### Tranexamic Acid (TXA) Protocol

#### PARAMEDIC ONLY

**Tranexamic Acid (TXA)** is a synthetic amino acid (lysine) that blocks plasminogen from being converted to the enzyme plasmin. Plasmin works to break down already-formed blood clots in the human body by attacking and breaking down fibrin destroying clots in a process known as fibrinolysis. TXA is now being used to treat severely injured trauma patients who have or are at risk for severe hemorrhage.

**Indications**: Any trauma patient  $\geq$  14 years of age, at high risk for ongoing internal hemorrhage and meeting one or more of the following criteria:

- Systolic BP < 90mmHg
- Patients  $\geq$  65 years of age with systolic BP < 110mmHg.
- Tachycardia > 120 beats per minute with signs of hypo-perfusion (confusion, altered mental status, cool extremities, etc.)

### **Contraindications:**

- Injuries > 3 hours old.
- Evidence of Disseminated Intravascular Coagulation (DIC)
- Patients < 14 years of age.
- Hypersensitivity to the drug.
- 1. How Supplied: 10mL vial containing 1000mg
- 2. Preparation: Mix 2000mg (2G) of TXA in 250 mL of 0.9% Normal Saline.
- 3. Administration: Infuse over 10 minutes
  - 10 gtts/mL tubing at a drip rate of 4 gtts/second.
  - Infusion pump (if available) at 1500mL/hr.
- 4. Notify receiving hospital of TXA administration.
- 5. Clearly document mechanism of injury, time injury/incident occurred, indications for use and time TXA was administered.



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# **Critical Thinking Elements**

- TXA should never be administered at a "wide open" rate
- Female patients taking or using any form of birth control containing estrogen and progestin are at increased risk for blood clots and this medication significantly increases that risk.
- Hypotension has been observed when TXA is administered too rapidly.
- Use with caution in patients with a history of DVT, PE, known clotting disorders or severe renal failure
- In patients with DIC, blood clots form throughout the body's small blood vessels reducing or blocking blood flow which may cause a variety of signs/symptoms:
  - o Brain: Signs of stroke such as speech and movement problems
  - o Legs: Swelling, redness and warmth
  - Lungs: Shortness of breath
  - o Heart: Chest Pain or Myocardial Infarction
  - o Skin: Petechiae (red spots on the skin that appear like a series of tiny bruises)

Medical Director	Date

