

# EL DORADO COUNTY EMS AGENCY

## PREHOSPITAL PROTOCOLS

Effective: July 1, 2017

Reviewed: November 9, 2016

Revised: November 9, 2016

### SEIZURES



EMS Agency Medical Director

### ADULT

#### BLS TREATMENT

**ABCs / ROUTINE MEDICAL CARE** - administer oxygen at appropriate flow rate. Be prepared to support ventilation with appropriate airway adjuncts.

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.

**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.

#### ALS TREATMENT

**NORMAL SALINE** – establish IV/IO.

**BLOOD SAMPLE/GLUCOSE LEVEL ASSESSMENT** - obtain blood sample via venipuncture. Rule out diabetic emergency. Consider confirming test results with second glucose check with blood from a different site (and different meter, if available) if reading is abnormal or the patient's presentation doesn't match the test results.

**For HYPOGLYCEMIA (b.s.  $\leq$  60 mg/dL):**

**DEXTROSE** - Administer 100cc of a 250cc bag of Dextrose 10% (10g), May repeat to a max of 50g. After each 10g (100cc) bolus check BG, LOC and patency of line. .

**GLUCAGON** - if no IV access, give 1 mg IM/IN.

**For ACTIVE SEIZURES:**

**VERSED\*:**

IV/IO – 2.5 mg diluted in 5 mL SW slow IV/IO push titrated to effect. MR in 5 min.

IN – 5 mg via MAD atomizer. MR in 5 min. (Max. of 1 mL per nostril).

IM – 5 mg IM.

**\*For doses above 5 mg contact base station (Except repeat IN dose). Monitor respirations and SPO2 continuously after administration.**

**BASE CONTACT**

**For ECLAMPSIA related seizures: rule out hypoglycemia, then go directly to:**

**MAGNESIUM SULFATE** - 6 gm diluted in 10 mL SW slow IV push over 1-2 min.

### PEDIATRIC

**BLS TREATMENT**

**ABCs / ROUTINE MEDICAL CARE** - administer oxygen at appropriate flow rate. Be prepared to support ventilation with items appropriate airway adjuncts.

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 are suspected:** institute cooling measures with towels soaked in tepid water; avoid cooling to the point of shivering. Then consider treatment (if patient is alert and able to swallow) with **ACETAMINOPHEN** (15 mg/kg PO) or **IBUPROFEN** (10 mg/kg PO).

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.

**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.

**ALS TREATMENT**

**NORMAL SALINE** – establish IV/IO.

**BLOOD SAMPLE/GLUCOSE LEVEL ASSESSMENT** - obtain blood sample via venipuncture. Rule out diabetic emergency. Consider confirming test results with second glucose check with blood from a different site (and different meter, if available) if reading is abnormal or the patient's presentation doesn't match the test result:

**Hypoglycemia in pediatrics is defined as:**

**Neonate** < 1 month: (b.s.  $\leq$  50 mg/dL)

**Infant/child** >1 month: (b.s.  $\leq$  60 mg/dL)

**For HYPOGLYCEMIA:**

**DEXTROSE\*:**

**Less than 1 m/o:** **D10W** 2 mL/kg IV/IO may repeat every 5 min until b.s. is in normal limits.

**Greater than 1 m/o:** **D10W** 5 mL/kg IV/IO may repeat every 5 min until b.s. is in normal limits.

**GLUCAGON** - if no IV access, give 0.1 mg/kg IM/IN (Max. 1 mg).

**Recheck blood glucose 10 minutes after administration of dextrose or glucagon.**

**\*Dextrose:**

**To make D10:** Draw up enough D50 to equal the patient's weight in kilograms into a syringe (1 mL/kg). In the same syringe draw up four times the amount of SW then mix and administer the appropriate dose.

**To make D25:** Draw up enough D50 to equal the patient's weight in kilograms a syringe (1 mL/kg). In the same syringe draw up an equal amount of SW then mix and administer the appropriate dose.

Reference: Routine Medical Care, Hypoglycemia

Formulary: Acetaminophen, Ibuprofen, Dextrose, Versed, Magnesium Sulfate

**For ACTIVE SEIZURES:****VERSED\*:**

IV/IO - 0.1 mg/kg diluted in 3-5 mL of SW slow IV push over 2-5 min. titrated to effect (max dose 3mg).

IN - 0.1 mg/kg via MAD atomizer (Max. of 1 mL per nostril) (max dose 3mg).

IM - 0.1 mg/kg (max dose 3mg).

**\*Max. total dose of 3 mg (All doses administered from different routes apply to the total max dose).**

**\*Monitor respirations and SPO2 continuously 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.**

**CONTACT BASE STATION**