

RX

Drug Name: **Tranexamic Acid**
Trade Name: **TXA, Cyklokapron, Lysteda (oral only)**
REVISED: **December 01, 2022**

Class:

- Antifibrinolytic agent
- Antihemophilic agent,
- Hemostatic agent,
- Lysine analog

Mechanism of Action: Tranexamic acid is a hemostatic agent and is a synthetic derivative of the amino acid lysine. Tranexamic acid is a competitive inhibitor of plasminogen activation and forms a reversible complex that displaces plasminogen from fibrin resulting in inhibition of fibrinolysis; it also inhibits the proteolytic activity of plasmin.

Indications:

- Acute (< 3 hours) Major Traumatic Bleeding
- Acute (< 3 hours) Post-Partum Bleeding

Contraindications:

- Administration after 3 hours post injury/bleeding.
- Hypersensitivity
- Non-hemorrhagic shock (i.e., neurogenic or septic shock)
- Known active intravascular clotting disorders
- Suspected *non-traumatic* Sub-arachnoid Hemorrhage

Precautions:

- Allergy to TXA
- Oral Chemotherapy
- Cardiac disease
- Patients with SZ disorders
- Renal Failure
- Pregnancy (B)

Dosage:

For Severe Blood Loss w/in 3 hours of injury:

Adults:

- IV/IO: 2 gram cc /250 cc over 10 minutes. Does not need pump.

Pediatrics

- IV/IO: 15 mg/kg in 250 cc over 10 minutes. Does not need a pump. 1 GM max.

Epistaxis

Adults:

- IN: 250-500 mg each Nare Atomized

Pediatrics

- IN:10 mg/kg each Nare Atomized

Post Tonsillectomy Hemorrhage

Adults:

- NEB: 500 mg Nebulized. Repeat once PRN

Pediatrics

- NEB: 10 mg/kg Nebulized

DRUG: Tranexamic acid (TXA)

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This document is for **reference only**. Please refer to SWO's for specific indications, dosages, and applications

DRUG: Tranexamic acid (TXA)

Onset:

- 5-10 Minutes

Duration:

- 2 hours (IV)
- 12 hours (oral)

Side Effects:

- Cardiovascular: Hypotension with rapid administration, Thrombosis and P.E.
- Skin: allergic dermatitis,
- Neuro: Seizures (Rare)
- GI: Diarrhea, nausea, vomiting,
- Visual: blurred vision

Interactions:

- Antagonizes thrombolytic agents (TPA, r-PA)
- Oral Hormonal Contraception, Estrogens and Progestins (BCP) may increase risk of thrombosis.

PEARLS

MUST BE ADMINISTERED WITHIN 3 HOURS OF INJURY/ONSET OF BLEEDING

- Don't forget good BLS care, to include immediate bleeding control (pressure dressings, hemostatic agents, wound packing, or tourniquets as appropriate.
- Definitive hemorrhage control and rapid transport to a trauma center is the key to survival in the bleeding patient. TXA administration should never delay transport.
- Timing:
 - TXA should be given within 3 hours of injury/onset of bleeding.
 - TXA is most beneficial when administered within 1 hour of injury/onset of bleeding.
 - TXA **should not** be given after 3 hours of bleeding or in cases where chronic bleeding (i.e. GI Bleeding) is suspected.
- Many protocols call for a second dose, higher initial doses, or a maintenance infusion to be administered. These are not provided for in current ACCESS protocols but may be ordered by medical control.
- TXA has many other uses not currently covered under ACCESS protocol. Medical Control contact is required prior to administration for these other uses.
- Current (2017) WHO recommendations for TXA in post-partum hemorrhage are for TXA to be administered even if uterotonics appear to be effective.
- Pregnancy:
 - TXA is FDA pregnancy category B: "*Animal reproduction studies have failed to demonstrate a risk to the fetus and there are no adequate and well-controlled studies in pregnant women.*"
 - TXA is only recommended for use during pregnancy when benefit outweighs risk, such as life-threatening hemorrhagic shock that threatens the mother and/or the fetus(s).

REFERENCE ONLY