Hemorrhagic Shock

Purpose: To provide treatment for patients displaying signs and symptoms of shock attributed to hemorrhage including trauma and **severe postpartum hemorrhage.**

1. Follow **General Pre-hospital Care-Treatment Protocol** control bleeding according to **Bleeding Control (BCON)-Treatment Protocol** when applicable.
2. Transport according to **Adult and Pediatric Trauma Triage-Treatment Protocol** and MCA Transport Protocol.
3. No intervention should delay transport.
4. Obtain vascular access.
5. For signs of hypotension unaccompanied by moderate to severe head trauma administer NS or LR IV/IO fluid bolus IV/IO (refer to **Vascular Access and IV Fluid Therapy-Procedure Protocol**).
   a. Adults (≥ 14 years of age): up to 1 liter
   b. Pediatrics (< 14 years of age): up to 20 mL/kg
6. For signs of hypotension accompanied by moderate to severe head trauma refer to **Head Injury–Treatment Protocol** for fluid administration guidelines.
7. Consider other causes of traumatic hypotension and treat accordingly. (Tension pneumothorax see **Pleural Decompression-Procedure Protocol,** neurogenic shock see **Shock-Treatment Protocol**)
8. Hypotensive patients unaccompanied by moderate to severe head trauma should receive additional IV/IO fluid boluses, as indicated by hemodynamic state.
   a. Adults (≥ 14 years of age): repeat IV/IO fluid bolus to a maximum of 2 liters.
   b. Pediatrics (< 14 years of age): repeat dose of 20 ml/kg to a maximum of 40 ml/kg.
   c. Monitor for pulmonary edema.
   d. If pulmonary edema presents, stop fluids and contact Medical Control for direction.
9. Per MCA Selection, if bleeding is uncontrolled and non-compressible, administer Tranexamic Acid (**TXA**)

Tranexamic Acid (TXA) Included

● Yes ☐ No

Age greater than 18 years old AND > 50 kg

1. Destination must be capable of administering 2nd dose.
2. Draw up and mix 1 gram of **TXA** into a 100 ml bag of **normal saline** solution (0.9% Sodium Chloride Solution).
   a. Use a filter needle if the medication is supplied in an ampule.
   b. Apply pre-printed "**TXA** added" fluorescent-colored label to IV bag.
3. Administer mixed medication via piggyback into IV/IO line over 10 minutes.

a. Hospital Notification and Documentation

   i. Contact Medical Control - the receiving hospital must be verbally notified that **TXA** has been given, prior to arrival.
   ii. A verbal report that **TXA** was administered must be provided to hospital ED staff (receiving physician preferred) upon hand-off of the patient from EMS.
   iii. The administration of **TXA** MUST be clearly documented on the EMS patient care record.

b. Contact Medical Control-Medical Control may order **TXA** for selected patients with suspected compensated shock not meeting the above criteria.

Medication Protocols
Tranexamic Acid (TXA)