The Development of a Trauma Alert (Tier) 3 Response Team Including Partial Activation Fees at a Mature Level I Trauma Center

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What is the problem or challenge you identified?
Background: The goal of the trauma center is to provide consistent, high quality care to all the injured patients that enter our system, along with the capture of trauma registry data and appropriate revenue charges. Our Level I trauma center evaluated 1,057 patients for FY-14 with only 493 activations charge captured. Our goal was to develop a new third trauma activation level (Alert 3), that (1) captures new charges for trauma team activation; (2) improve data collection for the trauma registry; and (3) organize human and material resources to care for a specific population of trauma patients formerly consults as well as mitigate risk.

Describe the intervention you developed/change you implemented to address the problem:
Create a new third tier of trauma team activation known as “Trauma Alert 3”

- Collaborative process: Trauma medical director, trauma program manager and Emergency Center medical director/ faculty
- Develop Trauma Alert 3 activation criteria
- Develop Trauma Alert 3 notification/paging response group
- Develop Trauma Alert 3 response team guidelines
- Develop electronic medical record (EMR) registry tracker for each trauma patient
- Develop quality measures
- Educate all disciplines regarding new activation response team and responsibilities

Gather expert advice on trauma team activation charge regulations
- Trauma Center Association of America (TCAA) national workshop attendance
- Collaborative conference calls with TCAA
- Collaborate with revenue management, reimbursement, managed care
- Gain charge change approval
- Review regulatory guidelines
- Review specific clinical documentation
- Charge code development
- Implement process and audit method with Emergency Room (ER) billers
- Collaborate with Emergency Department (ED) leadership for required nursing trauma documentation
How did you measure the effects of the change?

Specific Measures: Financial Impact, Growth, and Projected Revenue:

Outcomes:

- 62 percent Increase in overall program trauma activation fees captured with trauma team response/Advanced Trauma Life Support® (ATLS®) evaluation
- 14 percent growth in trauma registry submissions including Alert 3 (Tier #) activations
- Increase in ACS TQIP®/National Trauma Data Bank® (NTDB®) Benchmark Report patient inclusion
- $275,000 increase in trauma activation (Tier 3) fees captured first year

How did you sustain the change?

The new trauma activation level 3 was added to the trauma activation criteria for trauma team alerts. An electronic medical record registry tracker was implemented in the patients EMR. A billing audit process was developed and implemented with key super user from the department. The trauma registry increase of date volume provided justification for additional Registrar positions. The culture and learning curve of a new activation level was longer than expected and required frequent re-education for clinical and billing employees but is becoming the new process. The registry staff were part of the development and process from the beginning so they were primary champions for the project. This project provided an excellent opportunity for system collaboration between the trauma program, emergency services, information technology (IT), revenue/billing, and trauma registry. Future opportunities include more focus on TQIP/NTDB performance improvement benchmark data for all trauma activation levels including Alert 3.
THE DEVELOPMENT OF A TRAUMA ALERT (TIER) 3 RESPONSE TEAM INCLUDING PARTIAL ACTIVATION FEES AT A MATURE LEVEL ONE CENTER

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Background: The goal of the trauma center is to provide consistent, high quality care to all the injured patients that enter our system, along with the capture of trauma registry data and appropriate revenue charges. Our Level One Trauma Center evaluated 1057 patients for FY-14 with only 493 activations charge captured. Our goal was to develop a new third trauma activation level (Alert 3), that (1) captures new charges for trauma team activation, (2) improve data collection for the trauma registry and (3) organize human and material resources to care for a specific population of trauma patients formerly consults as well as mitigate risk.

Plan/Development process:
Create a new third tier of trauma team activation known as "Trauma Alert 3"
- Collaborative process: Trauma medical director, trauma program manager, and Emergency Center medical director/faculty
- Develop Trauma Alert 3 activation criteria
- Develop Trauma Alert 3 notification/paging response group
- Develop Trauma Alert 3 response team guidelines
- Develop EMR registry tracker for each trauma patient
- Develop Quality measures
- Educate all disciplines regarding new activation response team and responsibilities

Gather expert advice on trauma team activation charge regulations
- Trauma Center Association of America national workshop attendance
- Collaborative conference calls with TCAA
- Collaborate with Revenue Management, Reimbursement, Managed Care
- Gain charge charge approval
- Review regulatory guidelines
- Review specific clinical documentation
- Charge code development
- Implement process and audit method with ER billers
- Collaborate with ED leadership for required nursing trauma documentation

Implementation:
- Implementation 05/02/2014
  - Completion of Alert 3 Trauma activation criteria & EMR registry tracker for each patient
  - Utilization of appropriate Alert 3 trauma team activation criteria
  - Alert (tier) 3 Activation fees and audit process applied
  - Data entry to NTDB/TQIP by trauma registrars

Outcomes:
- 62% Increase in overall program trauma activation fees captured with trauma team response/ATLS evaluation
- 14% growth in Trauma Registry submissions including Alert 3 (Tier #) activations
- Increase in TQIP/NTDB Benchmark Report patient inclusion
- $275,000 Increase in trauma activation (Tier 3) fees captured first year.

Conclusions/Lessons Learned: The addition of an Alert (tier) 3 trauma activation level resulted in 14% increased trauma registry patient capture and data input. The overall trauma volume fees captured increased 62% including activation of the Alert (tier) 3. The trauma registry increase of data volume provided justification for additional Registrar positions. The culture and learning curve of a new activation level was longer than expected and required frequent re-education for clinical and billing employees. This project provided an excellent opportunity for system collaboration between the trauma program, emergency services, IT, revenue/billing, and trauma registry. Future opportunities include more focus on TQIP/NTSB performance improvement benchmark data for all trauma activation levels including Alert 3.