Shifting Patient Safety into High Gear

PSO: Theory to Practice

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Academic Medical Center | Patient Safety Organization
Agenda

• Goals and Objectives
• Current Activities
  • Pilot to Present
• Future Vision
AMC|PSO Objectives:

• Create a bridge between malpractice and real-time data

• Create a secure, protected space to convene member organizations in response to real-time events
Bridging Malpractice Data with “Real-time” Data
New Data Sources

• Adverse Event Data
• Root Cause Analysis Data
• Patient Complaint Data
9-month pilot
Linking the Data Sets (aka “Mapping”)

MED MAL
- Claimant
- Defendant(s)
- Responsible Service
- Contributing Factors
  - Major Allegation
  - Final Diagnosis
  - Injury Severity

PT COMPLAINTS
- Patient Name
- Service
- Event Type
- Event Subtype
- Method of Comm.
- Gravity of Complaint
- Patient Type

SAFETY REPORTS
- Patient Name
- Contributing Factor
- Category
- Subcategory
- Equipment
- Clinical Service
- Injury Severity

Note: The same event can be mapped to several categories or to multiple values of the same category.
Data Limitations

- Different Data Structure
- Different Definitions
- Different Interpretation of the Event
# Examples of Event Severity

<table>
<thead>
<tr>
<th>AHRQ</th>
<th>A</th>
<th>B</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severity Desc</td>
<td>Severity_desc</td>
<td>Severity_desc</td>
<td>Severity Desc</td>
<td>Severity Desc</td>
</tr>
<tr>
<td>A: Unsafe Condition: (Non Event)</td>
<td>1: No Injury</td>
<td>1: No Injury</td>
<td>0: Near Miss</td>
<td>0: Near Miss / Potential Harm / Damage</td>
</tr>
<tr>
<td>B1: Near Miss: No harm; didn't reach patient/caught by chance</td>
<td>2: Minor Injury</td>
<td>2: Minor Injury</td>
<td>1: No injury / monitoring only</td>
<td>1: No Harm / Damage</td>
</tr>
<tr>
<td>B2: Near Miss: No harm, didn't reach patient b/c active recovery by caregiver</td>
<td>3: Moderate Injury</td>
<td>3: Moderate Injury</td>
<td>2: Minor</td>
<td>2: Temporary or Minor Harm / Damage</td>
</tr>
<tr>
<td>C: No harm: Reached patient; no monitoring required</td>
<td>4: Major injury</td>
<td>4: Major Injury</td>
<td>3: Moderate</td>
<td>4: Death</td>
</tr>
<tr>
<td>D: No harm, Reached patient; monitoring required</td>
<td>5: Death</td>
<td>5: Catastrophic</td>
<td>4: Majority</td>
<td></td>
</tr>
<tr>
<td>E: Harm, Temporary, Intervention needed</td>
<td></td>
<td></td>
<td></td>
<td>5: Death</td>
</tr>
<tr>
<td>F: Harm, Temporary, hospitalization needed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G: Harm, Permanent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H: Permanent, Intervention required to sustain life</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I: Death</td>
<td></td>
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</tbody>
</table>
Issues Identified in Existing Reporting Systems

**MALPRACTICE CLAIMS**
- Clinical Judgment: 24.3%
- Communication: 17.1%
- Technical Skills: 11.2%

**PATIENT COMPLAINTS**
- Communication: 21.8%
- Provider Behavior: 18.6%
- Administration: 13.0%

**INCIDENT REPORTING**
- Identification: 24.4%
- Falls: 16.8%
- Med Error/ADE: 14.7%

Lessons learned

• Multiple data resides in multiple areas
  • Overlapping, complementary information
  • Difficult to merge

• Data sources vary by:
  • Timing
  • Severity
  • Reporter
  • Taken individually, highlight specific areas in need of attention

• Lack of common definitions and data structure creates disparate analytic results
The Journey to Root Cause Analysis: A Roadmap to Action
Challenges with current RCA process

- Lack of standardized definitions
- Lack of uniformity in how data is captured
- Thus…in existing state, unable to compare across different organizations
RCA Workgroup

Mapping to MedMal Data

• Developed consensus on standard definitions
• Standard classification of events
• Standard categories
# Root Cause Analysis

**Information Exchange**

<table>
<thead>
<tr>
<th>DATA CAPTURED</th>
<th>FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• What happened ?</td>
<td>• Web-based</td>
</tr>
<tr>
<td>• Who was involved ?</td>
<td>• Ease of Use</td>
</tr>
<tr>
<td>• When did it happen ?</td>
<td>• Near Miss and Adverse Events</td>
</tr>
<tr>
<td>• Why did it happen ?</td>
<td>• Follows RCA workflow</td>
</tr>
<tr>
<td>• How is it remedied ?</td>
<td>• Structured data collection</td>
</tr>
<tr>
<td></td>
<td>• Codified using CRICO taxonomy</td>
</tr>
<tr>
<td></td>
<td>• Action Plans and Tracking</td>
</tr>
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<td></td>
<td>• Reporting Function</td>
</tr>
</tbody>
</table>
Convene members in a secure, safe environment...
“We live in a society bloated with data but starved for wisdom”

—Elizabeth Lindsey
Ethnographer
Patient Safety Continuum

**Patient Safety**

**Model Interventions**
Proven interventions & best practices to create a safe environment

**Risk Assessment & Appraisal**
Real-time peer-to-peer review of patient safety environment

**Focused Real-time**

**Customized**

**Comparative Benchmarking System**
Validation of findings against largest claims database in the world

**AMC|PSO: Real-time Data**
Link to real-time environment through review and analysis of patient safety data in a protected environment - > creates a broad opportunity for learning
Convening Criteria

• Cluster of organizational events (e.g., retained sponges)
• High profile national event
• Individual concern related to a specific specialty
• NQF serious reportable events (SREs)
• Adverse event, near miss, or identified emerging risk that is a concern to the public and/or health care providers
• Any other significant adverse event that requires immediate review and response
Power of Convening

- Everyone comes to the table
- Discussions are relevant, focused and transparent
- Subject matter experts talk about strategies available to correct the problem…mitigate the risk of reoccurrence
- Together we can develop best practice recommendations to mitigate risk and improve patient safety
Wisdom from Convenings

Patient Safety Alerts

- Developed best practice guidelines to prevent harm
- Identified universal factors affecting front-line caregivers
- Promoted novel interventions to mitigate risk
- Identified emerging threats and near misses
- Identified common device failures
AMC|PSO:
Present State to Future Vision
AMC|PSO Present to Future

• Medmal: lagging indicator although captures most egregious events

• Capture RCA information—more real-time

• Capture Transactional Data in EMR
  • Surveillance/Monitoring for early warnings

• Apply predictive analytics across data sets

• Broaden learning opportunities with PSO to PSO collaborations
Closing Story: Remember the Lessons....
2007: Dennis Quaid’s Campaign
In September 2006, three preterm infants in Indiana died as a result of lethal overdoses of intravenous heparin.
• In **July 2008**, 17 infants received an overdose of heparin while being cared for in a Texas hospital
• A preliminary investigation by the hospital indicated the error occurred during the mixing process within the hospital pharmacy.

Ref: Drug Daily Topic News
## From Safety Event to Actionable Response

### Heparin Infant Overdoses & Mortality

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<tbody>
<tr>
<td>SAFETY EVENT 3 Premature Infant Deaths Automated Dispensing Cabinet Error - alerts, warnings, and advisories issued</td>
<td>Pharmaceutical company Medication labels approved for change</td>
<td>SAFETY EVENT 3 Infants receive overdose of Heparin including Quaid twins, relabeling had not been implemented</td>
<td>60 MINUTES Airs segment featuring Dennis Quaid and Kimberly Buffington July 2008, Texas 17 infants in a neonatal intensive care unit received heparin overdoses</td>
</tr>
</tbody>
</table>

### AMC PSO & CRICO Patient Safety Response Timeline

<table>
<thead>
<tr>
<th>October 4, 2012</th>
<th>October 18, 2012</th>
<th>November 1, 2012</th>
<th>December 1, 2012</th>
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<tbody>
<tr>
<td>SAFETY EVENT OCCURS Safety Event Information reported in RCAIE</td>
<td>AMC PSO Identifies trigger Convening session scheduled within 2 weeks of event notification</td>
<td>CONVENING SESSION Members and Subject-Matter Experts convene under federal confidentiality and peer-review protections</td>
<td>DISSEMINATE AMC PSO compiles, drafts, reviews and finalize actionable responses into patient safety alert</td>
</tr>
</tbody>
</table>
Together we can move patient safety forward; Together we will move patient safety forward