New Frontier - Patient Safety in Ambulatory and Outpatient Settings

Eastern Regional PS&Q Symposium
10 September 2014
Death By Numbers

44,000 to 98,000 patient deaths per year from medical errors

*To Err is Human*, Institute of Medicine (1999)

James Estimate

210,000 to 440,000 patients, each year, suffer from preventable harm that contributes to their death.

James, John, *A New Evidence-based Estimate of Patient Harms*…
Journal of Patient Safety, September 2013, Volume 9, Issue 3
Darrie Eason – Misdiagnosis

Sebastian Ferrero – Medication Error

Patrick Sheridan – Misdiagnosis
Cal Sheridan - Misdiagnosis
Patient Exposure

35 million hospital discharges annually

900 million clinic visits annually

Outpatient visits occur 25 times more frequently than hospital admissions
Outpatient vs. Inpatient Injuries

Volume and Severity
Patients with Negligent Claims

What Will It Take?

Patient Safety WalkRounds
  +
Address Patient Safety Alerts
  +
Non-Punitive Approach to Reporting
  +
TeamSTEPPS
  +
Strategies in Targeted Outcomes

*BUT*... Will This Produce Significant Sustained Reduction in Serious Safety Events & Culture Change Across the Organization?
Reliability Culture - Genius of the AND

Safety Focus + performed as intended consistently over time = No Harm

Evidence-Based Process Bundles + performed as intended consistently over time = Clinical Excellence

Patient Centered + performed as intended consistently over time = Satisfaction

Financial Focus + performed as intended consistently over time = Margin

HIGH RELIABILITY

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Published Cases

1. **Memorial Health University Health System** ï 89% serious harm reduction, Clinical Advisory Board, 2005

2. **Sentara Healthcare** ï 80% serious harm reduction overall (50% harm reduction in 18 months) - AHA Quest for Quality Award 2004, Eisenberg Quality Award 2005


4. **Children’s National Medical Center** ï 70% serious harm reduction, Journal of Healthcare Risk Management, 2012

5. **Nationwide Children’s Hospital** ï 83% serious harm reduction, Journal of Pediatrics, 2013

6. **Memorial Hermann Health System** ï certified zero awards for harm on units, Eisenberg Quality Award, 2012

7. **Vidant Health** ï 83% serious harm reduction overall, 62% HAI reduction, and 98% optimal care (core measures). TJC Eisenberg Quality Award, 2013

8. **WellStar Health System** ï 90% serious patient harm reduction and 84% worker injury reduction, NPSF Annual Patient Safety Conference, 2014

9. **VCU Medical Center** ï 50% serious harm reduction, AHA Quest for Quality Award 2014
Process Bundle + People Bundle

4 for VAP Prevention

1. Elevation of the head of the bed to between 30 and 45 degrees
2. Daily “sedation vacation” and daily assessment of readiness to extubate
3. Peptic ulcer disease (PUD) prophylaxis
4. Deep venous thrombosis (DVT) prophylaxis (unless contraindicated)

Safety Behaviors for Employees & Medical Staff

<table>
<thead>
<tr>
<th>I commit to...</th>
<th>By practicing...</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Our Safety Behaviors)</td>
<td>(Our Error Prevention Tools)</td>
</tr>
<tr>
<td>Support the Team</td>
<td>• Peer Checking &amp; Peer Coaching</td>
</tr>
<tr>
<td></td>
<td>• Speak Up Using ARCC</td>
</tr>
<tr>
<td>Attention on Task</td>
<td>• Self-Checking Using STAR</td>
</tr>
<tr>
<td>Focus on Best Practice</td>
<td>• Reflect &amp; Verify</td>
</tr>
<tr>
<td></td>
<td>• Know &amp; Comply With Red Rules, Protocols, Policies, &amp; Procedures</td>
</tr>
<tr>
<td>Effective Communication</td>
<td>• 3-Way Repeat Back &amp; Read Back</td>
</tr>
<tr>
<td></td>
<td>• Clarifying Questions</td>
</tr>
<tr>
<td></td>
<td>• Phonetic &amp; Numeric Clarifications</td>
</tr>
<tr>
<td></td>
<td>• 6C Handoff Format</td>
</tr>
<tr>
<td></td>
<td>• SBAR Communication Format</td>
</tr>
</tbody>
</table>

Read More: Community Health Network Reduces Deadly Infections Through Culture of Reliability, American Society for Quality (June 2008)
Kina’ ole (flawlessness)

Doing the right thing in the right way, at the right time, in the right place, to the right person, for the right reason, with the right feeling, the first time.
Changing Behaviors

Set Expectations

Educate & Build Skill

Reinforce & Build Accountability
More Rules or More Tools?

Focused on several known harm events
Synergy with policy & protocol

Coverage on broad range of harm events
Synergy with people, process, and technology
### Top 10 Patient Safety Event Types
Based on 1,613 events from 72 hospitals in HPICompare CCA database

<table>
<thead>
<tr>
<th>Type</th>
<th>Office</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medication Error (CM1)</td>
<td>44.4%</td>
<td>21.3%</td>
</tr>
<tr>
<td>Delay in Diagnosis or Treatment (CM8)</td>
<td>17.8%</td>
<td>23.6%</td>
</tr>
<tr>
<td>Wrong Patient Procedure (PR2)</td>
<td>13.3%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Fall (EE3)</td>
<td>8.9%</td>
<td>10.2%</td>
</tr>
<tr>
<td>Other Care Management (CM10)</td>
<td>6.7%</td>
<td>15.2%</td>
</tr>
<tr>
<td>Other Procedural (PR6)</td>
<td>4.4%</td>
<td>7.4%</td>
</tr>
<tr>
<td>Retained Foreign Object (PR4)</td>
<td>0</td>
<td>4.2%</td>
</tr>
<tr>
<td>Wrong Site Surgery (PR1)</td>
<td>0</td>
<td>2.2%</td>
</tr>
<tr>
<td>Suicide or Attempt (PP3)</td>
<td>0</td>
<td>1.2%</td>
</tr>
<tr>
<td>Grade 3 or 4 Pressure Ulcer (CM7)</td>
<td>0</td>
<td>1.1%</td>
</tr>
</tbody>
</table>
### Professional Groups Experiencing Acts in Healthcare Safety Events

Comparison based on 3,112 inappropriate acts from 72 hospitals in HPI CCA Database

<table>
<thead>
<tr>
<th>Office</th>
<th>All</th>
<th>Nurse</th>
<th>Physician</th>
<th>Nurse Extender / Medical Assistant</th>
<th>Unit Clerk / Clerical Office Staff</th>
<th>Management</th>
<th>Physician Extender</th>
<th>Technician/Technologist</th>
</tr>
</thead>
<tbody>
<tr>
<td>33.3%</td>
<td>39.0%</td>
<td>Nurse</td>
<td>Physician</td>
<td>Nurse Extender / Medical Assistant</td>
<td>Unit Clerk / Clerical Office Staff</td>
<td>Management</td>
<td>Physician Extender</td>
<td>Technician/Technologist</td>
</tr>
<tr>
<td>28.9%</td>
<td>30.6%</td>
<td>Physician</td>
<td>Nurse Extender</td>
<td>Nurse Extender / Medical Assistant</td>
<td>Unit Clerk / Clerical Office Staff</td>
<td>Management</td>
<td>Physician Extender</td>
<td>Technician/Technologist</td>
</tr>
<tr>
<td>14.0%</td>
<td>2.6%</td>
<td>Nurse Extender</td>
<td>Physician Extender</td>
<td>Unit Clerk / Clerical Office Staff</td>
<td>Management</td>
<td>Physician Extender</td>
<td>Technician/Technologist</td>
<td></td>
</tr>
<tr>
<td>7.9%</td>
<td>1.9%</td>
<td>Unit Clerk /</td>
<td>Unit Clerk /</td>
<td>Management</td>
<td></td>
<td>Physician Extender</td>
<td>Technician/Technologist</td>
<td></td>
</tr>
<tr>
<td>6.1%</td>
<td>2.2%</td>
<td>Clerical Office Staff</td>
<td>Clerk / Clerical Office Staff</td>
<td>Management</td>
<td></td>
<td>Physician Extender</td>
<td>Technician/Technologist</td>
<td></td>
</tr>
<tr>
<td>6.1%</td>
<td>1.6%</td>
<td>Physician Extender</td>
<td>Physician Extender</td>
<td>Management</td>
<td></td>
<td>Physician Extender</td>
<td>Technician/Technologist</td>
<td></td>
</tr>
<tr>
<td>3.5%</td>
<td>7.7%</td>
<td>Technician/Technologist</td>
<td>Technician/Technologist</td>
<td>Management</td>
<td></td>
<td>Physician Extender</td>
<td>Technician/Technologist</td>
<td></td>
</tr>
</tbody>
</table>

Medical Offices N = 114
### Top 10 Acts Leading to Patient Harm

Comparison based on 3,112 acts from 72 hospitals in HPI CCA Database

<table>
<thead>
<tr>
<th>Office</th>
<th>All</th>
<th>Checking and verifying</th>
<th>Physician ordering</th>
<th>Coordinating care</th>
<th>Administering</th>
<th>Data Entering and Documenting</th>
<th>Assessing</th>
<th>Compensatory Actions</th>
<th>Preparing/Processing</th>
<th>Scheduling</th>
<th>Labeling</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.2%</td>
<td>18.0%</td>
<td>Checking and verifying</td>
<td>6.4%</td>
<td>15.6%</td>
<td>6.7%</td>
<td>Data Entering and Documenting</td>
<td>10.0%</td>
<td>1.7%</td>
<td>Preparing/Processing</td>
<td>0.5%</td>
<td>3.1%</td>
</tr>
<tr>
<td>13.7%</td>
<td>6.4%</td>
<td>Physician ordering</td>
<td>15.6%</td>
<td>6.7%</td>
<td>6.7%</td>
<td>Coordinating care</td>
<td>3.1%</td>
<td>3.1%</td>
<td></td>
<td>3.1%</td>
<td></td>
</tr>
<tr>
<td>12.8%</td>
<td>15.6%</td>
<td>Coordinating care</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.8%</td>
<td>6.7%</td>
<td>Administering</td>
<td>3.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1%</td>
<td>3.1%</td>
<td>Data Entering and Documenting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3%</td>
<td>10.0%</td>
<td>Assessing</td>
<td>3.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3%</td>
<td>1.7%</td>
<td>Compensatory Actions</td>
<td>3.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.4%</td>
<td>3.1%</td>
<td>Preparing/Processing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.6%</td>
<td>0.5%</td>
<td>Scheduling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.6%</td>
<td>3.1%</td>
<td>Labeling</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### “How” Data

<table>
<thead>
<tr>
<th>People Causes</th>
<th>HPICompare</th>
<th>Systems Causes</th>
<th>HPICompare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge &amp; Skill</td>
<td>3.9% (12.8%)</td>
<td>Structure (job design)</td>
<td>8.9% (10.5%)</td>
</tr>
<tr>
<td>Attention on task</td>
<td>19.5% (15.0%)</td>
<td>Culture (people &amp; people interaction)</td>
<td>57.4% (57.3%)</td>
</tr>
<tr>
<td>Information processing</td>
<td>16.9% (8.7%)</td>
<td>Process</td>
<td>15.8% (19.3%)</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td>29.9% (36.0%)</td>
<td>Policy &amp; Protocol</td>
<td>5.9% (8.2%)</td>
</tr>
<tr>
<td>Non-Compliance</td>
<td>15.6% (21.4%)</td>
<td>Technology &amp; Environment</td>
<td>11.9% (4.7%)</td>
</tr>
<tr>
<td>Normalized Deviance</td>
<td>14.3% (6.0%)</td>
<td><em>Culture Preventable</em> =</td>
<td>72.7% (76.3%)</td>
</tr>
<tr>
<td>Acts coded for human error</td>
<td>1,820 of 2,845 (64%)</td>
<td>Acts coded for system cause</td>
<td>2,444 of 3,102 (80%)</td>
</tr>
</tbody>
</table>

Based on 1,613 events from 72 hospitals in HPICompare CCA database

### “Why” Data

- Based on 1,613 events from 72 hospitals in HPICompare CCA database

<table>
<thead>
<tr>
<th>Medical Offices</th>
<th>IFM</th>
<th>N = 77</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFM</td>
<td>N = 101</td>
<td></td>
</tr>
</tbody>
</table>
Questions for Reflection

- Do people get well before being discharged from our hospitals?
- Have I prescribed life-saving meds?
- Has EMS transported a patient to my office from long-term care? And back?
- Has my team ever transferred a patient onto an exam table?
- Have I done procedures in the office that would require a time-out in a hospital? Or require the WHO checklist?
Getting Started

1. Authentic safety first leadership

2. Safety Culture or Safety Climate assessment (to confirm a firm foundation)

3. Common Cause Analysis:
   a. Rule-out broken process(es) and knowledge & skill deficiencies as majority causes
   b. Select behaviors/skills indicated by study

4. Culture design leaders, staff, and medical staff

5. Educate leaders, staff, and medical staff
Non-Technical Skills

Non-technical skills describe how people interact with technology, environment, and other people. These skills are similar across a wide range of job functions. These skills include attention, information processing, and cognition.

Generic non-technical skills:

- Situational awareness
- Attention
- Communication
  - repeat backs
  - call outs
  - phonetic & numeric clarification
  - clarifying questions
  - inquiry, advocacy, assertion
- Critical thinking
- Protocol use
- Decision-making

Flin, O’Connor, and Crichton
Safety at the Sharp End
Make Reliability a Reality

**Critical Thinking**
- Questioning Attitude
- Proactive hindsight
- STEP
- SORT
  (Train using case study in modules)

**Culture of Safety**
- Patient first, every time
- Safety first
- Importance of attention (self-check)
- Importance of compliance (Red Rules)
- Cross monitoring
- Speaking-up for safety *as a concept*
  (Train using leader modules)

**Collegial Interactive Teams**
- Situational awareness
- Communication bundle:
  - Repeat-back
  - Call out
  - Phonetic & numeric clarification
  - Clarifying questions
- Speak-up (inquiry-advocacy-assertion)
- Brief-Execute-Debrief
  (Train in teams using simulation)

STEP = Story, Test story, Eliminate gaps in story, Plan to proceed
SORT = Statement of problem, Options, Rule-out options, Test and take action
# Culture Embedding Mechanisms

*From Organizational Culture & Leadership*, by Edgar Schein

<table>
<thead>
<tr>
<th>Primary Embedding Mechanisms</th>
<th>Secondary Articulation &amp; Reinforcement Mechanisms</th>
</tr>
</thead>
<tbody>
<tr>
<td>What leaders pay attention to, measure, and control on a regular basis</td>
<td>Organizational design and structure</td>
</tr>
<tr>
<td>How leaders react to critical incidents and organizational crises</td>
<td>Organizational systems and procedures</td>
</tr>
<tr>
<td>Observed criteria by which leaders allocate scarce resources</td>
<td>Organizational rites and rituals</td>
</tr>
<tr>
<td>Deliberate role modeling, teaching, and coaching</td>
<td>Design of physical space, facades, and buildings</td>
</tr>
<tr>
<td>Observed criteria by which leaders allocate rewards and status</td>
<td>Stories, legends, and myths about people and events</td>
</tr>
<tr>
<td>Observed criteria by which leaders recruit, select, promote, retire, and excommunicate organizational members</td>
<td>Formal statements of organizational philosophy, values, and creed</td>
</tr>
</tbody>
</table>
Safety Message

A safety message is a two-minute communication about safety:

1. Share your convictions relative to patient safety or personal safety
2. Explain how safety contributes to our mission
3. Explain how our policy & practice contribute to safety
4. Tell a story about something good that we did
5. Tell a story about something bad that happened to us
6. Tell a story about harm in another healthcare system
7. Tell a story about another system preventing harm
8. Read a Safety Success Story from your people
9. Read a Safety Success Story from Providence
10. Review our safety behaviors
11. Teach applications of our safety behaviors to our jobs
12. Discuss the importance of reporting problems
13. Discuss the importance of speaking-up for safety
14. Ask staff to be safe, and explain how
15. Thank staff for practicing / working safely
7 Elements of Story
Story cuts through the clutter to connect mission to meaning

1. Who is the protagonist?
2. What is the hook?
3. What keeps it interesting?
4. Where is the conflict?
5. Have you included telling details?
6. What is the emotional hook?
7. Is the meaning clear?

“Talking about safety should not be an event.”
Barbara Summers, President of Community Hospital North

- 9:00-9:15 AM, Monday thru Friday
- Held via conference call
- All departments, all directors
- 100% attendance expectation
- “Step out of meeting to attend”
- Facilitated by senior leader

Daily Check-In Agenda

1. LOOK BACK – Significant safety or quality issues from the last 24 hours/last shift
2. LOOK AHEAD – Anticipated safety or quality issues in next 24 hours/next shift
3. Follow up on Start-the-Clock Safety Critical Issues

Daily Check-In for Safety, PS&QH September/October 2011
Rounding to Influence (RTI)  
*a High Impact/Low Investment Leadership Method*  
A technique for reinforcing a vital behavior or performance expectation linked to a core value

1. **Connect to a core value**
2. **Assess knowledge and reinforce the specific behavior expectations**
3. **Identify problems impacting ability to follow the behavior expectations**
4. **Ask about commitment actions**
## RTI: What's the Difference?

<table>
<thead>
<tr>
<th></th>
<th>Walking Rounds</th>
<th>Rounding To Influence</th>
<th>Genchi Genbutsu</th>
<th>Adopt-a-Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sensitivity to Operations Threshold</strong></td>
<td>Low - Moderate&lt;br&gt;<em>How do your shoes feel?</em></td>
<td>Low - Moderate&lt;br&gt;<em>Shine your shoes</em></td>
<td>Moderate&lt;br&gt;<em>Take a few steps in their shoes</em></td>
<td>High&lt;br&gt;<em>Walk a mile in their shoes</em></td>
</tr>
<tr>
<td><strong>Time</strong></td>
<td>30 minutes</td>
<td>5 to 10 minutes</td>
<td>&gt; 30 minutes</td>
<td>Recurring visit boluses</td>
</tr>
<tr>
<td><strong>Theme</strong></td>
<td>General awareness</td>
<td>Specific focus</td>
<td>Blunt end to sharp end&lt;br&gt;translation of performance expectations</td>
<td>Practical knowledge and experience of unit work</td>
</tr>
<tr>
<td><strong>Purpose</strong></td>
<td>Identify problems that need to be fixed&lt;br&gt;Build relationships</td>
<td>Influence a specific behavior expectation&lt;br&gt;Identify problems impacting a <em>specific</em> performance expectation</td>
<td><em>Empathy</em> for sharp end&lt;br&gt;realities&lt;br&gt;Identify performance deviations and conditions impacting performance that need remediation</td>
<td><em>Sympathy</em> for sharp end&lt;br&gt;realities&lt;br&gt;Identify performance deviations and conditions impacting performance that need remediation</td>
</tr>
<tr>
<td><strong>Implementing Detail</strong></td>
<td>Global questions</td>
<td>Targeted questions</td>
<td>Observation of behaviors and environment</td>
<td>Participation in work and work life</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Work environment or other</td>
<td>Work environment or other</td>
<td>Work environment</td>
<td>Work environment</td>
</tr>
</tbody>
</table>
Unit-Based Learning System *Tools*

**Cause Solving**
Process mapping, task analysis, ask why five times, A3 Action Plan

**Process Improvement Guide**
Solutions for human error in the Generic Error Modeling System (GEMS), human factors, protocol, and process

**Learning Boards**
Visual management of new, working, and solved problems
What Senior Leaders Can Do To Promote Safety Culture

**Set the tone:**
- Establish expectations for tones and tools (non-technical skills)
- Say, "Thank you!" when someone reports an event or error. Then say, "Let's understand how that happened!
- Ask your direct reports to let you know when one of their employees reports an event or error—go thank that person.
- Ask about events and errors during Daily Check-In.
- Round-To-Influence on the non-technical skills
- Observe and coach operational leaders in their response(s)

What Operational Leaders Can Do To Promote Safety Culture

**Reinforce safe practice:**
- Share great catches—a.k.a. Safety Success Stories
- 5:1 feedback for safe practice especially non-technical skills
- Diagnoses the cause of human error and respond in a fair and just way:
  - Fix system and management problems causing error
  - Console and coach for unintended human error
  - Apply fair consequence for non-compliance
- Lead the local learning system

What Staff & Physicians Can Do To Promote Safety Culture

**Personal commitment to safety:**
- Put safety first
- Practice non-technical skills
- Report events, errors, and mistakes
- Offer suggestions for improving the systems and processes
- Be eager to learn and apply lessons from events and the experience of others
Craig Clapper, PE, CMQ/OE
Partner & Chief Knowledge Officer

HPI Client Community count as of December 2013

Healthcare Performance Improvement
5041 Corporate Woods Drive, Suite 180
Virginia Beach, VA 23462
Phone: (757) 226-7479 www.hpiresults.com