EL DORADO COUNTY EMS AGENCY
PREHOSPITAL PROTOCOLS

Effective: July 1, 2015 EMS Agency Medical Director
Reviewed: July 2021
Revised: June 2023
Scope: BLS/ALS – Adult/Pediatric

SEIZURES - ADULT

PROTOCOL PROCEDURE: *Flow of protocol presumes that condition is continuing. Consider etiology: shock, toxic exposure, insulin shock, or head trauma. If patient is in distress, immediate, rapid transport is preferred with treatment performed en route.*

Basic Life Support

EMT

ABCs / ROUTINE MEDICAL CARE –

- Assess airway and support ventilation with appropriate airway adjuncts as indicated
- HP-CPR as indicated
- Apply oxygen if pulse oximetry <94% or signs of hypoperfusion or respiratory distress
- Protect patient from injury by loosening any restricting clothing items and/or padding or removing any sharp or dangerous items from the patient's proximity. Do not place anything in the patient's mouth.
- After seizure stops, place patient in left lateral recumbent position and be prepared to suction airway.
- If hypoglycemia is suspected in a known diabetic who is conscious and able to follow simple commands, give the patient a prepared oral dextrose solution or encourage drinking/eating a sugar-containing beverage or food.

LOSOP

EMT working under Local Optional Scope

GLUCOSE LEVEL ASSESSMENT – Via finger stick. Consider confirming test results with second glucose check with blood from a different site (and different meter, if available) if patient's presentation doesn't match the test results.

FOR HYPOGLYCEMIA (blood glucose .≤60 mg/dL and conscious):

GLUCOSE - 15 g PO. Repeat if inadequate response and ALS intervention is unavailable.

Advanced Life Support

Paramedic

CARDIAC MONITOR, SpO_2 and CAPNOGRAPHY

VASCULAR ACCESS – establish an IV/IO.

GLUCOSE LEVEL ASSESSMENT – Via venipuncture or finger stick. Consider confirming test results with second glucose check with blood from a different site (and different meter, if available) if the patient's presentation doesn't match the test results.

Treat per **GLYCEMIC EMERGENCY** protocol if indicated.

FOR ACTIVE SEIZURES:

MIDAZOLAM:

- IM: **10 mg** (*PREFERRED*). May repeat x2 at 5mg q 5 min for ongoing seizures (Max total dose = 20mg).

- IV/IO: **2.5 mg** diluted in 5mL NS IV/IO push, titrated to effect. May repeat x2 q 5 min for ongoing seizures. (Max dose = 7.5mg)

Contact Base for increased doses.

***Monitor respirations and SPO2 continuously after administration.**

FOR ECLAMPSIA-RELATED SEIZURES:

BLOOD GLUCOSE ASSESSMENT: Via finger stick or venipuncture. Treat as per GLYCEMIC EMERGENCIES protocol.

MAGNESIUM SULFATE: 6 gm diluted in 50-100mL NS or SW, infused over no less than15 minutes. *Per Base MD order.*

SEIZURES - PEDIATRIC

PROTOCOL PROCEDURE: *Flow of protocol presumes that condition is continuing. Consider etiology: shock, toxic exposure, insulin shock, or head trauma. If patient is in distress, immediate, rapid transport is preferred with treatment performed en route.*

Basic Life Support

EMT

ABCs / ROUTINE MEDICAL CARE -

- Assess airway and support ventilation with appropriate airway adjuncts as indicated
- HP-CPR as indicated
- Apply oxygen if pulse oximetry <94% or signs of hypoperfusion or respiratory distress. Protect patient from injury by loosening any restricting clothing items and/or padding or removing any sharp or dangerous items from the patient's proximity. Do not place anything in the patient's mouth. After seizure stops, place patient in left lateral recumbent position and be prepared to suction airway.
- If febrile seizures suspected:
- Initiate cooling measures with towels soaked in tepid water; avoid cooling to the point of shivering. Consider treatment (if patient is alert and able to swallow) with ACETAMINOPHEN (15 mg/kg PO) or IBUPROFEN (10 mg/kg PO).
- If hypoglycemia suspected in a known diabetic who is conscious and able to follow simple commands, give the patient a prepared oral dextrose solution or encourage drinking/eating a sugar-containing beverage or food.

LOSOP

EMT working under Local Optional Scope

GLUCOSE LEVEL ASSESSMENT – Via finger stick. Consider confirming test results with second glucose check with blood from a different site (and different meter, if available) if the patient's presentation doesn't match the test results.

Hypoglycemia in pediatrics is defined as:
Neonate <1month (blood glucose ≤ 50mg/dL)
Infant/child >1month (blood glucose ≤ 60mg/dL)

ORAL GLUCOSE - **15 g PO**. Repeat as indicated.

Reference: Routine Medical Care, BLS Medication Administration, Optional Skills EMT, Benadryl, EpiPen & EpiPen Jr. Auto Injector, Epinephrine, Albuterol, Atrovent, Glucagon, Pulseless Arrest

Advanced Life Support

Paramedic

CARDIAC MONITOR, SpO_2 and CAPNOGRAPHY

VASCULAR ACCESS/NORMAL SALINE – establish an IV/IO

GLUCOSE LEVEL ASSESSMENT – Via venipuncture or finger stick. Consider confirming test results with second glucose check with blood from a different site (and different meter, if available) if the patient's presentation doesn't match the test results.

Treat per **GLYCEMIC EMERGENCY** protocol when indicated.

FOR ACTIVE NON-FEBRILE SEIZURES:

MIDAZOLAM

IM *(Preferred)*	**IV/IO**
0.2mg/kg (Max. 10mg) May repeat at **0.1mg/kg (Max. 5mg)** Injected volume should not exceed: Neonate – 3 mo. = **1 mL** 3 mo. – 12 yr. = **3 mL** >12 yrs. = **5 mL** Single dose may be divided between two sites (lateral thighs) if needed.	**0.1mg/kg (Max. 2.5mg)** Diluted in 5mL of NS slow IV push over 2-5 minutes. May repeat x1 PRN (Max. total dose = 5mg)

Monitor respirations and SpO_2 after administration.

A seizure of less than 5-10 minutes, which occurs in response to a fever, will usually be self-limiting. Airway maintenance and cooling measures take priority.

Reference: Routine Medical Care, BLS Medication Administration, Optional Skills EMT, Benadryl, EpiPen & EpiPen Jr. Auto Injector, Epinephrine, Albuterol, Atrovent, Glucagon, Pulseless Arrest