

UAMS MEDICAL CENTER
TRAUMA and CRITICAL CARE SERVICES MANUAL

SUBJECT: Appropriate Administration of TXA

SUPERSEDES: 08/2019 Guideline

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RECOMMENDATION(S): Dr. Kyle J. Kalkwarf

APPROVAL: 03/15/2018

CONCURRENCE(S): All

EFFECTIVE: 07/22/2020

PURPOSE:

To provide guidelines for the appropriate administration of TXA in the acute severe trauma patient.

STATEMENT OF THE PROBLEM:

Acute coagulopathy of trauma is associated with hyper fibrinolysis in patients with severe traumatic injuries. These factors occur independently of hypothermia and acidosis but combine to contribute to a very high mortality rate. In conjunction with efforts to optimize the resuscitation of the traumatically injured patient, damage control procedures and utilization of a massive transfusion protocol to achieve an optimal transfusion ratio, the use of antifibrinolytic agents and purified coagulation factors has been used in an attempt to improve outcomes. Tranexamic acid (TXA) is the latest studied antifibrinolytic agent which has been used in the care of the trauma patient.

TXA is a synthetic version of the amino acid lysine and blocks plasminogen from interacting with fibrin and reduces the breakdown of clot. It was initially developed as a treatment for reduction of bleeding in dental extractions in hemophiliacs. It has subsequently been used in multiple other procedures - arthroplasty, transplant, cardiac surgery, and other surgeries. It has been suggested as an adjunct in the treatment of bleeding caused by trauma.

PATIENT SELECTION:

The following patients may benefit from early (within 3 hours of injury) administration of TXA:

1. EXTEM ML \geq 15% and ongoing transfusion requirement
2. EXTEM ML \geq 15% and severe traumatic brain injury with evidence/risk of bleeding
3. EXTEM ML \geq 15% and severe solid organ injury with significant potential for bleeding

***** USE OF TXA MORE THAN 3 HOURS AFTER INJURY IS ASSOCIATED WITH
INCREASED MORTALITY AND SHOULD ONLY BE GIVEN WITH TRAUMA
ATTENDING APPROVAL *****

DOSING:

1. Infuse 2 grams of TXA in 100 mL of 0.9% NS over 10 minutes intravenously (more rapid injection has been reported to cause hypotension).

PERFORMANCE MONITORING:

1. Patients exhibiting above selection criteria will be given TXA within 3 hours of injury
2. Patients who arrive having received TXA or with TXA currently infusing will have drug held until above selection criteria are met or per attending discretion

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