**Purpose:** A guideline for tranexamic acid (TXA) administration was developed for the trauma team but an audit was needed to determine compliance. TXA should be initiated within three hours of the time of injury. The bolus dose is 1 gram IV given over ten minutes, followed by a drip of 1 gram over eight hours. We needed to know if the bolus and drip were given as the guideline instructed, and if not, what was accounting for the missed doses. The TXA bolus is ideally given by EMS or in the trauma bay for the bleeding trauma patient who meets criteria for a blood transfusion, but stronger communication between care teams was needed to ensure doses were appropriately given.

**Resources:** Data on TXA doses was provided by the trauma registry. A PI nurse reviewed and analyzed the data. Education for the trauma registrars and staff nurses was provided by the trauma education nurse and trauma PI nurse. This education was provided during "huddle times" with staff. Bright red armbands for patients receiving TXA were an important part of our interventions and they were created and funded by our regional advisory committee and trauma department.

**Description:** The audit of the data was performed first. Sixty-seven patients from the trauma registry were audit. Criteria included all trauma patients who received a bolus of TXA, Patients who died in the ED were excluded from the data. The audit revealed the TXA guideline was not followed 56% of the time. A bolus given without a drip following it accounted for 81% of the fallout. The audit was not initially intended to look at the accuracy of registry coding, but incidentally the audit revealed that 29% of the data was incorrectly coded by the registry team. This prompted us to expand our interventions to include training of registrars on the TXA guideline and how to capture it accurately. Our interventions included distributing the results to trauma physician and registry teams. Next, TXA education and case review presentations were provided to all trauma registrars. TXA education was targeted to nursing staff on trauma units and real time audits were performed on newly admitted patients who met criteria for TXA, and this feedback was given during morning reports so the drip could still be ordered for select patients. Armbands were created for use by EMS agencies who carry TXA and the ED department, to identify patients who have been started on TXA, and this work is ongoing and the Emergency Medicine physicians over the past year selected TXA use as a QA measure. We continue to provide TXA data from the trauma registry to the ED on a quarterly basis, and this is distributed to all of their staff including physicians.

**Effectiveness:** A follow-up audit of TXA data after our first round of interventions showed significant improvement in the coding by trauma registrars. Prior to the education and case reviews, 29% of the data was incorrectly coded, with this decreased to only 5% incorrect coding after the intervention. The guideline was still not being followed 60% of the time, so our interventions needed to continue. Education was strongly targeted to ICU nurses after the follow-up audit revealed that 55% of patients that did not receive the drip left the ED and went straight to ICU. Once the quarterly data was provided to emergency medicine physicians on an ongoing basis, the usage of TXA shows a small upward trend to 63%.

**Lessons Learned:** We learned through this audit that discussion of the TXA bolus was not a routine part of handoff from ED to ICU/OR. Our next intervention aims to add a check box for TXA on the trauma flowsheet. We also learned that education on the TXA guideline and the specifics of a bolus vs. a drip dose was not provided to the trauma registrars prior to asking them to collect the data. During our education to staff nurses, we learned that ICU nurses were not widely familiar with the need for the TXA drip to follow the bolus. Moving forward, education on new guidelines needs to include these vital parts of the trauma team.

**Conclusions:** Included in the data above. Graphs of the data can be included in presentation.

**Benefits to Others:** Injured patients have multiple needs and are often unstable with rapid interventions occurring simultaneously. TXA has shown benefits to the trauma patient receiving blood, but it is new to many centers and EMS agencies and needs ways to be easily implemented and reminded. Our interventions were simple and easy to replicate by other centers.

**Implementation by Others:** We can share the literature based education we provided to our staff and our method for auditing the data. Our guideline can be used as a reference as well. The TXA armbands can be ordered through a vendor.