Under Triage of Geriatric Trauma Patients in the Emergency Department

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Introduction

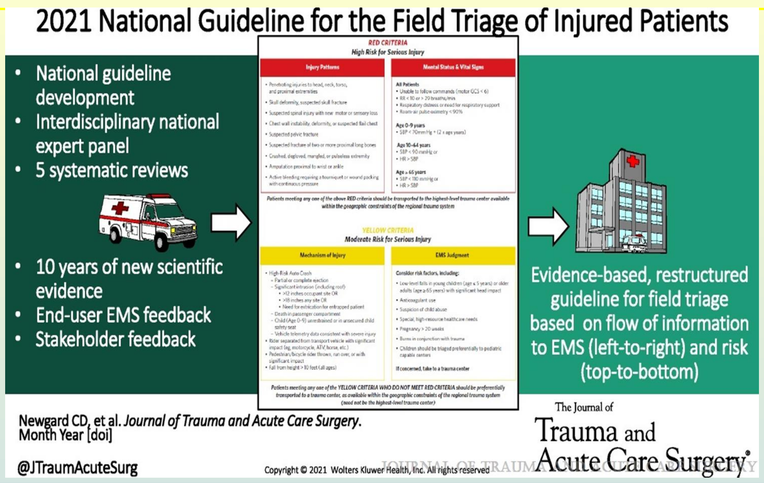
We monitored our monthly number and level of trauma activation for geriatric patients (those 65 years of age and over) in the GSUH Emergency Department(ED). This data was correlated with the previous year as part of ongoing quality improvement (QI). We identified opportunities to improve our accuracy of geriatric trauma activation when we saw > 100 geriatric patients under-triaged from January 2023 to August 2023. The under-triaged geriatric patient is defined as having an Injury Severity Score(ISS) >15 without a trauma team activation. Research has shown under-triaged geriatric patients have an increased rate of mortality andother sequelae as a result of the trauma. We formed a team of key stakeholders* and consulted our medical librarian, and nurse researcher to conduct a systematic search of the literature on trauma activation for patients over 65 years of age.

Literature Review

The literature review comprised the past 10 years of data from studies on trauma activation for patients over 65 years of age. We used multiple consecutive searches, with search terms ED, Emergency Department, trauma activation for patients over 65 years of age, ISS instrument, survey, and interventions. We included grey literature (e.g., white papers, expert consensus papers) in the literature review. Initially, we retrieved 22 papers. Scoping to a specific population (geriatric trauma patients presenting to the ED) and excluding duplicate retrievals, resulted in 14 references.

Purpose

The purpose of this project is to improve the accuracy of trauma activation levels in geriatric trauma patients presenting to the GSUH ED through the implementation of evidence-based best practices such as a geriatric trauma bundle (order set).



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Questions we will answer with this Project

1- Does the implementation of a geriatric trauma bundle increase the accuracy of trauma activation levels in geriatric trauma patients presenting to the GSUH ED appropriate for their level of injury?

2- What was the compliance with education among ED staff across the implementation of a geriatric trauma bundle?

3- Does compliance with the geriatric trauma bundle (order set) decrease the average time to CT scan? Does the variance time to CT scan correlate with the level of trauma activation for geriatric trauma patients presenting to GSUH ED?

4- During the pilot assessment stage of the PI project, was there a correlation between the ED staff prompting the activation of accurate trauma levels for trauma patients under 65 years of age vs those over 65 years of age?

Methods

We instituted an ED-wide EBP project to improve appropriate trauma activation for patients over 65 years of age presenting to the ED.

This is being accomplished with an evidence-based approach to designing a bundle to increase appropriate trauma activation for geriatric patients in our Emergency Department.
The bundle includes:

1. The piloting and evaluation of a best practice geriatric trauma assessment screening tool.

2. The institution of mandatory ED workforce education and training regarding the bundle and use of the assessment tool that will be evaluated after pilot and then included within mandatory annual training.

3. The piloting and evaluation of a 10- day pilot assessment cueing project to observe and record adherence and cue staff when guidelines not followed.

4. The piloting and evaluation of role assignment stickers for trauma team in trauma bay to improve team coordination and communication.

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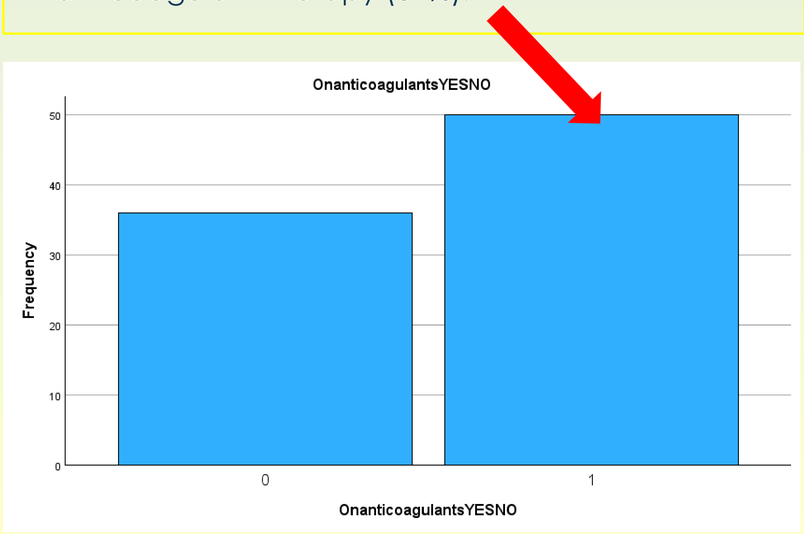
*Key Stakeholders – Nurse manager, ED staff RNs, ED RN educators, trauma department staff, and ED and trauma physicians

Interim Results

- There were 168 participants (n=97 for pts > 65 yrs. and older, n=70 for pts < 65 yrs. of age.
- The pts 65 yrs. and > had a statistically significant lower likelihood of trauma activation level than those < 65 yrs. ($x^2(1) = 11.30$, $p < .001$).
- The pts 65 yrs. and > had a statistically significant average trauma activation level than those < 65 yrs. ($t(165) = 0.58$, $p < .001$).
- Patients < 65 years of age were 3 times more likely to (OR 2.98; 95% CI 1.56,5.67) have a trauma activation than those 65 years and over.
- Additionally, the risk of complications for geriatric trauma patients is higher if the patient is on anticoagulants. Of the n=97 geriatric trauma patients in our sample, the majority were on anticoagulant therapy (59%).



Next Steps

We are in the process of educating our staff on the updated geriatric trauma activation criteria.

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