

Solution: Improve Clinician Perception of Teamwork and Communication During the Care of Trauma Patients at Christiana Hospital

Organization: Christiana Care Health System **Type:** Acute Care
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IDENTIFICATION:

Christiana Hospital is an American College of Surgeon's verified and State of Delaware designated Level I trauma center, which cares for approximately 3,000 trauma patients each year.

- The trauma bay is a complex clinical environment requiring the interaction of multiple disciplines in order to effectively care for critically ill patients. Although trauma care is driven by protocol, there is the potential for information loss and communication breakdown.
- Analysis of CCHS results from system-wide AHRQ Culture of Patient Safety Survey results confirmed staff perception of opportunities for improvement in teamwork and communication.
- In the trauma bay specific opportunities for improvement were identified related to noise levels, crowd control, and team communication as these factors impact safe care delivery.
- Trauma team members felt that many of the issues related to communication and team behavior observed in the trauma bay could be addressed using Crew Resource Management (Team Training) principles, based on the Agency for Healthcare Research and Quality (AHRQ) TeamSTEPPS™ program.

Goal: Improve clinician perception of teamwork and communication during the care of Trauma patients at Christiana Hospital

PROCESS:

Plan-Do-Check-Act model as well as Katter's change model was used to develop and implement solutions

Measures included:

- AHRQ System-wide *Culture of Patient Safety Survey*
 - Administered system wide in 2006; re- survey planned for January/Feb 2009
 - Results indicated opportunities for improved teamwork and communication across the system
- AHRQ *Team Assessment Questionnaire* to assess perception of teamwork in the Trauma Bay
 - Administered to Trauma Care clinicians pre and post intervention
- ED Length of Stay and Disposition times for Trauma Code/Alert Patients pre and post-implementation
 - Trauma Registry data

SOLUTION:

- A multi-disciplinary advisory council and implementation team was formed
- Implementation team customized a curriculum for team training after attending the Agency for Healthcare Research & Quality TeamSTEPPS™ Master Trainer conference
- The existing trauma policies were modified to incorporate team training principles
- Communication and teamwork tools were customized
 - Pre-arrival brief /checklist
 - Post-resuscitation and post-diagnostic communication processes
 - Call outs-repeat backs
 - Microphone Resident
 - ED-OR hand-offs
- Training was conducted from March-Nov 2007 for all trauma clinicians
 - Over 350 individuals from Emergency Nursing, Emergency Medicine, Anesthesiology, Surgery, Allied Health attended team training
- A validated survey (AHRQ Team Assessment Questionnaire) was distributed to clinicians to assess the baseline perception of teamwork in the trauma bay prior to conducting team training (March 2007)
 - Selected Survey Questions were re-administered post intervention in June 2008
 - Responses were analyzed for statistical significance for each discipline
 - Trauma registry disposition times were assessed pre- and post-training implementation

Results

- Overall, surgery residents had the most positive change in perception of teamwork in the trauma bay. In 2008, surgery residents agreed more strongly with statements which reflected teamwork and communication compared to responses to the same questions in 2007
- ED nurses perceived improvement in the skills, training and resources the team has to achieve its goals. Nurses perceived higher morale than last year.
- Similar to ED nursing, Anesthesiology respondents reflected an improvement in perception of the team having adequate skills and resources to accomplish its goals.
- Emergency Medicine surveys did not reveal statistically significant positive changes in perception of teamwork; this may reflect their baseline higher degree of relative satisfaction with teamwork
- Preliminary data post training showed a 30 minute decrease in disposition time to OR

Sustainment strategies include monthly Trauma Conference Team debriefings, Simulation, and Quarterly Interdisciplinary Grand Rounds.

Teamwork training has been sought after by other areas in the organization and will be implemented next in perioperative services.