

Tranexamic Acid Protocol

ALS 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 ≥ 14 years of age, at high risk for ongoing internal hemorrhage and meeting one or more of the following criteria:

- Systolic BP < 90 mmHg
- Patients ≥ 65 years of age with systolic BP < 110 mmHg.
- Tachycardia > 120 beats per minute with signs of hypoperfusion (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 1000mg 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:
 - **Brain:** Signs of stroke such as speech and movement problems
 - **Legs:** Swelling, redness and warmth
 - **Lungs:** Shortness of breath
 - **Heart:** Chest pain or Myocardial Infarction
 - **Skin:** Petechiae (red spots on the skin that appear like a series of tiny bruises)