

# TXA Bundle

**Purpose:** To increase utilization of Tranexamic Acid (TXA) for patients with traumatic bleeding requiring massive transfusion. TXA is an anti-fibrinolytic agent which has been shown to reduce overall mortality and death due to bleeding among severely injured patients when administered within the first 3 hours following injury.

## **Indications for use in trauma (all must apply)**

- Patients who have activation of the Massive transfusion Protocol (MTP) after traumatic injury.
- <3 hours since time of injury
- Patient is > 16 years of age

## **Contraindications to use of TXA:**

- >3 hours since time of injury (showed increased mortality in studies)
- Do not delay more urgent critical resuscitation interventions to give TXA
- Isolated head injury
- Disseminated intravascular coagulation (DIC) and/or intravascular clotting

## **Dosing and Administration of TXA:**

- Order to administer TXA given by Trauma Surgeon
- Loading dose: TXA 1 gram in 50ml NS, IVPB, infuse over 10 minutes
- Infusion: TXA 1 gram in 100ml NS, IVPB, infuse over 8 hours
- *Do not* administer in the same line as blood products
- **Both the loading dose AND the infusion should be ordered simultaneously as a bundle**
- Decision to administer and ordering of TXA in EHR should occur while patient is in the emergency department for rapid preparation of medication by pharmacy (In Medhost, search under "TXA" or "Tranexamic Acid" > select "Tranexamic Acid (TXA) for Trauma Hemostasis" folder > select BOTH loading dose and infusion options)
- Loading dose can be started in the emergency department. The TXA infusion should be sent with the patient to the operating room for administration upon trauma surgeon request.
- If patient transported to the operating room before loading dose can be started, both doses should be sent with the patient to be given by anesthesia team.
- If decision to administer TXA does not occur until patient is in the operating room, the loading dose and infusion should be prepared and administered by anesthesia team (100ml NS bag added to blue trauma boxes in OR to prepare infusion).

## **REFERENCES:**

1. CRASH-2 trial collaborators. Shakur H. Roberts I. Bautista R. Caballero J. Coats T. Dewan Y. El- Sayed H. Gogichaishvili T. Gupta S. et al. "Effects of tranexamic acid on death, vascular occlusive events, and blood transfusion in trauma patients with significant haemorrhage (CRASH-2): a randomised, placebo-controlled trial". *Lancet*. 376(9734):23-32,2010.
2. CRASH-2 collaborators. Roberts I. Shakur H. Afolabi A. Brohi K. Coats T. Dewan Y. Gando S. Guyatt G. Hunt BJ. Morales C. Perel P. et al. "The importance of early treatment with tranexamic acid in bleeding trauma patients: an exploratory analysis of the CRASH-2 randomised controlled trial". *Lancet*. 377(9771): 1096-101, 2011.