



# PEDIATRIC NEWBORN RESUSCITATION



## Escambia County, Florida - ALS/BLS Medical Protocol

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This protocol is to be used for newborns (immediately following delivery) that are in need of resuscitation (all other neonates should be treated as infants, with the exception of Atropine).

### Supportive Care

1. Dry and keep baby warm (cover with thermal blanket or dry towel and cover scalp with stocking cap).
2. Position patient to open airway (a).
3. Clear airway - suction mouth and nose with bulb syringe PRN.

**Paramedic Only:** If newborn has signs of thick meconium, after suctioning with bulb syringe, intubate and suction trachea (b).


4. Stimulate baby (rub baby's back).
5. Clamp and cut cord, if not already done. Apply 2 umbilical clamps, 2 inches apart and at least 8 inches from the navel and cut between clamps.
6. Assess skin color, respirations, and heart rate.
7. Ventilate @ 40-60 breaths/minute with 100% oxygen under the following conditions:
  - a. Apnea.
  - b. Heart rate <100 beats/minute.
  - c. Persistent central cyanosis after high-flow oxygen.
8. **Paramedic Only:** Intubate under the following conditions:
  - a. Bag-valve-mask ventilation is ineffective (>2 minutes).



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- b. Tracheal suctioning is required, especially for thick meconium (b).
  - c. Prolonged positive pressure ventilation is needed.
9. Perform chest compressions at 100/minute (one third of the anterior-posterior diameter of chest in depth), using two thumbs side by side (or superimposed one on top of the other) over the mid-sternum just below the nipple line with the fingers encircling the chest and supporting the back, under the following conditions:
- a. Heart rate <60 beats/minute and not rapidly increasing despite adequate ventilation with 100% oxygen for approximately 30 seconds.

### ALS Level 1

10. Epinephrine (1:10,000) 0.01-0.03 mg/kg IV/IO/ET under the following conditions:
- a. Asystole.
  - b. Heart rate <60 beats/minute despite adequate ventilation with 100% oxygen and chest compressions.

Repeat every 3-5 minutes, PRN.


11. Fluid challenge Normal Saline 10 ml/kg IV under the following conditions:
- a. Pallor that persists after adequate oxygenation.
  - b. Faint pulses with a good heart rate.
  - c. Poor response to resuscitation with adequate ventilations.
12. Check blood glucose level on all resuscitations that do not respond to initial therapy. Use heel stick.



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- a. If blood glucose is  $<40$  mg/dL, administer D10 5 ml/kg IV/IO (dilute D50 1:4 with Normal Saline = D10).
13. Perform Pediatric Assessment Triangle - Rapid Cardiopulmonary Assessment frequently.

### ALS Level 2 (*Physician Authorization Required*)

14. If neonate continues to have altered mental status with depressed respirations, consider Naloxone (Narcan) 0.1 mg/kg (1 mg/ml concentration) IV/IO/IM/ET (c)

### Notes


- (a) The neonate should be placed on his or her back or side with the neck in a neutral position. To help maintain correct position, a rolled blanket or towel may be placed under the back and shoulders of the supine neonate, to elevate the torso 3/4 or 1 inch off the mattress to extend the neck slightly. If copious secretions are present, the neonate should be placed on his or her side with the neck slightly extended to allow secretions to collect in the mouth rather than in the posterior pharynx.
- (b) Tracheal suctioning for thick meconium should be done via the endotracheal tube using a meconium aspirator attached to the 15 mm adaptor of the ETT. The suction unit is then attached and placed on low (no more than 100 mmHg). Suctioning should be performed until the ETT is clear (maximum 5 seconds). It may be necessary to repeat the intubation and continue suctioning until clear (maximum 3 times).
- (c) Avoid the use of Naloxone if the mother has a history of chronic narcotic drug use/abuse, as Naloxone may precipitate seizures in the newborn due to acute withdrawal.



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