

**REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Basic**

SMO: Neonatal Resuscitation

Overview: Assessment, airway and infant body temperature cannot be over emphasized. The anatomical and physiological differences that are present in a newborn can cause severe problems if not recognized. ALL neonatal emergency patients should be transported to the hospital. (Neonate is defined as less than 30 days old).

INFORMATION NEEDED

- Gestational age
- Was the infant part of a multiple birth? NICU graduate?
- Meconium stained during birth
- Mother use of drugs or alcohol.
- known infant history
- Presence of special need (e.g. apnea monitor, etc).
- If just born, time since birth.

OBJECTIVE FINDINGS

- If just born 30 second cardiopulmonary assessment
 - Airway, breathing (respiratory rate, quality, work of breathing, presence of cry)
 - Circulation (skin color, temperature, pulses, capillary refill, mental status)
- If infant less than 30 days same arrest intervention as just born
- Airway interventions and keep baby warm.

TREATMENT

- Assess patient, dry immediately if wet and stimulate
- Assess airway patency. Secure the airway.
- Suction mouth then nasopharynx.
- Cover head with stocking cap or equivalent
- Clam and cut the cord if necessary
- Evaluate respirations. Assist with BVM ventilation with 40-60 breaths / min with 100% oxygen for severe respiratory depression; Use mask with 100% oxygen for mild distress .
- Check heart rate at base of umbilical cord or auscultate precordium as indicated. Further treatment depends on heart rate.
- If heart rate less that 60 bpm, continue assisted ventilations and begin chest compressions at 120 min.
- If heart rate is 60-80 bpm then continue ventilations. If no improvement after 30 seconds of ventilations with 100% oxygen, begin compressions at 120 min.
- If heart rate 80-100 bpm. Give 100% oxygen by BVM. Reassess heart rate after 15-30 seconds.
- If heart rate greater than 100 bpm, check skin color. If peripheral cyanosis give oxygen by mask.
- Continue to reassess respiratory rate and heart rate while en route

Documentation of adherence to protocol:

- 30-second cardiopulmonary assessment
- Administration of oxygen
- If HR < 100 bpm what interventions occurred.

Medical Control Contact Criteria

- | |
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| <input type="checkbox"/> Contact medical control for questions regarding patient care |
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PRECAUTIONS AND COMMENTS

- If meconium with respiratory distress in just born, perform frequent suctioning between ventilations
- Perform chest compressions on the neonate with both thumbs (hand encircling the back) at the lower two thirds of the sternum, at a depth of ½ to 1 inch or approximately one third to one half the depth of the chest.
- Contact medical control as soon as possible for potential problems
- Consider ALS intercept

REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Paramedic

SMO: Neonatal Resuscitation

Overview: Assessment, airway and infant body temperature cannot be over emphasized. The anatomical and physiological differences that are present in a newborn can cause severe problems if not recognized. ALL neonatal emergency patients should be transported to the hospital. (Neonate is defined as less than 30 days old).

INFORMATION NEEDED

- Gestational age
- Was the infant part of a multiple birth? NICU graduate?
- Meconium stained during birth (See **Meconium Staining** section below)
- Mother use of drugs or alcohol.
- known infant history
- Presence of special need (e.g. apnea monitor, etc).
- If just born, time since birth.

OBJECTIVE FINDINGS

- If just born 30 second cardiopulmonary assessment
 - Airway, breathing (respiratory rate, quality, work of breathing, presence of cry)
 - Circulation (skin color, temperature, pulses, capillary refill, mental status)
- If infant less than 30 days same arrest intervention as just born
- Airway interventions and keep baby warm.

TREATMENT – MECONIUM STAINING NOTED

If baby depressed and not breathing, baby should be intubated and deep suctioned using a meconium aspirator before stimulating baby.

- Peel open package and remove Meconium Aspirator.
- Connect smaller end (with barbed fitting) of Meconium Aspirator to suction line connecting tube.
- Set the suction at 80 mm Hg or less.
- Intubate patient with proper ET tube.
- Once patient is intubated, connect larger end (15 mm ID) of Meconium Aspirator to the endotracheal tube adapter (15 mm OD).
- Place thumb over suction control port to regulate suction and remove meconium. **CAUTION:** Suction for not more than two seconds at a time. It is recommended that the suctioning be done while the ET tube is being withdrawn.
- Discard after each patient use.
- Repeat until meconium cleared.
- Continue treatment as below.

TREATMENT (NO MECONIUM STAINING NOTED)

- Assess patient, dry immediately if wet and stimulate
- Assess airway patency. Secure the airway.
- Suction mouth then nasopharynx.
- Cover head with stocking cap or equivalent
- Clam and cut the cord if necessary
- Evaluate respirations. Assist with BVM ventilation with 40-60 breaths / min with 100% oxygen for severe respiratory depression; Use mask with 100% oxygen for mild distress .
- Check heart rate at base of umbilical cord or auscultate precordium as indicated. Further treatment depends on heart rate.
- If heart rate less that 60 bpm, continue assisted ventilations and begin chest compressions at 120 min.
- If heart rate is 60-80 bpm then continue ventilations. If no improvement after 30 seconds of ventilations with 100% oxygen, begin compressions at 120 min.
- If heart rate 80-100 bpm. Give 100% oxygen by BVM. Reassess heart rate after 15-30 seconds.
- If heart rate greater than 100 bpm, check skin color. If peripheral cyanosis give oxygen by mask.
- If no improvement with BVM ventilation after 30 seconds, consider endotracheal intubation. Confirm tube placement and ventilate 30 times a minute with continued chest compressions.
- If no improvement after 1 minute establish an IV or IO and give **Epinephrine 0.01 – 0.03 mg/kg (0.1 – 0.3 ml/kg) IV/IO**; reassess heart rate and respirations; may repeat in 3-5 minutes if indicated.
- If no IV/IO access, give **Epinephrine (1:1,000) 0.03 mg/kg (0.3 ml/kg) via ETT**; reassess heart rate and respirations; repeat in 3-5 minutes as indicated.
- Continue to reassess respiratory rate and heart rate while en route

Documentation of adherence to protocol:

- 30-second cardiopulmonary assessment
- Administration of oxygen
- If HR < 100 bpm what interventions occurred.
- Medication administration
- Endotracheal intubation

Medical Control Contact Criteria

- Contact Medical Control for questions regarding patient care

PRECAUTIONS AND COMMENTS

- If meconium with respiratory distress in newly born, perform deep suction using appropriate suction adapter or endotracheal tube as indicated
- Perform chest compressions on the neonate with both thumbs (hand encircling the back) at the lower two thirds of the sternum, at a depth of ½ to 1 inch or approximately one third to one half the depth of the chest.
- After Drugs are administered via ETT, the patient should be ventilated several times before starting chest compressions again (approximately 10 seconds)
- Contact medical control as soon as possible for potential problems.

7/04

Reviewed:

Revised:

EMS/ Region1 SMOs