

# Evidence-Based Practice (EBP) - E170

## Poster

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### Abstract Title:

**Trauma Pit Crew: The Race for Excellence!**

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### Authors:

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### Background & Purpose:

During our journey towards initial trauma center designation at our 640 bed urban hospital, we assessed needs for trauma education. Deficiencies noted were lack of knowledge, teamwork and efficient practice of standardized staff roles during trauma codes, longer than desired ER length of stay and other metrics. We created, developed and implemented an innovative education model named "Trauma Pit Crew" which focuses on the process metrics of the trauma code, especially the initial 10 minutes, as well as ongoing trauma education. The goals of Trauma Pit Crew are staff education, engagement, teamwork, improved trauma care and patient safety. This model can be applied at trauma and non-trauma centers.

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### Study/Project Design:

2010 through 2012 with changes in activation criteria, order sets and guidelines with measurement of improvements.

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### Setting:

Our 640 bed urban hospital, 83k annual volume ER, our simulation lab and an offsite local team building activity.

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### Sample:

To date, approximately 200 staff have been involved in Trauma Pit Crew training in some format. About 60 staff were involved in the initial kick off of the Trauma Pit Crew education

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### Procedures:

Trauma Pit Crew is built on the similarity of ER roles to pit crew in car racing. Standardized roles and efficiency is essential to best patient care and safety. The innovative idea is fresh and fosters engagement of staff and physicians. Trauma Pit Crew includes a lecture series tracing the trauma patient through the continuum of care and a team building exercise followed by simulation lab practice of the trauma code, particularly the first ten minutes of the code with top 5 behaviors for each role. The focus on Trauma Pit Crew is the efficiency of the process more than the clinical scenario; tasks that improve patient care and safety, time line metrics and ER length of stay. In our kick off of the Trauma Pit Crew, ER staff dressed out in fire suits and trained at a real Pit Crew training facility, which staff found an exhilarating and valuable experience. We also created Pit Stops for Trauma; quick educational offerings on various trauma topics.

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### Findings/Results:

We found it true that: "It isn't what you say, but how you say it." With required classes, certifications, core measures and etc., when the ER nurse hears "in-service", their eyes glaze over. Trauma Pit Crew is innovative in its simplicity: It makes trauma education FUN! Measurement tools include a 20 data point trauma surgeon code evaluation form, a 30 data point data form measuring RN documentation on the trauma flow sheet, a simulation lab grading sheet, a trauma code assessment form and measurements of time line metrics and ER length of stay, identifying where delays occurred. We have a professionally designed "Trauma Pit Crew" logo and slogan with printed T-shirts, pens and an award winning Trauma Pit Crew poster. Kick off staff received recognition and DVDs of their Pit Crew training performance. Staff also report that the real life analogy to pit crew augments the trauma education in a way that increases retention, builds teamwork and improves patient care and safety. From 2010 to 2012 RN data capture increased from 81.7% to 88.2%, ER LOS dropped from 4.2 hrs to 3.9 hrs and trauma surgeon evaluation scores reached 93.2% from a baseline score in the low 70%.

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### Discussion/Conclusions/Implications:

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We learned the benefit of a fresh education model, increased teamwork and engagement and multiple applications of Trauma Pit Crew. It is a great vehicle to augment education already in place at large, urban, non-urban or even non-trauma centers. The unique design allows each facility to cater the content to their needs while engaging the staff. Non trauma centers can practice more efficient identification, stabilization and transfer. Unscheduled Trauma Pit Stops covering various topics benefit staff and increase interest. In a 2012 ACS survey we were prompted to share our Trauma Pit Crew model; in 2013 we plan to host Trauma Pit Crew activities at our facility as well as offer the model for outside use.