

Tranexamic Acid

Indications: Moderate to severe hemorrhage and/or for injury < 3 hours old, SBP < 90 mmHg with suspected hemorrhage, Pedi SBP < 70 + (age in yrs. x 2)

Contraindications: Hypersensitivity to tranexamic acid or any of the ingredients, or active intravascular clotting.

Concentration: 100 mg/mL

ADULT DOSING

Indication	Dose	Rate & Route	Note
Moderate to severe hemorrhage	1 g 10 mL	Topical	Epistaxis, soak on gauze and place intranasal or IN atomizer
			Wound, soak on gauze or place topically with syringe
			Dental, soak on gauze and place on affected gum/site
		Nebulizer	Tonsil and/or hemoptysis, nebulize 5 ml (0.5 g) x 2 for 1 g dose
Hypotension with suspected hemorrhage	2 g 20 mL	Slow IVP	Monitor for hypotension.

ADULT DOSING

PEDIATRIC DOSING

Indication	Dose	Rate & Route	Note
Moderate to severe hemorrhage	15 mg/kg	Topical	Epistaxis, soak on gauze and place intranasal
			Wound, soak on gauze or place topically with syringe
			Dental, soak on gauze and place on affected gum/site
		Nebulizer	Tonsil and/or hemoptysis, add saline as needed to make 5 ml solution
Hypotension with suspected hemorrhage		Slow IVP	Monitor for hypotension.

PEDIATRIC DOSING

Pediatric Dosing Tranexamic Acid										
3 kgs	4kgs	5 kgs	6-7 kgs	8-9 kgs	10-11 kgs	12-14 kgs	15-18 kgs	19-23 kgs	24-29 kgs	30-36 kgs
6.6 lbs	8.8 lbs	11 lbs	13-15 lbs	17-20 lbs	22-24 lbs	26-30 lbs	33-40 lbs	42-50 lbs	53-64 lbs	66-80 lbs
in18.25-20.25	in20.25-21.5	in21.5-23.25	in23.25-26.25	in26.25-29.25	in29.25-33	in33-37.5	in37.5-42.5	in42.5-47.75	in47.75-51.25	in51.25-56.25
Tranexamic Acid Concentration: 100 mg/ml Place into 50 ml isotonic solution, use a 60 gtts set, administer at 300 gtts/min										
0.5 mL	0.5 mL	1 mL	1 mL	1.5 mL	1.5 mL	2 mL	2.5 mL	3 mL	4 mL	5 mL

Precautions Allergic dermatitis, giddiness, and hypotension have been reported occasionally.

Hypotension has been observed when intravenous injection is too rapid. To avoid this response, the solution should not be injected rapidly.

Use with caution in patients with history of thrombotic events or potentially having an active MI or PE.

Adverse/Side Effects Dizziness, nausea, vomiting, chest pain

Class Antifibrinolytic Agent

Mechanism of Action Tranexamic acid is a competitive inhibitor of plasminogen activation, and at much higher concentrations, a noncompetitive inhibitor of plasmin, i.e., actions similar to aminocaproic acid. Tranexamic acid is about 10 times more potent in vitro than aminocaproic acid. Tranexamic acid binds more strongly than aminocaproic acid to both the strong and weak receptor sites of the plasminogen molecule in a ratio corresponding to the difference in potency between the compounds. Tranexamic acid in a concentration of 1 mg per mL does not aggregate platelets in vitro.

Onset of Action 5 – 15 minutes **Peak Effect** Varies **Duration of Action** ~ 3 hours