrawal page 36)
  - B. **Valproic Acid** 20-60 mg/kg IV bolus at 2 mg/min. May repeat 10 Min. after loading dose
  - C. **Phenobarbital** 20-30 mg/Kg IV at no faster than 60 mg/min.
  - D. **Propofol** 1-2 mg/kg at 20 mcg/kg/min, followed by infusion at 30-200mcg/kg/min (requires mechanical ventilation)
  - E. Consider **Narcan** or IV **lipid emulsion** therapy for drug overdoses
  - F. Consider empiric IV antibiotics (**Ceftriaxone** 2 gm) for suspected infection.

## IV Antiepileptic Drugs

	<u>Onset</u>	<u>Peak Action</u>	<u>Half life</u>
Ativan:	2 – 3 min.	45 – 60 min	6 – 8 hrs.
Valium:	1 – 3 min.	15 – 30 min	3 – 4 hrs.
Midazolam:	1 – 5 min.		4 hrs.

# Seizures – Pediatric

1. ABCDE's: oxygen, suction secretions, recovery position
2. IV line/intraosseous access.
3. glucose, CBC, lytes
4. If glucose < 3, give 25% glucose 2 – 4 ml/Kg IV.
5. **Lorazepam** 0.1 mg/kg (max 4 mg/dose) IV/IO/IN
6. Or **Diazepam** 0.2 mg/kg IV/IO/PR (max 10 mg/dose) or **Midazolam** 0.1 – 0.2 mg/kg IV/IO/IM/IN
7. **Phenytoin** (Dilantin) 20 mg/kg IV/IO at 50 mg/min (max 1000mg) Have patient on cardiac monitor, watch BP.
8. **Phenobarbital** 20 mg/kg IV/IO/IM (note IM takes 2 hours for onset)

For Refractory Status Epilepticus:

9. For Status Epilepticus:
  - A. **Phenytoin** (Dilantin) 20-30 mg/Kg IV at max. 50 mg/min  
Patient should be on cardiac monitor to watch for QRS width. Stop drug if QRS > 50% baseline width. Watch also for hypotension. May repeat 10 min after loading dose. **Not** for use in alcohol withdrawal seizures.
  - B. **Valproic Acid** 20-60 mg/kg IV bolus at 2 mg/min. May repeat 10 Min. after loading dose
  - C. **Phenobarbital** 20-30 mg/Kg IV at no faster than 60 mg/min.
  - D. **Propofol** 1-2 mg/kg at 20 mcg/kg/min, followed by infusion at 30-200mcg/kg/min (requires mechanical ventilation)

## Consider Etiology of Pediatric Seizures:

Infectious (febrile, meningitis, abscess..)

Traumatic (cerebral contusion, epidural/subdural hematoma)

Vascular (AVM, subarachnoid/subdural hematoma, migraine)

Metabolic (hypoglycemia, lytes, hypoxia, hepatic and renal failure)