EL DORADO COUNTY EMS AGENCY
PREHOSPITAL PROTOCOLS

Effective: July 1, 2009
Reviewed: July 1, 2011, **2018**
Revised: July 1, 2016
Scope: BLS/ALS - Neonatal

EMS Agency Medical Director

NEONATAL RESUSCITATION

BLS TREATMENT

ROUTINE MEDICAL CARE –.

- Drying, warming, and stimulation of baby are the priority. Stimulate by drying vigorously including head and back. Use clean dry blankets or towels and continue drying until baby is completely dry. Placing baby skin to skin with mother is good way to keep baby warm.
- Neonatal cardiac arrest is predominantly asphyxia, assessment should consist of simultaneous evaluation of 3 clinical characteristics:
    - Heart rate: apical pulse with stethoscope or palpate at umbilical cord
    - Respiratory rate
    - Oxygenation: assessment of color, central cyanosis
- Assess APGAR at 1 minute and 5 minutes.

1. If the neonate is term, the baby is breathing or crying and has good muscle tone, provide warmth, clear the airway if needed, dry the baby and assess skin color, place neonate with mother and monitor skin and vital signs.
2. If baby is apneic or HR<100 BPM provide positive-pressure ventilation. Reassess after 30 secs:
   If the HR >100 and the color is pink or improving: Provide post resuscitation care and continue to monitor.

   If HR is 60-100: Continue with ventilations at 40-60 breaths per minute

   If HR <60: Begin CPR
3. **If HR <60:** Position airway, provide positive pressure ventilation and chest compressions. Reassess after 30 seconds:
   If the HR>100 and the color is pink or improving: provide post resuscitation care.

   If HR is 60-100: continue with ventilations.

   If HR <60: continue with chest compressions and positive-pressure ventilations until ALS personnel take over care.

CPR - Chest compressions are given using the 2 thumb-encircling hands techniques. The ratio is 3 compressions to1 ventilation (3:1), with 90 compressions and 30 breaths to achieve approximately 120 events per minute. Do not ventilate and compress at the same time.

PROTOCOL PROCEDURE: *Flow of protocol presumes that condition is continuing. If patient is in severe distress, immediate, rapid transport is preferred with treatment performed en route. Remember not to forget mom in post delivery resuscitations, consider utilizing a second medic unit to transport her.*

ALS TREATMENT

Routine intubation for tracheal suction is no longer recommended if meconium is present. Appropriate intervention to support ventilation and oxygenation should be initiated as indicated for each individual infant. This may include intubation and suction if the airway is obstructed.

MONITOR - EKG for the rapid and accurate measurement of the newborn's heart rate. State of oxygenation is optimally determined by a pulse oximeter rather than by simple assessment of color.

NORMAL SALINE – Establish IV/IO. Consider bolus of 10 mL/kg. May repeat once.

GLUCOSE LEVEL ASSESSMENT - Rule out hypoglycemia.

DEXTROSE - B.S. < 50 mg/dL give D10W 2 mL/Kg IV/IO.

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 sterile water, then mix and administer the appropriate dose.

EPINEPHRINE – Initial and repeat doses; IV/IO/ET: 0.01 mg/kg (1:10,000, 0.1 mL/kg) every 3 - 5 minutes, until HR >80 BPM.

CONTACT BASE STATION

NARCAN – 0.05 – 0.1 mg/kg (Max. 2 mg). IV/IN/IO/IM only. May repeat initial dose if no response within 5 minutes.

APGAR SCORE

	Sign	0 Points	1 Point	2 Points
A	Activity (Muscle Tone)	Absent	Arms and Legs Flexed	Active Movement
P	Pulse	Absent	Below 100 BPM	Above 100 BPM
G	Grimace (Reflex Irritability)	No Response	Grimace	Sneeze, cough, pulls away
A	Appearance (Skin Color)	Blue-gray, pale all over	Normal, except for extremities	Normal over entire body
R	Respiration	Absent	Slow, irregular	Good, crying