

# TRANEXAMIC ACID [TXA]

<b>DRUG CLASSIFICATION</b>	Synthetic Derivative of Lysine Antifibrinolytic Agent
<b>MECHANISM OF ACTION</b>	Competitively and reversibly inhibits the activation of plasminogen to plasmin. At higher concentrations, it behaves as a noncompetitive inhibitor of plasmin similar to aminocaproic acid, a similar antifibrinolytic which is much less potent. 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. The binding of plasminogen to fibrin induces fibrinolysis by occupying the necessary binding sites, preventing the dissolution of fibrin, thereby stabilizing clot formation, and preventing hemorrhage.
<b>CLINICAL INDICATIONS</b>	Recent Trauma / Evidence of Severe Hemorrhage
<b>STANDARD CONTRAINDICATIONS</b>	Hypersensitivity to TXA or Other Relative Components Pediatric Patient Category Age < 12 Years Non-Recent Trauma with Time of Injury > 3 Hours SBP > 90 mmHg -or- HR < 110 bpm Actively-Present or Recent History of Pulmonary Embolism (PE) Actively-Present or Recent History of Disseminated Intravascular Coagulation (DIC) Actively-Present or Recent History of Subarachnoid Hemorrhage Pregnancy-Related or Post-Partum Hemorrhage
<b>POTENTIAL ADVERSE EFFECTS</b>	PE / Cerebral Ischemia / Thromboembolic Disorder / Fatigue / Headache / Musculoskeletal Spasm / Nasal Sinus Issue / Anemia / Abdominal Pain / Nausea / Diarrhea
<b>GENERAL RISKS &amp; PRECAUTION</b>	<b>1)</b> Avoid use with prothrombotic agents such as anti-inhibitor coagulant concentrates, and hormonal contraceptives. <b>2)</b> Use caution in patients with concomitant use of drugs that also cause dizziness due to increased risk of worsened dizziness. <b>3)</b> TXA should not be administered where birth occurred > 3 hours prior to EMS arrival.
<b>PROTOCOL INDEX</b>	Multiple Trauma (TB-6) Obstetrical Emergency (AO-3)

## MEDICATION ADMINISTRATION

### ADULT

### PEDIATRIC

**Multiple Trauma with Abnormal VS / Perfusion / GCS**

1 g [IV/IO] in 50 mL NS; Infuse over 10 minutes using a 10-gtt set.  
(Administer 60-gtt / minute)

**Uncontrolled Vaginal Hemorrhage with Signs of Shock**

1 g [IV/IO] in 50 mL NS; Infuse over 10 minutes using a 10-gtt set.  
(Administer 60-gtt / minute)

\*\*\* For vaginal hemorrhage unassociated with pregnancy, TXA may be given when uncontrolled hemorrhage and/or signs of shock are present.

**CONTRAINDICATED**