

EL DORADO COUNTY EMS AGENCY

PREHOSPITAL PROTOCOLS

110

Effective: July 1, 2009

(on file)

Revised: March 2025

EMS Agency Medical Director

SHOCK – ADULT/PEDIATRIC

PROTOCOL PROCEDURE: Flow of protocol presumes patient is in shock or that the patient is compensating for impending shock. Rapid transport with IV(s) established en route is a standard.

Basic Life Support

EMT

ABCs / ROUTINE MEDICAL CARE:

- Keep patient warm
- Assess airway and support ventilation with appropriate airway adjuncts as indicated
- Apply oxygen if pulse oximetry <94% or signs of hypoperfusion or respiratory distress
- Consider spinal precautions for patients with traumatic injury

SIGNS AND SYMPTOMS:

- Restlessness, confusion, ALOC
- Weakness, dizziness
- Weak, rapid pulse
- Pale, cool, clammy skin
- Delayed capillary refill
- Hypotension
- Coffee-ground emesis
- Tarry stools
- Hemorrhage

CONSIDER CAUSE:

| | |
|---------------------|--|
| ANAPHYLACTIC | Severe allergic reaction - Refer to ALLERGIC REACTION Protocol |
| SEPTIC | Overwhelming Infection – Refer to SEPSIS Protocol |
| HYPOVOLEMIC | Decreased circulating volume due to blood or fluid loss, i.e. trauma, anticoagulants, history of GI or vaginal bleeding, ectopic pregnancy, vomiting, diarrhea |
| CARDIOGENIC | Circulatory failure due to inadequate cardiac function, i.e. acute MI, CHF, congenital defect |
| NEUROGENIC | Loss of sympathetic tone causing decrease in peripheral vascular resistance; occurs in head and spinal cord injury |

Advanced Life Support

Paramedic

ADULT

| APPLY CARDIAC MONITOR AND ASSESS VITAL SIGNS Establish a large bore IV or an IO if unable to establish IV | | |
|--|--|--|
| HYPOVOLEMIC | CARDIOGENIC | NEUROGENIC |
| 1) Give 1000mL bolus if SBP < 100 OR has signs of compensatory shock (tachycardia, tachypnea, poor skin signs, delayed cap refill) 2) Repeat 500 mL bolus as necessary for SBP < 100 3) Treat injury per GENERAL TRAUMA Protocol | 1) Obtain 12 lead EKG 2) Check Blood Glucose 3) Consider 250 mL bolus if SBP < 100 OR has signs of compensatory shock (tachycardia, tachypnea, poor skin signs, delayed cap refill). Monitor closely and discontinue if ineffective. If hypotension persists: | 1) Give 1000 mL bolus if SBP < 100 OR has signs of compensatory shock (tachycardia, tachypnea, poor skin signs, delayed cap refill) 2) Check Blood Glucose 3) Repeat 500 mL bolus as necessary for SBP < 100 If hypotension persists: |
| EPINEPHRINE (Push-Dose): <ul style="list-style-type: none"> • 2mL (20mcg) IVP every 2-5 minutes, carefully monitoring BP • May reduce subsequent doses by half (1mL or 10mcg) to effect. <p>See EPINEPHRINE DILUTION field procedure for diluting 1mL of 1:10,000 in 9mL normal saline, to create 10 mL Epi 1:100,000</p> <p style="text-align: center;">OR DOPAMINE gtt</p> <p>CONTACT BASE as needed</p> | | |

PEDIATRIC

| APPLY CARDIAC MONITOR AND ASSESS VITAL SIGNS Establish a large bore IV or an IO if unable to establish IV | | |
|--|---|--|
| HYPOVOLEMIC | CARDIOGENIC | NEUROGENIC |
| 1) Give bolus of 20 mL/kg if hypotensive OR has signs of compensatory shock (tachycardia, tachypnea, poor skin signs, delayed cap refill) 2) Check Blood Glucose 3) If no improvement with initial bolus give additional fluid boluses of 20 mL/kg to a max of 60 mL/kg | 1) Obtain 12 lead EKG 2) Check Blood Glucose 3) Give bolus of 10 mL/kg if hypotensive OR has signs of compensatory shock (tachycardia, tachypnea, poor skin signs, delayed cap refill) | 1) Give bolus of 20 mL/kg if hypotensive OR has signs of compensatory shock (tachycardia, tachypnea, poor skin signs, delayed cap refill) 2) Check Blood Glucose 3) If no improvement with initial bolus. Give additional boluses of 20 mL/kg to a max of 60ml/kg |
| If hypotension persists: | | If hypotension persists: |
| EPINEPHRINE 1:100,000 (push dose) | | |
| <p style="text-align: center;">$<20\text{kg} = \mathbf{0.1mL/kg}$ (1 mcg/kg)</p> <p style="text-align: center;">$>20\text{kg} = \mathbf{2mL}$</p> <ul style="list-style-type: none"> • Slow IVP (over 2-5 min), titrated to effect. • May reduce subsequent doses by half • Push slowly and carefully monitor BP. <p>See EPINEPHRINE DILUTION field procedure for diluting 1mL of 1:10,000 in 9mL normal saline, to create 10 mL Epi 1:100,000</p> <p style="text-align: center;">OR</p> <p style="text-align: center;">DOPAMINE gtt</p> | | |
| CONTACT BASE as needed | | |