EL DORADO COUNTY EMS AGENCY 306
PREHOSPITAL PROTOCOLS

Effective: October 1, 2022
Reviewed: March 2025
Scope: ALS Adult/Pediatric

EMS Agency Medical Director

RETURN OF SPONTANEOUS CIRCULATION (ROSC) - ADULT

Advanced Life Support

Paramedic

AIRWAY – Intubate or insert SGA if not already done.

PULSE OXIMETRY and ETCO2 MONITORING

OXYGEN – Use the lowest LPM able to achieve pulse oximetry 92-98%

VENTILATION – 10 breaths/minute to maintain ETCO2 35-45

ECG – Obtain and transmit if able

TRANSPORT – Consider 5-minute transport delay post-ROSC, to better ensure patient stability and prepare for possible interventions enroute. [1]

IF DEFIBRILLATED/CARDIOVERTED AND NOT ALREADY GIVEN:

AMIODARONE: 150 mg in 100 mL NS infused over 10 minutes

FOR ECTOPY REFRACTORY TO AMIODARONE:

LIDOCAINE: 1mg/kg IV/IO push (max = 100mg). Repeat at 0.5 mg/kg every 5-10 minutes as needed up to a maximum of 3 mg/kg total.

FOR HYPOTENSION (SBP < 90):

EPINEPHRINE (Push-Dose):
- **2mL (20mcg)** IVP every 2-5 minutes, carefully monitoring BP
- May reduce subsequent doses by half (**1mL or 10mcg**) to effect.

See EPINEPHRINE DILUTION field procedure for diluting 1mL of 1:10,000 in 9mL normal saline, to create 10 mL Epi 1:100,000

[1] Best available data shows that patients with ROSC benefit from optimized ventilation and hemodynamics. Use a 5-minute post-ROSC window to obtain vitals, secure additional IV access, support BP, obtain ECG and ensure advanced airway with EtCO2 and SpO2 monitoring.

- Titrate to >90 SBP

GLUCOSE LEVEL ASSESSMENT – Via finger stick or venipuncture. Treat if indicated per GLYCEMIC EMERGENCY protocol.

Consider **EPINEPHRINE** or **DOPAMINE** gtt for hypotension

THERAPEUTIC HYPOTHERMIA (TARGETED TEMPERATURE MANAGEMENT) – Refer to THEREAPEUTIC HYPOTHERMIA protocol

RETURN OF SPONTANEOUS CIRCULATION (ROSC) - PEDIATRIC

Advanced Life Support

Paramedic

AIRWAY – Insert SGA if not already done

PULSE OXIMETRY and ETCO2 MONITORING

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

OXYGEN – Use the lowest LPM able to achieve pulse oximetry 94-99%

VENTILATION – 20-30 breaths/minute to maintain ETCO2 35-45

ECG – Obtain and transmit if able

IF DEFIBRILLATED/CARDIOVERTED AND NOT ALREADY GIVEN:

AMIODARONE: 5 mg/kg over 10 minutes

FOR ECTOPY REFRACTORY TO AMIODARONE:

LIDOCAINE: 1 mg/kg IV/IO push (max = 100mg per push). Repeat 0.5 mg/kg every 5-10 minutes as needed up to a maximum of 3 mg/kg total.

FOR HYPOTENSION (SBP < Age appropriate)

EPINEPHRINE 1:100,000 (push dose):	
<20 kg **0.1mL/kg** (1 mcg/kg) • Slow IVP (over 2-5 min), titrated to effect. • May reduce to 0.05mL/kg • Push **slowly** and carefully monitor BP.	>20 kg **2 mL** (20 mcg) • Slow IVP (over 2-5 min), titrated to effect. • May reduce to 1mL • Push **slowly** and carefully monitor BP.
Age-appropriate SBP: • Neonate = **50-60** mmHg • Infant = **60-70** mmHg • Child = **70-80** mmHg • Adolescent = **>90** (same as adult) *See EPINEPHRINE DILUTION field procedure for diluting 1mL of 1:10,000 in 9mL normal saline to create 10 mL Epi 1:100,000*	