Postpartum Hemorrhage

General

- This guideline is intended to address excessive bleeding after delivery and not vaginal bleeding secondary to trauma.
- **Immediate postpartum hemorrhage** is significant ongoing bleeding after delivery, defined as the loss of more than 1,000 mL of blood up to 24 hours after delivery. Steps that can be taken that may decrease the risk of postpartum hemorrhage during and immediately after delivery include:
  - Administration of **oxytocin** as soon as possible after the delivery of the baby
  - Controlled, gentle umbilical cord traction until the placenta delivers
  - Firm massage of the uterus after the placenta delivers
- **Delayed, or secondary, postpartum hemorrhage** is excessive bleeding from 24 hours after delivery up to *12 weeks postpartum*. The causes of delayed hemorrhage may be different than the causes of immediate postpartum hemorrhage, but the initial management approaches are similar:
  - Administration of **oxytocin** as soon as possible
  - Firm uterine massage
- Patients with life-threatening hemorrhage may need **tranexamic acid (TXA)** and blood product administration, when available. See TXA information below. TXA or blood product use may necessitate requesting an intercept from a field response team capable of providing these interventions.
- Transport the patient to a hospital with obstetric services or the most appropriate local/regional facility if an obstetric facility is not readily available. Notify the receiving facility as early as is feasible.

All EMS Clinicians

For immediate and delayed postpartum hemorrhage:

- Firmly massage the uterine fundus.
- If perineal (external vaginal area) lacerations are present (unlikely in delayed postpartum hemorrhage), apply direct pressure to the perineum with sterile dressings. Do not place dressings inside the vagina.
- Perform initial assessment and anticipate providing treatments for shock.
- Be prepared to manage the patient's airway, provide supplemental **oxygen** for maternal oxygen saturation ≤94%, and assist with ventilation.
- Consider fluid resuscitation with **crystalloids** as indicated, because clinical manifestation of significant blood loss may be delayed in postpartum hemorrhage.
- Consider intercepting with a field response team that carries blood products or **TXA**.

Advanced EMS Clinicians

May include advanced EMTs, paramedics, and other advanced-level clinicians with medication administration capabilities

For immediate AND delayed postpartum hemorrhage:

- Administer **oxytocin**:
  - Administer **10 units of oxytocin IM unless IV access is immediately available**.
  - Once IV access is established, add **20 units of oxytocin to 1 L of normal saline** or **lactated Ringer's solution** and administer as a wide-open infusion (a large-bore IV, macro drip tubing with no pressure device) until arriving at the hospital or a significant decrease in bleeding is identified.
- If there is ongoing bleeding despite oxytocin administration, and the time to arrival at a hospital with obstetric capabilities is prolonged, then misoprostol is recommended as an additional therapy. Administer **misoprostol**, 600–1,000 micrograms orally, sublingually, or rectally.
- When available, blood product administration should be considered for patients with one or more of the following:
  - Estimated blood loss of 1,500 mL or more
  - Abnormal vital signs (tachycardia and hypotension) in accordance with local transfusion protocols
  - Ongoing blood loss not controlled with the measures described throughout this guideline

For immediate postpartum hemorrhage ONLY:

- If immediate postpartum hemorrhage persists despite the use of available measures, administer **TXA** within 3 hours of birth.
  - Initial dose: **1 g of TXA (100 mg/mL) IV** over 10–20 minutes.
  - If bleeding continues after 30 minutes, administer a second dose of **1 g of TXA (100 mg/mL) IV** over 10–20 minutes.
  - Notify the receiving facility of **TXA** administration time and amount administered.

  Note: Evidence-based recommendations for this patient population are for two separate 1-g doses of TXA rather than for a single 2-g bolus, as might be used in other clinical situations.

References

Postpartum hemorrhage. Practice Bulletin No. 183. American College of Obstetricians and Gynecologists. Obstet Gynecol 2017;130:e168–86.

Vogel JP, Oladapo OT, Dowswell T, Gülmezoglu AM. Updated WHO recommendation on intravenous tranexamic acid for the treatment of post-partum haemorrhage. The Lancet 2018;6:E18-E19. doi: https://doi.org/10.1016/S2214-109X(17)30428-X