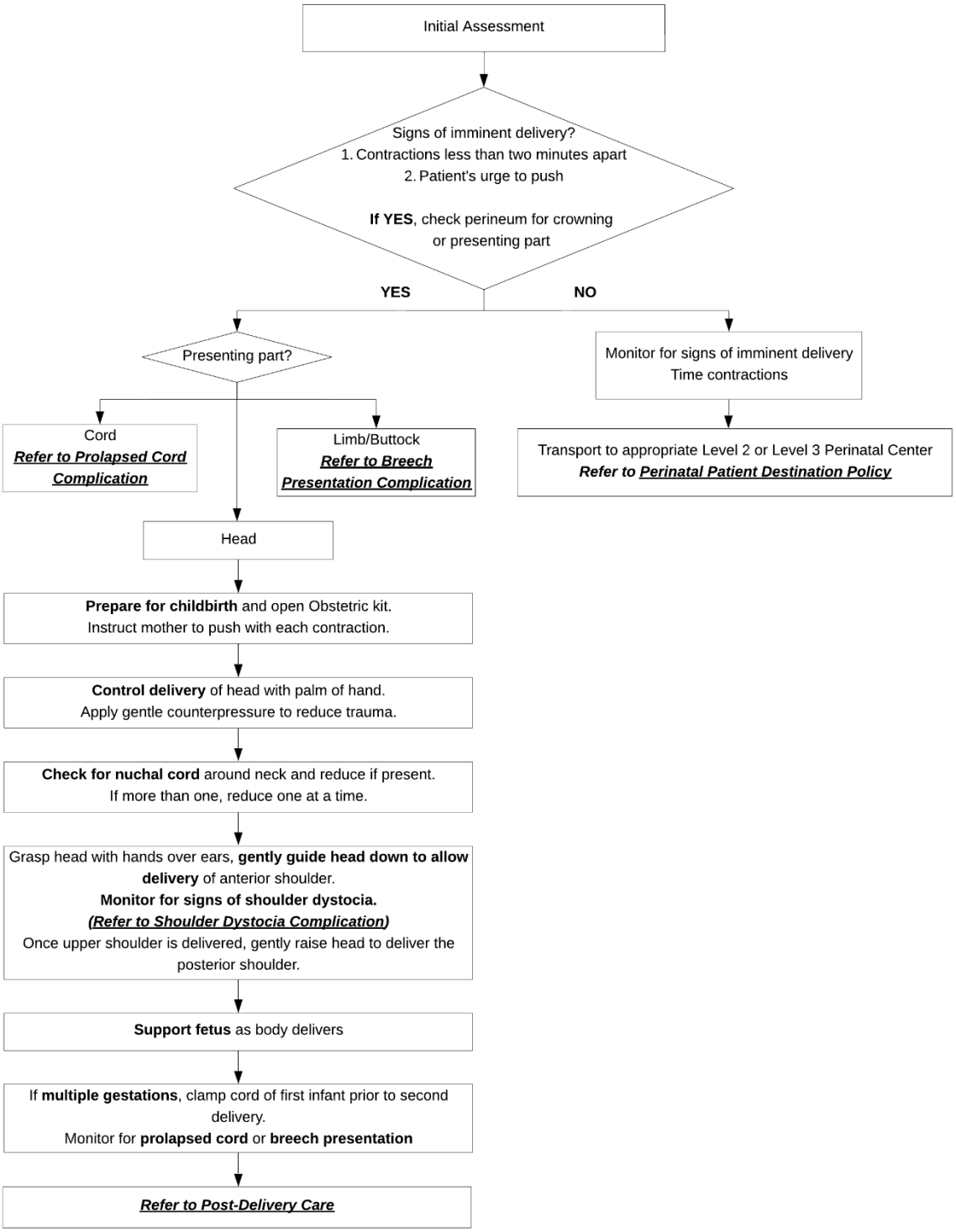
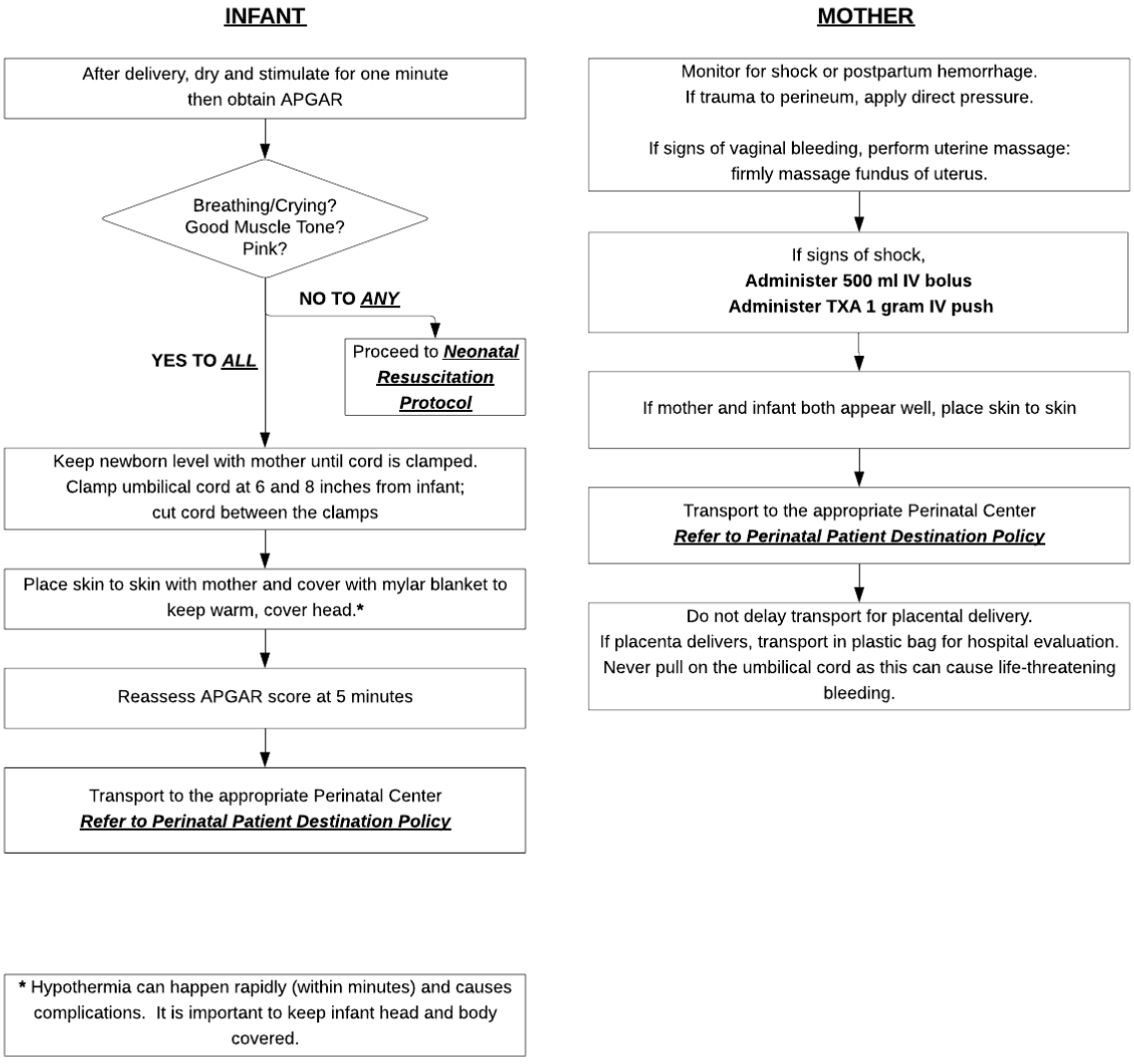
REGION 11 CHICAGO EMS SYSTEM PROTOCOL	Title: Childbirth – BLS/ALS
	Section: Obstetrics
	Approved: EMS Medical Directors Consortium
	Effective: December 17, 2025

CHILDBIRTH - BLS/ALS



POST-DELIVERY CARE



* Hypothermia can happen rapidly (within minutes) and causes complications. It is important to keep infant head and body covered.

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CHILDBIRTH – BLS/ALS

I. PATIENT CARE GOALS

1. Obtain necessary history to plan for birth and resuscitation of the newborn.
2. Recognize imminent delivery.
3. Plan for additional resources based on number of patients (mother and child or multiple births).
4. Assist with uncomplicated delivery of newborn.
5. Recognize complicated delivery situations (e.g., prolapsed umbilical cord, breech delivery, shoulder dystocia) and plan for management and appropriate transport to a Level 2 or 3 Perinatal Center.
6. Apply appropriate techniques when an obstetric complication exists.

II. PATIENT PRESENTATION

A. Inclusion Criteria

1. Imminent delivery with crowning.

B. Exclusion Criteria

1. Vaginal bleeding in any stage of pregnancy outside of active labor or postpartum (refer to Bleeding in Pregnancy Protocol)
2. Emergencies in first or second trimester of pregnancy (refer to Bleeding in Pregnancy Protocol).
3. Seizure in pregnancy (refer to Eclampsia and Pre-Eclampsia Protocol).

III. PATIENT MANAGEMENT

A. Assessment

1. Assess for ***signs of imminent delivery***:
    a. Contractions less than two minutes apart
    b. Patient's urge to push
2. If signs of imminent delivery – check the perineum for crowning or other fetal presentation.

3. Signs of active labor include:

    a. Regular and frequent contractions
    b. Membrane rupture or fluid from vagina

B. Treatment and Interventions

1. If patient is in active labor, but no signs of imminent delivery, transport to the appropriate Perinatal Center (Refer to Perinatal Patient Destination Policy).

2. If there are signs of imminent delivery with crowning, prepare to deliver and call for additional EMS resources.

3. Delivery should optimally allow a slow and controlled delivery of infant to reduce injury to mother.

    a. Support the infant's head as needed and apply gentle counterpressure.
    b. This helps prevent the head from suddenly popping out and reduce trauma to the vaginal canal.

4. Check for nuchal cord (i.e., cord around the infant's neck)

    a. If present, hook finger between nuchal cord and fetal body.
    b. Attempt to reduce by slipping the cord over the head.
    c. If more than one nuchal cord is identified, reduce one at a time.
    d. If unable to reduce, attempt to slip the cord over the shoulders and deliver the fetus with the nuchal cord around shoulders and neck.
    e. If unable to deliver fetus with nuchal cord present, double clamp the cord and cut between the clamps. Cutting of the cord stops placental oxygen administration and delivery must be achieved quickly.

5. Suction infant airway only when airway is contaminated (with meconium), do not routinely suction the infant's airway during delivery.

6. Grasp the head with hands over the ears and gently guide the head down to allow delivery of the anterior shoulder. Do not pull on the head.

7. Gently guide the head up to allow delivery of the posterior shoulder.

8. Support infant head and torso during the remainder of delivery.

9. Dry, warm, stimulate infant for the first minute of life.

    a. At 60 seconds, if resuscitation is indicated, initiate neonatal resuscitation (see Neonatal Resuscitation Protocol)
    b. If APGAR is appropriate after 1 minute of life, wrap in towel and place on maternal chest.

10. After 1 minute, regardless of cord pulsation, clamp cord at 6 and 8 inches from the infant with two clamps; cut the cord between the clamps.

    a. If resuscitation is needed, start resuscitation immediately after birth with drying, warming, and stimulation and clamp and cut the cord immediately.
    b. While cord is attached, take care to ensure the infant is not significantly higher positioned than the mother to prevent blood from flowing backwards from infant to placenta.

11. Once neonate is stabilized, record APGAR scores at 1 and 5 minutes.

12. In the case of multiple gestations (more than one infant during same pregnancy):

    a. Evaluate for prolapsed cord or limb presentation between deliveries.
    b. Repeat steps for each prehospital fetal delivery. The cord should be clamped and cut immediately after delivery in cases of multiple gestations.

13. The placenta will deliver spontaneously, often within 5–30 minutes after the infant is delivered.

    a. Do not force the placenta to deliver; do not pull on the umbilical cord as this can tear the placenta or cord and cause life threatening bleeding.
    b. Transport all tissue in a plastic bag for evaluation by the hospital.
    c. Do not wait for delivery of the placenta to initiate transport.

14. After delivery of the infant, massage the fundus of the uterus (located at the level of the umbilicus) and allow the infant to nurse to promote uterine contraction and help control bleeding.

    a. Monitor for signs of hemorrhagic shock. If signs of shock or heavy vaginal bleeding, establish large bore IV (above the diaphragm preferred), administer TXA 1 gram IV push, and give 500 mL IV bolus.
        - Reassess vital signs and response to fluid resuscitation, repeat bolus as indicated.
    b. If perineum is torn or bleeding, apply direct pressure with gauze.

15. Stable infants may be transported in the same ambulance as the mother with a neonatal safety restraint. Unstable infants or infants requiring medical intervention should be transported in a separate ambulance with proper infant safety restraint systems and to the same hospital destination as the mother.

16. Keep infant warm during transport, including head covering.

17. Most deliveries proceed without complications. If complications in delivery occur, attempt to stabilize and expedite transport to the appropriate Level 2 or 3 Perinatal Center in consultation with Online Medical Control. Maternal resuscitation is critical for best maternal and fetal outcome.

C. Patient Safety Considerations

1. Supine Hypotension Syndrome

    a. If the mother has hypotension before delivery, place patient in left lateral recumbent position or manually displace gravid uterus to the left in supine position to improve venous return.

2. Do not routinely suction the infant's airway (even with a bulb syringe) during delivery.

3. Newborns are very slippery, take care not to drop the infant.

4. Dry, warm and stimulate all newborns to facilitate respirations and prevent hypothermia. Hypothermia can happen rapidly (within minutes) and cause increased complications, it is important to keep the infant's skin covered, especially the head.

    a. Do not pull on the umbilical cord while waiting for placenta to deliver. This can cause the placenta or cord to tear and cause life threatening bleeding.

IV. CHILDBIRTH COMPLICATIONS

A. Shoulder Dystocia – Inability to deliver the anterior shoulder as it can be wedged behind the maternal pubic bone.

Shoulder Dystocia

Shoulder Dystocia identified

↓

Hyperflex mother's hips by firmly pressing knees to chest by EMS clinician (i.e. McRobert's maneuver)

↓

Second EMS clinician applies firm suprapubic (not fundal) pressure with fist directed downwards to dislodge anterior shoulder.

↓

Attempt to angle infant's head as posteriorly as possible toward the ground.
Do not pull the infant's head.

↓

If unable to reduce shoulder dystocia, initiate immediate transport to appropriate Perinatal Center
Refer to Perinatal Patient Destination Policy
Contact Online Medical Control

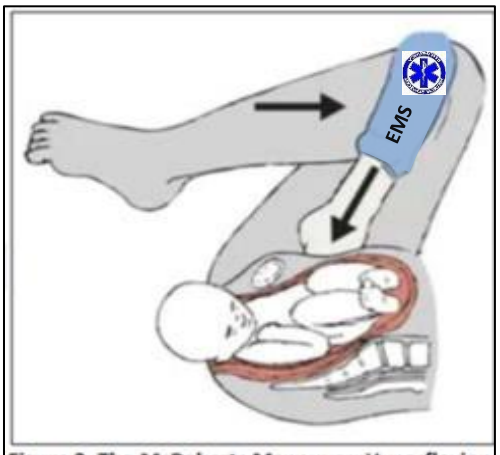

Figure 3. The McRoberts Maneuver: Hyperflexion of Hips & SUPRAPUBIC Pressure
(Adapted from: teachmeobgyn.com)

1. If delivery fails to progress after head delivers, quickly attempt the following:

   a. Hyperflex mother's hips by firmly pressing knees to chest by EMS clinician (i.e. McRoberts' maneuver).
   b. Second EMS clinician applies firm suprapubic, *not fundal,* pressure with fist directed downwards to attempt to dislodge anterior shoulder. This allows for delivery in up to 75% of cases.
   c. Attempt to angle the infant's head as posteriorly as possible toward the ground. Do not pull the infant's head.
   d. Continue with delivery as normal once the anterior shoulder is delivered. If unable to reduce shoulder dystocia, initiate immediate transport.

B. Prolapsed Umbilical Cord

Prolapsed Cord

Prolapsed Cord identified

↓

Insert gloved hand into vagina and use two fingers to lift the presenting part (head, limb, buttock) off cord to achieve pulsatile cord blood flow

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If still no pulse in cord, place mother in Trendelenburg position: head of bed down, legs up, with hips elevated with blankets

↓

Wrap exposed prolapsed cord in saline soaked gauze

↓

Transport immediately
Hand displacing presenting part must stay in place until relieved by hospital staff

↓

Transport to the appropriate Perinatal Center
Refer to Perinatal Patient Destination Policy

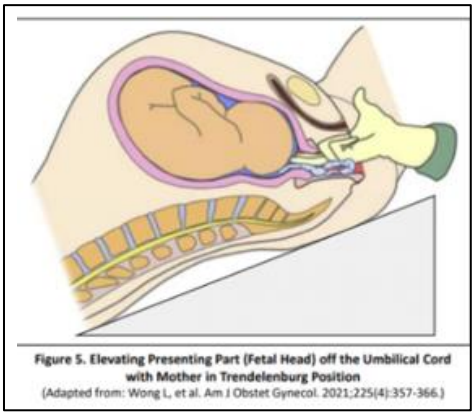
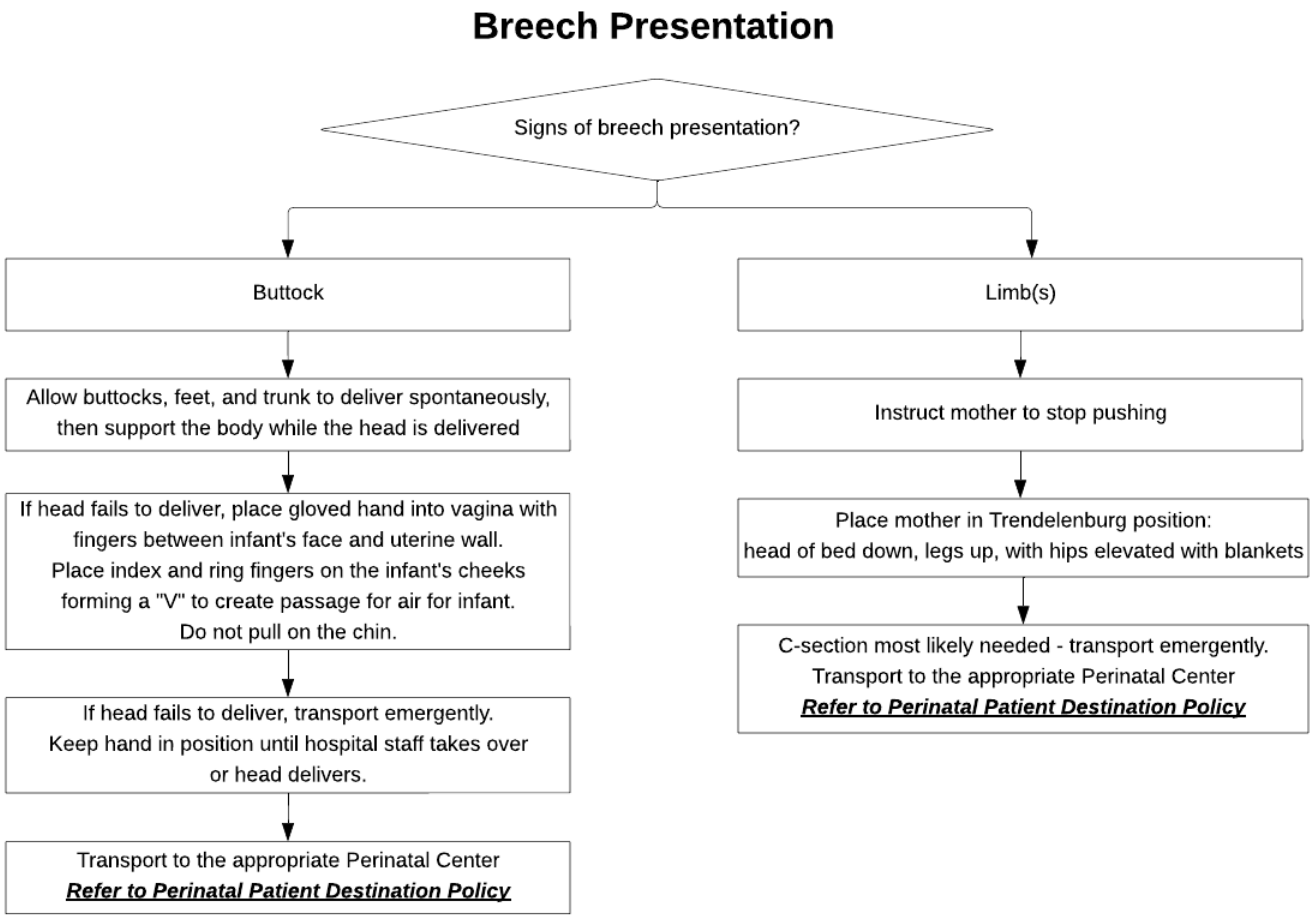


Figure 5. Elevating Presenting Part (Fetal Head) off the Umbilical Cord with Mother in Trendelenburg Position
(Adapted from: Wong L, et al. Am J Obstet Gynecol. 2021;225(4):357-366.)

1. Identify umbilical cord as presenting part.
2. Assess for pulsations in cord, place gloved hand into vagina and gently lift the presenting part off the cord.
3. Wrap exposed prolapsed cord in saline soaked gauze and initiate transport emergently, C-Section most likely needed.
4. Maintain positioning until relieved by hospital staff.
5. If previous techniques are not successful to achieve pulse in cord, mother should be placed in extreme Trendelenburg position with hips elevated.

C. Breech Birth



1. Breech Birth - Buttock Presentation

a. Place mother supine, allow the buttocks, feet, and trunk to deliver spontaneously, then support the body while the head is delivered.
b. If needed, put the mother in a kneeling position which may assist in the delivery.
c. If head fails to deliver, place gloved hand into vagina with fingers between infant's face and uterine wall to create an open airway. Place your index and ring fingers on the infant's cheeks forming a "V" taking care not to block the mouth and allowing the chin to be tilted toward the chest flexing the neck. Do not pull on the chin.
d. When delivering breech, you may need to rotate the infant's trunk clockwise.
e. Once the legs are delivered, support the body to avoid hyperextension of the head; keep the fetus elevated off the umbilical cord.
f. NEVER pull on the body– just support the infant's body while mother pushes.

2. **Breech Birth - Limb Presentation**

   a. Instruct patient to stop pushing.
   b. Place mother in Trendelenburg position: head of bed down, legs up with hips elevated with blankets.
   c. The presentation of an arm or leg through the vagina is an indication for immediate transport to hospital. C-Section most likely needed.

E. Excessive Bleeding During Labor - May occur with placenta previa or placental abruption.

1. Obtain history from patient – evaluate for known placenta previa, recent pre-eclampsia symptoms, hypertension history, recent trauma, drug use especially cocaine.

2. Placenta previa will most likely prevent delivery of infant vaginally.

3. Place large bore vascular access and evaluate for hypotension or signs of hemorrhagic shock. In cases of excessive bleeding during labor and signs of hemorrhagic shock, administer 500 ml IV fluids and TXA 1 gram IV/IO.

4. C-Section most likely needed – transport emergently.

F. Postpartum Hemorrhage (bleeding after delivery)

1. Obtain history from patient – evaluate for history of prenatal or delivery complications, recent trauma, prescription anticoagulants, substance use (cocaine).

2. Perform fundal massage. This is often uncomfortable/painful as the uterine contracts and clamps down.

3. Place large bore IVs and initiate 500 ml IV fluid bolus.

4. Administer TXA 1 gram IV/IO push for signs of hypotension or hemorrhagic shock.

V. NOTES/EDUCATIONAL PEARLS

A. In cases of reported severe pain by pregnant patient, fentanyl 1 mcg/kg can be administered.

B. Obstetric Patient Assessment

1. Length of pregnancy and due date (calculate gestational age in weeks)

   a. If the gestational age is unknown, a palpable fundal height above the umbilicus indicates a gestation of more than 20 weeks.
   b. Ask for estimated last menstrual period (first day of last period) if patient has not had prenatal care or an ultrasound and does not know their due date.

2. Number of pregnancies

3. Prenatal care
4. Number of expected babies (multiple gestations)
5. Maternal medications and substance use
6. Report by patient of being deemed “high risk” obstetrical patient or any known pregnancy complications – hypertension, gestational diabetes, placenta previa, premature labor, history of fetal demise, fetal anomalies/birth defects, etc.
7. Signs of imminent delivery (crowning, frequent contractions, urge to push).
8. Location where the patient receives prenatal care (preferred destination if time delay is acceptable).

C. Obstetric patients are Systems of Care and Online Medical Control should be contacted.

D. APGAR should be performed at one and five minutes after birth (See APGAR Table).

Sign	0	1	2
Appearance:	Blue, Pale	Body pink, Extremities blue	Completely pink
Pulse:	Absent	Slow (less than l00)	≥ 100
Grimace:	No response	Grimace	Cough or Sneeze
Activity:	Limp	Some flexion	Active motion of extremities
Respirations:	Absent	Slow, Irregular	Good, Crying