



4801

Obstetrical  
Emergencies/Newborn  
Deliveries

## Treatment Protocol

Last Reviewed: July 1, 2025

Last Revised: July 1, 2026

## PRE-DELIVERY

## BLS Patient Management

- **Establish, maintain, and ensure:**
  - A. Patent airway. Oropharyngeal suction and/or airway adjuncts (OPA/NPAs) as clinically indicated
  - B. O2 Saturation
  - C. O2 and/or ventilate as clinically indicated
  - D. If delivery is not imminent, transport in position of comfort, preferably on left side
  - E. If the delivery is suspected to be imminent, allow the patient to remain in a position of comfort, visualize the perineum, and determine if there is time to transport
  - F. If delivery is imminent (crowning, bulging of perineum, and/or pushing), stay on scene and prepare to assist with delivery
- **Oxygen**  
As clinically indicated. Titrate to maintain, or increase, SpO<sub>2</sub> to a minimum of 94%. If the mother is experiencing complications, increase oxygen flow rate so that SpO<sub>2</sub> greater than or equal to 98%.

## ALS Patient Management

- Establish, maintain, and ensure peripheral IV and/or IO access for emergency stabilization  
Consider the need for additional sites as clinically indicated
- Interpret and continuously monitor cardiac rhythm, BP, and SpO<sub>2</sub>. Waveform/digital capnography and blood glucose as clinically indicated

- **For suspected pre-eclampsia or eclampsia**  
Standing order: may be given prophylactically

Magnesium Sulfate 5 gm IV, infuse in 50- 100 mL Normal Saline, administer over 10 minutes.

**ADDITIONAL ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO).**

**\*\*OR\*\***

Magnesium Sulfate 5 gm (10 ml) IM.

**ADDITIONAL ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO).**

- **For eclamptic seizures unresponsive to Magnesium Sulfate INITIAL AND REPEAT ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO).**

Midazolam 2.5 mg slow IVP/IOP

**\*\*OR\*\***

Midazolam 5 mg IM/IN.

## DELIVERY

### BLS and ALS

- **Routine Delivery**

- A. Placenta should deliver within 10-30 minutes. Do not wait on scene. Place placenta in a plastic bag and transport with mother.
- B. If infant is vigorous, wait 60 seconds after delivery, then clamp cord at approx. 3 inches and 4 inches, cut in between clamps.
- C. If neonate is not vigorous, clamp cord and begin resuscitation

- **Prolapsed Cord**

- A. Elevate mother's hips with pillows
- B. Insert gloved hand into vagina, with gentle pressure, lift presenting part off cord
- C. Transport immediately while retaining this position. Do not remove hand until relieved by hospital
- D. Covered exposed cord with saline-soaked gauze

- **Breech Presentation**

- A. Expedite transport to the nearest facility with OB services
- B. Position the mother as clinically indicated (left lateral recumbent with legs/hips elevate or knees to chest)

- **Nuchal Cord (Cord wrapped around neck)**

- A. Slip cord over the head and off the neck
- B. If cord is tightly wrapped around the neonates neck and unable to remove, clamp and cut cord

## MOTHER POST-DELIVERY

### BLS Patient Management

- Controlled bleeding using appropriate measures, as clinically indicated
  - A. Massage fundus vigorously
  - B. Baby to breast
  - C. High-flow O2

### ALS Patient Management

- **For shock associated with postpartum hemorrhage**  
Adults: Normal Saline 250 mL IV/IO bolus. **MAY REPEAT AS CLINICALLY INDICATED TO A MAX ADMINISTRATION OF 2 L.**

Adults: Push Dose Epinephrine 0.01 mg (0.01 mg/mL concentration) IVP/IO. **MAY REPEAT AS CLINICALLY INDICATED EVERY 1-5 MIN TO MAINTAIN A SBP > 90**

- **For postpartum hemorrhage within three (3) hours of time of birth, with signs and symptoms of hemorrhagic shock (EBL > 500 mL) with systolic BP less than 90 mmHg**

**\*\*OR\*\***

**Significant hemorrhage with heart rate  $\geq$  120**

Adults: Tranexamic Acid (TXA) 1 gm slow IVP/IO, administered over 1 minute.

**ADMINISTRATION OF TRANEXAMIC ACID (TXA) TO PEDIATRIC PATIENTS IS NOT PERMITTED.**

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|  | <ul style="list-style-type: none"> <li>For hemorrhagic shock due to postpartum hemorrhage with SBP &lt; 70 mmHg or unable to obtain BP</li> </ul> <p><b>**OR**</b></p> <p>SBP &lt;90 AND HR ≥ 110 (SI&gt;1.2)</p> <p><b>**OR**</b></p> <p><b>Hypovolemic/hemorrhagic arrest witnessed by EMS</b></p> <p><u>Adults:</u> LTO+WB 1 Unit warmed and infused</p> <p><b>**OR**</b></p> <p><u>Adults:</u> pRBCs 2 Units warmed and infused<br/>If blood administration criteria persist, administer an additional unit of LTO+WB or pRBCs</p> |
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### NEONATE POST-DELIVERY/RESUSCITATION

| BLS Patient Management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ALS Patient Management                                                                                                                                                                                           |                              |        |   |            |      |                              |      |       |        |      |      |         |        |      |        |          |        |      |        |              |        |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
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| <ul style="list-style-type: none"><li>Dry, stimulate and then swaddle in a dry receiving blanket and head cover. Place with the mother as clinically indicated</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"><li>Establish, maintain, and ensure peripheral IV and/or IO access for emergency stabilization</li></ul> <p>Consider the need for additional sites as clinically indicated</p> |                              |        |   |            |      |                              |      |       |        |      |      |         |        |      |        |          |        |      |        |              |        |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <table><tr><th>APGAR</th><th>0</th><th>1</th><th>2</th></tr><tr><td>Appearance</td><td>Blue</td><td>Pink Core / Blue Extremities</td><td>Pink</td></tr><tr><td>Pulse</td><td>Absent</td><td>Slow</td><td>Fast</td></tr><tr><td>Grimace</td><td>Absent</td><td>Weak</td><td>Strong</td></tr><tr><td>Activity</td><td>Absent</td><td>Weak</td><td>Strong</td></tr><tr><td>Respirations</td><td>Absent</td><td>Weak</td><td>Strong</td></tr></table> <ul style="list-style-type: none"><li>Assess using the APGAR scoring system at 1 minute and 5 minutes. Based on APGAR scores, presentation, and clinical assessment:<ul style="list-style-type: none"><li>Suction mouth first then nose only if signs of obstruction by secretions present</li><li>Monitor SpO<sub>2</sub> while attached to the right upper extremity (a preductal location)</li><li>Provide blow-by oxygen as indicated</li><li>If APGAR at 5 minute check is 7 or less, assess blood glucose level. If blood glucose is less than 45 mg/dl, treat for hypoglycemia.</li></ul></li></ul> | APGAR                                                                                                                                                                                                            | 0                            | 1      | 2 | Appearance | Blue | Pink Core / Blue Extremities | Pink | Pulse | Absent | Slow | Fast | Grimace | Absent | Weak | Strong | Activity | Absent | Weak | Strong | Respirations | Absent | Weak | Strong | <p><b><u>For Neonatal Resuscitation Post Delivery</u></b></p> <ul style="list-style-type: none"><li><b>When required, ensure high performance CPR is being performed according to current REMSA training and standards.</b> Attach, interpret, and continuously monitor EtCO<sub>2</sub>. If EtCO<sub>2</sub> is less than 10 mmHg, attempt to improve CPR quality</li></ul> <p><u>Neonates:</u> Normal Saline 10 ml/kg IV/IO rapid infusion. Use a volume control chamber device for accurate dosing. <b>MAY REPEAT AS CLINICALLY INDICATED.</b></p> <p><b>PATIENT MUST BE ALERT WITH GAG REFLEXES INTACT</b><br/><u>Neonates:</u> Glucose Gel (buccal) PO AS TOLERATED. <b>MAY REPEAT PRN TO ACHIEVE AND/OR MAINTAIN CORRESPONDING AGE APPROPRIATE BG LEVEL</b></p> <p><b>INITIAL AND REPEAT ADMINISTRATIONS REQUIRE A BASE HOSPITAL ORDER (BHO).</b><br/><u>Neonates:</u> Dextrose 5 mL/kg (10% solution) IV/IO bolus or infusion.</p> |
| APGAR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0                                                                                                                                                                                                                | 1                            | 2      |   |            |      |                              |      |       |        |      |      |         |        |      |        |          |        |      |        |              |        |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Appearance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Blue                                                                                                                                                                                                             | Pink Core / Blue Extremities | Pink   |   |            |      |                              |      |       |        |      |      |         |        |      |        |          |        |      |        |              |        |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Pulse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Absent                                                                                                                                                                                                           | Slow                         | Fast   |   |            |      |                              |      |       |        |      |      |         |        |      |        |          |        |      |        |              |        |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Grimace                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Absent                                                                                                                                                                                                           | Weak                         | Strong |   |            |      |                              |      |       |        |      |      |         |        |      |        |          |        |      |        |              |        |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Activity                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Absent                                                                                                                                                                                                           | Weak                         | Strong |   |            |      |                              |      |       |        |      |      |         |        |      |        |          |        |      |        |              |        |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Respirations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Absent                                                                                                                                                                                                           | Weak                         | Strong |   |            |      |                              |      |       |        |      |      |         |        |      |        |          |        |      |        |              |        |      |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

**PATIENT MUST BE ALERT WITH GAG REFLEXES INTACT**

Neonates: Glucose Gel (buccal) PO AS TOLERATED.  
**MAY REPEAT PRN TO ACHIEVE AND/OR MAINTAIN  
CORRESPONDING AGE APPROPRIATE BG LEVEL**

**IF HR LESS THAN 100 BPM OR POOR RESPIRATORY  
RATE, EFFORT, OR PERSISTENT CENTRAL CYANOSIS**

- Administer oxygen and stimulate for 30 seconds.
- If no response, assist ventilations with PPV and supplemental oxygen at a rate of 40-60 breaths per minute.

**IF HR LESS THAN 60 BPM**

- Assist ventilations with PPV and supplemental oxygen at a rate of 40-60 breaths per min
- Organize the resuscitation team and perform high performance CPR according to current REMSA training and standards with a 3:1 compression ratio at a rate of 120/min

Ensure high performance CPR by utilizing assigned roles and tasks during resuscitation (i.e., Pit Crew CPR)

- Emphasize correct hand placement, compression depth (1/3" – 1/2") and rate (120/min) with complete chest recoil
- Minimize interruption of chest compressions
- Avoid hyperventilation

**WHEN UNABLE TO ADMINISTER IV/IO DEXTROSE  
INITIAL AND REPEAT ADMINISTRATIONS REQUIRE A  
BASE HOSPITAL ORDER (BHO).**

Neonates: Weight = 21kg (≈48 lbs) or less: Glucagon 0.5 mg IM

**INITIAL AND REPEAT ADMINISTRATIONS REQUIRE A  
BASE HOSPITAL ORDER (BHO).**

Neonates: Epinephrine 0.01 mg/kg (0.1 mg/mL concentration) IVP/IOP.

Neonates: Naloxone 0.1 mg/kg IVP/IOP/IM/IN. **MAX  
SINGLE DOSE IS 1 MG.**

**ADDITIONAL ADMINISTRATIONS REQUIRE A BASE  
HOSPITAL ORDER (BHO).**

**INITIAL AND REPEAT ADMINISTRATIONS REQUIRE A  
BASE HOSPITAL ORDER (BHO).**

Neonates: Sodium Bicarbonate 1 mEq/kg IVP/IOP.

**DISCONTINUING RESUSCIATION OF A NEONATAL  
PATIENT REQUIRES A BASE HOSPITAL PHYSICIAN  
ORDER (BHPO)**

Patient Disposition

- **CONTACT A SINGLE BASE HOSPITAL FOR ALL OBSTETRICAL DELIVERIES WITH ANY COMPLICATION OF CHILDBIRTH AND PATIENTS EXPERIENCING PRE-ECLAMPSIA/ECLAMPSIA**
- Do not attempt resuscitation on the neonate if they are younger than 22 weeks gestation **WITH** no signs of life after delivery.
  - Neonates delivered before 22 weeks gestation have a low chance of survival. If mother is encountered in labor with a gestational age younger than 22 weeks, in many instances the neonate will not survive.
  - If gestation age is unknown, findings of less than 22 weeks are:
    - Eyelids fused shut
    - Foot length less than 40 mm (1.5 inches)
    - Transparent skin
    - Weight less than 2 pounds
    - Absent muscle tone