Development of a Limited Trauma Activation Team Response in a Level 1 Pediatric Trauma Center

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What is the problem or challenge you identified?
Trauma patients were arriving to the Emergency Department (ED), who did not meet full trauma team activation criteria, but their injuries needed expedited evaluation by a surgeon. Through our PI process, we identified a small subset of severely injured patients who were “under triaged” using the Cribari methodology. Given the injuries identified, an expedited surgical evaluation was deemed to be the optimal management. However, the criteria that identified the cases were inconsistent so the “trigger” criterion was left to the emergency medicine physician’s discretion.

Describe the intervention you developed/change you implemented to address the problem:
In 2012 a third tier, Level 3, was added to our trauma team response to address the need of expediting surgical evaluation for trauma patients that did not meet trauma team activation criteria. The Level 3 consult included an immediate response from a senior surgery resident or attending, radiology technician, and laboratory, to the patient bedside in the ED.

How did you measure the effects of the change?
After a Level 3 activation was initiated, a follow-up questionnaire was distributed to the emergency medicine physician, surgery fellow, attending surgeon, and ED nurse within four days of the activation. The questionnaire inquired about the appropriateness of the activation, timeliness of the surgeon response, and value found in activating the Level 3.

In 2015 the trauma program evaluated data for the Level 3 activations between January 2013 and March 2015. There were a total of 15 patients that had an average injury survey score (ISS) of 16 (range 1-38). Of these 15 patients, 7 (46%) were admitted to the ICU and 2 (13%) went directly to the Operating Room. Some areas of improvement that were identified within the review included a lack of documentation that a Level 3 was initiated, and the average length of time of 194 minutes (range 85-343 minutes) in the ED was not reduced. Feedback from the questionnaires confirmed that the patients who had Level 3 activation needed emergent surgical evaluation by a surgeon, surgeon response time were felt to be appropriate, films were promptly completed in the ED, and all members of the team felt the activation was helpful.

How did you sustain the change?
Data from the trauma program review was presented at the multi physician disciplinary review meeting. All Level 3 activations will now be reviewed within 72 hours of the event by the trauma medical director, emergency medicine liaison, performance improvement coordinator, and trauma program manager. The time of surgery arrival at bedside will be documented within the trauma registry. Education was provided to both nursing and physician groups that better documentation needs to occur in order to add extra charges to patient care.