Methods

- **Setting**: 42 Bed Category II Trauma Center who sees >50K patients per year. Of those patients 1,752 are categorized as a Category 1,2, or 3 trauma activation.
- **Sample**: Trauma data related to patients who arrived as a categorized trauma on anticoagulation therapy between Quarter 1 2021 and end of Quarter 1 2022, total of 387 patients.

**Intervention**:
- Multidisciplinary team comprised of ED Manager, Trauma Coordinator, bedside nursing, ED physician champion Trauma Medical Director, Pharmacy, and Diagnostic Imaging.
- RCA was completed with a retrospective chart review of cases who did not meet the benchmark of reversal medication in 120 minutes on arrival to ED.
- New process implemented based on data collected from chart review. SBAR format used to educate all stakeholders i.e. ED physician team, ED nursing, CT tech team, and Pharmacy.
- Process included creating of ACT ALERT internal page to stakeholders, that expedited patient care on arrival. This includes imaging studies, lab collection, improved accuracy in ESI level/triage categorization, and pharmacy awareness for reversal agents.

**Methods of Evaluation**: PDSA is the methodology used to initiate the QI project and ensure sustainability. Data is collected using internal daily audits of ACT alert initiation.

**Analysis**:
- After implementation of ACT ALERT process an increase in identification of this population has occurred with a significant decrease in times from arrival to reversal agent administration.

Results

- Data collection from the first 3 months of 2021 supported inconsistencies in reversals times average reversal was 164 min. with longest >200 min.
- Data collection continued monthly with continued review of process and interventions put into place. Department now superseded target with last quarter (Q1 2022) data 93 min. from arrival to reversal.
- 70-minute decrease from arrival to reversal was achieved from the start to finish of this quality team. Door to reversal is now a metric shared and celebrated at unit meetings and daily safety huddles.

Discussion

- During this improvement project the team’s continuous re-evaluation of the process resulted in uncovering several barriers in meeting the goal of 120 minutes to reversal from arrival.
- Utilization of the PDSA Cycle occurred rapidly often after review of a fall out. This resulted in incorporating other interventions such as a hotline direct to pharmacy and adding phlebotomy to the silent internal page to collect blood samples as soon as the patient arrives.
- An additional barrier was the low volume of patients each month who suffered ICH and required reversal agents.
- Strengths from this project included the departments’ ability to pivot to provide care of a population that is growing in their typically young community. This was accomplished by the creation of a new care pathway for a low volume high risk patient that was often overlooked.
- Another strength that was unforeseen was the decrease in missed or under categorized traumas in patients who are 65 and older.

Implications for Practice

- The ACT ALERT page starts a cascade of events that expedites the care leading to early interventions. This may decrease morbidity and mortality in patients 65 and older on anticoagulant therapy who suffer from a head trauma.

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References