Reducing Patient Harm Series I: Reduce Falls in the Acute Care Setting

Essential Hospitals Engagement Network

February 19, 2014
The chat tool is available to ask questions or comments at any time during this event.
RAISE YOUR HAND

If you wish to speak telephonically, please “raise your hand.” We will call your name, when your phone line is unmuted.
ENGAGE AT OUR NEW WEBSITE!

Network with peers, learn how essential hospitals are changing lives
Now live at essentialhospitals.org
AGENDA

• Partnership for Patients and 2014
• Evaluating a Pilot Falls Prevention Program on an Inpatient Medical-Surgical Unit
  » Eskenazi Health, Indianapolis, IN
• Identifying Temporal Patterns in Falls with Injury
  » San Francisco General Hospital, San Francisco, CA
• Q & A
• Upcoming events
2014 PARTNERSHIP FOR PATIENTS

**Partnership for Patients (PfP)**
- CMS-funded
- Reduce nine hospital-acquired conditions by 40 percent
- Reduce readmissions by 20 percent

**Hospital Engagement Networks (HENs)**
- 27 contracted organizations
- 3,700 U.S. hospitals

**Essential Hospitals Engagement Network (EHEN)**
- 22 hospitals nationwide
- Only essential hospital-focused HEN
- Special focus on health equity
SPEAKER INFORMATION

Jennifer Kitchens, MSN, RN
Clinical Nurse Specialist Acuity Adaptable
Eskenazi Health
Indianapolis, IN

Sasha Cuttler, RN, PhD
Collaborative Alliance for Nursing Outcomes
National Database of Nursing Quality Indicators
Coordinator and Nursing Shared Governance
Research Council Co-Chair
San Francisco General Hospital
Evaluation of a Fall Pilot on a Medical-Surgical Unit

Jennifer Kitchens, MSN, ACNS-BC, CVRN, RN
Kimberly Howland, MJ, BSN, EMTP, CEN, CLNC
Success story: Reduced falls by 40% percent from 2010 to second quarter of 2013 by implementing a multifaceted and interdisciplinary falls prevention strategy

- In-services on bed alarms including transportation staff
- Mobile camera carts used to supplement monitoring of high-risk patients
- Pharmacists investigated potential correlations between medications, disorientation, and falls
Background

- Implemented hourly “Care Rounds” addressing patient needs and promoting safety and satisfaction including all staff, not just nursing. Also involve students and volunteers.

- Piloted scripts and a documentation tool to use while rounding which led to a 50% reduction in falls in 60 days for one medical-surgical unit. These “Care Round” tools then were adopted in all Med/Surg and Telemetry units.
Background

- Staff competencies
- Journal clubs
- Literature review
- Post fall procedure and huddle form
- New hospital opened in December 2013 with an expanded visitation policy encouraging family members to monitor and report patient mobility needs.
- Although we have had success, we still needed to do better
Background

All Fall Count - Wishard

- Nov '10: Competency for Med/Surg Nurses & Care Techs (e.g. risk assessment, patient/family education, procedure post fall)
- Jan '12: Bed Alarm In-Services
- April '12: "Care Round" Pilot
- June-Aug '12: "Care Round" In-Services for Med/Surg, Telemetry, and Floors 4, 5, 6
- May '12: Camera Monitoring Project & Journal Club on Falls
- Feb '13: "Call Don't Fall" Pilot

# of Falls

Baseline = 64
Goal (40% ↓) = 39
Purpose

- The purpose is to implement and evaluate a fall pilot on a medical-surgical unit.

- The ultimate goal is to decrease falls by involving patients and nurses in the process.
Objectives

• Discuss the fall intervention used in the pilot.

• Discuss evaluation measures included in the fall pilot.
Significance

• Falls are a key patient safety measure and can lead to increased injury, length of stay, and cost.

• Increasing patient and staff awareness is one way to reduce incidence of falls.

• One way to achieve this is via implementation of a visual reminder.

• Currently there is no implementation of a visual reminder at the facility.
Intervention

• “Call Don’t Fall” sign placed in the patients’ room and bathroom.

• Rationale: increasing patient and staff awareness via implementation of a visual reminder.

• The sign included a picture and was written in both English and Spanish.
Please Do Not Get Up Alone
Call for Assistance
Please Do Not Get Up Alone
Call for Assistance
Intervention

• Evaluation data included examination of fall rates pre- and post-implementation.

• Patient and nursing staff surveys were designed and administered to evaluate the fall intervention.

• The survey was scored using a 4 point Likert scale (1=strongly disagree, 4=strongly agree, higher scores equaling a more positive response).
Patient Survey Items

- Noticing the sign in room/bathroom
- Ease of understanding
- Reminded/encouraged to ask for assistance
- Perception if received verbal instruction
- Reinforced what caregiver taught
- Satisfaction
- Perception of effectiveness.
Nursing Staff Survey Items

- Noticing the sign in room/bathroom
- Perception of patients noticing and understanding the sign
- Perception if the sign helped remind/encourage patients to ask for assistance
- Use of the sign for patient education
- Satisfaction
- Perception of effectiveness
- Primary shift worked.
Intervention

• Both patients and nursing staff could only complete one survey.

• Only patients who were assessed as a fall risk and alert and oriented were surveyed.

• “Call Don’t Fall” signs were placed in all rooms for pilot feasibility whether assessed as a fall risk or not.
Intervention

- Staff nurse fall champions were developed to assist with roll out, education, and survey data collection.

- Staff nurses were educated on proper data collection procedure.

- Stakeholders were contacted for feedback prior to implementation.
Evaluation

• The fall pilot was implemented for 5 months.
• Fall rates pre-pilot were n=14 and post-pilot n=11.
• Five of the 11 patients who fell during the pilot were assessed as confused and may not have benefitted from the “Call Don’t Fall” sign.
• There were 35 patient surveys and 18 nursing staff surveys collected (shift worked: days n=7; nights n=11).
• Both nursing staff and patient survey responses were positive for each item scored.
Patient Survey Results

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saw sign in the room</td>
<td>3.3</td>
</tr>
<tr>
<td>Saw sign in the bathroom</td>
<td>3.2</td>
</tr>
<tr>
<td>Sign was easy to understand</td>
<td>3.4</td>
</tr>
<tr>
<td>Sign helped remind me to ask for assistance when getting up</td>
<td>3.4</td>
</tr>
<tr>
<td>Sign encouraged me to ask for assistance when getting up</td>
<td>3.3</td>
</tr>
<tr>
<td>Nurse instructed me to ask for help when getting up</td>
<td>3.5</td>
</tr>
<tr>
<td>Sign reinforced what my nurse taught me</td>
<td>3.2</td>
</tr>
<tr>
<td>Satisfaction with the sign</td>
<td>3.3</td>
</tr>
<tr>
<td>Sign works</td>
<td>3.2</td>
</tr>
</tbody>
</table>
## Nursing Staff Survey Results

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saw sign in room</td>
<td>3.4</td>
</tr>
<tr>
<td>Saw sign in bathroom</td>
<td>3.2</td>
</tr>
<tr>
<td>Patients noticed the sign</td>
<td>3.0</td>
</tr>
<tr>
<td>Sign was easy for patients to understand</td>
<td>3.2</td>
</tr>
<tr>
<td>Sign helped remind patients to ask for assistance when getting up</td>
<td>3.5</td>
</tr>
<tr>
<td>Sign encouraged patient to ask for assistance when getting up</td>
<td>3.2</td>
</tr>
<tr>
<td>Used the sign to educate patients</td>
<td>3.1</td>
</tr>
<tr>
<td>Sign satisfaction</td>
<td>3.4</td>
</tr>
<tr>
<td>Sign works</td>
<td>3.2</td>
</tr>
</tbody>
</table>
Discussion

• Patient and staff comments will be examined further to make changes to the “Call Don’t Fall” sign and future implementation if indicated.

• Recommendations were made to make the sign more vibrant.

• Once changes are made, the “Call Don’t Fall” sign should be implemented on all medical-surgical units at the facility and further evaluated for effectiveness.
Acknowledgements

• Kemi Olagbenro, RN
• Tammy Hatcher, RN
• Shangling Liang, RN, CMSRN
• Darcy Hatton, RN
References

References


Sasha Cuttler, RN, PhD
Collaborative Alliance for Nursing Outcomes
National Database of Nursing Quality Indicators
Coordinator and Nursing Shared Governance
Research Council Co-Chair
San Francisco General Hospital
Is the night shift a risk factor for falls with injury?

Sasha J. Cuttler, RN, PhD
Collaborative Alliance for Nursing Outcomes &
National Database of Nursing Quality Indicators Coordinator
San Francisco General Hospital
Falls Team Lead
SFGH acute care falls with injury frequency, 2009-2013

- **2009**: 58 falls, 4 major, 3 moderate, 51 minor
- **2010**: 48 falls, 3 major, 2 moderate, 42 minor
- **2011**: 40 falls, 2 major, 3 moderate, 36 minor
- **2012**: 40 falls, 1 major, 3 moderate, 36 minor
- **2013**: 37 falls, 2 major, 2 moderate, 33 minor
Monthly SFGH Falls with Injury per 1,000 patient days

- New beds (exit alarm)
- IHI Falls with Injury Expedition
• U.S. fall death rate exceeds homicide and continues to rise (Rockett et al., 2012)

• Injuries are reported in 24% (Williams, Szekendi, & Thomas, 2013) to 42% (Hitcho et al., 2004) of hospital falls

• Advanced age, white race, and male gender associated with increased risk of mortality from falls (Rockett et al., 2012)

• Scant information on time-of-day and fall injury risk
Sample

- Nine units: Six medical-surgical, one step-down, and three intensive care units
- Source: Unusual Occurrence reports and investigations
- All reported falls between January 1, 2011 and June 30, 2013
  Excluded: Time of day not recorded for 16 falls (3%)
  two excluded falls had injuries, both mild (13%)
- Falls Analyzed: N=496
- Fallers Analyzed: N=433
# Characteristics of Falls and Fallers

**January 2011-June 2013**

<table>
<thead>
<tr>
<th>N=496 Falls</th>
<th>Number (Percentage)</th>
<th>N=433 Fallers</th>
<th>Number (Percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Injured</td>
<td>406 (81.8)</td>
<td>Female</td>
<td>128 (29.6)</td>
</tr>
<tr>
<td>Minor</td>
<td>85 (17.1)</td>
<td>≥65</td>
<td>102 (23.6)</td>
</tr>
<tr>
<td>Moderate</td>
<td>5 (1.0)</td>
<td>Surgical service</td>
<td>114 (26.3)</td>
</tr>
<tr>
<td>Major</td>
<td>3 (0.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At risk before fall per Schmid score</td>
<td>364 (73.4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assisted fall</td>
<td>53 (10.7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elimination related</td>
<td>190 (38.3)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Characteristics of Falls and Fallers

<table>
<thead>
<tr>
<th>Characteristic of faller/fall</th>
<th>Injured # (%)</th>
<th>Not Injured # (%)</th>
<th><em>p</em> value of Chi Square</th>
<th>Odds ratio (95% Confidence Interval)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>57 (18.8)</td>
<td>247 (81.2)</td>
<td><em>p</em> = 0.44</td>
<td>OR 1.25</td>
</tr>
<tr>
<td>Female</td>
<td>20 (15.6)</td>
<td>108 (84.4)</td>
<td></td>
<td>(0.71, 2.18)</td>
</tr>
<tr>
<td>≥ 65 years old</td>
<td>23 (22.6)</td>
<td>79 (77.4)</td>
<td><em>p</em> = 0.15</td>
<td>OR 1.49</td>
</tr>
<tr>
<td>19-64 years old</td>
<td>54 (16.3)</td>
<td>277 (83.7)</td>
<td></td>
<td>(0.86, 2.58)</td>
</tr>
<tr>
<td>Elimination-Related fall</td>
<td>38 (20.0)</td>
<td>152 (80.0)</td>
<td><em>p</em> = 0.55</td>
<td>OR 1.15</td>
</tr>
<tr>
<td>Non-elimination related fall</td>
<td>55 (18.0)</td>
<td>251 (82.0)</td>
<td></td>
<td>(0.73, 1.82)</td>
</tr>
<tr>
<td>Unassisted fall</td>
<td>86 (19.4)</td>
<td>357 (80.6)</td>
<td><em>p</em> = 0.28</td>
<td>OR 1.58</td>
</tr>
<tr>
<td>Assisted fall</td>
<td>7 (13.2)</td>
<td>46 (86.8)</td>
<td></td>
<td>(0.69, 3.63)</td>
</tr>
</tbody>
</table>
## Characteristics of Falls and Fallers

<table>
<thead>
<tr>
<th></th>
<th>Injured # (%)</th>
<th>Not Injured # (%)</th>
<th>( p ) value of Chi Square Odds ratio (95% Confidence Interval)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical</td>
<td>58 (18.5)</td>
<td>255 (81.5)</td>
<td>( p = 0.66 ) OR 1.14 (0.64, 2.03)</td>
</tr>
<tr>
<td>Surgical</td>
<td>18 (15.8)</td>
<td>90 (83.3)</td>
<td></td>
</tr>
<tr>
<td>Not at risk</td>
<td>27 (22.1)</td>
<td>95 (77.9)</td>
<td>( p = 0.27 ) OR 1.33 (0.80, 2.19)</td>
</tr>
<tr>
<td>At risk</td>
<td>66 (17.6)</td>
<td>308 (82.4)</td>
<td></td>
</tr>
<tr>
<td>Night shift</td>
<td>51 (22.8)</td>
<td>173 (77.2)</td>
<td>( p = 0.04 ) OR 1.61 (1.03, 2.54)</td>
</tr>
<tr>
<td>Day shift</td>
<td>42 (15.4)</td>
<td>230 (84.6)</td>
<td></td>
</tr>
</tbody>
</table>
Falls frequency, severity, and % injured by hour

Day Shift

Night Shift

Major Injury
Moderate Injury
Mild Injury
Fall No Injury

Hour of Day

0700 0800 0900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 0000 0100 0200 0300 0400 0500 0600
Discussion

- Most falls that result in injury occurred during the 12 hour night shift
- There was a statistically significant association between shift and falls that result in injury
- Highest proportion of fall injuries during 1900-2000 shift change
- Recommend replicating study in other hospitals
- Consider testing interventions for night shift falls injury prevention
  - Bed exit alarms (more likely to be in bed)
  - More frequent rounding to address patient needs
  - Educate patients about high risk of falls at night
  - Interdisciplinary work with physicians, rehab, pharmacy, etc.
  - Improved hand-off between day and night shift
SFGH NIGHT SHIFT OUTREACH PROGRAM

Falls Prevention at Night
Sunday, January 5th, 2023
9:00 am to 12:00 pm
SFGH Geriatric Anti-Fall Network Program
Bed-Side Hand-Off

- Tested on one Medical-Surgical unit
- Focus on multiple initiatives
- Target of high-risk
- Time and privacy major challenges

**HELP**

**INTRODUCTION / ISSUES:**
- Introduce Oncoming RN; Update Whiteboard and include patient with goals
- Issues: Address patient’s major issues (diagnosis, PMH, skin/wounds, pain, etc.)

**HIGH ALERT:**
- Meds: Epidural, Heparin, Insulin, PCA, Nerve Blocks, Antibiotics, etc.
- Precautions: Falls, PUs, Sepsis

**EDUCATIONAL NEEDS:**
- Discuss the patient’s educational needs prior to discharge
- Ex: Anticoagulant, DM, Colostomy, etc.

**LINES:**
- Ex: IV/Central line and IVF, Foley, Colostomy, NG/Feeding Tube, Drains, Wound Vac, Chest Tube, Trach

**PATIENT’S PLAN:**
- Discuss the plan with the patient (pending procedures, PT clearance, placement, etc.)
- Disposition/Discharge Plan
Dykes et al. Fall Prevention in Acute Care Hospitals: A Randomized Trial JAMA, 304 © 2010
References


• Williams, T., Szekendi, M., & Thomas, S. (2013). An Analysis of Patient Falls and Fall Prevention Programs Across Academic Medical Centers. _J Nurs Care Qual._
• **SFGH Falls Task Force:** Janet Kosewic, Thomas Holton, Kathy Ballou, David Rubin, Bonnie Seaman, Jeanette Cavano, Chie Quevedo, Annelie Nilsson, Chad Belicena, Irina Gruzman, Leah Custis, Rachel Limon Perry, Micaela Dybbro, Laure Marshall, Margarita Sotelo M.D., & Sue Currin CEO

• **Leadership Academy Leaders:** Will Huen, Iman Nazeeri-Simmons

• **Med-Surg Educator:** Anita Roberts

• **Chief Nursing Officer:** Terry Dentoni

• **Nursing Director:** Nela Ponferrada

• **Evidence-Based Practice Fellowship fellows and coaches**

• **Nursing Research and Quality and Safety Councils**

• Joseph Levine: Model patient and *Bon Vivant*

• Lauren Cuttler

• Joseph Clement and Franco Herrera

• America’s Essential Hospitals Engagement Network (Partnership for Patients)
Q & A
UPCOMING EVENTS

• **Assessing Your Organization’s Readiness** – Feb. 26, 2-3 pm EST
  Webinar #1 of 4 in the Better Together Partnership with Families Program

• **How to Refine Care Transitions to Reduce Readmissions**
  Feb. 27, 2-3 pm ET

• **Patient And Family Engagement Series IV – Patient and Family Centered Care at the Bedside**
  March 6, 2-3 pm ET
THANK YOU FOR ATTENDING

• **Evaluation**: When you close out of WebEx following the webinar a evaluation will open in your browser. Please take a moment to complete. We greatly appreciate your feedback!

• **Check out the NEW Essential Hospitals Engagement Network website**: [http://essentialhospitals.org/groups/ehen/](http://essentialhospitals.org/groups/ehen/)