










**PEORIA AREA EMS SYSTEM
PEDIATRIC PREHOSPITAL CARE MANUAL**

Pediatric Seizure Protocol

Seizures are common in childhood. About 5% of all children will have at least one seizure by the age of three (febrile seizures account for the largest percentage of pediatric seizures). This condition can cause much concern and anxiety in the caregiver and EMS is called. Pediatric seizures are usually short-lived and stop before the arrival of EMS. Since there are many causes of pediatric seizures, treatment and transport to an appropriately equipped emergency department is necessary.

Classification of Seizures (PEPP 2001)	
Generalized Seizure	Description
Tonic-Clonic (Grand Mal Seizure)	Trunk rigidity and loss of consciousness with sudden, jerking movements of both arms and/or both legs; may be only tonic (rigidity) or clonic (jerking) seizure activity.
Absence (Petit Mal Seizure)	Brief loss of awareness without any abnormal movements; child may appear to be staring.
Partial (Focal) Seizure	Description
Simple Seizure	Focal motor jerking without loss of consciousness; may be sensory, autonomic or psychic without jerking.
Complex Seizure	Focal motor jerking with loss of consciousness; secondary generalization to a tonic-clonic seizure.

Common causes of Seizures in Pediatric Patients:

-  Fever
-  Trauma
-  Hypoxia
-  Hypoglycemia
-  Infection/Sepsis
-  Ingestion of toxins
-  Cerebral hemorrhage
-  Metabolic disorders
-  Congenital neurological problems

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First Responder Care

First Responder Care should be focused on assessing the situation and initiating routine patient care to assure that the patient has a patent airway, is breathing and has a perfusing pulse as well as beginning treatment for shock.

1. Render initial care in accordance with the *Routine Pediatric Care Protocol*.
2. **Oxygen:** 10-15 L/min via non-rebreather mask or 4-6 L/min via nasal cannula if the patient cannot tolerate a mask. Be prepared to support the patient's respirations with BVM if necessary and have suction readily available.

BLS Care

BLS Care should be directed at conducting a thorough patient assessment, initiating routine patient care to assure that the patient has a patent airway, is breathing and has a perfusing pulse as well as beginning treatment for shock and preparing the patient for or providing transport.

1. Render initial care in accordance with the *Routine Pediatric Care Protocol*.
2. **Oxygen:** 10-15 L/min via non-rebreather mask or 4-6 L/min via nasal cannula if the patient does not tolerate a mask. Be prepared to support the patient's respirations with BVM if necessary and have suction readily available.
3. Perform **blood glucose level test**.
4. Initiate ALS intercept and **transport without delay**.
5. Check and record vital signs and GCS every **5 minutes**.

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ILS Care

ILS Care should be directed at continuing or establishing care, conducting a thorough patient assessment, stabilizing the patient's perfusion and preparing for or providing patient transport.

1. Render initial care in accordance with the *Routine Pediatric Care Protocol*.
2. **Oxygen:** 10-15 L/min via non-rebreather mask or 4-6 L/min via nasal cannula if the patient does not tolerate a mask. Be prepared to support the patient's respirations with BVM if necessary and have suction readily available.
3. Perform **blood glucose level test**.
4. **Dextrose:** if blood sugar is < 60mg/dL:
 - g) 0-1 month: **D10:** 2mL/kg IV
 - h) 1 month – 2 years: **D25:** 2mL/kg IV
 - i) >2 years: **D50:** 2mL/kg IV
5. **Glucagon:** 1mg IM if the patient's blood sugar is < 60mg/dL and unable to establish an IV.
6. Perform a 2nd **blood glucose level test** to re-evaluate blood sugar 5 minutes after administration of Dextrose or Glucagon. Repeat dose of Dextrose if BS is still < 60mg/dL.
7. **Contact Medical Control** as soon as possible.
8. **Valium:** 0.1mg/kg slow IV push (**Max single dose: 5mg**) for multiple seizures or prolonged seizure activity (**with Medical Control order only**). May repeat once in 5 minutes if needed.

OR

Valium: 0.5mg/kg PR (**Max single dose: 10mg**) if unable to establish IV access (**with Medical Control order only**). May repeat once in 10 minutes if needed (**with Medical Control order only**).
9. Initiate ALS intercept if needed and transport as soon as possible.

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ALS Care

ALS Care should be directed at continuing or establishing care, conducting a thorough patient assessment, stabilizing the patient's perfusion and preparing for or providing patient transport.

1. Render initial care in accordance with the *Routine Pediatric Care Protocol*.
2. **Oxygen:** 10-15 L/min via non-rebreather mask or 4-6 L/min via nasal cannula if the patient does not tolerate a mask. Be prepared to support the patient's respirations with BVM if necessary and have suction readily available.
3. Perform **blood glucose level test**.
4. **Dextrose:** if blood sugar is < 60mg/dL:
 - j) 0-1 month: **D10:** 2mL/kg IV
 - k) 1 month – 2 years: **D25:** 2mL/kg IV
 - l) >2 years: **D50:** 2mL/kg IV
5. **Glucagon:** 1mg IM if the patient's blood sugar is < 60mg/dL and unable to establish an IV.
6. Perform a 2nd **blood glucose level test** to re-evaluate blood sugar 5 minutes after administration of Dextrose or Glucagon. Repeat dose of Dextrose if BS is still < 60mg/dL.
7. **Midazolam (Versed):** 0.1mg/kg IV (**Max single dose: 2mg**) over 1 minute for seizure activity. May repeat Midazolam (Versed) 0.1mg/kg IV every **5 minutes** as needed to a total of 10mg.

OR

Midazolam (Versed): 0.2mg/kg IM (**Max single dose: 5mg**) *if the patient is seizing and attempts at IV access have been unsuccessful*. May repeat dose one time in **15 minutes** if the patient is still seizing.
9. Transport as soon as possible.
10. Contact the receiving hospital as soon as possible.

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Critical Thinking Elements

- **30% of all pediatric seizures are febrile in nature.** However, the presence of a fever may not necessarily be the cause of the seizure. The child needs to be transported to the hospital for further evaluation.
- Seizure activity usually indicates a serious underlying problem. Check the oxygenation and perfusion of the child along with the blood glucose level and temperature. Treat accordingly.
- **Benzodiazepines can cause severe respiratory depression.** Monitor the child's respiratory status closely! Ventilate if needed.