EL DORADO COUNTY EMS AGENCY
PREHOSPITAL PROTOCOLS

Effective: July 2008
Reviewed: July 2021
Revised: October 2022
Scope: BLS/ALS – Adult/Pediatric

EMS Agency Medical Director

HEAD TRAUMA - ADULT

PROTOCOL PROCEDURE: *Flow of protocol presumes patient has obvious or likely significant head injury. Rapid transport with IV(s) established en route is a standard. Early notification to the hospital is essential for proper triage and notification of surgical personnel.*

Basic Life Support

EMT

ABCs / ROUTINE MEDICAL CARE :

- Assess airway and support ventilation with appropriate airway adjuncts as indicated.
- Apply oxygen if pulse oximetry <92% or signs of hypoperfusion or respiratory distress
- Spinal Motion Restriction (SMR) as indicated
- For eye injuries consider covering both eyes to prevent movement and further trauma of injured eye.
- Consider possible non-traumatic etiology of ALOC: shock (septic, cardiogenic, insulin, etc), toxic exposure, hypoglycemia or seizures. Refer to appropriate protocol.

LOSOP

EMT working under Local Optional Scope

GLUCOSE LEVEL ASSESSMENT – Via finger stick and treat as indicated.

Advanced Life Support

Paramedic

CONTACT BASE HOSPITAL- Early notification of destination and surgical personnel.

RAPID TRANSPORT - ASAP - Ideally, scene times for critical trauma should not exceed 10 minutes.

VASCULAR ACCESS AND FLUIDS – these should not delay scene times and are preferable en route:

- Initiate large bore IV or IO on all pts meeting critical trauma triage criteria.
- Initiate second vascular access on adult pts presenting with hypotension (SBP <90 for pts <65 years of age, or SBP <100 for pts ≥65 years of age), or if thoracic/abdominal pain is present
- Fluid resuscitation guidelines – isotonic:
    - Adult pts: Administer 500 mL fluid boluses for signs of hypoperfusion/shock
    - Reassess hemodynamic parameters, respiratory status and lung sounds after each fluid bolus
    - Titrate fluid boluses to SBP of ≥100

GLUCOSE LEVEL ASSESSMENT - Obtain blood sample via finger stick or venipuncture. Treat as indicated.

REFER TO ALTERED LEVEL OF CONSCIOUSNESS OR SEIZURE PROTOCOLS AS INDICATED

PREVENT HYPOXIA - Continuous oxygen saturation monitoring and TITRATE oxygen to maintain O2 Saturation > 92%.

AVOID HYPERVENTILATION. Continuous EtCO2 monitoring, goal 35-45 (note that shock may cause EtCO2 to fall and this may not reflect hyperventilation)

HEAD TRAUMA - PEDIATRIC

PROTOCOL PROCEDURE: *Flow of protocol presumes patient has obvious or likely significant head injury. Rapid transport with IV(s) established en route is a standard. Early notification to the hospital is essential for proper triage and notification of surgical personnel.*

Basic Life Support

EMT

ABCs / ROUTINE MEDICAL CARE :

- Assess airway and support ventilation with appropriate airway adjuncts as indicated.
- Apply oxygen if pulse oximetry <92% or signs of hypoperfusion or respiratory distress
- Spinal Precautions as indicated.
- For eye injuries consider covering both eyes to prevent movement and further trauma of injured eye.
- Consider possible non-traumatic etiology of ALOC: shock (septic, cardiogenic, insulin, etc), toxic exposure, hypoglycemia, or seizures. Refer to appropriate protocol.

LOSOP

EMT working under Local Optional Scope

GLUCOSE LEVEL ASSESSMENT – Via finger stick and treat as indicated per GLYCEMIC EMERGENCY protocol.

Advanced Life Support

Paramedic

CONTACT BASE HOSPITAL – Early notification of destination and surgical personnel.

RAPID TRANSPORT – ASAP, Ideally, scene times for critical trauma should not exceed 10 minutes.

VASCULAR ACCESS AND FLUIDS – these should not delay scene times and are preferable en route:

- Initiate large bore IV or IO (with blood administration or macrodrip tubing) on all pts meeting critical trauma triage criteria.

- If able and time available, a second IV may be considered for pediatric patients with ALOC and hypotension: systolic < **[**70 + (2 x age in Yrs)**]**
- Fluid resuscitation guidelines – NS or LR:
    - Titrate fluid boluses to age appropriate SBP: **[**70 + (2 x age in Yrs)**]**
    - Administer 20 mL/kg fluid boluses for signs of hypoperfusion/shock with goal SBP as above
    - Max is 60 mL/kg (consider early base contact and shock protocol)
    - Reassess hemodynamic parameters and respiratory status after each bolus

GLUCOSE LEVEL ASSESSMENT - Via finger stick or venipuncture. Treat as indicated per GLYCEMIC EMERGENCY protocol.

REFER TO **ALTERED LEVEL OF CONSCIOUSNESS** OR **SEIZURE** PROTOCOLS AS APPROPRIATE.

PREVENT HYPOXIA - Continuous oxygen saturation monitoring and TITRATE O2 to maintain saturation >93%

AVOID HYPERVENTILATION. Continuous EtCO2 monitoring, goal 35-45. (note that shock may cause EtCO2 to fall and this may not reflect hyperventilation)