

# EL DORADO COUNTY EMS AGENCY

## PREHOSPITAL PROTOCOLS

Effective: July 1, 2009

Reviewed: July 1, 2021

Revised: October 2022

Scope: BLS/ALS - Pediatric

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EMS Agency Medical Director

### NEONATAL RESUSCITATION

**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 the mother in post-delivery resuscitations. Consider utilizing a second medic unit to transport mother.

## Basic Life Support

### EMT

#### 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 most commonly 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 and pulse oximetry
- Assess APGAR at 1 minute and 5 minutes.
- In newborns who do not require resuscitation, delaying cord clamping for 30-60 seconds reduces anemia, especially in preterm infants.

#### IF NEONATE:

1. Is term,
2. is breathing or crying, and
3. has good muscle tone,

#### THEN:

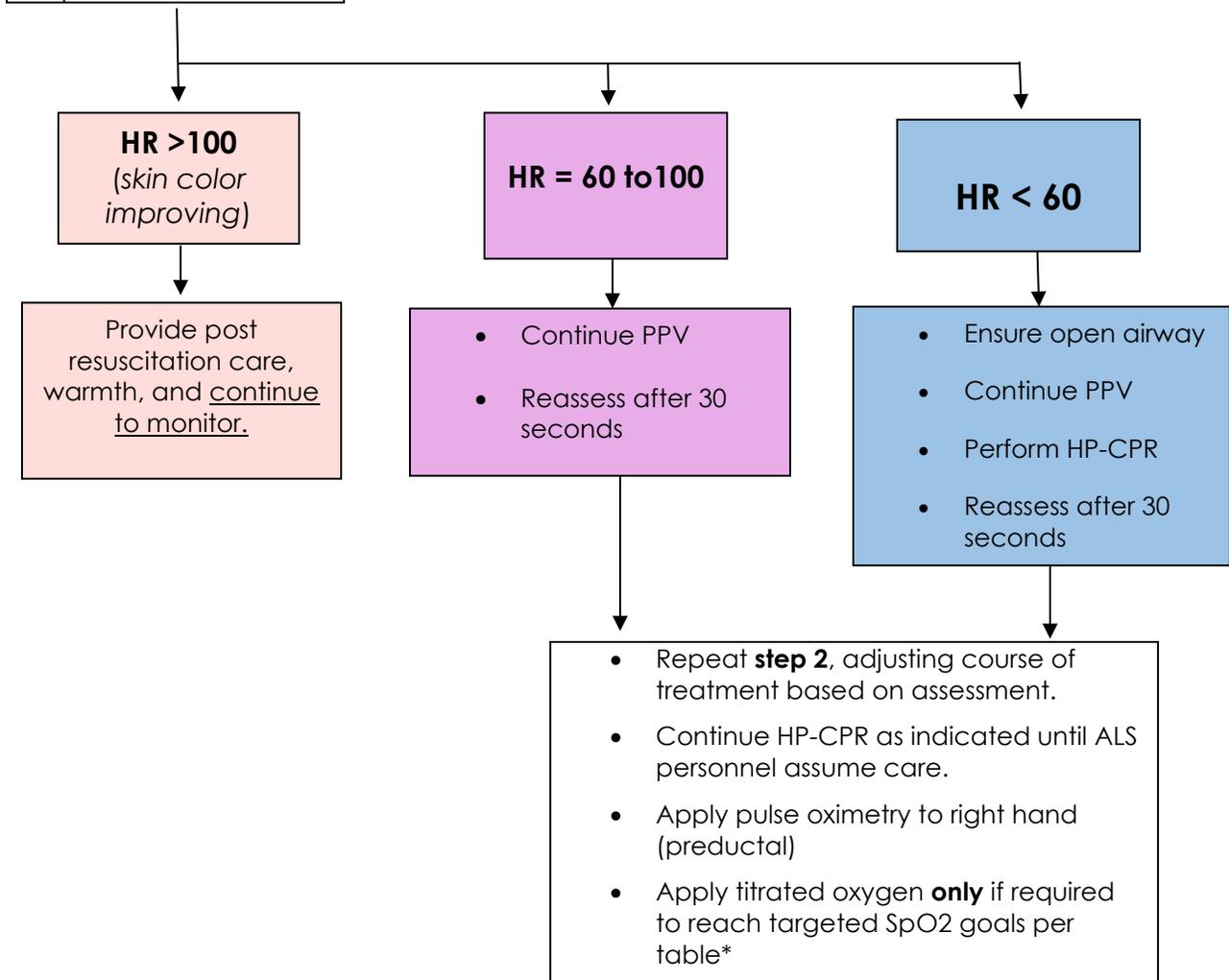
1. Provide/maintain warmth,
2. Gently dry the skin while assessing color.
3. Routine suctioning of neonates **is not indicated**. Newborns without respiratory distress do not require any suctioning. **Only utilize suctioning for airway obstruction** and only use gentle anterior oropharyngeal bulb suction if suctioning is required. No deep or prolonged suctioning – even with meconium.
4. Place with mother and monitor skin and vital signs.
5. Routine use of oxygen **is not indicated** – see targeted SpO2 table\*

Preterm or low birth weight neonates are extremely susceptible to hypothermia and need aggressive warming measures and temp management during resuscitation.

**IF NEONATE is gasping, apneic or HR<100 BPM:**

<b>1.</b>	Provide <b>gentle room air positive-pressure ventilation (PPV)</b> at <b>40-60</b> breaths per minute.  Reassess after 30 seconds
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<b>2.</b>	Upon reassessment, <b>determine:</b>
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**HP-CPR** - Chest compressions are given using the 2 thumb-encircling hands technique. The ratio is 3 compressions to 1 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.

**LOSOP**

EMT working under Local Optional Scope

**GLUCOSE LEVEL ASSESSMENT** via finger stickTreat per **GLYCEMIC EMERGENCY** protocol as indicated.**NARCAN – 0.05 – 0.1 mg/kg** (Max. 2 mg). IN if opiate exposure is considered. May repeat initial dose if no response within 5 minutes.**Advanced Life Support**

Paramedic

**AIRWAY**

- Place SGA as indicated – Initiate with room air
- Monitor ETCO<sub>2</sub> and pulse oximetry

**CARDIAC MONITOR** - for the rapid and accurate measurement of the newborn's heart rate**VASCULAR ACCESS** – Establish IV/IO.**NORMAL SALINE** - Consider bolus of 20 mL/kg.**GLUCOSE LEVEL ASSESSMENT** - via finger stick or venipuncture.Treat per **GLYCEMIC EMERGENCY** protocol as indicated.**OXYGEN** – **Not routinely indicated and should be titrated only** if newborn demonstrates distress and does not meet the targeted preductal SpO<sub>2</sub> after birth goals (see table\*)**EPINEPHRINE** – Initial and repeat doses; IV/IO: **0.01 mg/kg (1:10,000, 0.1 mL/kg)** every 5 minutes, until HR >80 BPM. Limit 3 doses.**CONTACT BASE** for additional orders as indicated

APGAR SCORE

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

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Targeted Preductal SpO <sub>2</sub> (Right Hand)	
1 min	60% - 65%
2 min	65% - 70%
3 min	70% - 75%
4 min	75% - 80%
5 min	80% - 85%
10 min	85% - 95%