

Falls With Injury

Change Package

2015 UPDATE

PREVENTING HARM FROM INJURIES DUE TO FALLS AND IMMOBILITY



ACKNOWLEDGEMENTS

We would like to recognize the contributions of the American Hospital Association (AHA)/Health Research & Educational Trust (HRET) Hospital Engagement Network (HEN) team and Cynosure Health for their work in developing the content of this change package.

Suggested Citation: Health Research & Educational Trust (2015, December). *Falls with Injury Change Package: 2015 Update*. Chicago, IL: Health Research & Educational Trust. Accessed at www.hret-hen.org.

Accessible at: www.hret-hen.org

Contact: hen@aha.org

© 2015 Health Research & Educational Trust. All rights reserved. All materials contained in this publication are available to anyone for download on www.aha.org, www.hret.org or www.hpoe.org for personal, non-commercial use only. No part of this publication may be reproduced and distributed in any form without permission of the publication or in the case of third party materials, the owner of that content, except in the case of brief quotations followed by the above suggested citation. To request permission to reproduce any of these materials, please email hen@aha.org.

TABLE OF CONTENTS

Part 1: Adverse Event Area (AEA) Definition and Scope	02
Part 2: Measurement	03
Part 3: Approaching your AEA	03
Part 4: Conclusion and Action Planning	13
Part 5: Appendices	14
Part 6: References	21

How to Use this Change Package

This change package is intended for hospitals participating in the Hospital Engagement Network (HEN) 2.0 project led by the Centers for Medicare & Medicaid Services (CMS) and the Partnership for Patients (PFP); it is meant to be a tool to help you make patient care safer and improve care transitions. This change package is a summary of themes from the successful practices of high performing health organizations across the country. It was developed through clinical practice sharing, organization site visits and subject matter expert contributions. This change package includes a menu of strategies, change concepts and specific actionable items that any hospital can choose to implement based on need and to begin testing for purposes of improving patient quality of life and care. This change package is intended to be complementary to literature reviews and other evidence-based tools and resources.

PART 1: ADVERSE EVENT AREA (AEA) DEFINITION AND SCOPE

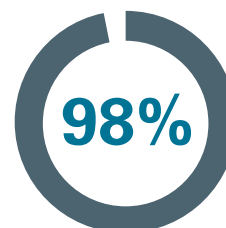
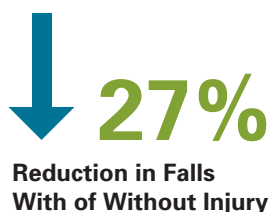
Patient falls — an unplanned descent to the floor with or without injury to the patient — affect between 700,000 and 1,000,000 patients each year¹ and rank among the most frequently reported incidents in hospitals and other health care facilities. Though many inpatient falls cause little or no harm, falls do sometimes lead to severe injuries such as hip fractures and head trauma and are a significant cause of hospital-acquired injury. In acute care and rehabilitation hospitals, anywhere from 3-20 percent of patients fall at least once during their hospitalization. Between 30 and 51 percent of those falls in hospitals result in some injury and 6-44 percent of those injuries are ones that may lead to death (e.g., fracture, subdural hematoma, excessive bleeding)². Additionally, among older adults, age 65 or over, falls are the leading cause of injury-related death, the most common cause of non-fatal injuries and the leading cause of hospital admissions for trauma³. Fall risk and the associated injury and cost are challenges both in health care facilities and in the community.

Magnitude of the Problem

Though falls are prevalent in health care facilities, the Partnership for Patients estimates that 25 percent of fall injuries are preventable. Falls are associated with increased length of stay, increased utilization of health care resources, poorer health outcomes and increased costs. Soft tissue injuries or minor fractures that result from falls can cause significant functional impairment, pain and distress. Additionally, even “minor” falls can trigger a fear of falling in older people, resulting in limited activity and loss of strength and independence. Adjusted to 2010 dollars, one fall without serious injury costs hospitals an additional \$3,500 while patients with more than two falls without serious injury have increased costs of \$16,500. Falls with serious injury cost hospitals an additional \$27,000⁴.

HEN 1.0 Progress

From 2011 – 2014, the AHA/HRET HEN reduced falls with or without injury by 27 percent. This equates to 1,331 harms prevented and a cost savings of \$882,453.



“Chance The Information Will Improve My Effectiveness/Results”

of Positive Responses to Falls Education Events

What does that Mean?



HEN 2.0 Reduction Goals

Reduce the incidence of harm due to falls by 40 percent by September 23, 2016.

PART 2: MEASUREMENT

A key component to making patient care safer in your hospital is to track your progress toward improvement. This section outlines the nationally recognized process and outcome measures that you will be collecting and submitting data on for the AHA/HRET HEN. Collecting these monthly data points at your hospital will guide your quality improvement efforts as part of the Plan-Do-Study-Act (PDSA) process. Tracking your data in this manner will provide valuable information you need to study your data across time, and determine the effect your improvement strategies are having in your hospital at reducing patient harm. Furthermore, collecting these standardized metrics will allow the AHA/HRET HEN to aggregate, analyze and report its progress toward reaching the project's 40/20 goals across all AEA's.

Nationally Recognized Measures: Process and Outcome

Please download and reference the encyclopedia of measures (EOM) on the HRET HEN website for additional measure specifications and for any updates after publication at: <http://www.hret-hen.org/audience/data-informatics-teams/EOM.pdf>

HEN 2.0 EVALUATION MEASURE

Falls with injury (NQF 0202) – All acute care units

PROCESS MEASURES

Assessment of Fall Risk – within 24 hours of admission

Fall Risk Assessment (NQF 0035) – assessment and risk management

Assessment of Falls Prevention in Older Adults (NQF 0101)

Psychiatric Patients Physical Restraint Use (NQF 0640)

PART 3: APPROACHING YOUR AEA

Suggested Bundles and Toolkits

- Agency for Healthcare Research and Quality – An Evidence Based Handbook for Nurses. Retrieved at: <http://archive.ahrq.gov/professionals/clinicians-providers/resources/nursing/resources/nursesfdbk/>
- Department of Veteran Affairs Falls Prevention Toolkit. Retrieved at: <http://www.patientsafety.va.gov/professionals/onthejob/falls.asp>
- Hospital Elder Life Program. Retrieved at: <http://www.hospitalelderlifeprogram.org/>
- Transforming Care at the Bedside How-to Guide: Reducing Patient Injuries from Falls. Retrieved at: <http://www.ihi.org/resources/Pages/Tools/TCABHowToGuideReducingPatientInjuriesfromFalls.aspx>
- The American Geriatrics Society 2013 Clinical Practice Guidelines: Prevention of Falls in Older Adults Summary of Recommendations. Retrieved at: http://www.americangeriatrics.org/health_care_professionals/clinical_practice/clinical_guidelines_recommendations/prevention_of_falls_summary_of_recommendations
- For key tools and resources related to preventing and reducing falls, visit www.hret-hen.org.

Investigate Your Problem and Implement Best Practices

A driver diagram visually demonstrates the causal relationship between change ideas, secondary drivers, primary drivers and your overall aim. A description of each of these components is outlined in the table below. This change package is organized by reviewing the components of the driver diagram to (1) help you and your care team identify potential change ideas to implement at your facility and (2) to show how this quality improvement tool can be used by your team to tackle new process problems.

Aim	Primary Driver	Secondary Driver	Change Idea
		Secondary Driver	Change Idea
	Primary Driver	Secondary Driver	Change Idea

AIM: A clearly articulated goal or objective describing the desired outcome. It should be specific, measurable and time-bound.

PRIMARY DRIVER: System components or factors which contribute directly to achieving the aim.

SECONDARY DRIVER: Action, interventions or lower-level components necessary to achieve the primary driver.

CHANGE IDEAS: Specific change ideas which will support/achieve the secondary driver.

Prevent Harm from Falls	Assess Risk for Falling & Injury	Implement a Standardized Risk Assessment	Change Idea
		Identify High-Risk Patients	Change Idea
	Communicate & Educate	Communicate to All Staff	Change Idea
		Educate Patient & Family	Change Idea
	Identify Modifiable Fall Risk Factors & Customize	Implement Environmental Changes	Change Idea
		Implement Patient-Specific Changes	Change Idea
		Review Medication	Change Idea
		Implement Intentional Rounds	Change Idea
	Individualize Interventions for Mod/High Risk	Increase Observation Intensity/Frequency	Change Idea
		Adapt the Environment	Change Idea
		Reduce Medication Side Effects	Change Idea
	Prevent Immobility Hazards	Link to PT/OT Services	Change Idea
		Create a Mobility/Activity Plan	Change Idea

Drivers in This Change Package

Each organization and each unit is unique and, each area could have a different driver diagram on how it attributes to falls. In a recent study published in the Journal of Nursing Care Quality in 2014, seven hospitals analyzed falls data to determine the organization's leading contributing factors to falls and used the information to identify targeted solutions, resulting in a 62 percent reduction in fall injury rates over an 18-month period.⁵ This study demonstrates the benefits of understanding why patients are falling before an intervention, toolkit or change idea is selected for testing or implementation.

OVERALL AIMS: PREVENT HARM FROM FALLS

Primary Driver > Assess risk for falling and injury

An accurate assessment of a patient's risk for falling and risk for injury from a fall is a first step to prevent injury. Assessments help allocate resources toward those patients most likely to benefit from interventions.

Secondary Driver > Implement a standardized risk assessment

All patients who enter the institution must be assessed for risk of falling and risk of injury from falls. Select a validated, standardized assessment tool that is simple, efficient and can be used in a variety of patient settings. The assessment tool will assist in identifying each patient's risk of falling and will allow the team to stratify their intervention based on the risk assessment score.

Change Ideas

- + Evaluate the effectiveness of current fall risk assessment tool and work flow process.
- + Evaluate the assessment process and clearly define the responsibilities and work flow.
- + Define when initial fall risk assessments should be done.
 - > Define who is responsible for performing the initial fall risk assessments.
 - > Define who is responsible for the initiation of the care plan to mitigate risk for each patient.
 - > Define how to incorporate an interdisciplinary approach to implementing a fall risk assessment.
- + If not using a standardized tool, trial a validated risk assessment tool such as the Morse Fall Scale (See Appendix I) on a small number of patients.

Suggested Process Measures for Your Test of Change

Percent of patients with a fall risk assessment completed within 24 hours of admission

Secondary Driver > Identify high-risk patients

Those patients who are identified as a high-risk for a fall with injury should receive targeted intervention. Patients at the highest risk for injury from a fall are those who are over age 85, are frail due to a medical condition, have a history of orthopedic conditions, are on anti-coagulation therapy, have a bleeding disorder and/or are post-surgery or post-procedure.

The ABCS (age, bones, coagulation, surgery) population is at higher risk for injury from falls. Identifying and focusing on these patients is often more effective approach than attempting to focus on all patients, regardless of risk.

Change Ideas

- + Assess and re-assess fall risk status for patients at the highest risk for injury from a fall at every shift.
- + During shift huddles, review which patients are at highest risk for injury from a fall so that all staff are aware of these highest-risk patients.
- + Use a reminder such as "ABCS" at the beginning of each shift to identify those patients at highest risk for injury from a fall (See Appendix II for a sample injury risk assessment).
 - > High-risk criteria include:
 - (A) Age or frailty
 - (B) Bones
 - (C) Coagulation
 - (S) Surgery (recent)
- + Assess for and treat osteoporosis and vitamin D deficiency by providing supplemental vitamin D.

Suggested Process Measures for Your Test of Change

Percent of patients with a risk for injury assessment completed within 24 hours of admission

Hardwire the Process

To hardwire the use of fall risk assessments, the process must be incorporated into the admission process. It may require multiple tests of change to determine how to most effectively incorporate this new process into the existing work flow. Include the fall risk assessment in the clinical record documentation. In an electronic medical record (EMR), completion of the fields may be required or mandatory to prevent staff from skipping over the section. The EMR can provide alerts to identify high-risk patients and link interventions appropriate to the level of risk. Another option is to add it to an admissions checklist that includes the administration of the risk assessment and implementation of selected interventions when indicated.

Primary Driver > Communicate and educate

Communication among care providers and with the patient and family is key to avoiding falls and reducing fall-related injuries. Many facilities utilize both verbal and visual communication tools to remind others of a patient's fall risk. These tools should be implemented in the appropriate language. Patients with given conditions may require specific instructions or interventions. For example, patients on anti-coagulation therapy should receive discharge education regarding what to do if they fall as well as information about their risk for internal or intra-cranial hemorrhage.

Secondary Driver > Communicate to all staff

By educating all staff members about which patients are at high-risk for a fall, more individuals are readily available to notice any fall risks and implement appropriate interventions accordingly. All hospital employees should be aware of signals of high-risk for falls and should contribute to the monitoring of these patients' safety.

Change Ideas

- + Use standardized visual cues to communicate high fall risk and injury risk to all care team members.
 - > Place red or yellow non-skid socks on all patients at risk for falling.
 - > Use colored wrist bands or a colored blanket on the bed or on the patient's lap.
 - > Use signage inside or outside the patient room to represent fall risk, being careful to maintain respect and dignity for the patient's privacy (See Appendix III).
- + Use standardized hand-off communication between hospital staff members at shift changes or when changing departments. Include information about fall risk, risk for injury, history of falls, changes in fall risk and fall prevention measures for each patient in the hand-off checklists.
- + Conduct post-fall huddles immediately after a fall to analyze how and why the patient fell and to implement changes to prevent subsequent falls (See Appendix VI). Conduct the huddle at the patient's bedside and involve the patient and family focusing on "what was different or what circumstances contributed to your fall in this situation?"
 - > Involve the patient and family in the conversation about the circumstances leading up to and during the fall.
 - > Involve rehabilitation services and pharmacy as available. If the fall occurs after hours, have the pharmacist and rehab professional review the circumstances as soon as possible to identify contributing factors and contribute to the post-fall plan.

Suggested Process Measures for Your Test of Change

- + Percent of patients that are identified as having a fall risk that have appropriate visual cues in place, as per hospital policy
- + Percent of hand-offs that include a discussion about patient's fall risk, as observed or documented
- + Percent of post-fall huddles completed within time frame identified by hospital

Secondary Driver > Educate the patient and family

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. Health care providers should also assess the level of understanding patients and families have about fall risks and recommended precautionary measures.

Change Ideas

- + Determine who the learner(s) 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.
- + Include the fall prevention program on the patient's whiteboard.
- + During bedside hand-offs include the fall prevention status and include the patient and family in the discussion.
 - > 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 (e.g., reminders to use the call bell).
 - > 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 for Your Test of Change

- + Percent of patient whiteboards with fall prevention program outlined as observed during leadership rounds
- + Percent of bedside hand-offs that include the patient and family in fall prevention

Hardwire the Process

Integrating fall precautions into care routines will help ensure that prevention is addressed reliably for each patient, each day.

- + Implement standardized hand-off communications among hospital staff members at changes-of-shift or changes in departments.
- + Include fall risk prevention as a routine part of multidisciplinary rounds and bedside hand-offs.
- + Monitor patient whiteboards for fall program during leadership rounds.

Primary Driver > Identify modifiable fall risk factors and customize interventions

Design interventions for patients identified as 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 changes

Create a safe environment by eliminating hazards.

Change Ideas

- + Develop an environmental safety checklist (See Appendix IV).
- + Designate a time of day for routine rounds by a multidisciplinary 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 professionals to catch hazards such as uneven flooring, poor lighting, loose grab-bars, clutter and puddles.
- + Develop a visual cue to signal the lowest possible bed position for high-risk patients.
- + Create a mechanism for regular (e.g., every four hours) monitoring of bed position appropriateness based on visual cues. Define who is responsible for monitoring bed position and designate the intervals for monitoring.
- + Arrange the patient's room to eliminate safety risks.
- + 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's walking path.

Suggested Process Measures for Your Test of Change

- + Percent of environmental rounds completed within the organization
- + Number of issues identified and corrected by the rounding team

Secondary Driver > Implement patient-specific changes

Customize interventions based on the assessment of fall risk and the patient's medical and physical condition.

Change Ideas

- + Keep a bedside table, call bell, light switch and personal items such as glasses and cell phone within patient reach at all times.
- + Ask the patient if the lighting in the room is adequate. Provide extra lighting when needed (e.g., nightlight).
- + 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 transfers.
- + Initiate a written “patient agreement” for patients reluctant to call for help to establish patient and staff commitment to safety. The agreement outlines the patient’s need to call for help and the staff’s need to respond.
- + Customize a toileting schedule to meet patient needs and patterns.

Suggested Process Measures for Your Test of Change

Percent of patients observed to have bedside table, call bell, light switch and personal items within reach during leadership rounds

Secondary Driver > Review medications

Pharmacists are key professionals in preventing patient harm and are important members of a fall prevention team. Pharmacists should be engaged in medication review profiles on patients who are at high-risk for fall or injury including those patients who are prescribed hypnotics and sedatives and post-fall patients.

Change Ideas

- + Include a review of patients’ medications in the assessment of fall risk and risk for injury.
- + Flag patients identified as having an increased risk for falling and injury for a review of their medications by a pharmacist.
- + Consider use of the Beers Criteria⁶ to determine inappropriate medications in 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.
- + Review standing order sets for inclusion of high-risk medications such as Zolpiden Tartrate (Ambien™). Remove high-risk medications from standing order sets.

Suggested Process Measures for Your Test of Change

- + Percent of patients identified as high-risk for injury from falls receiving a medication review by pharmacist
- + Percent of falls with medications attributed to the cause of the fall

Secondary Driver > Implement intentional rounds

Perform comfort rounds on patients every 1-2 hours to proactively 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.

Change Ideas

- + Combine rounds with other patient care tasks such as turning, pain assessment or vital signs measurement.
- + Educate the patient that a staff member will be in the room every two hours to assist with the “5-P’s” – pain, position, personal belongings, pathway and potty. Based upon the care areas’ fall trends, the elements of the “5-P’s” can and should be redefined.
- + Set the expectation that all hospital staff involved in the patient’s care participate in rounds.

Suggested Process Measures for Your Test of Change

- + Percent of patient rooms with documented periodic rounds as per hospital policy
- + Percent of patients who report that toileting is offered each time staff round on them

Hardwire the Process

Standardizing procedures is a method of hardwiring.

- + Schedule certain activities at specific rounds times to increase the reliability that patient care needs will be met. See Appendix XI for a sample hourly rounding documentation tool that includes scheduled activities.
- + Validate that staff are following hourly rounds expectations by conducting regular observations to validate performance. See Appendix VII for a sample hourly rounding competency review tool.
- + Assign specific staff members to round in each area to ensure responsibilities are clear.
- + Involve staff in developing an hourly rounds workflow that works for them. Use PDSA to improve hourly rounds workflow in small tests of change with front-line staff.

Primary Driver > Individualize interventions for moderate and high-risk populations

Patients identified as moderate to high-risk for a serious injury from a fall require more intense precautions to maintain safety. To achieve the aim for these patients, it is necessary to implement additional precautions beyond the standardized procedures.

Secondary Driver > Increase observation intensity and frequency

Patients at high-risk for injury require more frequent observation than those with lower levels of risk who are assigned to standard fall precautions

Change Ideas

- + Encourage family members to stay with the patient whenever possible.
- + Place high-risk patients in rooms that are closer to the nurses' 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.
- + Utilize video surveillance⁷.
- + Utilize 1:1 companions or sitters for high-risk times of day for the individual patient.

Suggested Process Measures for Your Test of Change

- + Percent of high-risk patients in designated fall risk rooms
- + Percent of patients receiving an individualized toileting schedule

Secondary Driver > Adapt the environment

Environmental adaptations can provide protection from falls, 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

- + Place a non-slip, padded floor mat next to the patient's bed while the patient is resting.
- + Place assistive devices (e.g., walking aids, transfer bars, bedside commodes) on the exit side of the bed and within the patient's reach.
- + Use nightlights to ensure the room is illuminated at all times.
- + Keep the bed at its lowest possible height.
- + Use gait belts when ambulating the patient.
- + Create special high-risk fall rooms with environmental modifications such as furniture with round edges, bathrooms with raised toilet seats and upgraded grab-bars around the toilet and in the shower.

Suggested Process Measures for Your Test of Change

Percent of rooms identified on environmental rounds as meeting requirements for high-risk patients

Secondary Driver > Reduce medication side effects

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

Change Ideas

- + Review high-risk patients' medication lists with the 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 Criteria⁸ 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 for Your Test of Change

- + Percent of high-risk patients receiving a review of medications by a pharmacist
- + Percent of falls with medications attributed to the cause of the fall

Hardwire the Process

Discuss which patients are at highest risk for fall or fall with injury in huddles with staff at the beginning of each shift. Observe the environment for appropriate placement and function of equipment in leadership rounds. Allocate clinical pharmacist time to review high-risk patients' medication lists and make recommendations. Use alerts built into the EMR to identify high-risk for fall or injury patients for the entire clinical team.

Primary Driver > Prevent immobility hazards

Deconditioning and functional decline is found to occur by day two of hospitalization of elderly patients. Immobility leads to orthostatic hypotension, decreased muscle strength, increased bone loss and decreased bone density — all of which increase a patient's risk for fall and injury.⁹ These hazards can be minimized by proactively incorporating activity into a patient's treatment plan to maintain the patients' optimal mobility and functional status.

Secondary Driver > Link to PT/OT services

Initial assessments should include triggers that activate a physical therapy and/or occupational therapy (PT/OT) referral for patients with existing mobility or functional activities of daily living deficits. Criteria for PT/OT referral may include: all patients with mobility, functional or cognitive deficits, patients on bed rest, patients over the age of 65 and patients who use an assistive device to ambulate.

Change Ideas

- + Incorporate assessment of gait, balance, lower extremity muscle strength and functional abilities into initial assessments.
- + Use automated triggers in the EMR to notify rehabilitation services of the need for a PT/OT evaluation.
- + PT/OT staff should attend daily rounds with charge nurses to discuss patients that need evaluation and intervention.
- + Review mobility in multidisciplinary clinical rounds and include rehabilitation services in these rounds.
- + PT/OT staff should recommend and assist with progressively increasing the patients' mobility status and communicate with the team in huddles and on the whiteboard.

Suggested Process Measures for Your Test of Change

Percent of patients evaluated by PT/OT within 24 hours of admission who meet high-risk criteria

Secondary Driver > Create a mobility and activity plan

Early engagement in rehabilitation services and proactive ambulation and mobility program can minimize the cascade of events caused by immobility and can reduce the risk factors associated with anticipated physiological falls caused by weakness, orthostatic hypotension, impaired balance and gait and confusion.¹⁰

Change Ideas

- + Include a mobility plan on the patient whiteboard.
- + PT/OT should take responsibility for defining a mobility plan for each patient.
- + Involve the family in ambulation programs.
- + Manage postural hypotension.
- + Encourage the use of appropriate footwear for ambulation.
- + Keep gait belts accessible for staff use.

Suggested Process Measures for Your Test of Change

- + Percent of patients ambulating as prescribed
- + Percent of patients with a mobility program defined on the white board

Hardwire the Process

Hardwiring can be achieved by increasing the presence of rehabilitation staff on the patient care units and by demonstrating leadership support by reallocating resources to support patient mobility.

- + Schedule ambulation as a daily patient activity. Assign staff responsibility (e.g., certified nurse assistant, physical therapist assistant).
- + Engage in leadership rounds to assess and observe activities promoting mobility and patient ambulation as well as the use of whiteboards to communicate mobility plans.

PDSA IN ACTION | TIPS ON HOW TO USE THE MODEL FOR IMPROVEMENT

Falls can be prevented by implementing changes in the environment, hospital processes, and education. Improvement teams can begin improvement efforts with a discussion about what small change can have the biggest impact. Below are two examples of PSDA processes to prevent falls.

Implement Small Tests of Change

PLAN

Example Test: The objective is to engage staff in designing a process to incorporate a regular toileting schedule into the hourly rounding workflow. The study will identify the role, schedule and documentation processes to achieve scheduled toileting with patients requiring the intervention.

Example Test: The objective is to select a patient family education tool that helps patients and families understand the patient's fall risk and what their responsibility is in fall prevention. Two tools were reviewed by staff and one patient and one tool was selected for testing.

DO

Example Test: One RN and one CNA Champion will test a method in which the CNAs toilet the patient on the even hours and the RN rounds for safety and comfort needs on the odd hours on 2/2/16.

Example Test: On 11/8/15 all patients admitted to 2C on the 7 a.m. to 7 p.m. shift will receive new admission education on fall prevention utilizing the new tri-fold form. At the end of the shift, the involved staff will debrief. The following day, the nurse manager will round on the patients to assess their understanding of their fall prevention program.

STUDY

Example Test: Staff found that even hours conflicted with meal times for toileting and created delays and patient dissatisfaction.

Example Test: The staff found that the tri-fold form was too generic and they were circling important information and writing in the margins. Nurse manager found that patients had placed the form in their bedside table and did not remember their fall prevention program except for calling for help before getting up.

ACT

Example Test: For cycle two, toileting will be performed by the PCT on odd hours and RNs will round on even hours for comfort, safety and med administration.

Example Test: For cycle two, the form will be formatted on a one-page flyer that will include check boxes to list the patient's fall prevention program specifics. The flyer will be posted on the patient's whiteboard. Testing will include the patient's ability to see the form from their bed.

Identify potential barriers

- Falls that result in moderate to severe injuries may also have a significant negative impact on risk management costs. Include those ultimately responsible for organization wide decision making in discussions and planning efforts to bring appropriate attention to these issues and to allocate the necessary resources to prevent injurious falls.
- Though risk assessments that weigh high-risk criteria are valuable tools, it is important that staff avoid preconceived ideas about the types of patients who fall and the circumstances surrounding falls. For example, staff and leaders may believe that most falls happen at night and occur most often with confused, elderly patients. A review of data collected in post-fall huddles regarding the types of falls, time of day, the circumstances surrounding the falls and patient demographics in one's institution may provide evidence-based information which can help select and implement appropriate improvement initiatives to reduce falls.

Enlist administrative leadership as 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.

Change not only the practice, but also the culture

- Adoption of an organization wide culture of commitment to fall safety is essential in achieving sustainable results in fall injury prevention. A comprehensive program extends beyond the nursing team to make fall prevention a priority for every employee and physician. Adopting an organizational awareness of fall safety that is communicated at every level of the organization and incorporated into the full continuum of patient care is necessary to achieve the desired results. This requires a commitment from senior leadership to be visibly involved in patient safety communication, allocate resources to support fall prevention and to role model their commitment to engaging both front-line staff and patients and families in improving care processes. Examples of strategies that promote a positive safety culture include:
 - > Daily safety huddles led by a senior leader.
 - > Front-line staff “champions” to design, test and implement strategies.
 - > Patient family engagement in designing safety practices.
 - > Multidisciplinary safety rounds.
 - > Reward, recognition and follow-up for staff reporting of safety risks and events.

PART 4: CONCLUSION & YOUR NEXT STEPS

Preventing falls and injuries from falls is a complex issue that requires a comprehensive approach. There is not a set of interventions that will work for every organization. Teamwork, data-driven decision making and communication are key elements to success.

TEAMWORK

Assemble a falls team or assess the current team for effectiveness. Determine if roles are clear and if the leader has the energy and time to lead a dynamic process improvement project. Assess the composition of the team and the support from key strategic partners such as the quality leader, chief medical officer, nursing director, risk manager, chief executive officer and board of directors. Define the role and expectations of each team member and strategic partner in supporting patient safety and fall injury reduction. Create strategies and/or allocate resources to engage front-line staff in designing new care processes.

DATA-DRIVEN DECISION MAKING

Analyze falls data to determine the circumstances that are contributing to falls in the organization and design interventions to mitigate the risks associated with these contributing factors. Objectively assess care processes to determine efficacy through direct observation and by collecting data in leadership rounds with staff, patients and on the environment. Use this data to establish priorities in improving care processes.

COMMUNICATION

Establish communication channels with the patient and family, within the care team and throughout the organization. Assess the clarity and consistency of communication in these three domains and apply process improvements as needed to optimize communication and organizational awareness.

PART 5: APPENDICES

APPENDIX I: TOP TEN CHECKLIST

Associated Hospital/Organization: AHA/HRET HEN 2.0

Purpose of Tool: A checklist to review current or initiate new interventions for fall prevention in your facility

Reference: www.hret-hen.org

Top Ten Evidence-Based Interventions				
Process Change	In Place	Not Done	Will Adopt	Notes (Responsible And By When?)
Analyze falls data to identify trends in the patient population, contributing factors to all falls and falls with injury. Design targeted interventions to address the top contributing factors in your organization or unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Assemble a multidisciplinary falls team to plan the fall prevention program or assess the current team's efficacy and make changes as necessary using PDSA methodology.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Assess fall and injury risk on admission, daily and with changes in the patient's condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Communicate risk across the team: hand-off forms, visual cues, huddles and whiteboards.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Round every 1-2 hours on patients; address the 5 P's — pain, position, personal belongings, pathway and potty. Assess effectiveness of rounds through direct observation and patient interviews. Adjust rounds workflow with staff input to improve outcomes as necessary.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Implement patient specific interventions to prevent hazards of immobility: rehab referral, progressive activity and ambulation program.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Individualize interventions for patients at high-risk for injury: padded floor mats, hip protectors, individualized toileting schedule, more frequent rounds and direct observation through sitters or video surveillance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Review medications: avoid unnecessary hypnotics and sedatives, and remove culprit medications from order sets. Target high-risk patients and post fall patients for pharmacist medication review.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Include patients, families and caregivers in efforts to prevent falls. Educate using "teach back" regarding fall prevention measures and encourage family members to stay with high-risk patients.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Conduct post fall huddles at the bedside with the patient and family immediately after the fall; analyze how and why the fall occurred, and implement change(s) to prevent future falls.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

APPENDIX II: MORSE FALL SCALE

Associated Hospital/Organization: Standardized tool used broadly in hospitals

Purpose of Tool: To standardize fall risk assessment and allow benchmarking with organizations utilizing the same tool.

Reference: Morse, J. (1997). Preventing falls. Thousands Oaks: Sage Publication.

Morse Fall Scale

History of falling; immediate or within the past 3 months	No = 0 Yes = 25
Secondary diagnosis	No = 0 Yes = 15
Ambulatory aid	None, bed rest, wheel chair, nurse = 0 Crutches, cane, walker = 15 Furniture = 30
IV/heparin lock	No = 0 Yes = 20
Gait/transferring	Normal, bed rest, immobile = 0 Weak = 10 Impaired = 20
Mental status	Oriented to own ability = 0 Forgets limitations = 15

Risk Level	MSF Score	Action
No risk	0 – 24	None
Low risk	25 – 44	See standard prevention interventions
High risk	> 45	See moderate/high-risk fall prevention interventions

APPENDIX III: SAMPLE INJURY RISK ASSESSMENT AND POPULATION SPECIFIC INTERVENTIONS

Associated Hospital/Organization: Veterans Healthcare Administration

Purpose of Tool: To standardize fall injury risk assessment.

Reference: VA National Center for Patient Safety, Reducing Preventable Falls and Fall-Related Injuries. (2015). *Implementation Guide for Fall Injury Reduction.*

Retrieved at: http://www.patientsafety.va.gov/docs/fallstoolkit14/falls_implementation_%20guide%20_02_2015.pdf

ABCS Tool: The following groups of patients are most at risk for injury if they sustain a fall, providing a framework for a population-based approach to fall and injury reduction:

A = Age (equal to or greater than 85) or frailty

B = Bones (fracture risk or history)

C = AntiCoagulation (bleeding disorder)

S= Recent surgery (during current episode of care)

For all patients: Education is essential using teach back strategies. Bundled interventions for each vulnerable population follow:

- **Age:** Individuals who are greater than or equal to 85 years old or frail due to a clinical condition
 - > Assistive devices within reach
 - > Hip protectors (if fracture risk)
 - > Floor mats (when patient is resting in bed)
 - > Height adjustable beds (low when resting only, raise up bed for transfer)
 - > Safe exit side
 - > Medication review to reduce fall risks
 - **Bones:** Patients with bone conditions, including osteoporosis, a previous fracture, prolonged steroid use, or metastatic bone cancer
 - > Hip protectors (unless DEXA scan is negative)
 - > Height adjustable beds (low when resting only, raise up bed for transfer)
 - > Floor mats (when patient is resting in bed)
 - > Evaluation of osteoporosis
 - **Anti-Coagulation:** Patients with bleeding disorders, either through use of anticoagulants or underlying clinical conditions
 - > Evaluate use of anticoagulation: risk for DVT/embolic stroke or fall-related hemorrhage
 - > Patient education: what to do if you fall now that you are on blood thinners
 - > Traumatic brain injury and anticoagulation: helmets
 - > Wheelchair users: anti-tippers
 - **Surgery:** Post-surgical patients, especially patients who have had a recent lower limb amputation, major abdominal or thoracic surgery
 - > Pre-op education (teach back strategies)
 - > Call, don't fall signage
 - > Post-op education to use call lights
 - > Pain medication: offer elimination prior to pain medication
 - > Increase frequency of rounds
-

APPENDIX IV: VISUAL CUES FALL RISK EXAMPLES

Associated Hospital/Organization: Collected common practices

Purpose of Tool: To provide examples of methods to easily recognize a high risk fall patient.

Reference: Visual Cues Program from The Joint Commission Journal on Quality and Patient Safety. July, 2007. (Lancaster, 2007 [D]).



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.



“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.



“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 V: ENVIRONMENTAL FALL RISK ASSESSMENT/SAFETY CHECKLIST SAMPLE

Associated Hospital/Organization: Institute for Healthcare Improvement

Purpose of Tool: To provide an example of an environmental fall risk assessment and safety checklist to be used in the hospital.

Reference: Boushon B, Nielsen G, Quigley P, Rutherford P, Taylor J, Shannon D. Transforming Care at the Bedside How-to Guide: Reducing Patient Injuries from Falls. Cambridge, MA: Institute for Healthcare Improvement; 2008. Retrieved at: <http://www.IHI.org>.

Date: _____ Hospital: _____ Unit: _____

Rooms assessed (minimum of 10% of rooms): _____

Individual(s) surveying: _____

Item#	Environmental Consideration	Yes	No	N/A	Room #/Area	Deficiencies Found	Comments
1	Is there adequate lighting in the patient's room? (Bright light – no burned out bulbs?)						
2	Is the nightlight on the patient's bed functional/operating?						
3	Does the patient have an unobstructed path to the bathroom?						
4	Are the patient's room furnishings safely arranged?						
5	Is the bedside furniture free of sharp edges?						
6	Is the bedside furniture sturdy?						
7	Are beds/stretchers kept at the lowest setting whenever possible?						
8	Are beds/stretchers kept in a locked position?						
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?						
17	Is portable equipment pushed by patient (e.g. IV pole) sturdy and in good repair?						
18	Are bedside commodes available on the unit and do they have proper rubber slip tips on the legs?						
19	Do walkers/canes/crutches have the appropriate slip tips?						
20	Are wheelchairs locked when stationary?						

Item#	Environmental Consideration	Yes	No	N/A	Room #/Area	Deficiencies Found	Comments
21	Is broken equipment properly tagged for non-use?						
Other Environmental Considerations							
22	Are floor surfaces/carpeting free of cracks and tripping hazards?						
23	Are hallways kept adequately clear/clutter free to allow patient ambulation?						
24	Are floors properly marked when wet to avoid slipping or are spills cleaned up immediately?						
25	Do parking lots have uneven pavement/potholes/tripping hazards?						
26	Do sidewalks have uneven pavement/tripping hazards?						
27	Are entrance areas open and clear?						
28	Are parking areas/entrances well-lit?						
29	Are parking lots well marked?						

Item#	Corrective Action	Date Initiated	Responsible Individuals	Anticipated Date of Completion
-------	-------------------	----------------	-------------------------	--------------------------------

APPENDIX VI: SAMPLE COMPETENCY REVIEW TOOL FOR BEDSIDE REPORT, HOURLY ROUNDING TOOL

Associated Hospital/Organization: Elkhart General Hospital, IN

Purpose of Tool: To provide a means to validate staff competency in meeting the purpose of hourly rounding

Reference: NA



Partnering with Patients for Safety and Optimal Outcomes - 2012

Employee name: _____ Department: _____

Competency Statement: The nurse will successfully demonstrate Hourly Rounding, Bedside Report, and AIDET.

Method: Direct Observation by VP of Nursing, Nursing Director, and Nurse Manager.	Yes	No	Comments
Hourly Rounding: follow AIDET (acknowledge, introduce, duration, explanation, and thank the patient).			
Mr./Mrs./Ms./Miss _____, I am here for our hourly rounding. (Four P's)			
• Pain: Assess pain rating, goal, next time for pain medicine, or other nursing interventions. (Additional pillows, ice pack, heating pack, warm blanket, etc.)			
• Potty/Bathroom needs: Can I assist you to the BR? Empty urinal, BSC, specimen hats in the BR.			
• Positioning: ask patient if they are comfortable, assist with repositioning, or turn patient as needed.			
• Possessions/Personal Items: phone, call light, urinal, tissues, & bedside table within reach			
Safety scan for fall risk hazards: check for threats to safety (bed in low position, cords secured, clutter cleaned up, trash needs emptied, temperature, BSC, urinal need emptied, etc.)			
Mark off time of visit on the white boards for your visit.			
Ask if there is anything else you can do for them. Inform the patient that visitors will be asked to leave the room during bedside report unless directed by the patient that it is ok for them to participate.			
Remind the patient that a staff member will be back in about an hour to round on them again			
Bedside Report: follow AIDET			
1. Nurse leaving and nursing coming on have PCP, are ready for report and go to the patient room.			
2. Hand hygiene			
3. Inform patient doing bedside report. (Manage up the oncoming nurse, refer to the white board for pain goals, next available medication, and oncoming informs patient of rounds and team members providing the hourly rounding for the day.)			
4. Ask the patient to share why they were admitted to the hospital. Have patient share his or her understanding of the diagnosis.			
5. Involve the patient (ADL's, Fall Risk, Diet, Tests, challenges during the shift, education needs, core measures, test results, surgery time.)			

PART 6: REFERENCES

1. Agency for Healthcare Research and Quality. (January 2013). "Preventing Falls in Hospitals: A Toolkit for Improving Quality of Care." <http://www.ahrq.gov/professionals/systems/hospital/fallpxtoolkit/fallpxtoolkit.pdf>.
2. Quigley PA, White SV. "Hospital-based Fall Program Measurement and Improvement in High Reliability Organizations." *J Issues Nurs.* 2013;18(2). http://www.medscape.com/viewarticle/813259_2
3. Centers for Disease Control and Prevention. (2015) "Falls Among Older Adults: An Overview." <http://www.cdc.gov/HomeandRecreationalSafety/Falls/adultfalls.html>.
4. Quigley PA, White SV. "Hospital-based Fall Program Measurement and Improvement in High Reliability Organizations." *J Issues Nurs.* 2013;18(2). http://www.medscape.com/viewarticle/813259_2
5. Dupree E, Fritz-Campiz A, Mushino D.(2014) "A New Approach to Preventing Falls with Injuries." *J of Nursing Care Quality.* 2014: 28(2). Retrieved from http://journals.lww.com/jncqjournal/Fulltext/2014/04000/A_New_Approach_to_Preventing_Falls_With_Injuries.1.aspx
6. American Pharmacists Association. (November 2012) "Beers revised: Drugs not to use in older adults." <http://www.pharmacist.com/beers-revised-drugs-not-use-older-adults>
7. McCurley J, Pittman J. (2014) "A New Approach to Fall Prevention in Inpatient Care Implementing Remote Audiovisual Monitoring of At-Risk Patients. *Patient Safety & Quality Healthcare.* Nov Dec 2014. Retrieved from <http://psqh.com/november-december-2014/a-new-approach-to-fall-prevention-in-inpatient-care>
8. Dupree E, Fritz-Campiz A, Mushino D.(2014) "A New Approach to Preventing Falls with Injuries." *J of Nursing Care Quality.* 2014: 28(2). Retrieved from http://journals.lww.com/jncqjournal/Fulltext/2014/04000/A_New_Approach_to_Preventing_Falls_With_Injuries.1.aspx
9. Kleinpell RM, Fletcher K, Jennings BM. Reducing functional decline in hospitalized elderly. In: Hughes RG, ed. *Patient Safety and Quality: An Evidence-Based Handbook for Nurses.* Rockville, MD: Agency for Healthcare Research and Quality (AHRQ); 2008:251-265. Retrieved at: <http://www.ncbi.nlm.nih.gov/books/NBK2629/>
10. Pashikanti L, Von AD. Impact of Early Mobilization Protocol on the Medical-Surgical Inpatient Population. *Clinical Nurse Specialist.* 26(2), 87-91. Retrieved at: <http://unmhospitalist.pbworks.com/w/file/attach/66026941/Impact%20of%20Early%20Mobilization%20Protocol%20on%20the%20Medical-Surgical%20Inpatient%20Population.pdf>

