Abstract Title:
Evidenced-based Study Resulting in Rapidly Identifying Patients meeting Trauma Activation Criteria on Arrival by RNs

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Background & Purpose:
Like many Community- based Level III Trauma Centers, our Trauma Activations are called by MDs only. Using ED LOS (length of stay) time motion studies and undertriaged statistics over a period of six months, we discovered that many of our Trauma Activations had concerning extended times from arrival to the MD seeing the patient and initiating the Activation. We also found our undertriaged rate to be above the regional average. It was concerning for patient safety. Methods for improvement were discussed in the Trauma Services Committee and the LOS sub committees.

Study/Project Design:
Data was collected throughout the trial period using previous mentioned methods.

Setting:
Data was collected on all patients with any kind of trauma seen in our ED.

Sample:
During the trial period, there were about 7500 total ED pts, 1560 pts with trauma and 159 Trauma Registry patients.

Procedures:
Trauma Services developed a “Trauma Alert” protocol that allowed the Triage RN or Charge Nurse to identify those meeting Trauma Activation Criteria and to overhead page “Trauma Alert, Room #”. This notifies the ED MDs that a concerning trauma patient has arrived. Education to all ED Staff was undertaken and the program launched for a 6 week trial. We continued with our previous ED LOS Time Motion and Undertriaged Trauma Studies and tracked changes in both areas. After two weeks, it was shown that RNs were still inconsistent in calling the Alerts so more education thru triage algorithms, posters and staff meetings was undertaken. Trauma Criteria badge cards were given to both RNs and MDs.

Findings/Results:
Tracking continued for two more weeks but, due to the positive results of the study, the Trauma Alert Protocol was permanently adapted in only four weeks from time of initial implementation. Data showed changes in all of the previous areas of concern:
- Time from door to MD visit decreased from an average of over 15 minutes to fewer than 5.
- Time from arrival to Trauma Activation called average decreased by 10%.
- Number of Trauma Activations went from average of 25 per month to now 55 per month.
- Activation identification increased by 100%.
- Undertriaged is a rare occurrence now at <1%

In addition:
- The Trauma Alert Protocol identified nearly all patients requiring urgent intervention.
- The Trauma Alert Protocol demonstrated no significant undertriaged patient safety events.
- The Trauma Alert Protocol was associated with a significant reduction in undertriaged rates.
- The over-triage rate demonstrated no significant difference.

Discussion/Conclusions/Implications:
The study had many positive results not only for our Trauma Patients but for the entire ED Staff! The ED nursing staff showed confidence and pride in recognizing Trauma Alert Patients. MDs were happy to be able to focus on the more urgent Trauma Patients sooner. Even the techs got involved. As a result we may soon see a change in procedure so Trauma Activations will be called by RNs. This procedure has also been shared with a non trauma facility seeking Trauma Designation to help them prepare by practicing identifying Activation Criteria now before they apply.