Implementation Guide to Prevention of Falls with Injury

December 2012
Cynosure Health
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Overview

Background:
- Among older adults, ages 65 or better, falls are the leading cause of injury-related death (CDC). Falls are also the most common cause of non-fatal injuries and of hospital admissions for trauma.
- In acute and rehabilitation hospitals, falls resulting in injury occur in 30% to 51% of patients, and falls resulting in fracture occur in 1% to 3% of patients.
- Falls are associated with increased lengths-of-stay, increased utilization of health care resources, and poorer health outcomes.
- Soft tissue injuries or minor fractures can cause significant functional impairment, pain and distress. Even “minor” falls can trigger a fear of falling in older persons, leading them to limit their activity and lose their strength and independence.

Suggested AIMs:
- Reduce the number of preventable patient falls, organization-wide, by 50% by December 31, 2013
- Decrease moderate to severe injuries from falls to 0.01 per 1000 patient days by December 31, 2013

Potential Measures:

**Metrics:**
- Moderate to severe injuries from falls (the rate per 1,000 discharges).
- The number of patient falls with and without injury to the patient, by type of unit, during the calendar month x 1,000.
- The percentage of fall risk assessments completed within 24 hours of admission.

Primary Drivers

<table>
<thead>
<tr>
<th>Ideas to Test</th>
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<tr>
<td><strong>Fall and Injury Risk Assessment</strong></td>
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<tr>
<td>Conduct a fall risk assessment upon admission using a validated instrument.</td>
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<td>Assess a patient’s fall risk by asking the patient and family what they do</td>
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<td>outside the hospital to prevent falls.</td>
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<td>High-risks for injury include patients with the ABCS – Age &gt; 85, Bone, C-</td>
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<td>anti-coagulation, Coagulopathies, Surgical patients.</td>
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<td>Conduct ongoing reassessments including the identification of new and/or</td>
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<td>changed medications that increase the risk of falls.</td>
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<td>Perform rounds every 1-2 hours to assess and address patient needs for the</td>
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<td>Ps: pain, position, potty, personal belongings and safe pathway.</td>
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<td><strong>Communicate and Educate about Patients’ Fall and Injury Risks</strong></td>
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<tr>
<td>Use standardized visual cues to communicate fall risk to all care members.</td>
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<tr>
<td>Use standardized hand-off communications between hospital staff members.</td>
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<td>Use the “Teach Back” method when providing education.</td>
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<td><strong>Interventions for All Patients: Identify Modifiable Fall Risk Factors and</strong></td>
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<tr>
<td>Customize Interventions</td>
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<td>Use Visual/Audible cues. E.g. colorful, easy to view alert wristbands;</td>
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<td>bedside risk signs; non-skid footwear.</td>
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<td>Medication Review – Avoid unnecessary hypnotic/sedative medications.</td>
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<td>Create a safe environment for patients by eliminating injury hazards (i.e.</td>
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<td>sharp edges)</td>
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<td>Involve facility management and housekeeping staff in the process by</td>
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<td>developing and utilizing a checklist for environment and equipment safety.</td>
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<td>Use beds that are lower/closer to the floor.</td>
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<td>Enlist family and caregivers to help prevent falls, e.g. have them sit with</td>
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<td>the patient during vulnerable times.</td>
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<td>Observe and monitor patients hourly via “rounding” by staff.</td>
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<td>Educate patients about the positive benefits of interventions (enhancing</td>
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<td>independence and quality of life) rather than the negative (i.e., risk of</td>
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<td>falls).</td>
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Promote inter-disciplinary participation, including nursing, medical staff, pharmacy, therapy staff, environmental services, and engineering/maintenance, in safety programs.

| Individualized Interventions for Moderate/High-Risk Patients | Increase the frequency of rounding  
Develop a checklist for room set-up for high-risk patients  
Implement environmental changes (e.g., move high-risk patients closer to the nursing station)  
Offer assistive devices (walking aids, transfer bars, bedside commodes, etc.) located on the exit side of the bed |

Making Changes:
- This intervention is in the Collaborative with Reducing Pressure Ulcers and VTEs (PIVOT Collaborative).
  National meetings, webinars, bi-monthly coaching calls, change packages and other tools will augment state hospital association activities.

Key Resources:
- IHI How to Guide Reducing Injuries from Falls. Retrieved at: [http://www.ihi.org/knowledge/Pages/Tools](http://www.ihi.org/knowledge/Pages/Tools)
**Driver Diagram**

AIM: Reduce the number of preventable patient falls, organization-wide, by 50% by 12/31/13
AIM: Decrease moderate to severe injuries from falls to 0.01 per 1000 patient days by 12/31/13

<table>
<thead>
<tr>
<th>Primary Drivers</th>
<th>Secondary Drivers</th>
<th>Change Items</th>
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<tbody>
<tr>
<td>Fall and Injury Risk Assessment</td>
<td>• Conduct a fall risk assessment upon admission using a validated risk assessment tool.</td>
<td>• The most commonly used risk assessment is the Morse Falls Score. Others include: Conley, Hendrich II, and nursing clinical judgment.</td>
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<td></td>
<td>• Include as part of the fall assessment an inquiry about the patient’s level of mobility and the fall prevention measures utilized at home.</td>
<td>• Use the ABC’S Falls Assessment: Age, Bones, Coagulation and Surgery.</td>
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<td></td>
<td>• Develop mobilization protocols that trigger a referral to PT and/or OT.</td>
<td>• Orient patients to their surroundings.</td>
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<td>• Conduct ongoing reassessments of risk factors including new medication orders.</td>
<td>• Place fall risks on all hand-off communication forms and use ticklers to trigger review when giving a verbal hand-off.</td>
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<td>• Re-assess a patient’s risk factors frequently.</td>
<td>• Instruct patients about appropriate medication time/dose, side effects, and interactions with food or other medications.</td>
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<td></td>
<td>• Perform rounds every 1-2 hours to assess and address patient needs for the 3 “P’s”: positioning, pain and potty.</td>
<td>• Consider a pharmacist review of medications when a patient is at risk.</td>
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<td>Communicate and Educate about Patients’ Fall and Injury Risks</td>
<td>• Communicate each patient’s fall risk to all staff.</td>
<td>• Designate the times of day that 3P rounds are to be conducted and provide loud and clear announcements as reminders.</td>
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<td></td>
<td>• Educate the patient and family members about fall risks.</td>
<td>• Combine 3P rounds with other care related tasks, such as vital signs.</td>
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<td></td>
<td></td>
<td>• Use standardized visual cues to communicate fall risk to all care providers.</td>
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<td></td>
<td></td>
<td>• Use standardized hand-off communications between staff members.</td>
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<td>• Use the “Teach Back” method when providing education.</td>
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<td>Primary Drivers</td>
<td>Secondary Drivers</td>
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| Interventions for All Patients: Identify Modifiable Fall Risk Factors and Customize Interventions | • Implement patient-specific interventions to prevent falls.  
• Implement environmental interventions to prevent falls.  
• Implement intentional rounding on patients.  
• Use Visual/Audible Cues.  
• Staff education - Ensure staff are capable of performing a thorough fall assessment  
• Medication Review – Avoid unnecessary hypnotic/sedative medications  
• Use beds that are lower/closer to the floor except when the patient is standing or during transfer  
• Involve family and caregivers in efforts to prevent falls  
• Patient education - emphasize the positive benefits of interventions (enhancing independence and quality of life) rather than the negative (i.e. risk of falls).  
• Achieve multidisciplinary buy-in, including among nurses, doctors, pharmacists, physical therapists, and support staff responsible for housekeeping and building maintenance. | • Use colorful, easy-to-view alert wristbands, bedside risk signs, non-skid footwear, and risk stickers on the chart.  
• Have family/caregivers sit with the patient during vulnerable times.  
• Implement intermittent regular observation through hourly “rounding” by staff.  
• Use “Teach Back” methods with patients and their families.  
• Recruit a multi-disciplinary group of champions to address fall reduction, which includes nurses, doctors, PTs and OTs.  
• Create a safe environment for patients by eliminating hazards.  
• Involve facility management and housekeeping staff by developing and implementing a checklist for environmental and equipment safety.  
• Facilities/EVS – engage EVS staff as part of team to develop the checklist. The checklist should include:  
  o All lights are working properly  
  o Area is clear of obstructions  
  o Handrails are accessible  
  o Floors are dry  
  o Furniture is sturdy  
  o Flooring is level and free of tripping hazards  
  o Grab bars are in place in the toilet and shower  
  o Electrical cords are secured out of the way |
<p>| Individualized Interventions | • Increase the frequency of rounding. | • Locate the patient as close as possible to the |</p>
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<tr>
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<th>Secondary Drivers</th>
<th>Change Items</th>
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| for Moderate/High-Risk Patients | • Enhance environmental improvements.  
• Develop a checklist for room set-up for high-risk patients.  
• Use technology to assist. | nursing station.  
• Place a non-slip/skid padded floor mat on the exit side of the bed.  
• Locate assistive devices (walking aids, transfer bars, bedside commodes, etc.) on the exit side of bed.  
• Use night lights to ensure room is illuminated at all times.  
• Handrails should be accessible and sturdy.  
• Implement an individualized toileting schedule.  
• Use hip protectors.  
• Implement Balance/Strength assessments  
• Keep audible Bed and Chair alarms, if available, on the “on” position. |
Prevention of Falls with Injury:

Patient and family falls are among the most frequently reported incidents in hospitals and other healthcare facilities. Many inpatient falls cause little or no harm, but falls can sometimes lead to severe injuries such as hip fractures and head trauma, and are a significant cause of hospital-acquired injury.

Immobility and fall risk are closely linked. Immobility is a decrease in the amount of time spent up and moving (for example, getting out of a bed or chair and walking). Immobility causes loss of muscle strength, along with changes in the cardiac response to exercise. Immobility in the hospital increases the chances of delirium, pressure ulcers, venous thromboembolism, falls, and functional decline. Functional decline is the loss of the ability to perform activities that ensure a person’s independence, such as walking, getting to the toilet, and dressing. Functional decline leads to increased lengths of hospitalization and readmission.

The Partnership for Patients estimates that 25% of fall injuries are preventable. The goal set for hospitals is to cut the number of preventable fall injuries in half while maintaining or increasing patients’ mobility by 2013. Over three years, this would prevent a total of 43,750 fall injuries.

Agreed-upon and evidence-based strategies to prevent falls and injuries in the hospital setting have been challenging to establish, but there is consensus to encourage safe mobility for patients. Efforts to reduce falls and fall injuries while increasing safe patient activity focus on risk assessment, followed by interdisciplinary and multi-component interventions, and include:

- Avoidance of ordering bed rest;
- Institution of a toileting schedule to assure that a patient has help walking to and from the bathroom at regular intervals;
- Frequent walks with spotters or assistance as needed;
- Frequent reorientation if a patient is confused;
- Provision of a safe environment which includes good lighting, a bed that lowers to the floor, appropriate assistive devices, and removal of clutter;
- and avoidance or reduction of medications that may cause dizziness, drowsiness, or confusion.

Devices such as bed and chair alarms that alert staff to a patient’s movement should be used only in combination with interdisciplinary and multi-component responses to avoid the consequences of immobility.

Suggested AIM Statements:

- Reduce the number of preventable patient falls, organization-wide, by 50% by December 31, 2013
- Reduce the number of preventable patient falls to zero in more than 2 units for 6 consecutive months by December 31, 2013
- Reduce the number of patient falls with moderate to severe injuries, organization-wide, by 25% by December 31, 2013
• Decrease moderate to severe injuries from falls to 0.01 per 1000 patient days by December 31, 2013

Suggested Outcomes Measures:
• **Number of preventable falls** with and without injury to the patient, by type/location of nursing unit, during a calendar month
• **Rates of moderate to severe injury** from falls per 1000 discharges

**Assess Risk for Falling and Risk for Serious Injury from a Fall**
An accurate assessment of a patient’s risk for falling and risk for injury from a fall is a crucial first step in preventing injuries. It also helps focus resources towards those patients most likely to benefit from interventions. Developing a method for assessing risk is a key first step in every fall prevention program.

**Secondary Driver: Perform a standardized fall risk assessment for all patients on admission and with every change in status**
All patients who enter the organization must be assessed for risk of falling and risk of injury from falls. A validated, standardized assessment tool that can be used in a variety of patient settings, is simple to use, and does not take a lot of time to complete, is essential to this process. An assessment tool should identify and stratify the risk of falling for each assessed patient.

**Change Ideas: Morse Fall Scale**
• Trial a validated risk assessment tool that is already in existence, such as the Morse Fall Scale (See Appendix I), on a small number of patients
  o Define, as an organization, when Initial Fall Risk Assessments should be done
  o Define, as an organization, who is responsible for Initial Fall Risk Assessments (preferably an interdisciplinary process)
  o Define, as an organization, who is responsible for the initiation of the care plan to mitigate risk for each patient

**Suggested Process Measure**
• **Percentage of patients with a completed interdisciplinary fall risk assessment** at admission

**Secondary Driver: Identify those patients at high risk for injury from falls**
Prevention of falls with injuries requires special consideration and assessment of patients at risk. Patients at the highest risk for injury if they sustain a fall are those who are over age 85 or frail due to a medical condition, have a history of orthopedic conditions or bleeding disorders, and/or are post-surgery or procedures.
The ABCs of risk for injury (Age, Bones, Coagulation, Surgery) from a fall represent an important subset of all falls. Focusing on all patients who fall and ignoring the greater risks for the ABCS population is a common mistake.

**Change Ideas: The ABCs of highest-risk patients**
- Assess and re-assess fall risk status for patients at the highest risk for injury from a fall at every shift
- Use a reminder such as “ABCS” at the beginning of each shift to identify those patients at highest risk for injury from a fall. Trial an injury risk assessment tool on a small number of patients (See Appendix II for a Sample Injury Risk Assessment).
  - Age or frailty
  - Bones
  - Coagulation
  - (S) Surgery (recent)

**Suggested Process Measures:**
- **Percentage of patients identified at highest risk for injury from a fall** reassessed as per policy
- **Percentage of high-risk patients correctly identified** during initial fall risk assessment

**“Hardwiring” Risk Assessment for Falling and for Serious Injury from a Fall in Improvement Plans:**
Hardwiring methods include incorporating fall risk assessments in the admission process and as part of routine assessment. The fall risk assessment tool should be included in the clinical record documentation. Another hardwiring method is to create and implement an admissions checklist to ensure that all elements of fall risk assessment are completed and prevention methods are instituted.

**Communicate and Educate about Patient’s Fall and Injury Risk**
Communication among all care providers, as well as with the patient and family, is key to avoiding falls and reducing injuries related to falls. Verbal and visual communication tools at the appropriate level and in the appropriate language can be used to educate and remind others of a patient’s fall risk.

**Secondary Driver: Communicate to all staff a patient’s fall risk**
Staff members who are aware of a patient’s risk for falling should implement fall precautions appropriate for the patient’s level of care.

**Change Ideas: Communicate fall risk**
- Use standardized visual cues to communicate fall risk to all care members
  1. Place red-colored, non-skid socks on all patients at risk for falling

Comment [LRC1]: I've noticed the frequent use of the word caregivers. I suggest using providers, as caregivers implies a home care or guardianship function rather than the services of a licensed professional...
2. Colored wrist bands or a colored blanket on the bed or on the patient’s lap can also be used

3. Use signage in or outside the patient room to represent fall risk, being careful to maintain respect and dignity for the patient’s privacy (See Appendix III)
- Some hospitals use a picture of a leaf on the door to represent a risk for falling, with a red leaf signaling a high risk of injury from falls
- Other hospitals simply use colored signs or other symbols to represent fall risk

- Use standardized hand-off communication between hospital staff members at change of shift or changes in departments
  1. Add fall risk, risk for injury, history of falls, changes in fall risk and fall prevention measures for each patient in the hand-off checklists that are standardized across the organization. (See Appendix IV for a sample Hand-off Communications for Inpatient Psychiatry, which can be modified for other types of units).

Suggested Process Measures:
- **Percentage of patients identified as a fall risk with visual cues in place**, as per hospital policy
- **Percentage of handoffs that include a discussion about patient’s fall risk**, as observed or documented

Secondary Driver: Educate the patient and family members
Patients and family members can help prevent falls and injuries by becoming aware of the patient’s risk for falling and by learning strategies for fall prevention. Healthcare providers should also assess the level of understanding patients and families have about fall risks and recommended precautionary measures.

Change Ideas: Strategies to strengthen education
- Determine who the learner is/are. With the patient’s permission, address family members who are involved in the patient’s care or spend time regularly with the patient.
- Use the “Teach Back” method when providing education about falls, including the reasons the patient is at risk for falling, necessary precautions to be taken, and methods to keep the patient safe, such as reminders to use the call bell.
  1. After providing education, ask patients and/or family members to restate in their own words the information they heard during the education session.
  2. If the patient and family member do not understand the information, provide additional teaching, and follow up with another request that they “teach back”.

Suggested Process Measures:
- **Percentage of fall education sessions which include the “Teach Back” method**, as observed
“Hardwiring” Communicate and Educate about Patient’s Fall Risk in Improvement Plans
Integrating fall precautions into care routines will ensure that prevention is addressed reliably for every patient, every day.

- Implement standardized handoff communications among hospital staff members at changes of shift or changes in departments.
- Include Fall Risk prevention as a routine part of multidisciplinary rounds.

Interventions for All Patients: Identify Modifiable Fall Risk Factors and Customize Interventions
Design interventions for patients identified as at high risk for falling and injury based on a comprehensive assessment of each patient. Target the interventions to address modifiable risk factors.

Secondary Driver: Implement environmental interventions to prevent falls
Create a safe environment by eliminating hazards.

Change Ideas: Reduce environmental hazards
- Develop an environmental safety checklist
- Designate a time of day for routine rounds by a multi-disciplinary team that includes nursing staff, administrative team members, housekeeping staff, and engineering staff to review checklist items and identify potential hazards. Collaborative rounds provide an opportunity for a breadth of professional “eyes” to catch hazards such as uneven flooring, poor lighting, loose grab bars, and clutter and puddles. (See Appendix V)

Suggested Process Measures:
- The percentage of environmental rounds completed within the organization.
- The number of issues identified and corrected by the rounding team.

Secondary Driver: Implement patient-specific interventions to prevent falls
Customize interventions based on the assessment of fall risk and the patient’s medical and physical condition.

Change Ideas: Customized interventions
- Arrange the patient’s room to eliminate safety risks (See Appendix VI)
  - Make bed assignments that allow the patient to arise toward their strongest side.
  - Keep a bedside table, call bell and light switch within patient reach at all times.
  - Ask the patient if the lighting in the room is adequate. Provide extra lighting when needed.
  - Offer to move personal items such as photos to a nearby table or counter, out of the patient’s way.
• Keep the bed in the lowest possible position while the patient is resting and raise it to the appropriate level to aid with standing or transfer.
• Ensure that any portable furniture is in the locked position when the patient is standing or transferring.
• Secure electrical cords off the floor and away from the patient.

**Suggested Process Measure:**
- The percentage of beds for high-risk patients not in the lowest position while the patient is resting.

**Secondary Driver: Medication Review**

**Change Ideas:**
- Include a review of the patient’s medications in the assessment of fall risk and risk for injury
  1. Flag those patients identified as having an increased risk for falling and injury for a review of medications by a pharmacist.
  2. Consider use of the Beers criteria\textsuperscript{vii} for inappropriate medications in the elderly.
  3. Ask the pharmacist to recommend alternatives to medications that may increase fall risk and to place an alert in the medication system for care providers.
  4. Develop a visual cue for the lowest possible bed position for the high-risk patient.
  5. Create a mechanism for regular (every 4 hour) monitoring of bed position appropriateness based on visual cues. Define who is responsible for monitoring bed position and designate the times for monitoring.

**Suggested Process Measures:**
- The percentage of patients identified as high risk for injury from falls receiving a medication review by pharmacist
- The percentage of medications that meet Beers criteria
- The percentage of medications changed after pharmacist review

**Secondary Driver: Implement intentional rounding on patients**

Perform comfort rounds on patients every 1-2 hours to address their needs for pain control, positioning, and elimination. Falls frequently occur when high-risk patients attempt to get out of bed to get to the restroom without assistance. Frequent checks of high-risk patients will allow staff to provide assistance to go to the restroom and safely return to bed.\textsuperscript{viii}

**Change Ideas: Methods to standardize rounding**
- Combine rounding with other patient care tasks such as turning, pain assessment, or vital signs measurement.
- Assign specific staff members to round to ensure responsibility is clear.
• Educate the patient that a staff member will be in the room every two hours to assist with the “P’s” – pain, position, personal belongings, pathway, and potty.

Suggested Process Measure:
• The percentage of patient rooms with documented periodic rounding as per hospital policy

“Hardwiring” Standardize Interventions for Patients at Risk for Falling in Improvement Plans:

Standardizing procedures is a method of hardwiring. Examples include:
• Combining rounding every 1-2 hours with other patient care tasks, such as turning, pain assessment, or vital signs measurement.
• Assigning specific staff members to do rounding to ensure responsibility is clear.
• Educating the patient that a staff member will be in the room every two hours to assist with the “3 P’s” – pain, position, and potty.

Customize Interventions for Moderate/High Injury Related Risk Patients
Patients identified as moderate to high risk for a serious injury from a fall require more intensive precautions to maintain safety. To achieve the AIM, it is necessary to implement additional precautions beyond the standardized procedures for these patients.

Secondary Driver: Increase intensity and frequency of observation
Patients at high risk for injury require more frequent observation than those assigned to standard fall precautions.

Change Ideas: Enhancing direct patient observation
• Encourage family members to stay with the patient whenever possible
• Place high-risk patients in rooms that are closer to the nurse’s station and more visible to hospital staff, ideally in a direct line of sight
• Round in the patient’s room more frequently than every 1-2 hours
• Develop an individualized toileting schedule for the patient

Suggested Process Measures:
• The percentage of high-risk patients in designated fall risk rooms
• The percentage of patients receiving documented rounds at an increased frequency
Secondary Driver: Make environmental adaptations and provide personal devices to reduce risk of fall-related injury

Environmental adaptations can provide protection from falls and reduce the risk of injury, and should be aligned with the level of assessed risk. For some patients, individualized or intensive adaptations may be needed.

Change Ideas: Customized environmental changes

- Place a non-slip, padded floor mat next to the patient’s bed
- Place assistive devices (walking aids, transfer bars, bedside commodes) on the exit side of the bed
- Use night lights to ensure the room is illuminated at all times
- Use bed or chair alarms to alert staff quickly to patient movement
- Keep the bed at its lowest possible height
- Use gait belts when ambulating the patient

Suggested Process Measures:

- The percentage of rooms identified on environmental rounds as not meeting requirements for high-risk patients

Secondary Driver: Target interventions to reduce the side effects of medications

Many medications increase the risk for falling and the risk for injury as the result of a fall. Polypharmacy is common, especially in the elderly, and contributes to many adverse events including falls and falls with injury.

Change Ideas: Safer medication management

- Review high-risk patients’ medication lists with prescribing providers and the pharmacy to try to eliminate or replace any medications that would increase the risk for falling.
- Consider use of the Beers criteria to identify inappropriate medications for the elderly.
- Ask the pharmacist to recommend alternatives to medications that may increase fall risk and to place an alert in the medication system for care providers.
- Discourage routine use of hypnotics and sedatives by removing them from standardized order sets.

Suggested Process Measures:

- The percentage of high-risk patients receiving a review of medications by a pharmacist
- The percentage of medications that meet Beers criteria
- The percentage of medications changed after pharmacist review
“Hardwiring” Customize Interventions for Patients at Highest Risk of a Serious or Major Injury from a Fall in Improvement Plans:

In order to customize prevention approaches for the highest-risk patients, assessment of risk has to be routine and reliable. If risk is unassessed then opportunities to implement precautions are missed. Assessments should be done on admission, whenever the patient has a change of status, and at least every day (if not every shift). The findings from the completed assessments should generate automatic interventions and necessary referrals.

Potential Barriers:

Implementation of fall prevention efforts may spur resistance from staff due to a perceived increase in workload. To help mitigate this reaction, educate staff about how these patient safety protocols have been shown to prevent or decrease falls, and demonstrate a return on the time and efforts invested.

Staff may experience feelings of powerlessness and resentment when confronted with a very directive, “do this, do that”, approach. To successfully implement best practices, include key stakeholders such as bedside nurses, physicians, nurses’ aides, and environmental services staff on the improvement team to develop protocols, design workflows, and conduct peer-to-peer education.x,xii

Senior leadership may underappreciate the impact of prevention of falls and injuries on workload. Units may be closed for budget purposes, putting high-risk fall patients farther away from the unit staff’s line-of-sight. Staffing patterns may need to be re-evaluated after a safety program that addresses high-risk populations is fully implemented.

Falls with moderate to severe injuries may also have a significant impact on risk management costs. Including those ultimately responsible in discussions and planning efforts may help bring appropriate attention to the issues and the proposed solutions.

Enlisting administrative leadership sponsors to help remove or mitigate barriers

- An executive sponsor who recognizes the value of preventing falls for the organization and its patients can help brainstorm solutions, address employee concerns, provide funding and resources, and minimize barriers blocking the effective implementation of safety programs. Executive sponsors can provide a “big picture” perspective on how an initiative may impact the organization as a whole, and can serve as champions and advocates for safety programs on a broader level.
- Champions in professional units are also invaluable. For example, a respected nurse champion in a specific unit may be receptive to implementing a trial of a new process until success and reliability are assured through revisions and refinements. The champion can then assist with educating others as to the benefits of the new process and its ease of implementation.

Don’t just change the practice, change the culture

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17
Innovations are best launched through small tests of change, refinements and revisions, and broader dissemination after local success. The ideal outcome of these changes is the development of team-based healthcare in which each member of the team (e.g. physician, nurse, respiratory therapist, nurse aid, environmental services staff) contributes to the provision of high-quality patient care.

Tips on Using the Model for Improvement:

Assess risk for falling and risk for serious injury from falls:
- Ask one nurse to test a fall risk assessment on one patient, and then work with that nurse to improve the assessment for the next patient.
- Remember that a small test can be just that – small. Start with one patient, one physician, and one nurse. Don’t wait for approval from all departments. The results of multiple small tests of change will ultimately guide successful implementation.
- Add patients’ ABCS information to existing hand-off communication tools. Ask one nurse to help trial new protocols for communicating risk for serious injury from falls in a manner that enhances clear communication. Use visual cues, EMR prompts, and other reminders to ensure effective communication.
- Communicate and educate all stakeholders about patient fall risks:
  - Designate an individual (e.g. charge nurse, nurse’s aide, administrator) to perform unscheduled environmental rounds to assess if visual cues are in place for patients identified as fall risks. Measure compliance with visual cues such as a falling star sign on the door to a patient room, red socks on a patient’s feet, a red blanket across the patient’s lap, etc.
  - If compliance with visual cues is not up to par, ask the relevant team members responsible for implementing the new processes to help identify the reasons for non-compliance. For example, non-compliance may not be willful or negligent, but may be due to a lack of time, resources, supplies, or effective communication. Understanding the reasons for non-compliance can drive the implementation of necessary interventions to improve performance.

Standardize interventions for patients at risk for falling:
- Successful implementation of standardized rounding will require buy-in from nursing staff. Find a champion from among the nurses who is respected by his/her peers to help educate the staff about the benefits of standardized rounding.
- Work with nurses and nurse’s aides to develop a schedule for rounding that maximizes efficiency. Schedule rounds around tasks, such as administering medication or taking vital signs, that already require staff to be in the patient room.
- Designate an individual on the treatment team to be responsible for the rounds.
- Trial the rounding with one nurse on a few patients at first, improve the process based on feedback, and then expand the trial to more nurses and more patients.
Customize interventions for high-risk patients

- Ask the pharmacist to help design a process for medication review that includes
  - how the pharmacy will be notified of a high-risk patient, and
  - how the pharmacy will communicate the results of their medication review to the treating physician and nurse.
- Test the process on one patient, and lead a debriefing after the trial to discuss how the process can be improved. Try the revised process on another patient, debrief, revise, and re-try. Gradually increase the number of patients to be reviewed, and continue to discuss “what worked well” and “what didn’t”. Learn, tweak the process, and re-test.
- Ask volunteers/participants to help improve a process, not to “approve it” (or reject it). A good question is “what do we need to do to make this work here?” instead of “can we make this work here?”

Key Resources:

ECRI Falls Prevention Resources. Retrieved at: http://www.ecri.org/falls


Website: Massachusetts Hospitals. Retrieved at: http://www.patientsfirstma.org/index.cfm


Center for Disease Control and Prevention, Older Adult Falls Publications. Retrieved at: http://www.cdc.gov/HomeandRecreationalSafety/Falls/pubs.html#prevent
Appendix I: Morse Fall Scale

**Morse Fall Scale:**

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>MFS Score</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>No risk</td>
<td>0 - 24</td>
<td>None</td>
</tr>
<tr>
<td>Low risk</td>
<td>25 - 44</td>
<td>See Standard Fall Prevention Interventions</td>
</tr>
<tr>
<td>High risk</td>
<td>&gt;45</td>
<td>See Moderate/High-Risk Fall Prevention Interventions</td>
</tr>
</tbody>
</table>

1. History of falling; immediate or within the past 3 months  
   - No = 0  
   - Yes = 25

2. Secondary diagnosis  
   - No = 0  
   - Yes = 15

3. Ambulatory aid  
   - None, bed rest, wheelchair, nurse = 0  
   - Crutches, cane, walker = 15  
   - Furniture = 30

4. IV/Heparin lock  
   - No = 0  
   - Yes = 20

5. Gait/Transferring  
   - Normal, bed rest, immobile = 0  
   - Weak = 10  
   - Impaired = 20

6. Mental status  
   - Oriented to own ability = 0  
   - Forgets limitations = 15

Appendix II: Sample Injury Risk Assessment

A: Age: 85 years and older

B: Bones: sample questions to ask
   1) Diagnosis of osteoporosis: yes / no
      a) If yes, when:
   2) If no, presence of osteoporosis risk factors: yes / no
   3) History of fracture: yes / no

C: Anti-coagulants or bleeding dyscrasia: sample questions to ask
   1) Current blood clotting disorder: yes / no
   2) Current treatment for anti-coagulation: yes / no
      a) If yes, which medication:
   3) History of anti-coagulation:
      a) When started:
      b) When stopped:

S: Surgery: Post-Op/Post-Procedure
Appendix III: Visual Cue Fall Risk Examples

Catch a Falling Star Program: a falling star on door to the patient room, a yellow armband on patient, non-skid slipper socks on the patients.

Ruby Slippers Program: Ruby Slippers or a Red Star sign on the door to the patient room, red non-skid slipper socks on the patient's feet, red stickers on the front of the chart/Cardex, a special ruby slipper marker on the patient's census board.

SAFE Program: "Stay Alert for Falls Event": a yellow SAFE sign on the door, a yellow armband on the patient, non-skid slipper socks on the patient.

LAMP Program: "Look at Me Please": a yellow lamp sign on the door, a yellow armband on the patient, non-skid slipper socks on the patient.

IRIS Program: "I Require Intensive Surveillance:" A sign on the patient’s door, a pink armband in place, non-skid slipper socks on the patient.

Appendix IV: Sample Hand-Off Communication for Inpatient Psychiatry

New Admission (report to all staff taking care of patient for the first time)

- Admitted to the hospital because of a fall: No Yes
- History of falls in the last three months: No Yes
  - If yes, date of last fall:
  - Reason for fall:
- History of hip fracture: No Yes
  - If yes, report which hip protectors were prescribed:
- Receiving anti-coagulant/anti-platelet medications (e.g. Coumadin, heparin, Plavix, ASA): No Yes
- History of head injury: No Yes
- History of a fall while an inpatient prior to admission to psychiatry: No Yes Don’t know
- Diagnosis of osteoporosis or known risk factors: No Yes Don’t know

Shift-to-Shift Report

- Morse Fall Scale Score:
- Change in risk factors: No Yes
  a. If yes, describe change:
  b. Describe changes to interventions to prevent falls:
- Change in medications:
  a. Medications modified: No Yes
     i. If yes, describe:
  b. New medication added that can affect balance: No Yes
i. If yes, describe:

   c. Started on anti-coagulant: No Yes

   i. If yes, describe:

• Fall event:

   a. Fall during hospitalization/admission: No Yes

   i. If yes, date of last fall:

   b. Fall occurred within the last 24 hours:

   i. If yes, describe:

   ii. Resulting interventions

   c. Near-fall occurred within the last 24 hours

   i. If yes, describe:

   ii. Resulting interventions:

• If history of osteoporosis or hip fractures:

   a. Check for patient wearing hip protector: No Yes
Appendix V: Environmental Fall Risk Assessment/Safety Checklist Sample

Environmental Fall Risk Assessment/Safety Checklist

Date: __________    Hospital __________________________    Unit: __________

Rooms assessed: __________________________________________________________

(minimum of 10% of rooms)

Individual(s) Surveying: __________________________________________________

PATIENT ROOM

<table>
<thead>
<tr>
<th>Item#</th>
<th>Environmental Consideration</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Room # / area deficiencies found</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Is there adequate lighting in the patient’s room? (Bright light – no burned out bulbs?)</td>
<td></td>
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<td>2</td>
<td>Is the nightlight on the patient’s bed functional/operating?</td>
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<tr>
<td>3</td>
<td>Does the patient have an unobstructed path to the bathroom?</td>
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<td>4</td>
<td>Are the patient’s room furnishings safely arranged?</td>
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<td>5</td>
<td>Is the bedside furniture free of sharp edges?</td>
<td></td>
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<td></td>
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<tr>
<td>6</td>
<td>Is the bedside furniture sturdy?</td>
<td></td>
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<td>7</td>
<td>Are beds/stretchers kept at the lowest setting whenever possible?</td>
<td></td>
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<td></td>
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<tr>
<td>8</td>
<td>Are beds/stretchers kept in a locked position?</td>
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</tr>
</tbody>
</table>
9  Were the upper siderails in the up position so the patient could reach controls?

10  Was the bedcheck system on in the patient’s room?

11  Were the patient’s personal belongings/telephone call bell within reach?

12  Are handrails provided in the patient bathroom and properly secured?

13  Is there an emergency call button/cord in patient care bathroom and working properly?

14  Are non-slip surfaces provided in patient showers?

15  Are the door openings into the patient bathroom wide enough for an assistive device to fit through?

16  Are door openings flush with the floor for ease-of-movement for patient equipment?

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**EQUIPMENT**

<table>
<thead>
<tr>
<th>Item#</th>
<th>Environmental Consideration</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
<th>Room # / area deficiencies found</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Is portable equipment pushed by patient (e.g. IV pole) sturdy and in good repair?</td>
<td></td>
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<tr>
<td>18</td>
<td>Are bedside commodes available on the unit and do they have proper rubber slip tips on the legs?</td>
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<tr>
<td>Item</td>
<td>Environmental Consideration</td>
<td>Yes</td>
<td>No</td>
<td>N/A</td>
<td>Room # / area deficiencies found</td>
<td>Comments</td>
</tr>
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<tr>
<td>19</td>
<td>Do walkers/canes/crutches have the appropriate slip tips?</td>
<td></td>
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<tr>
<td>20</td>
<td>Are wheelchairs locked when stationary?</td>
<td></td>
<td></td>
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<tr>
<td>21</td>
<td>Is broken equipment properly tagged for non-use?</td>
<td></td>
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<tr>
<td></td>
<td><strong>OTHER ENVIRONMENTAL CONSIDERATIONS</strong></td>
<td></td>
<td></td>
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<tr>
<td>22</td>
<td>Are floor surfaces/carpeting free of cracks and tripping hazards?</td>
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<td>23</td>
<td>Are hallways kept adequately clear/clutter free to allow patient ambulation?</td>
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<td>24</td>
<td>Are floors properly marked when wet to avoid slipping or are spills cleaned up immediately?</td>
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<td>25</td>
<td>Do parking lots have uneven pavement/potholes/tripping hazards?</td>
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<tr>
<td>26</td>
<td>Do sidewalks have uneven pavement/tripping hazards?</td>
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<td>27</td>
<td>Are entrance areas open and clear?</td>
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<tr>
<td>28</td>
<td>Are parking areas/entrances well – lit?</td>
<td></td>
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<tr>
<td>29</td>
<td>Are parking lots well marked?</td>
<td></td>
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<td></td>
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<tr>
<td>ITEM #</td>
<td>CORRECTIVE ACTION</td>
<td>DATE INITIATED</td>
<td>RESPONSIBLE INDIVIDUAL(S)</td>
<td>ANTICIPATED DATE OF COMPLETION</td>
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Appendix VI: Environmental precautions in the patient room

- Bed controls at fingertips
- Bed alarm
- Bedside commode placed alongside bed (replaces urinal)
- Non-slip floor mat absorbs fluid, food, & stool, and prevents slips
- Bed trapeze
- Falls prevention poster
- Non-exit side rails up for support
- Exit side head rail up for support and foot rail down at all times.
References:

i Website: Retrieved at: http://www.healthcare.gov/compare/partnership-for-patients/resources/index.html


vi Teach Back use by Transitions Home innovation units. Institute for Healthcare Improvement. Good Heart Failure Care Follows Patients Home. Retrieved at: http://www.ihi.org/IHI/Topics/ChronicConditions/AllConditions/ImprovementStories/GoodHeartFailureCareFollowsPatientsHome.htm.


