Expanding and Sustaining CAPTURE Falls in Nebraska

Dec. 15, 2015
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CAPTURE Falls
Collaboration and Proactive Teamwork Used to Reduce

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

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Research Team

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  – Mary Wood

University of Nebraska at Omaha Center for Collaboration Science
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Objectives

1. What quality problem are we solving?

2. How does the CAPTURE Falls approach solve this quality problem?

3. What do you need to do to participate in CAPTURE Falls?

4. What does the future look like?
Quality Assessment Framework

“Quality is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.”  

(ION, 2001)

<table>
<thead>
<tr>
<th>Structure</th>
<th>Process</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>How care is delivered, organized, financed</td>
<td>Tasks performed that are intended to produce an outcome</td>
<td>“Ultimate Validator” Changes in individuals and populations due to health care</td>
</tr>
<tr>
<td>People, equipment, policies/procedures</td>
<td>Most closely related to outcomes</td>
<td>Time to develop, multifactorial, random component</td>
</tr>
<tr>
<td>Equivalent to system design, capacity for work</td>
<td>Causal relationship between process &amp; outcomes</td>
<td></td>
</tr>
<tr>
<td>(Donabedian, 2003)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Obj. 1 Our Quality Problem

Association Between Hospital Type and Fall Rates

- NE CAH 2010 (n=47)
- NE PPS 2010 (n=13)
- NDNQI 2011* (n=1,464)

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

**Negative binomial rate model

(Jones et. al, 2015)
Problem: Lack of Accountability

<table>
<thead>
<tr>
<th></th>
<th>All Falls</th>
<th>Injurious Falls</th>
</tr>
</thead>
<tbody>
<tr>
<td>No One (n=13)</td>
<td>6.7</td>
<td>2.6</td>
</tr>
<tr>
<td>Individual (n=13)</td>
<td>4.9</td>
<td>1.1</td>
</tr>
<tr>
<td>Team (n=34)</td>
<td>5.2</td>
<td>1.2</td>
</tr>
<tr>
<td>NDNQI*(n=1,464)</td>
<td>3.4</td>
<td>0.82</td>
</tr>
</tbody>
</table>

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

(Jones, et al., 2015)
Problem: Not Using Evidence

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

Sometimes/rarely/never (n=32)  
Always/Frequently (n=27)

<table>
<thead>
<tr>
<th>Event Rate/1000 patient days</th>
<th>All Falls</th>
<th>Injurious Falls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes/rarely/never</td>
<td>6.2</td>
<td>1.9</td>
</tr>
<tr>
<td>p=.046*</td>
<td>4.6</td>
<td>p=.01*</td>
</tr>
<tr>
<td>(Jones et. al, 2015)</td>
<td>1.0</td>
<td></td>
</tr>
</tbody>
</table>

*Negative binomial model
Problem: Not Learning

Does your fall risk reduction team...

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

![Bar chart](chart.png)

- **All Falls**
  - No, Team Does NOT Reflect (n=37): 6.0
  - Yes, Team Reflects (n=23): 4.6
  - *p=.07*

- **Injurious Falls**
  - No, Team Does NOT Reflect (n=37): 1.9
  - Yes, Team Reflects (n=23): 0.9
  - *p=.003*

*Negative binomial model

Jones et. al. J Rural Health.2015,31:135–145
Problem Source: Bedside?  NO

Universal Interventions Used to Reduce Fall Risk in Nebraska Hospitals 2011*

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

- Handoff tool to communicate fall risk**
- Increased lighting
- Low bed
- Declutter environment
- Patient/Family education
- Hourly rounding
- Top bed rails up
- Nonskid footwear
- Call light within reach

*Jones et. al. J Rural Health.2015,31:135–145
**Statistically significant difference Pearson chi-square test

Percent of Hospitals
Problem Source: Bedside? Possibly

Targeted Interventions Used to Reduce Fall Risk in Nebraska Hospitals 2011*

- Hip protectors
- Occupational therapy evaluation
- Medication review
- Toileting schedule
- Sitter**
- Physical therapy evaluation
- Alert sign to communicate fall risk status**
- Colored wrist band**
- Elevated toilet seat
- Assistive device for transfers or ambulation
- Gait/transfer belt
- Document fall risk in chart
- Bed/chair alarm

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

*Jones et al. J Rural Health. 2015;31:135–145
**Statistically significant difference Pearson chi-square test
Problem Source: Organization?

Structure and Process of Fall Risk Reduction in Nebraska Hospitals 2011

- 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**

*Jones et. al. J Rural Health.2015,31:135–145
**Statistically significant difference Pearson chi-square test
Collaboration and Proactive Teamwork Used to Reduce

Improve structure and organizational processes

- Standardize definitions for reporting and benchmarking
- View fall risk reduction as an organizational goal that multiple teams coordinate to achieve

http://teamstepps.ahrq.gov/
Structure for Benchmarking and Learning—Definitions and Forms

<table>
<thead>
<tr>
<th>Hospital:</th>
<th>Report Date:</th>
<th>Completed By:</th>
<th>CAPTURE Falls Event Reporting Form and Post-Fall Huddle Documentation</th>
</tr>
</thead>
</table>

**Definition of fall:** For the purposes of patient safety, a fall is a sudden, unintended, uncontrolled downward displacement of a patient’s body to the ground or other object. This definition includes unassisted falls and assisted falls (e.g., when a patient begins to fall and is assisted to the ground by another person).

Post-fall huddle documentation on page 4 may be completed before or after the event reporting form.

1. Patient Medical Record Number: ___________________ 2. Patient Admission Date: ____________
2. Admission Type: at time of fall: ☐ Acute  ☐ Swing  ☐ Hospice  ☐ Observation  ☐ Outpatient
3. Patient Age (if under 18 indicate "Y/O") ____________ 5. Patient Gender: ☐ Male  ☐ Female
4. Patient’s principal admitting diagnosis: ___________________
6. Date of Fall: ____________ 8. Time of Fall: ____________

**Post-Fall Huddle Facilitation Guide Section 1**

**Purpose:** To lead front line staff and the patient/family in a conversation to determine why a patient fell and what can be done to prevent future falls.

**Directions:** Complete after all (assisted and unassisted) patient falls as soon as possible after patient care is provided but prior to leaving the shift.

**Participants:** Designated post-fall huddle facilitator for the shift, healthcare professionals who directly care for the patient, member of your fall risk reduction team as available (i.e., PT, OT, pharmacy, quality improvement), the patient and family members as appropriate.

**Remember:** Patients fall because their center of mass is outside their base of support. During the huddle look for specific answers and continue asking “why?” until the root cause is identified.

1. Establish facts:
   1a. Did we know this patient was at risk? ☐ YES ☐ NO
   1b. Has this patient fallen previously during this stay? ☐ YES ☐ NO
   1c. Is this patient at high risk of injury from a fall? (ABCS) ☐ Age 85+ ☐ Brittle Bones ☐ Coagulation ☐ Surgical Post-Op Patient

2. Establish what patient and staff were doing and why: NOTES
   **ASK:** What was the patient doing when he/she fell? (be specific, e.g., transferring sit to stand from the bedside chair without her walker). Ask why multiple times.

3. Determine underlying root causes of the fall.
   **ASK:** Was this different this time as compared to other times the patient was engaged in the same activity for the same reason? Ask why multiple times.

4. Make changes to decrease the risk that this patient will fall or be injured again.
   **ASK:** How could we have prevented this fall? ☐ Need to consult with physical/occupational therapy about mobility/positioning/seating ☐ Need to consult with pharmacy about medications
   **ASK:** What changes will we make in this patient’s plan of care to decrease the risk of future falls?

   **ASK:** What other factors may have contributed to this fall?

   **ASK:** What patient or system problems need to be communicated to other departments, units or disciplines?
Definitions for Benchmarking

- **Fall**: for the purposes of patient safety, a fall is a sudden, unintended, uncontrolled downward displacement of a patient’s body to the ground or other object (e.g. bed, chair, or bedside mat). (AHRQ Common Formats)

- **Assisted Fall**: when a patient begins to fall and is assisted to the ground or other lower object by staff (not family or other visitor). (NDNQI)
Definitions for Benchmarking

• Extent of harm \( (\text{NDNQI}) \)
  – Death: Patient died as a result of injuries sustained from the fall.
  – Major: Fall resulted in surgery, casting, traction, consultation for neurological (e.g. skull fracture, subdural hematoma) or internal injury (e.g. rib fracture, liver laceration) or need for blood products.
  – Moderate: Fall resulted in suturing, application of steri-strips/skin glue, splinting or muscle/joint strain.
  – Minor: Fall resulted in application of dressing, ice, cleaning of wound, limb elevation, topical medication, bruise or abrasion.
  – None: Patient had no injuries (no signs or symptoms resulting from the fall); x-ray, CT scan or other post fall evaluation resulted in finding of no injury.
  – Unknown
Form—Factors for Learning

• Patient
  – What was the patient doing?
  – Was the patient known to be at risk?
  – What interventions were in place?
  – Did medications contribute?
  – Patient factors, comorbidities, impairments
  – Equipment

• Organization
  – Known to be at risk? Score?
  – Fallen previously?
  – Environment, staff, supervision, policy/procedure, communication, human factors
Post-Fall Huddle Guide

• Section 1: Conversation for learning
  – Establish facts
  – What were patient and staff doing?
  – What was different this time?
  – What changes will we make?
• Section 2: Data for internal learning
  – Who was in the huddle?
  – Type of fall
  – Preventable?
  – Type of error

• Hold discussion of form til end…
Structure: Fall Risk Reduction Multiteam System (MTS)

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

(Mathieu, Marks, & Zaccaro, 2001, p. 290)
Core Team—people who provide direct patient care

- Diagnose and treat using evidence-based care plan
- Conduct fall risk assessment
- Implement targeted risk reduction interventions that address risk factors
- Conduct medication review
- Evaluate mobility and function
- Report and learn from falls—participate in post-fall huddles
Structure: Fall Risk Reduction MTS

Contingency Team—members from various teams conduct post-fall huddle

- Meet immediately after a fall to determine what happened, why it happened, what will be done differently
- Goals:
  1. Decrease risk of future falls for a patient
  2. Apply what is learned to decrease risk across system
  3. Build trust and share knowledge

Post-Fall Huddle Tools

http://www.unmc.edu/patient-safety/capturefalls/tool-inventory.html
Ancillary and Support Services—provide direct task-specific patient care (e.g. radiology, laboratory, dietary) and create a clean, safe environment (e.g. laundry, env. services, maintenance, IT)

- Know their role in fall risk reduction
- Know who is at risk (signage)
- Know what to do if see/hear someone at risk getting up
- Know who to tell

Should housekeeping be empowered to turn on a bed alarm for a patient at high risk?
Should a phlebotomist respond to a bed alarm?
Structure: Fall Risk Reduction MTS

Coordinating Team—nurse champion, CNA, pharmacist, PT/OT, QI

- Manage resources
- Coordinate fall risk reduction structures and process across organization
- Hold core team accountable for reliably implementing evidence-based interventions

St. Francis Memorial Hospital Fall Risk Reduction Coordinating Team
What is Coordination?

Standardize

Plan

Adjust

Accountability

Predictability

Shared Mental Model

(DeChurch et al., 2009; Okhuysen et al., 2009)
Effectiveness of Fall Risk Reduction Coordinating Teams

- Select fall risk assessment tools
- Integrate evidence from multiple disciplines
- Select interventions to reduce fall risk
- Link targeted interventions to risk factors
- Educate staff to use fall risk assessment tools
- Educate staff to report all falls
- Provide frontline staff with information about actions taken
- Create policies and procedures
- Conduct audits to monitor adherence
- Select/develop/revise Fall Reporting Form
- Educate staff about policies and procedures
- Educate staff to choose appropriate interventions
- Educate staff about outcomes of program
- Communicate program barriers and successes to leaders
- Communicate results of audits to staff
- Share program outcomes with hospital board members

(0 = Not Done, 1 = Not Effective to 4 = Highly Effective)
Structure: Fall Risk Reduction MTS

Administration—
- Create/support culture of safety
- Communicate goal of decreasing fall risk
- **Awareness**—be aware of gaps between current practice and best evidence
- **Ability**—make sure staff have the knowledge, skills, and time to make improvement (resources)
- **Accountability**—hold the coordinating team accountable for the structure, process, and outcomes of fall risk reduction program
- **Action**—hold the coordinating team accountable for taking action...educating, auditing, motivating
Obj. 3 What do you do?

Initiation Quarter 1
- Hospital creates interprofessional fall risk reduction coordinating team
- Hospital reports 2015 falls and patient days to UNMC for baseline
- Coordinating team completes CAPTURE Falls Gap Analysis
- UNMC assesses coordinating team reflexivity
- UNMC assesses hospital perceptions of teamwork support for fall risk reduction
- Coordinating team, UNMC review gap analysis and decide priorities for action plan from CAPTURE Falls Toolkit
- Coordinating team reports ALL falls (unassisted and assisted) via encrypted email
Obj. 3 What do you do?

- Current Reporting Procedure
  - Report to askinner@unmc.edu and kjonesj@unmc.edu via encrypted email ONLY
  - DO NOT report patient names, dates of birth

- Feedback from UNMC
  - Will come via encrypted email from UNMC research team
  - Subject line will contain “Confidential”
Obj. 3 What do you do?

Implementation Quarter 2 through Aug. 2018
- Coordinating team implements action plan for improvement
- Quarterly Collaborative Calls: Coordinating team participates in quarterly calls with other CAPTURE Falls hospitals and UNMC research team to share innovations and best practices and learn from reported events
- Quarterly Monitoring Calls: Coordinating team and UNMC research team review progress implementing action plan, provide feedback for coordinate team

Composition of Effective Teams

- Interprofessional
  - Nursing
  - QI
  - Pharmacy
  - Rehab Therapies

- Engaged
  - Actively Participate
  - Mixture of Frontline & Management
Development of Effective Teams

- Reviewed and modified objectives
- Discussed how they worked together
- Communicated with front-line and management

Reflected on their Function

Management Support

- Rewarded innovation
- Provided resources
What Difference do Effective Coordinating Teams Make?

![Graph showing the relationship between Total Falls Per 1000 Patient Days and Effectiveness Score - Fall Risk Reduction Team Activities. Spearman rho = -0.51, P = 0.04.](image)

- **Total Falls Per 1000 Patient Days**
- **Effectiveness Score - Fall Risk Reduction Team Activities**
- **Sum of 16 Activities Scored 0 to 4**
- **Spearman rho = -0.51, P = 0.04**
The Future: Sustain and Spread

Generate Ideas

Phase 1
2011
✓ Risk of falls greater in CAHs than non-CAHs
✓ Lack reporting structure for benchmarking and learning
✓ Lack team structure to implement org. processes

Test Ideas

Phase 2
2012 – 2015
Effective interprofessional coordinating teams decrease fall rates
✓ Standardize
✓ Plan
✓ Real-time adjustment

Spread Ideas

Phase 3
2016 – 2018
✓ Expand, sustain coordinating teams
✓ Implement online information system to standardize reporting, benchmarking, and learning from falls
✓ Use coordinating teams to address all quality goals
Immediate Next Steps

• January 2016
  – Download reporting form from website and begin reporting all falls
  – Conduct Teamwork Perceptions Questionnaire
  – Collect 2015 fall counts and patient days

• Participate in Quarterly Collaborative Calls for sharing and learning
  – 1/19/16 at 11:00 am CST
  – 4/19/16 at 2:00 pm CST
  – 7/19/16 at 2:00 pm CST
  – 10/18/16 at 2:00 pm CST
Feedback Discussion

• Feedback/questions
  – Reporting/benchmarking
  – Timeline of activities

• What will be most difficult?
  – Overcoming barriers to reporting?
  – Overcoming barriers to developing coordinating team?

• Advice from Original CAPTURE Falls hospitals?
Contact Information

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Toolkit available at:

http://www.unmc.edu/patient-safety/capturefalls/


