Lead in Patient Safety: Implementing a Multi-Team System to Decrease Fall Risk

Rural Health Care Leadership Conference
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CAPTURE Falls
Collaboration and Proactive Teamwork Used to Reduce

http://www.unmc.edu/patient-safety/capturefalls/
Acknowledgement: Research Team

University of Nebraska Medical Center
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- Anne Timmerman, MT (ASCP); Quality Improvement & Patient Safety Coordinator
- Carol Kampschnieder, RN, MSN; VP Clinical & Regulatory Services
- Diane Persson, RN; Care Coordinator/Discharge Planning
- Ashley Pokorny, RN; Staff Nurse
- Megan Schlaebitz, PharmD; Pharmacist
- Deborah Willcox, RD, LMNT; Dietitian
- Cally Tejkl, OTR/L, OTD; Occupational Therapist
- Jamie Gebers, PT, DPT; Physical Therapist
Conference Objectives

• Create a true culture of quality and patient safety that is grounded in systems improvements.
• Develop the leadership skills and operational processes required to enhance performance, efficiency and effectiveness for sustained success.

Please note that the views expressed by the conference speakers do not necessarily reflect the views of the American Hospital Association and Health Forum.
Presentation Objectives

1. Define the multiteam system (MTS) and its components

2. Explain the rationale for using a MTS to support safety and quality objectives such as fall risk reduction

3. Recognize the relationship between the MTS structure and team skills

4. Use a gap analysis to identify unit-level and organizational processes that may be appropriate for implementation by a coordinating team in your hospital

5. Compare and contrast the structures, processes, and outcomes of St. Francis Memorial Hospital’s MTS approach to fall risk reduction to your system
Objective 1
Define the multiteam system (MTS) and its components
Multiteam System—A Structure of Care

Systems Thinking...Donabedian’s Framework

<table>
<thead>
<tr>
<th>Structure</th>
<th>Process</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>How care is delivered,</td>
<td>Tasks performed that are intended to produce</td>
<td>Changes in individuals and populations due to</td>
</tr>
<tr>
<td>organized, financed</td>
<td>an outcome</td>
<td>health care</td>
</tr>
<tr>
<td>People, equipment, policies/procedures</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Donabedian, 2003)
Why is Structure Important?

• Equivalent to system design, capacity for work
• Major determinant of average quality of care
• Readily observable, easily documented, stable

• Most closely related to outcomes
• Small variations in process may be related to large variations in outcomes
• Establish causal relationship between process & outcomes
• Make complexity of process visible by mapping

• “Ultimate validator”
• Time to develop
• Difficult to measure
• Determined by multiple factors
• Rare, negative outcome (e.g. falls)
• Random component

(Donabedian, 2003)
MTS Definition

“Two or more [component] teams that interface directly and interdependently in response to environmental contingencies toward the accomplishment of collective goals.”

- Component teams achieve proximal goals (i.e. reliable hourly rounding)
- MTS achieves overarching/organizational goals (i.e. minimize fall risk)

(Mathieu, Marks, & Zaccaro, 2001, p. 290)
Component team interdependence creates a chain of accountability

Coordinating teams that have direct knowledge of front line structures, processes, and outcomes should deliver quality and safety information to the board.

http://teamstepps.ahrq.gov/
Objective 2

Explain the rationale for using a MTS to support safety and quality objectives such as fall risk reduction
Falls: Quality and Safety Problem

- **Prevalence** (Oliver et al., 2010)
  - 2% - 3% of hospitalized patients fall each year…
  - 1 million total in US hospitals!

- **National Benchmark for Rates for PPS hospitals** (Staggs et al., 2014)
  - 3.4 falls/1000 pt. days
  - 0.8 injurious falls/1000 pt. days

- **Hypothesis: Rates higher in Critical Access Hospitals (CAHs)** (Jones et al., 2014)
  1. Care for higher proportion of older adults
  2. Provide skilled care
  3. Limited QI resources
  4. Lack valid fall rate benchmarks
  5. Continue to receive payment for HACs
Falls: Quality and Safety Problem

• Patient-Centered Outcomes
  – 30% - 51% result in injury (Oliver et al., 2010)
    • 1% - 3% result in fracture
    • 1% - 2% result in hip fracture
  – Falls contribute to 40% of Nursing Home admissions (Tinetti et al., 1988)
  – Fear of falling limits mobility (Tinetti et al., 1994)

• Organizational Outcomes
  – Cost...$14,000 greater for 2% of fallers with serious injury (Wong et al., 2011)
  – 1/11 Healthcare Acquired Conditions (HACs) PPS hospitals not reimbursed for
  – Cost of reporting/monitoring non-harmful falls
Rationale for MTS in Fall Risk Reduction

• The etiology of falls is multifactorial, thus falls require a multifactorial/interprofessional approach for prevention (Guideline for Prevention, 2001)

• Fall risk has been reduced in studies where interprofessional team members were actively engaged in fall risk reduction efforts (Gowdy et al., 2003; von Renteln-Kruse et al., 2007)

• An interprofessional team (vs. nursing only strategy) and use of benchmarks are associated with sustained improvement (Sulla & McMyler, 2007)

• Effective teams are the fundamental structure for learning in organizations (Edmondson, 2012)
Teaming is Critical When We Must...

- Balance multiple objectives with minimal oversight
- Quickly transition from one situation to another and maintain communication and coordination (shared mental models)
- Integrate perspectives from multiple disciplines
- Collaborate across multiple locations
- Quickly adapt without a pre-existing plan
- Quickly process complex information

(Edmondson, 2012)
Hospital Type Determines Quality

(Jones, et al., 2014)

- **CAH (n=47)**
  - All Falls: 5.9 (p=.01**)
  - Injurious Falls: 1.7 (p=.04**)

- **Non-CAH (n=13)**
  - All Falls: 4.0
  - Injurious Falls: 0.9

- **NDNQI*(n=1,464)**
  - All Falls: 3.4
  - Injurious Falls: 0.82

*Staggs et al., Jt Comm Jrnl. 2014;40: 358-364

**Negative binomial model
Structure Determines Average Quality

(Jones, et al., 2014)

- No One (n=13)
- Team (n=34)
- Individual (n=13)
- NDNQI*(n=1,464)

**All Falls**
- No One: 6.7
- Team: 4.9
- Individual: 3.4
- NDNQI*: 2.6

**Injurious Falls**
- No One: 1.1
- Team: 1.2
- Individual: 0.82
- NDNQI*: 0.82

*p=.35**

*p=.02**

*Staggs et al., Jt Comm Jrnl. 2014;40: 358-364

**Negative binomial model**
Structure Determines Process

(Jones, et al., 2014)

- Interprofessional team (QI, RN, PT, Pharm)
- Use specific definition of a fall
- Use valid, unmodified fall risk assessment tool
- Annual competency training and new employee orientation
- Benchmark fall rates to external organization
- Reflect and learn from fall event data
- Report falls to external organization
- Integrate evidence from multiple disciplines
- Medication review

CAHs (n=56) vs Non-CAHs (n=14)

Structures

Organizational Processes

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Process Determines Outcomes (Jones, et al., 2014)

Does your fall risk reduction team integrate evidence from multiple disciplines to continually improve fall risk reduction efforts?

![Bar chart showing event rates per 1000 patient days for all falls and injurious falls.]

- **All Falls**
  - Sometimes/rarely/never (n=32): 6.2, p=.046*
  - Always/Frequently (n=27): 4.6

- **Injurious Falls**
  - Sometimes/rarely/never (n=32): 1.9, p=.01*
  - Always/Frequently (n=27): 1.0

*Negative binomial model
Process Determines Outcomes

(Jones, et al., 2014)

Does your fall risk reduction team...

1. Collect and analyze data regarding fall risk reduction program outcomes?
2. Modify fall risk reduction policies and procedures based on outcome data?
3. Conduct root cause analyses of injurious falls?

Does your fall risk reduction team...

1. Collect and analyze data regarding fall risk reduction program outcomes?
2. Modify fall risk reduction policies and procedures based on outcome data?
3. Conduct root cause analyses of injurious falls?

*Negative binomial model

<table>
<thead>
<tr>
<th>Event Rate/1000 patient days</th>
<th>No, Team Does NOT Reflect (n=37)</th>
<th>Yes, Team Reflects (n=23)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Falls</td>
<td>6.0 p=.07*</td>
<td>4.6</td>
</tr>
<tr>
<td>Injurious Falls</td>
<td>1.9 p=.003*</td>
<td>0.9</td>
</tr>
</tbody>
</table>

*Negative binomial model
Design Intervention

52 of Nebraska’s 64 CAHs trained in TeamSTEPPS

http://www.gettyimages.com/creative/nurses-running-stock-photo;

http://teamstepps.ahrq.gov/
Multiteam System for Fall Risk

http://www.teamstepps.ahrq.gov

Multi-team system designates role clarity and accountability for reducing patient fall risk

**Patient & Family**
Role(s): Ask questions

**Core Team**
Direct Patient Care
*Physician, Nursing, Pharmacy, Rehab Therapies, etc.*
Role(s): Dx/treatment plan, conduct fall risk assessment, implement fall reduction interventions, medication review, mobility assessment, report and learn from falls

**Fall Risk Reduction “Coordinating” Team**
*Interprofessional Coordinating Team*
*Nursing, Quality Improvement, PT/OT, Pharmacy, etc.*
Role(s): Implement fall risk reduction program, educate staff, audit processes, analyze and learn from falls, hold core team accountable

**Ancillary & Support Services Team**
*Task Based Patient Care and Support*
*Radiology, Lab, Respiratory Therapy, Dietary, Speech Therapy, Tech Support, Housekeeping, etc.*
Role(s): Know fall program policies, patient transfer rules, execute fall risk reduction role

**Administration/Management Team**
*CEO/President, Director of Nursing, Members of Senior Leadership/Management Teams, etc.*
Role(s): Create and visibly support safety culture, aware of strengths and performance gaps, establish clear vision with goals and provide feedback, support and provide resources for Fall Risk Reduction Team and Core Team, hold Fall Risk Reduction Team accountable for implementation and evaluation of fall risk reduction program

*Contingency Team*
Conduct Post-Fall Huddle
*Core and Fall Risk Reduction Team members*
Role(s): Review and learn from fall, improve fall risk reduction interventions
CAPTURE Falls

- **Collaboration** and **Proactive Teamwork** used to **Reduce Falls**

- Partner with 17 Nebraska Hospitals
  - Develop customized CAPTURE Falls Action Plan
  - Support implementation of Action Plan
  - Evaluate implementation of Action Plan
  - Develop and disseminate a toolkit

Core Team Processes

**Universal Interventions**  
(Currie, 2008)

- Assess & reassess risk
- Call light in reach
- Appropriate lighting
- Declutter environment
- Patient/Family education
- Communicate risk to patient/family/across shifts & departments
- Purposeful rounding
- Nonskid footwear
- Immediate learning using post-fall huddles

**Targeted Interventions**  
(ICS1)

- Signage
- Communicate level of assist for transfers and assistive devices
- Alarms
- Low beds, mats
- Gait belts for transfers/ambulation
- Medication Review
- OT/PT consults, evaluation
- Sitters
## Coordinating Team Processes

### Develop Policy/Procedures
- Choose risk assessment tools
- Choose interventions based on evidence from multiple disciplines
- Fall event reporting form
- Conduct audits to assess reliability of interventions
- Systems learning
  - Collect and analyze data
  - Conduct Root Cause Analysis
  - Modify policy/procedure based on data

### Train/Educate
- Policy/procedures
- Use of risk assessment tools (reliability?)
- Match interventions to severity and cause of risk
- REPORT ALL FALLS
- Provide feedback to core team
- Annual competencies
- New employee orientation

(Jones et al., 2014)
Support Implementation

Initial Site Visit
CAPTURE Falls Scorecard
Educational Webinars

Implement Process Audits
Monthly Support Calls Monitor Change Feedback on Fall Event Reports
Share Innovations and Best Practices Evaluate Changes in Culture

INITIATION
DECISION
IMPLEMENTATION

Agenda Setting / Gap Diagnosis
Matching
Redefining
Clarifying
Routinizing

Rogers’ Organization Innovation Process

CAHs have higher fall rates due to lack of team structure & org. processes

- MTS structure
- Evidence-based org. and unit processes

Re-invent innovation to match context, restructure organization to fit innovation

Make roles and tasks associated with MTS clear

Hard-wire: audits, policies, procedures, job descriptions, performance appraisals

(Rogers, 2003)
Objective 3
Recognize the relationship between the MTS structure and team skills
TeamSTEPPS Team System

Multi-Team System (MTS) creates chain of accountability for unit and organizational level processes

- Reliably implement evidence-based interventions
- Learn from experience using specific skills and coordinating mechanisms

Decrease risk of falls AND improve outcomes
The Theory...Skills and coordinating mechanisms within and between teams

(Salas, Sims, Burke; 2005)
Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS)  
http://teamstepps.ahrq.gov/
### Training

#### TOOLS and STRATEGIES

- Brief
- Huddle
- Debrief
- Situation Monitoring
- Situational Awareness
- STEP
- Cross Monitoring
- Feedback
- Advocacy and Assertion
- Two-Challenge Rule
- CUS
- DESC Script
- Collaboration
- SBAR
- Call-Out
- Check-Back
- Handoff

### OUTCOMES

- Shared Mental Model
- Adaptability
- Team Orientation
- Mutual Trust
- Team Performance
- Patient Safety!!

### BARRIERS to Team Performance

- Inconsistency in Team Membership
- Lack of Time
- Lack of Information Sharing
- Hierarchy
- Defensiveness
- Conventional Thinking
- Complacency
- Varying Communication Styles
- Conflict
- Lack of Coordination and Follow-Up with Co-Workers
- Distractions
- Fatigue
- Workload
- Misinterpretation of Cues
- Lack of Role Clarity
What is a Post-Fall Huddle*?

http://www.unmc.edu/patient-safety/capturefalls/tool-inventory.html

A short meeting immediately after a fall that includes staff caring for the patient and (ideally) the patient and family (contingency team)

Useful to multiple stakeholders:
- Patient and family
- Core team
  - Nursing
  - PT/OT
  - Pharmacy
  - Quality Improvement
  - Providers
- Coordinating Team
- Administration/Management

*TeamSTEPPS definition of huddle—an ad hoc meeting to regain situation awareness, discuss critical issues, and emerging events
Goals of Post-Fall Huddle

• Proximal Contingency Team Goals
  1. Discover root cause of the fall through group sensemaking (critical thinking)
  2. Decrease the risk of a future fall for the patient who has fallen by changing the plan of care for that particular patient

• Overarching MTS Goals
  1. Decrease fall risk for all patients by applying what is learned in the huddle to the system
  2. Improve trust among bedside personnel (core team)
  3. Improve collaboration and coordination among component teams
Learning Domains

<table>
<thead>
<tr>
<th>Process Uncertainty</th>
<th>Actor Interdependence</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Task Error</td>
<td></td>
<td>Coordination Error</td>
</tr>
<tr>
<td></td>
<td>Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>High</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Judgment Error</td>
<td></td>
<td>System Interaction</td>
</tr>
</tbody>
</table>

*Completed later by coordinating team*

# Learning Domains

<table>
<thead>
<tr>
<th>Process Uncertainty</th>
<th>Actor Interdependence</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low</strong></td>
<td><strong>Task Execution</strong>: Individuals perform well understood, routine tasks</td>
<td><strong>Coordination</strong>: Process knowledge high within groups; low between groups</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Task Error Example</strong>: Forget to turn on bed alarm</td>
<td><strong>Coordination Error Example</strong>: Information about previous fall not handed off between shifts/departments</td>
<td></td>
</tr>
<tr>
<td><strong>High</strong></td>
<td><strong>Judgment</strong>: Individuals perform unfamiliar processes that require decision making</td>
<td><strong>System Interaction</strong>: Multiple people involved in new activity</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Judgment Error Example</strong>: Patient at high fall risk and cognitively impaired left alone in bathroom</td>
<td><strong>System Error Example</strong>: No policy/ procedure to regularly replace batteries in newly acquired chair alarms</td>
<td></td>
</tr>
</tbody>
</table>

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Objective 4

Use a gap analysis to identify unit-level and organizational processes that may be appropriate for implementation by a coordinating team in your hospital.
Gap Analysis Scorecard

http://www.unmc.edu/patient-safety/capturefalls/tool-inventory.html

Diagnose performance gap based on comparison to current best evidence and benchmarks

- Diagnose actionable factors
- Design evidence-based interventions to address actionable factors
- Diagnosis and intervention design precede change efforts

(Implementation Guide, 2013; CAPTURE Falls)
Gap Analysis: First Step

Initial Site Visit
CAPTURE Falls Scorecard
Educational Webinars

INITIATION

Setting / Gap Diagnosis

DECISION

Matching
Redefining

IMPLEMENTATION

Clarifying
Routinizing

Implement Process Audits
Monthly Support Calls Monitor Change
Feedback on Fall Event Reports
Share Innovations and Best Practices
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Re-invent innovation to match context, restructure organization to fit innovation

Make roles and tasks associated with MTS clear

Hard-wire: audits, policies, procedures, job descriptions, performance appraisals

(Rogers, 2003)
Objective 5

Compare and contrast the structures, processes, and outcomes of St. Francis Memorial Hospital’s MTS approach to fall risk reduction to your system.
## St. Francis Baseline Gaps 2012

<table>
<thead>
<tr>
<th>Category</th>
<th>CAHs (n=56)</th>
<th>Non-CAHs (n=14)</th>
<th>St. Francis 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interprofessional team (QI, RN, PT, Pharm)</td>
<td></td>
<td></td>
<td>NO, But...</td>
</tr>
<tr>
<td>Use specific definition of a fall</td>
<td></td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>Use valid, unmodified fall risk assessment tool</td>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>Annual competency training and new employee orientation</td>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>Benchmark fall rates to external organization</td>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>Reflect and learn from fall event data</td>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>Report falls to external organization</td>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>Integrate evidence from multiple disciplines</td>
<td></td>
<td></td>
<td>NO</td>
</tr>
<tr>
<td>Medication review</td>
<td></td>
<td></td>
<td>NO</td>
</tr>
</tbody>
</table>

### OUTCOME Fall Rates/1000 Pt. Days: Total = 7.1, Injurious = 2.3
## St. Francis Key Innovations

<table>
<thead>
<tr>
<th>Innovation</th>
<th>CAHs (n=56)</th>
<th>Non-CAHs (n=14)</th>
<th>St. Francis 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interprofessional team (QI, RN, PT, Pharm)</td>
<td></td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>Use specific definition of a fall</td>
<td></td>
<td></td>
<td>YES</td>
</tr>
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<td>Use valid, unmodified fall risk assessment</td>
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<td></td>
<td>YES</td>
</tr>
<tr>
<td>Annual competency training and new employee</td>
<td></td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>Benchmark fall rates to external organization</td>
<td></td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>Reflect and learn from fall event data</td>
<td></td>
<td></td>
<td>PARTIAL*</td>
</tr>
<tr>
<td>Report falls to external organization</td>
<td></td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>Integrate evidence from multiple disciplines</td>
<td></td>
<td></td>
<td>YES</td>
</tr>
<tr>
<td>Medication review</td>
<td></td>
<td></td>
<td>YES</td>
</tr>
</tbody>
</table>

*Not conducting individual and aggregate root cause analysis
“I see how important it is to do the interdisciplinary team and what a positive effect it has had on our outcomes and moving forward with other quality improvement projects...re-admissions and our care transitions team. How important that was that we chose an interdisciplinary team and got the right team members on from the beginning. And making sure that we get front line staff involvement—make sure it’s more of a process that we’re doing with them and not to them.”
### Innovation—Choosing a Tool

<table>
<thead>
<tr>
<th>Tool (Cut Point)</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>+ Predictive Value</th>
<th>- Predictive Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Johns Hopkins (6+)</td>
<td>100%</td>
<td>0%</td>
<td>41%</td>
<td>0%</td>
</tr>
<tr>
<td>Johns Hopkins (13+)</td>
<td>89%</td>
<td>41%</td>
<td>51%</td>
<td>83%</td>
</tr>
<tr>
<td>Morse (45+)</td>
<td>100%</td>
<td>24%</td>
<td>48%</td>
<td>100%</td>
</tr>
<tr>
<td>Morse (75+)</td>
<td>50%</td>
<td>70%</td>
<td>54%</td>
<td>67%</td>
</tr>
<tr>
<td>FRASS (8+)</td>
<td>100%</td>
<td>24%</td>
<td>48%</td>
<td>100%*</td>
</tr>
<tr>
<td>FRASS (15+)</td>
<td>65%</td>
<td>78%</td>
<td>68%**</td>
<td>76%</td>
</tr>
</tbody>
</table>

*100% of those who tested negative DID NOT fall

**68% of those who tested positive DID fall

“The structure in place with the FRASS has brought forth communication from the nurses...in general conversation...it’s not filling out a form...they’re doing it [communicating fall risk] on their own now.”
FRASS Cutpoint at 8+ High Risk For Falls

<table>
<thead>
<tr>
<th>Assessment Results</th>
<th>Did the patient fall?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall</td>
</tr>
<tr>
<td>+ Result (FRASS ≥ 8)</td>
<td>a = 26 (true +)</td>
</tr>
<tr>
<td>- Result (FRASS &lt; 8)</td>
<td>c = 0 (false -)</td>
</tr>
<tr>
<td></td>
<td>26</td>
</tr>
</tbody>
</table>

Sensitivity = \frac{a}{a+c} \quad 26/26 = 100\% \text{ of fallers had } + \text{ test (≥ 8)}

Specificity = \frac{d}{d+b} \quad 9/37 = 24\% \text{ of nonfallers had } - \text{ test (< 8)}

PV+ = \frac{a}{a+b} \quad 26/54 = 48\% \text{ of those with } + \text{ test (≥ 8) fell}

PV- = \frac{d}{c+d} \quad 9/9 = 100\% \text{ of those with } - \text{ test (< 8) did not fall}
FRASS Cutpoint at 15+ High Risk For Falls

<table>
<thead>
<tr>
<th>Assessment Results</th>
<th>Did the patient fall?</th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
</table>
|                    | Fall                  | a = 17  
(true +) | b = 8  
(false +) | 25    |
| + Result (FRASS ≥ 15) | No Fall               |     |     |       |
| - Result (FRASS < 15) | Total                | 26  | 37  | 63    |

Sensitivity  \( \frac{a}{a+c} = \frac{17}{26} = 65\% \) of fallers had + test (≥ 15)
Specificity  \( \frac{d}{d+b} = \frac{29}{37} = 78\% \) of nonfallers had – test (< 15)
PV+  \( \frac{a}{a+b} = \frac{17}{25} = 68\% \) of those with + test (≥ 15) fell
PV-  \( \frac{d}{c+d} = \frac{9}{38} = 76\% \) of those with – test (< 15) did not fall
Innovation—Equipment, Signage

“Safety cabinets are in each of the patients’ rooms, which contain all the magnets and Dycem and chair pads and it’s...at the nurses’ convenience to use so we really thought about what is going to ... make it hard not to use it.”

“...seeing how unstructured we were before; it just really puts a highlight - how extremely important it is now that we have structure to it.”
“...the post-fall huddle has helped us identify some gaps in our interventions; things we didn’t really think of.”
“and then just discussing with the different disciplines, you know, I might look at something differently than [nursing] or [QI]...”
Outcome Fall Rates

“We started high and dropped significantly, right away. Obviously something was working so they opted to stay with the way that we set it up and that’s been good.”

*Since 8/12 injurious falls included mild harm.
Prior to 8/12, injurious falls may not have included mild harm.
# Outcome: Changing Attitudes through effective Teamwork

## Teamwork Perceptions Questionnaire—Fall Risk Reduction

<table>
<thead>
<tr>
<th>Perception</th>
<th>2013 (n=64)</th>
<th>2014 (n=64)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team Structure: My unit/department has clearly articulated goals for fall risk reduction.</td>
<td>65%</td>
<td>83%</td>
</tr>
<tr>
<td>Leadership: My supervisor/manager ensures that adequate resources are available to support the fall risk reduction program.</td>
<td>79%</td>
<td>84%</td>
</tr>
<tr>
<td>Situation Monitoring: Staff share information regarding potential complications that may increase a patient’s risk of falls (change in status, previous fall).</td>
<td>81%</td>
<td>89%</td>
</tr>
<tr>
<td>Mutual Support: Staff assist fellow staff to decrease the risk of falls during a high workload.</td>
<td>86%</td>
<td>92%</td>
</tr>
<tr>
<td>Communication: Staff follow a standardized method of sharing fall risk information when handing off patients.</td>
<td>68%</td>
<td>84%</td>
</tr>
<tr>
<td>Communication: Information about fall risk reduction is explained to patients and their families in lay terms.</td>
<td>70%</td>
<td>81%</td>
</tr>
<tr>
<td>Sr. Leadership: Management establishes clear goals for fall risk reduction.</td>
<td>73%</td>
<td>80%</td>
</tr>
</tbody>
</table>
Outcome: Improving Safety Culture

Hospital Survey on Patient Safety Culture Composite Positive Responses For Acute/Skilled Care

- Acute/Skilled Care 2010 (n=24)
- Acute/Skilled Care 2014 (n=22)
Outcome: Improving Safety Culture

“What did we learn about falls? I remember being a student nurse years ago, and one of my patients … had fallen at home. I kind of giggled—so she fell. And the nurse working with me said, ‘Oh, no! In the elderly falls can be lethal, but that’s just part of getting old.’ And we’ve learned that’s not just what happens— we can put things out there to prevent that.”
Summary

- The interdependent components of a MTS create a chain of accountability from the board to the patient.
- Interprofessional coordinating teams may be the best structure to implement innovations; they are the key link in the chain of accountability.
- Leaders use briefs, huddles, and debriefs to bring team members together to communicate results of individual situation monitoring, offer back-up behavior, and create shared mental models.
- Gap analysis is the first step in organization innovation.
- The MTS structure improved capacity for implementation of organizational fall risk reduction structures and processes at St. Francis Memorial Hospital, which decreased fall risk and improved safety culture.
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