

VENTURA COUNTY MEDICAL CENTER/SANTA PAULA HOSPITAL
CLINICAL PRACTICE GUIDELINES / PROTOCOLS

Use of Tranexamic Acid

The contents of this clinical practice guideline are to be used as a guide. Healthcare professionals should use sound clinical judgment and individualize patient care. This CPG is not meant to be a replacement for training, experience, CME or studying the latest literature and drug information.

Procedure: Tranexamic Acid

Guidelines for Use: Multiple studies from both the military and civilian literature have shown increased survival when tranexamic acid is used in conjunction with massive transfusion protocols. Patients who receive tranexamic acid within 3 hours of their injury benefit the most.

Contraindications:

- Hypersensitivity reaction to tranexamic acid (rare)
- Acquired defective color vision
- Active intravascular clotting
- History of thrombosis or thromboembolism
- Thrombogenic cardiac rhythm disease
- Subarachnoid hemorrhage

Barriers/Limitations:

- Need TIME to prepare – Pharmacy will deliver the maintenance dose within 30 minutes of receiving the order.
- Communication is the key!

Dose:

- Loading Dose: Tranexamic acid 1 gm IV over 10 mins. Tranexamic acid 1 gm/10 mL vials are available in the Pyxis machines. Tranexamic acid may be infused undiluted.
- Maintenance Dose: Tranexamic acid 1 gm IVPB over 8 hours. The pharmacy will prepare tranexamic acid 1 gm in 250mL 0.9% sodium chloride.
- Dose is not adjusted for renal impairment for this indication.

Drug Properties:

- Similar to Aminocaproic Acid but 10x more potent and stronger receptor binding
- Description/MOA: antifibrinolytic agent, hemostatic agent
 - Lysine analog – attaches to the lysine site of plasminogen and prevents its conversion to plasmin and inhibits proteolytic activity of plasmin forming a reversible complex → inhibition of fibrinolysis
- Dosage form: 100 mg/mL, 10 mL vial (stored at room temp)
- Pharmacokinetics:
 - Half-life: 2 hours
 - Time to Peak serum concentration: 5 minutes
 - Excretion: ~95% excreted unchanged in urine
- Compatible with: Dextrose and Normal Saline
- Incompatible: Solutions containing penicillins

- Side effects:
 - Hypotension – especially if infused too quickly
 - Gastrointestinal: nausea, vomiting, diarrhea
 - Blurred vision
- Drug-drug interactions: Factor VII, Human Fibrinogen Concentrate, Antifibrinolytic agents (enhance thrombogenic events)

Other Areas of Use/Study:

- Pediatric Cardiac Surgeries
- Pediatric scoliosis surgery
- Craniosynostosis
- Ob/GYN surgeries
- Transplant Surgery
- Jehovah Witness patients who do not want blood transfusions

Approvals: P&T Cmte: 6/2014; Medicine Cmte: 7/2014; Surgery Cmte: 8/2014; Executive Cmte: 9/2014

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