

# Clinical Practice Guideline (CPG) Tranexamic Acid (TXA) in Trauma

Physician clinical judgement  
supersedes this guideline

Date of Origin: 2012

Latest Approval: TC 7/20/23

## \*Exclusion Criteria

1. Any known thromboembolic disease (PE, ACS)
2. Prior administration of procoagulant factors (PCC, factor VIIa, FEIBA).
3. Mechanical valve
4. Hypotension NOT related to hemorrhage (neurogenic or obstructive shock, isolated head injury)
5. Known allergy or hypersensitivity to TXA
6. More urgent critical resuscitation interventions needed
7. Time of injury > 3 hours

## Relative Contraindications

1. Severe renal insufficiency (stage 4 or 5 chronic kidney disease, ESRD, or serum creatinine >3mg/dl) - provider discretion
2. Rate related hypotension may occur and the infusion stopped until SBP > 90 mmHg

## \*\*For Patients Weighing <66kg

Physician discretion for weight based dosing

Hemorrhagic Patient Arrives in  
Emergency Department less than 3 hours  
from time of injury

Is the injury less than 3 hours from the time of injury?

No

Do not administer TXA

Yes

Does the patient meet any of these criteria?

1. Systolic BP < 90mmHg and/or
2. Heart Rate > 110
3. Neither 1 or 2 but high risk for significant hemorrhage (multiple long bone fractures, polytrauma patient with Grade IV or V solid organ injuries)
4. Receiving blood products and/or IV fluids to maintain VS
5. Multi system trauma
6. Major pelvic fracture
7. Solid organ injury with evidence of active hemorrhage
8. Traumatic amputations
9. Post-partum hemorrhage

NO

Do not administer TXA

Yes

Review \*Exclusion Criteria> if none then

Administer Tranexamic Acid (TXA)

Pediatric

Age < 12 years

Loading dose: Bolus 15mg/kg IVP over 10 minutes (max dose 1gram)

Infusion: After bolus administer 2mg/kg/hr IV for 8 hours (or until bleeding stops—max dose 1gram)

Adult

Age ≥ 12 years\*\*

Bolus 2 gram TXA IVP over 2 minutes

## References:

1. Borgman, M. A., & Nishijima, D. K. (2022). Tranexamic acid in pediatric hemorrhagic trauma. *Journal of Trauma and Acute Care Surgery*, 94(15). <https://doi.org/10.1097/ta.0000000000003775>
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3. CRASH-2 - DOI:10.1016/S0140-6736(10)60939-7
4. Dewan, Y., Komolafe, E.O., Mejia-Mantilla, J.H. et al. CRASH-3 - tranexamic acid for the treatment of significant traumatic brain injury: study protocol for an international randomized, double-blind, placebo-controlled trial. *Trials* 13, 87 (2012). <https://doi.org/10.1186/1745-6215-13-87>
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6. Hamele, M., Aden, J. K., & Borgman, M. A. (2020). Tranexamic acid in pediatric combat trauma requiring massive transfusions and mortality. *Journal of Trauma and Acute Care Surgery*, 89(25). <https://doi.org/10.1097/ta.0000000000002701>
7. Rowe, S., Liu, A., Zagales, I., Awan, M., Santos, R., McKenney, M., & Elkbull, A. (2021). Effectiveness and safety of tranexamic acid use in acute traumatic injury in the prehospital and in-hospital settings: A systematic review and meta-analysis of randomized controlled trials. *Annals of Surgery Open*, 2(4). <https://doi.org/10.1097/as9.0000000000000105>
8. Russell, R. T., & Spinella, P. C. (2022). Preface: Pediatric traumatic hemorrhagic shock consensus conference. *Journal of Trauma and Acute Care Surgery*, 94(15). <https://doi.org/10.1097/ta.0000000000003782>