

NEWBORN RESUSCITATION

ALL PROVIDERS / EMT

- Focused history and physical exam: Term baby? Breathing? Tone?
- Continuous ECG, CO₂, and pulse oximetry monitoring, when available
- Treatment Plan**
 - **If the newborn is apneic, slow to respond, has slow or gasping respirations, or persistent central cyanosis**
 - **First 30 seconds:** Warm, dry, and stimulate the baby. Consider suction (bulb syringe) mouth, then nose.
 - Evaluate respirations, heart rate, and activity
 - **Next 30 seconds:** If after first 30 seconds the baby remains apneic, lethargic, and/or has HR <100, then perform 30 seconds of positive pressure ventilation (PPV) with BVM with a rate of 40-60 breaths/minute
 - Watch for chest rise to ensure adequate ventilation. If none, reposition mask seal and increase pressure slightly
 - Target O₂ saturations to 90 – 92%; excessive oxygenation can be harmful to the newborn brain
 - Target PPV efforts to improving tone and increasing heart rate; titrate up O₂ if HR remains <100 despite adequate PPV
 - **Next 30 seconds:** If after an additional 30 seconds of effective PPV the baby continues to have a HR<60, begin CPR with a breath/compression ratio of 1:3.
 - Use 2 thumb encircling technique for CPR, rate of 120 compressions/min
 - Check glucose and treat if <30 mg/dl
- Key Considerations**
 - As nationally-established neonatal resuscitation guidelines (NALS, NRP, etc.) are updated, these may be integrated into performance, as per agency medical director
 - **Keep baby as warm as possible**

AEMT

- Supraglottic airway device placement may be indicated when:
 - BVM has been ineffective despite repositioning infant and checking equipment
 - Chest compressions are necessary
- IV or IO at a keep open rate (approx. 10ml/hr) after boluses to avoid volume overload
 - IV required only when required for fluid resuscitation or parenteral medication
 - IO infusions are only indicated when life-threatening conditions are present
- Epinephrine**
 - **IV/IO- 0.01-0.03 mg/kg = 0.1-0.3 ml/kg (0.1 mg/ml/1:10,000)** for HR <60/min despite 30 seconds of effective CPR with PPV. Repeat every 3-5 minutes until spontaneous heart rate remains >60 bpm

EVIDENCE OF HYPOPERFUSION OR HYPOVOLEMIA

- NS (IV or IO) @ 10 mL/kg syringe bolus over 5-10 min
- Run D10 if available for maintenance fluid at 10 ml/hr after bolus
- Additional boluses require physician approval**

PARAMEDIC

- ❑ Endotracheal intubation may be indicated when:
 - BVM has been ineffective despite repositioning infant and checking equipment
 - Chest compressions are necessary
 - Insert a gastric tube in all intubated patients
 - Suction the trachea using a suction catheter through the endotracheal tube or directly suction the trachea with a meconium aspirator for poor chest rise despite successful intubation
- ❑ **Epinephrine:** Endotracheal ET: (IV/IO route preferred) 0.05 to 0.1 mg/kg (0.5 to 1 mL/kg of 0.1 mg/mL (1:10,000) solution) every 3 to 5 minutes until IV access established or return of spontaneous circulation
- ❑ **Dextrose 10%** per *Glucose Emergencies - Hypoglycemia/Hyperglycemia Guidelines*

