Overview of UAMC Trauma Program

Trauma Program Managers Workshop
July 30, 2013

Michelle Ziemba, RN MSN Director of Trauma and Emergency Services
OVERVIEW OF TODAY’S ACTIVITIES

• Understand more about the Level I Trauma Center at UAMC – University Campus
• Appreciate the role Trauma Centers play in the Trauma System and how important the Performance Improvement processes are to improve the system of trauma care in our state
• Participate in a real M&M session to see first hand how care can be reviewed and discussed for the benefit of program development
• Learn first hand through panel discussions ways in which performance improvement activities can be implemented in trauma centers
• Opportunity to network and exchange ideas with our peers and colleagues.
UAMC – UNIVERSITY CAMPUS LEVEL I TRAUMA CENTER

- UAMC was initially verified as a Level I Trauma Center by the ACS in November of 2008.
- Prior to that time, as many of Arizona’s trauma centers, it was a self-designated Level I trauma program.
- We see about 4800 trauma patients each year with 2400 admits.
- All surgical subspecialties exist on this campus.
- We are the only Level I trauma center serving all of Southern Arizona.
- One of the busiest in the state.
- Academic medical center for the University of Arizona College of Medicine.
- We participate in the SAEMS region – Southern AZ EMS region.
UAMC TRAUMA DEPARTMENTS AND UNITS

• **Emergency Department** – 61 treatment spaces, 7 of them large trauma resuscitation bays. 18 bed Pediatric Emergency Department. In addition a 16 bed CDU observation unit.

• **2DW Surgical / Trauma ICU** – 20 bed surgical trauma ICU located directly above the ED

• **2DN** - Intermediate Care unit surgical unit for recovery of surgical and trauma patients adjacent to the ICU.
ROLE OF THE TRAUMA PROGRAM MANAGER

• Very unique and can be a pretty lonely job as it is often the only one in a facility
• Holding all people accountable to optimal trauma care for all our injured patients
  – Nurses
  – Physicians
  – EMS Providers
  – Departmental Leadership
• Must be an expert in PI processes. Eventually you will be sought after by others in your organization to help them improve other systems of care
• Trauma center operations and systems stress hospital operations. Trauma is a time sensitive disease that requires availability and consistency. If you do trauma well your organization can do many other things well.
• Master at using data to drive improvements and changes
• We need each other to support our efforts and initiatives.
PERFORMANCE IMPROVEMENT DRIVES YOUR PROGRAM!!

- **Right Patients**
  - AZSTR – definition of the trauma patient
  - Field Triage Criteria (State, CDC, regional)

- **Right Place**
  - Level of Trauma Center
  - Level of patient care in your hospital

- **Right amount of time**
  - Scene times
  - ED Dwell times
  - Time to next phase of care

- **Right thing for the patient**
  - Outcome measures
  - Mortality
  - Complications
PERFORMANCE IMPROVEMENT PROCESS

• Define and know your indicators / standards of care delivery
• How will you measure it? Must be able to track, audit, and or measure compliance for that indicator
• Define and implement your processes for review. Operational committees, special task forces, and or Case Review
• LOOP CLOSURE. Define how you will take action to fix and or correct any issues you find to improve the care to trauma patients.
PERFORMANCE IMPROVEMENT

Trauma Centers

• Program operations
• Facility specific performance as it relates to the care of the patient in your facility
• Timing to transitions of care
• Complications
• Outcomes
• Performance competency of trauma staff

Trauma System

• System operations through various systems of care
  – EMS
  – Trauma Centers Level IV, III, II, I
• Field triage and transport
• ED dwell time timing of transitions
• Mortality
• Injury prevention
• Legislative initiatives
• Mass casualty management
Trauma M&M Unraveled

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**First Level Review**

**Purpose:** Issue Identification / Validation

**Phase of Care**

- **Prehospital**

**ID of Issues**

**Second Level Review**

**Purpose:** Determine what goes to committee, review complex inpatient cases and systems issues. Program oversight and communications. Completed by TDQ, TPM and or TMD. Weekly Trauma M&M

**Legend**

- TR – Trauma Registry
- PHC – Prehospital Coordinator
- TNP – Trauma Nurse Practitioner

**Third Level of Review**

**Purpose:** Peer review / accountability determination loop closure plan, trended data review. Review of trauma program system activities.

**Trauma Operations Committee (Trauma CPI)**

**Trauma Multidisciplinary Peer Review Committee**

**Actions**

- Educational Session
- Staff Follow Up Corrective Action
- Trend Monitor Report
- Guideline / Policy Development
- Hospital / Systems Project
FIRST LEVEL REVIEW

• Initial review of care
• Review of care against established audit filters or PI Indicators
• If something is triggered in that review does it need to go further?
  – Impact patient outcome
  – Triggered review or audit but situation was handled appropriately best for the patient
  – Issues is being tracked and trended
• Determination if the issue needs to go for a next level of review for case review or significant operational system issue.
SECOND LEVEL OF REVIEW

- Review between TPM and TMD for review of the situation and at that time can implement immediate action and or loop closure.
- Review as M&M Trauma service level meeting or an Emergency Department case review conference.
- Issue taken up to a hospital organizational performance improvement or quality meeting this system issue not only impacts the trauma patient, but this very same issue impacts other populations as well.
- Can the issue be resolved and or loop closure be established at this level?
- Action plans developed
THIRD LEVEL OF REVIEW

• Cases meeting hard line audit filters that all patients meeting this criteria have this level of review
  – Deaths
  – ICU bounce backs
  – Patients not transitioning for the next phase of care in timely fashion
  – Missed injuries
  – Returns to OR
  – Involvement of multiple sub-specialities (issues across departments)
• Multidisciplinary Trauma Peer Review
• Trauma Operations
  – Performance on larger system issues
  – Dashboards tracking issue resolution and program performance
  – Monitoring of previous PI issues
  – Overall program performance and development
## UAMC - Trauma Systems Performance Indicators - FY2012-2013

<table>
<thead>
<tr>
<th>Department Responsible for Supplying Data</th>
<th>Responsible Party for Resolution</th>
<th>Indicator</th>
<th>Threshold</th>
<th>Apr-12</th>
<th>May-12</th>
<th>Jun-12</th>
<th>Jul-12</th>
<th>Aug-12</th>
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<td>Trauma Registry-Monthly</td>
<td>ED RN Manager</td>
<td>Documentation of total intake for all Red Trauma Team Activation Patients (Ratio based, if # of Red trauma activations is the denominator, # of trauma activations with total intake documented numerator)</td>
<td>95%</td>
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<td>ED RN Manager</td>
<td>Documentation of total output for all Red Trauma Team Activation Patients (Ratio based, if # of Red trauma activations is the denominator, # of trauma activations with total output documented numerator)</td>
<td>95%</td>
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<td>Trauma Registry-Monthly</td>
<td>Trauma MD's</td>
<td>Presence of Attending Trauma Surgeon at Red Trauma Team Activations. (Percentage of time the attending surgeon is present within 15 minutes of patient arrival for all red trauma activations.)</td>
<td>95%</td>
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<td><strong>Inpatient Care Indicators</strong></td>
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<td>Trauma Services</td>
<td>Trauma Services</td>
<td>Patient Satisfaction: MD percentile ranking for D2N patient care unit</td>
<td>Press Ganey Survey 20th percentile</td>
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<td>DZN</td>
<td>Trauma Surgeons</td>
<td>Physician communication: Rate based on HCAMS Report</td>
<td>HCAHPS Achievement Threshold 79.6</td>
<td>73*</td>
<td>69</td>
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<td>ICU</td>
<td>ICU Manager</td>
<td>Central line infections</td>
<td>NHSN 50th percentile ≤ 3.0</td>
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<td>ICU</td>
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<td>Ventilator Associated Events (Rate of VAE's. Number of VAE's divided by ventilator days, multiplied by 1000)</td>
<td>NHSN 50th percentile ≤ 5.2</td>
<td>1.7</td>
<td>7.8</td>
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<td>ICU</td>
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<td>CAUTI. Rate of catheter associated urinary tract infections</td>
<td>NHSN THD&lt;3.2</td>
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<td>DZN</td>
<td>DZN Staff</td>
<td>Alcohol Screening: Percentage of completed alcohol screenings on all DZN trauma patients ≥ 18 years of age.</td>
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<td>Trauma Services</td>
<td>DZN Staff</td>
<td>Alcohol Brief Intervention: Percentage of documented brief interventions performed on all DZN trauma patients ≥ 18 years of age meeting criteria.</td>
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<td>Social Work</td>
<td>Alcohol Referral to Treatment: Percentage of documented referrals to treatments performed on all DZN trauma patients ≥ 18 years of age meeting criteria.</td>
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<td>Trauma Services</td>
<td>Trauma MD's/Radiology</td>
<td>Percentage of Graded Splines: Documentation of grade of spleen injury in radiology report or discharge diagram.</td>
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<td>90%</td>
<td>57.1%</td>
<td>66.7%</td>
<td>50.0%</td>
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<td>83%</td>
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<td>92.3%</td>
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<td>Trauma Registry-Monthly</td>
<td>Trauma Services</td>
<td>Percentage of Graded Livers: Documentation of grade of liver injury in radiology report or discharge diagram.</td>
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<td><strong>AIS ISS Mortality Rate</strong></td>
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<td>AIS ISS 1-4</td>
<td>(NTDB 0.68)</td>
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<td>AIS ISS 5-16</td>
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<td>AIS ISS &gt;26</td>
<td>(NTDB 30.30)</td>
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<td><strong>AIS ISS Median LOS Days</strong></td>
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<td>AIS ISS 1-4</td>
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<td>AIS ISS &gt;26</td>
<td>(NTDB 30.70)</td>
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LOOP CLOSURE

- Educational session
- Individual staff follow up or corrective action
- Trending and or monitoring report (monthly or quarterly) dashboards to demonstrate improvement and or progress
- Guideline / Policy development and or revision
- Hospital or organizational project or task force