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Publication Date

2021

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All Eyes on Falls:
A Multicomponent Fall Prevention Strategy

By

Nhadine Fabro-Brown
Thesis

Submitted in partial satisfaction of the requirements for the degree of

MASTER OF SCIENCE

in

Nursing Science and Health Care Leadership
in the

OFFICE OF GRADUATE STUDIES
at the

UNIVERSITY OF CALIFORNIA

DAVIS

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2021

Abstract

Falls, like other hospital-acquired conditions such as pneumonia, pressure ulcer, and catheter-associated urinary tract infections, are preventable. There are many published scholarly works explaining why falls happen and what organizations can do to help prevent them. However, a successful and sustainable fall prevention program in the acute care setting remains elusive. This thesis describes a proposal for a Quality Improvement Project to implement a multicomponent fall prevention strategy in the acute care setting using the Model for Improvement framework from the Institute of Healthcare Improvement (IHI) and IHI's Framework for Spread. The target setting for the project is three acute care units at a 245-bed Magnet Designated community hospital in Northern California. The data collected from a previous Safety and Mobility Rounding Initiative conducted in two of the organization's acute care units were considered in selecting evidence-based and patient-centered fall prevention strategies. The proposed Quality Improvement Project focuses on redesigning workflow to successfully integrate proposed interventions and ensuring sustainability through accountability. The strategies proposed include:

- 1) Modifying the current purposeful hourly rounding and scheduled toileting process.
- 2) Implementing and educating staff on the use of a Banner Mobility Assessment Tool (BMAT) and promoting staff engagement in patient mobility.
- 3) Replacing the Fall Contract with Fall TIPS (Tailoring Interventions for Patient Safety).
- 4) Deploying a trained and designated Certified Nursing Assistant (CNA) or Registered Nurse as a Patient Safety and Mobility Rounder.

This proposed project was approved by the Institutional Review Board. The proposal was written during the COVID-19 pandemic and was presented to the Acute Care Leadership Team

for pilot testing approval in December 2020, when California was at the height of the coronavirus surge. At the time, it was critical for the hospital to activate its “Surge Protocol” and adapt to the rapid changes brought upon by the pandemic. For this reason, pilot testing and implementation of the proposed Quality Improvement Project remains to be determined.

Acknowledgements

To write the acknowledgements section of this paper meant I had survived graduate school amidst a pandemic. Being a student, a nurse, a wife, and a mother of three boys, one of them under the age of five, sitting down to write this paper came with many challenges. All of which I could not have overcome without the endless support from my husband, Ian, who is my biggest cheerleader. I am grateful for all the times he saved me from breaking down and quitting, and for believing in me during times when I was doubting myself. Juggling all the many hats I wore throughout the program, I thank my parents and my brothers for understanding and stepping up to the plate in times when I could not be there for my family. During the time of COVID-19, when self-care is most needed yet almost impossible to find, I thank my MS-L cohorts for keeping me sane. I could not have done this without them. Special shout out to Wendy, Aron, and Nicole for always reminding me that I am not alone; and of course, Michelle and Linda for keeping our cohort in check, making sure we all met our deadlines. Even though we went from in-person class to zoom videos, the distance learning did not get in the way of us forming a strong bond of camaraderie built on a solid foundation of potlucks and pork rinds. I am grateful for my NorthBay mentors, Annette and JoAnn; all my professors; my thesis committee; Dr. Cothran and Dr. Natale; and my thesis chair, Dr. Bakerjian, whose patience, support, and expertise were instrumental in the completion of this project. To my study bubble, Riza, Laura, Mike, Felix, and Reyna, thank you for your friendship and for sharing this journey with me. I will forever cherish all the long hours of writing, eating, laughing, and crying we have spent together. Finally, to my children, Marcus, Isaiah, and Elijah, thank you for giving me the reason and the strength to work hard in becoming a better version of me.

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Introduction

Approximately 700,000 to 1,000,000 people fall in United States' hospitals every year, 33% of which, according to research, are preventable (Agency for Healthcare Research and Quality [AHRQ], 2019). Over one-third of hospital falls cause patient harm. Common injuries include fractures, lacerations, or internal bleeding contributing to higher healthcare usage (AHRQ, 2019). Studies suggest that additional treatment resulting from fall-related injuries can increase the length of hospital stay by up to 6.3 days and can cost up to \$14,000 (The Joint Commission, 2015). Death or severe injury from an in-patient fall is a “never event” based on Centers for Medicare and Medicaid Services guidelines; organizations do not get paid for any in-hospital fall-related expenses (AHRQ, 2019). Environmental factors, changes in physiological conditions caused by medical diagnoses, procedures, or medications put patients at risk for falls regardless of age (The Joint Commission, 2015).

The National Database for Nursing Quality (NDNQI) defines fall as “an unplanned descent to the floor with or without injury to the patient. This includes falls when a patient lands on a surface where you would not expect to find them. All unassisted and assisted falls are to be included whether they result from physiological reasons (fainting) or environmental reasons (slippery floor), and report patients that roll off a low bed onto a mat as a fall” (AHRQ, 2013).

There is a myriad of studies providing recommendations for successful fall prevention programs that include standardized fall and injury risk assessment, individualized interventions, and post-fall analysis and reporting (The Joint Commission, 2015). However, the complexity and difficulty of preventing patient falls makes it challenging for hospitals to achieve a significant and sustainable fall prevention program (The Joint Commission, 2015).

Fall prevention strategies in the acute care units at a 245-bed Magnet Designated community hospital in Northern California include purposeful hourly rounding; use of a bed/chair alarm on all patients admitted or transferred in within the first 24 hours and as needed; video monitoring on high fall risk patients based on nursing assessment; call light No Pass Zone; patient education and the use of a fall contract; hand-off communication of patients' fall risk status; post-fall huddle; and promoting patient mobility. Despite these interventions, patient falls in the acute care units at this hospital remain an ongoing challenge.

Numerous falls in the acute care units in this organization are related to patients' toileting needs, which is consistent with researchers indicating that toileting-related activities are one of the top contributing factors to hospital falls (Dykes, Carroll, Hurley et al., 2010; France, Slayton, Moore et al., 2017; Fridman, 2019). Findings from a Safety and Mobility Rounding Initiative conducted in the hospital's medical acute care unit and surgical acute care unit from April to July 2020 suggests a need to revise current hourly rounding practices with an emphasis on (1) scheduled/proactive toileting, (2) implementing a standardized mobility assessment tool, (3) promoting staff engagement in patient mobility, (4) developing fall prevention and mobility education material for patients and family members, and (5) improving staff communication on patients' fall risk factors and fall prevention plans.

Literature Review and Synthesis

A review of the literature was conducted to compare and contrast various hospital fall prevention interventions, programs, and toolkits in the adult acute care units. PubMed and CINAHL databases were utilized to search studies related to fall prevention conducted in United States' hospitals. The terms fall AND prevention AND strategies AND acute care AND hospitals were used to search the PubMed database while the terms fall AND (prevention OR intervention

OR treatment OR program) AND acute care setting were used to search the CINAHL database. To ensure the review of most recent evidence, only articles published within the last 10 years were included. Some evidence-based fall prevention programs included in the review was also found on The Joint Commission and the Agency for Healthcare Research and Quality (AHRQ) websites. An exception was made to include the Veterans Affairs Healthcare Administration's (VHA) Falls Collaborative Breakthrough Project despite its 2008 date of publication as it was cited on both The Joint Commission and AHRQ's website. A total of fourteen articles were found to be relevant for this literature review.

Sample Population and Study Design

The articles reviewed focused on hospital falls in the adult acute care units with patient population of 18 years old and above. The sample sizes vary from a single unit to multiple units and multiple hospitals within a healthcare network. Four of the articles reviewed were quality improvement projects which implemented fall prevention interventions in various acute care, non-Intensive Care Unit (ICU) units (Fridman, 2019; Spano-Szekely, Winkler, Waters et al., 2019; Trepanier & Hilsenbeck, 2014; Vonnies & Wolf, 2017).

Johnson, Scholar, Stinson et al. (2019) conducted a mixed-method study using informal interviews, survey data collection, and secondary data analysis to evaluate the patients', the nursing units' and leaderships' perspective on the reliability and validity of three fall risk prevention and data collection instruments used to collect data on fall prevention activities in a 28-bed medical-surgical unit. France et al. (2017) utilized a pre-post study design to examine the effects of a multicomponent fall strategy in falls and falls with injury. A cluster-randomized study by Dykes et al. (2010) compared fall rates in four hospital units that received usual care versus four units that received an intervention.

A qualitative study by Radecki, Reynolds, and Kara (2018) explored the patient's fall prevention perspective to help create patient-centered interventions. DiBardino, Cohen, and Didwania (2012) conducted a meta-analysis of six works of literature examining multidisciplinary fall prevention interventions in acute care units. Avanecean, Calliste, Contreras et al. (2017) and Hempel, Newberry, Wang et al. (2013) both performed a systematic review but evaluated different areas of hospital fall preventions. Avanecean et al. (2017) reviewed five randomized control trials with emphasis on patient-centered fall interventions while Hempel et al. (2013) examined 59 studies focusing on application, elements, and efficacy of existing hospital fall preventions in the United States.

Three published fall prevention toolkits were also reviewed, such as the National Veterans Affairs Healthcare Administration's (VHA) *Falls Toolkit* (Stalhandske, Mills, Quigley et al., 2008), the Agency for Healthcare Research and Quality's (AHRQ) *Preventing Falls in Hospitals, A Toolkit for Improving Quality of Care* (Ganz, Huang, Saliba et al., 2013), and the *Falls Prevention Toolkit* by the Missouri Health Association (Williams & Downing, 2014).

Fall Contributing Factors

Numerous fall risk assessment tools were designed based on the most common and consistent patient fall-risks related to altered mental status, altered mobility, and a history of falls (DiBardino et al., 2012). Articles were reviewed to identify additional fall contributing factors specific to the acute care units.

Toileting needs, as mentioned by DiBardino, et al. (2012) was identified in more than 50% (eight out of 14) of the articles reviewed as a top fall contributing factor (Dykes et al., 2010; France et al., 2017; Fridman, 2019; Johnson et al., 2019; Radecki et al., 2018; Stalhandske et al., 2008; Trepanier & Hilsenbeck, 2014; Williams & Downing, 2014). A qualitative study

conducted by Radecki and colleagues (2018) found that despite patients' awareness of individual fall risk factors, waiting for help to use the bathroom is the biggest challenge in adhering to the prescribed fall prevention plan. Three of the articles reviewed suggest that 40% to 48% of hospital falls are related to toileting (Dykes, et al., 2010; France et al., 2017; Fridman, 2019).

A gap analysis in practice conducted by Fridman (2019) indicated that more than 40% of falls were toileting-related, patients either attempting to get up to use the toilet or ambulating to or from the toilet. Similarly, France et al. (2017) found that 48% of falls at a Level I Trauma Center in Nashville, Tennessee, were related to toileting, the majority of which happened when patients walk to or from the toilet. Additionally, Dykes, et al. (2010) indicated that 45.2% of falls at a community hospital included in their study were toileting-related. Williams and Downing (2014) noted that consistent with national data, the Missouri Hospital Association's leading fall contributing factor is toileting-related activities. On average, patient falls related to toileting took place 15 minutes after nurses performed hourly rounding (Fridman, 2019).

Patient's over-estimation of current ability and functional status is noted as another fall contributing factor in a quality improvement project done by Vannes and Wolf (2017); this finding is consistent with the results of the patient interviews conducted by Radecki et al. (2018) suggesting that patients' acceptance of their risk for falling may be related to their perceived mobility status. Patients who do not have obvious mobility problems such as impaired gait do not consider themselves at risk for falls (Radecki et al., 2018). Williams and Downing (2014) also indicate that patients' lack of awareness and acceptance of their personal risk factors can contribute to hospital falls.

Inadequate fall risk assessment was emphasized as a fall determinant in five out of 14 works of literature reviewed (DiBardino et al., 2012; Ganz et al., 2013; Johnson et al., 2019;

Spano-Szekely et al., 2019; Williams & Downing, 2014). Williams and Downing (2014) mentioned that some risk assessment tools are not valid predictors of definite risk for falls. Correspondingly, clinical nurses in medical-surgical units at a 245-bed community hospital attributed the increase in falls to the number of patients who were not accurately recognized as at risk for falling (Spano-Szekely et al., 2019). DiBardino and colleagues (2012) suggests that challenges exist in fall risk stratification using fall risk scores due to the amount and complexity of in-patient fall risk factors, ranging from clinical presentations to laboratory values. On the other hand, Ganz and colleagues (2013) indicated that current fall risk assessment tools lack individualization and often do not adequately include factors such as medication and mobility. Johnson and colleagues (2019) also point out that medications or equipment, patient's self-assessment, and clinical nursing judgment are missing in current fall risk assessment processes.

Prolonged immobility was noted in four articles to be associated with falls (Fridman, 2019; Ganz et al., 2013; Radecki et al., 2018; Williams & Downing, 2014), two of which suggest that the use of bed alarms may be unintentionally causing patients to be restricted in bed (Radecki et al., 2018; Williams & Downing, 2014). Additionally, failure to discontinue extended bed rest orders can also interfere with early mobilization (Ganz et al., 2013). Fridman (2019) suggests that immobility can lead to cognitive and physical decline, which increases the risk for falling in hospitalized patients.

Medication side effects as a contributing factor to falls were identified by researchers (Fridman, 2019; Ganz et al., 2013; Johnson et al., 2019; Trepanier & Hilsenbeck, 2014; Williams & Downing, 2014). Ganz and colleagues (2013) discussed the fall risk effects of certain medications such as sedation, confusion, impaired balance, and positional blood pressure changes, while Fridman (2019) notes falls directly resulting from taking Zolpidem, and

Trepanier and Hilsenbeck (2014) found associated falls with the use of sedative-hypnotics. However, Williams and Downing (2014) found that the importance of reviewing medications for high-risk patients is often undermined.

Call light response as a critical element to hospital falls was emphasized in the study conducted by Radecki et al. (2018). According to Radecki and colleagues (2018), a delay in call light response may cause patients to take the risk and get up out of bed unassisted to tend to their needs despite all the intentions to wait for assistance. This is particularly true with patients who think they are able to get up alone and do not believe they are likely to fall (Radecki et al., 2018). Williams and Downing (2014) also point out that call light associated falls are caused either by patient's lack of knowledge on how to use the call light, or alternatively, forgetting or deciding not to use it.

Ineffective communication of patients' fall risks and interventions was identified in three studies as another fall determinant (Avanecean et al., 2017; Dykes et al., 2010; Williams & Downing, 2014). Williams and Downing (2014) suggests that falls can be attributed to insufficiency and inconsistency in caregiver's hand-off regarding patient's risk for falls. Dykes et al. (2010) indicates that misunderstanding of fall risk status and fall care plan can be due to poor communication, which was also cited in a systematic review conducted by Avanecean and colleagues (2017).

Lack of individualization in selecting fall prevention interventions and the role it plays in hospital falls were highlighted in three studies reviewed (Avanecean et al., 2017; Dykes et al., 2010; Ganz et al., 2013). Ganz and colleagues (2013) point out that lack of individualization in selecting fall prevention interventions can be a result of fall risk assessments generically categorizing all patients as high fall risk, which can negatively impact staff compliance in

adhering to fall prevention strategies. Dykes et al. (2010) found that there is a need for bedside alerts communicating patient-specific fall risk factors and fall prevention plan. Avanecean et al, (2017) reviewed studies on patient-centered interventions and recommended that not all patients have the same qualities, and therefore hospitals must take into consideration patients' individual fall risk factors when creating a fall prevention program.

The list of potential fall-contributing factors for patients in the acute care setting is extensive. Researchers suggest that some falls result from patients' individual risk factors such as altered mental status, impaired mobility, history of falls, toileting needs (DiBardino et al., 2012), and patients' over-estimation of current ability and functional status (Radecki et al., 2018; Vannes & Wolf, 2017; Williams & Downing, 2014). These patient-specific risk factors may be difficult to modify, suggesting the need for more individualized interventions to help address them.

On the other hand, a number of the fall-contributing factors identified in the literature may be modifiable and may provide an opportunity for healthcare systems to make a difference in designing effective and sustainable fall prevention programs. These risk factors include the lack of individualization in selecting fall prevention interventions (Avanecean et al., 2017; Dykes et al., 2010; Ganz et al., 2013), ineffective communication of patient's fall risks and interventions (Avanecean et al., 2017; Dykes et al., 2010; Williams & Downing, 2014), call light response (Radecki et al., 2018; Williams & Downing, 2014), prolonged immobility (Fridman, 2019; Ganz et al., 2013; Radecki et al., 2018; Williams & Downing, 2014), medication side effects (Fridman, 2019; Ganz et al, 2013; Johnson et al., 2019; Trepanier & Hilsenbeck, 2014; Williams & Downing, 2014), and inadequate fall risk assessment (DiBardino et al., 2012; Ganz et al., 2013; Johnson et al., 2019; Spano-Szekely et al., 2019; Williams & Downing, 2014).

Although all studies were conducted in the acute care setting, organizational norms and culture vary from one hospital to another, making it challenging to generalize the information gathered.

In developing an effective and sustainable fall prevention program, it is necessary to tailor evidence-based interventions to fit the hospital's specific patient population and organizational characteristics. This can be achieved through a consistent post-fall root cause analysis and consequent evaluation of current fall prevention practices, identifying potential system improvement opportunities. Health Research & Educational Trust (2016) suggests that examining the organization's individual factors contributing to falls allows for more focused interventions, eliminating wasted efforts in creating programs that do not address the organization's specific fall prevention needs.

Fall Prevention Interventions

Patient-centered fall prevention programs. Many existing fall prevention programs were predominantly developed and implemented based on clinicians' standpoint, and often lack patient collaboration, which may have the best intentions; but a successful program will require a more patient-centric approach (Radecki et al., 2018). This is supported by 50% of the articles reviewed, including a systematic review of patient-centered interventions in the acute care setting by Avanecean et al. (2017), Dykes et al. (2010), Hempel et al. (2013), Radecki et al. (2018), Spano-Szekely et al. (2019), Vonnies and Wolf (2017).

Radecki and colleagues (2018) and Avanecean et al. (2017) particularly discussed the need for patient-centered fall risk assessment and prevention interventions. Studies suggest that fall reduction in the acute care units can potentially be achieved through patient-centered interventions in combination with individualized patient education (Avanecean et al., 2017).

Single strategy versus multicomponent fall prevention interventions. Trepanier and Hilsenbeck (2014) and France et al. (2017) indicated that when compared to a single intervention, multicomponent interventions were more effective in preventing falls. DiBardino et al. (2012) also noted that there is limited evidence on whether or not simple single interventions help decrease acute care falls, but such strategies are less complicated and easier to comply with. However, two of the articles reviewed demonstrated a statistically significant decrease in falls by implementing a single fall prevention strategy. The Fall Prevention Toolkit (FPTK) by Dykes et al. (2010) and the use of Fall Risk and Prevention Agreement by Vonnies and Wolf (2017) are examples of single fall prevention strategies that implemented individualized fall prevention interventions corresponding to patient-specific risk factors. Except for the qualitative study conducted by Radecki et al. (2018) exploring patients' perspectives on fall prevention, the rest of the studies under review discussed the use of a combination of two or more fall prevention interventions. Both Falls Prevention Toolkits introduced by the AHRQ and the VHA provide program users the option to implement one or more fall prevention interventions available from the toolkit (Ganze et al., 2013; Stalhandske et al., 2008).

Multidisciplinary approach. DiBardino et al. (2012) conducted a meta-analysis of multidisciplinary fall prevention strategies in the acute care in-patient population and suggests that its cost might outweigh its benefits, considering the impact of its adoptability to program fidelity and overall effectiveness. However, Trepanier and Hilsenbeck (2014) utilized a multidisciplinary team to implement a multifactorial fall prevention program and decreased the falls in the acute care setting by 58.3% within two years of implementation. Similarly, France et al. (2017) found a statistically and clinically significant decrease in falls through a multidisciplinary approach. Spano-Szekely et al. (2019) promoted a culture of involving

everyone who has a patient interaction as a part of a fall prevention program in an acute care setting. Ganz et al. (2013) emphasized the need for an interdisciplinary approach and the importance of team work, and engaging multiple disciplines in fall prevention.

Scheduled/proactive toileting and purposeful hourly rounding. Fall prevention strategies used in the literature reviewed vary from single to multifaceted interventions, of which two of the most common components were the implementation of scheduled toileting and purposeful hourly rounding. More than 60% of the studies suggest that a successful fall prevention program should include interventions to address patients' frequent toileting needs, one of the top fall-contributing factors according to research (Dykes et al., 2010; France et al., 2017; Fridman, 2019; Ganz et al., 2013; Hempel et al., 2013; Johnson et al., 2019; Radecki et al., 2018; Stalhandske et al., 2008; Williams & Downing, 2014).

In addition to proactive toileting, several studies highlighted the importance of staff remaining with the patients and maintaining a line of sight when accompanying them to the toilet (France et al., 2017; Johnson et al., 2019; Williams & Downing, 2014). In particular, Williams and Downing (2014) recommended a scheduled toileting program called "nobody toilets alone" while Fridman (2019) developed the "Stay With Me/Arm Reach program and France et al. (2017) created signage on "Targeted Toileting" and "Bathroom Buddy."

Nine of the 14 articles reviewed noted purposeful hourly rounding as a key element to preventing falls in the acute care setting (France et al., 2017; Fridman, 2019; Ganz et al., 2013; Hempel et al., 2013; Johnson et al., 2019; Radecki et al., 2018; Spano-Szekely et al., 2019; Trepanier & Hilsenbeck, 2014; Williams & Downing, 2014). Purposeful hourly rounding with a strong emphasis on scheduled toileting was noted in three articles (France et al., 2017; Fridman, 2019; Ganz et al., 2013).

Standardized, validated, and reliable fall risk assessment tool. Providing staff training in using a standardized, validated, and reliable fall risk assessment tool incorporated into the electronic medical record, along with a thorough, individualized falls and injury risk assessment is one of the key elements in preventing hospital falls (The Joint Commission, 2015). Seven of the articles reviewed included either incorporating or revamping current fall risk assessment process as part of the fall prevention interventions proposed or implemented (DiBardino et al, 2012; Ganz et al., 2013; Hempel et al., 2013; Johnson et al., 2019; Spano-Szekely et al., 2019; Trepanier & Hilsenbeck, 2014; Williams & Downing, 2014).

In addition to fall risk assessment, Spano-Szekely et al. (2019) also developed an evidence-based injury risk assessment tool, which includes age, anticoagulation therapy, mobility, medications, and behaviors. The systematic review conducted by Hempel et al. (2013) shows 83% of studies incorporating patient-level fall risk assessment which determined interventions deployed; the Morse Fall Scale being the most utilized published tool, but over 50% of the studies used tools with unknown psychometric properties. This may be related to findings by DiBardino et al. (2012) that there is a proven value in utilizing nursing judgment surpassing some of the well-developed risk calculators, suggesting the possibility of creating interventions to benefit all patients rather than focusing on contentious risk stratification tools.

Patient mobility. Prolonged immobility was found to be one of the contributing factors to hospital falls. The use of mobility assessment tools such as the Banner Mobility Assessment Tool (BMAT) (Spano-Szekely et al., 2019), the Algorithm for Mobilizing Patients (Ganz et al., 2013), and the Up and Go Mobility Test (Williams & Downing, 2014) was recommended to help safely mobilize patients.

Staff, patient, and family education. The importance of staff, patient, and family education regarding falls was emphasized in six out of 14 studies reviewed. Fridman (2019) utilized a simulation laboratory to observe current purposeful hourly rounding practices followed by a debrief to address any discrepancy between expectations and current practice. Trepanier and Hilsenbeck (2014) used webinars to ensure standardization of staff education. France et al. (2017) also educated staff members on the redesigning of current purposeful rounding practices, while Spano-Szekeley et al. (2019) developed a fall prevention algorithm and used it as a framework for staff education. Johnson et al. (2019) and Williams and Downing (2014) highlighted the use of teach-back methods in providing patient and family education.

Communication of fall risks and interventions. Research suggests that ineffective communication can contribute to falls. More than half of the articles reviewed recommended improving the communication process among caregivers and between staff and patients/family members surrounding patient fall risks and interventions. Three studies recommended incorporating patient fall risk status during bedside hand-off and/or shift huddles (Stalhandske et al., 2008; Trepanier & Hilsenbeck, 2014; Williams & Downing, 2014). Five studies utilized bedside posters or alerts to communicate patients' fall risk factors and interventions (Avanecean et al., 2017; Dykes et al., 2010; France et al., 2017; Hempel et al., 2013; Stalhandske et al., 2008). Dykes and colleagues (2010) developed a Fall Prevention Toolkit (FPTK) that includes a bed poster with icons communicating the patient's specific risk factors and a corresponding fall prevention intervention plan. Similarly, France et al. (2017) developed posters catering to both staff and patients to communicate purposeful rounding and targeted toileting interventions.

Post-fall huddle and post-fall assessment. Post-fall assessment, huddle, and debrief are important components of a fall prevention program (France et al., 2017; Ganz et al., 2013;

Spano-Szekely et al., 2019; Stalhandske et al., 2008; Trepanier & Hilsenbeck, 2014; Williams & Downing, 2014). Stalhandske and colleagues (2008) found that organizations that used post-fall assessments showed a decrease of 0.7 major injuries per 100 falls. Trepanier and Hilsenbeck (2014) used a post-fall assessment which incorporates the program called “stop the line” in the event of falls. A post-fall huddle or debrief aims to identify any opportunities for improvement, and create a learning environment for staff members (Spano-Szekely et al., 2019).

Implementation success and sustainability. Successful fall prevention interventions rely on effective implementation and staff compliance for sustainability (Hempel et al., 2013). Three of the studies reviewed utilized the Plan-Do-Study-Act (PDSA) cycle (France et al., 2017; Fridman, 2019; Williams & Downing, 2014). Dykes and colleagues (2010) used the Institute of Healthcare Improvement Spread framework, while Spano-Szekely and colleagues (2019) used the evidence-based practice improvement (EBPI) model developed by Levin and colleagues. Trepanier and Hilsenbeck (2014) deployed an interdisciplinary team and developed standardized fall policies and procedures. Ganz and colleagues (2013) recommended the use of PDSA, Johns Hopkins Translating Research Into Practice (TRIP) Model, Six Sigma, and LEAN/Toyota Production System (TPS).

Literature suggests the use of unit/change champions as one of the important elements of implementation (Avanecean et al., 2017; France et al., 2017; Fridman, 2019; Ganz et al., 2013; Spano-Szekely et al. 2019). Trepanier and Hilsenbeck (2014) utilized fall champions to help disseminate information to all staff members.

Leadership support and staff buy-in are identified as an integral part of the implementation process. Ganz et al. (2013) suggests that to successfully implement a fall prevention program, support from hospital administration is just as important as the collaboration

of bedside staff. Spano-Szekely et al. (2019) and France et al. (2017) both demonstrated strong involvement by either the chief nursing officer or executive leadership in developing an interdisciplinary falls team. Ganz et al. (2013) point out that effective leaders delegate well-defined roles and responsibilities and ensure staff accountability to achieve goals. Fridman (2019) notes that proper staff education and training on proposed initiatives can help increase staff engagement. Dykes et al. (2010) found that failure of previous trials of fall prevention programs was significantly related to lack of staff buy-in. DiBardino et al. (2012) suggest that staff adherence to fall prevention strategy is important for program sustainability.

To ensure implementation success, Avanecean et al. (2017) and Ganz et al. (2013) suggest taking into consideration how well the proposed fall prevention strategies can be integrated with the current workflow. Random audits and assessments of adherence to protocol is essential in evaluating implementation progress (Dykes et al., 2010; Hempel et al., 2013). Spano-Szekely et al. (2019) utilized the Small Test of Change (STC) to ensure staff understanding and adherence to the interventions proposed before evaluating outcomes. Organizations that demonstrated interdisciplinary collaboration, strong staff and leadership support, and effective conflict resolution strategies achieved better results and sustainability (Stalhandske et al., 2008). Additionally, Williams and Downing (2014) highlighted the importance of promoting a culture of safety and how it relates to falls prevention.

Trepanier and Hilsenbeck (2014) note that a single intervention is easier to implement and adhere to but a multicomponent fall prevention strategy aimed at specific patient needs is more effective in decreasing hospital falls. However, fall programs that utilized a multicomponent approach were unable to clearly demonstrate the beneficial or detrimental contributions of each interventional component (Avanecean et al., 2017; DiBardino et al., 2012).

The body of knowledge can benefit from studies demonstrating targeted results of individual interventions within a multicomponent fall prevention strategy. Additionally, studies suggest the importance of integrating fall prevention interventions into the current workflow (Avanecean et al., 2017; Ganz et al., 2013). If the need for toileting was identified as a contributing factor in the majority of falls, it stands to reason that nursing workflow must be redesigned with timely toileting as an intentionally emphasized priority.

There is limited information on how healthcare organizations can successfully implement a fall prevention plan that is well-integrated within the existing patient care dimensions. There is a gap in the literature on how hospitals can support proper workflow and resource allocation to ensure staff adherence and patient engagement to fall prevention and promoting a culture of safety. The analysis in literature falls short because they measure adherence with minimal investigation into the mechanisms of accountability. Furthermore, existing literature inadequately subdivides accountability into three general categories: (1) staff accountability to nursing leadership, (2) staff accountability to patients, and (3) patient accountability to staff. Therefore, little or no investigation has been done to demonstrate the respective efficacies of each category as well as the potential synergies or antagonism between categories. Accountability empowers patients while fostering patient and staff collaboration which can be a key component to both staff and patient adherence to any fall prevention strategies.

Purpose Statement

The purpose of this study is to propose a Quality Improvement Project to implement a multicomponent fall prevention strategy in the acute care setting using the Model for Improvement framework from the Institute of Healthcare Improvement (IHI), and IHI's Framework for Spread. The project predominantly emphasizes workflow redesign, with

intentional focus on fall prevention; and promoting staff adherence through moving towards greater staff and patient collaboration. The multicomponent fall prevention strategy includes:

- 1) Modifying the current purposeful hourly rounding and scheduled toileting process.
- 2) Implementing and educating staff on the use of a Banner Mobility Assessment Tool (BMAT); and promoting staff engagement in patient mobility (see Appendix D).
- 3) Replacing the Fall Contract with Fall TIPS (Tailoring Interventions for Patient Safety).
- 4) Deploying a trained and designated Certified Nursing Assistant (CNA) or Registered Nurse as a Patient Safety and Mobility Rounder.

Setting

The proposed Quality Improvement Project focuses on three adult acute care units at a 245-bed Magnet Designated community hospital in Northern California.

Methods

The IHI's Model for Improvement framework guided this proposed Quality Improvement Project. The two-part model created by Associates in Process Improvement is widely utilized by healthcare organizations globally in successfully improving various healthcare processes and outcomes (Institute for Healthcare Improvement, 2021). The model addresses three key questions in no particular order, "What are we trying to accomplish?; How will we know that a change is an improvement?; and What change can we make that will result in improvement?" The model uses the Plan-Do-Study-Act (PDSA) cycle to trial the initiative and establish whether or not "the change is an improvement" (Institute for Healthcare Improvement, 2021).

After a successful pilot and larger-scale implementation of the proposed strategies, the IHI's Framework for Spread will help guide the dissemination of the Quality Improvement Project to the rest of the acute care units in the hospital. The Framework for Spread is composed

of multiple factors that can contribute to healthcare organizations' effective implementation of innovations in a wider scope of the population (Massoud, Nielsen, Nolan et al., 2006). The key elements of the framework include "Preparing for Spread, Establishing an Aim for Spread, and Executing and Refining the Spread Plan" (Massoud et al., 2006).

Setting Aims

Review of the Organization's Current State

The acute care units' falls report from the first quarter to the fourth quarter of 2020 were reviewed to help establish SMART (Specific, Measurable, Achievable, Realistic, and Timely) outcome goals for the project. The data reviewed included each acute care unit's falls rate per 1,000 patient days from Quarter 1 to Quarter 4 2020; Quarter 3 to Quarter 4 2020 acute care types of falls assisted versus unassisted (found, patient-reported, witnessed by an employee, witnessed by a visitor), place of falls (patient's room, bathroom, hallway, other location), activity at the time of fall (toileting, ambulating, transferring, climbed out of bed, reaching for something, slid off bed/chair, other), and event times (change of shift versus outside shift change). Graph presentations of the data obtained from the acute care falls report are shown in Figures 1, 2, 3, 4, and 5.

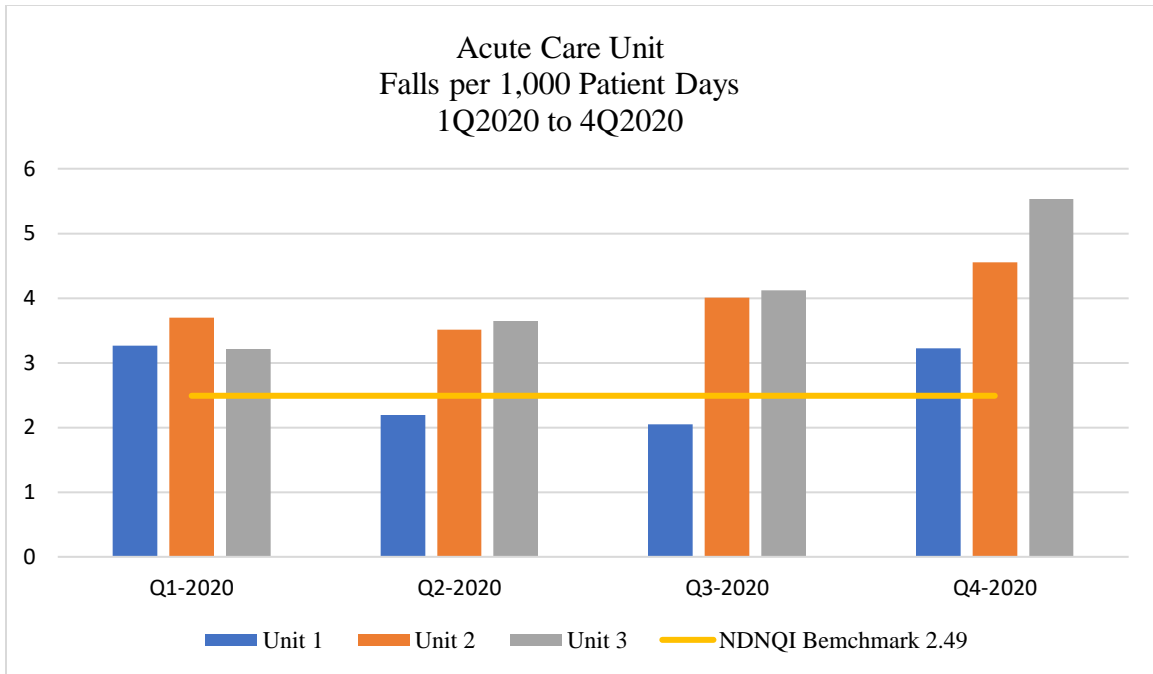


Figure 1. Acute care unit falls per 1,000 patient days.

There is a marked increase in falls per 1,000 patient days in the organization’s three acute care units. When compared to the National Database of Nursing Quality Indicators’ (NDNQI) benchmark of 2.49 falls per 1,000 patient days, all three units were above benchmark in the fourth quarter. Additionally, fall rates in both Unit Two and Unit Three were consistently above the NDNQI’s benchmark for all four quarters.

For the purpose of this project, a more detailed analysis of the total falls in the acute care units were narrowed down to the last two quarters (Quarter 3 and Quarter 4) of 2020. See Figure 2 below.

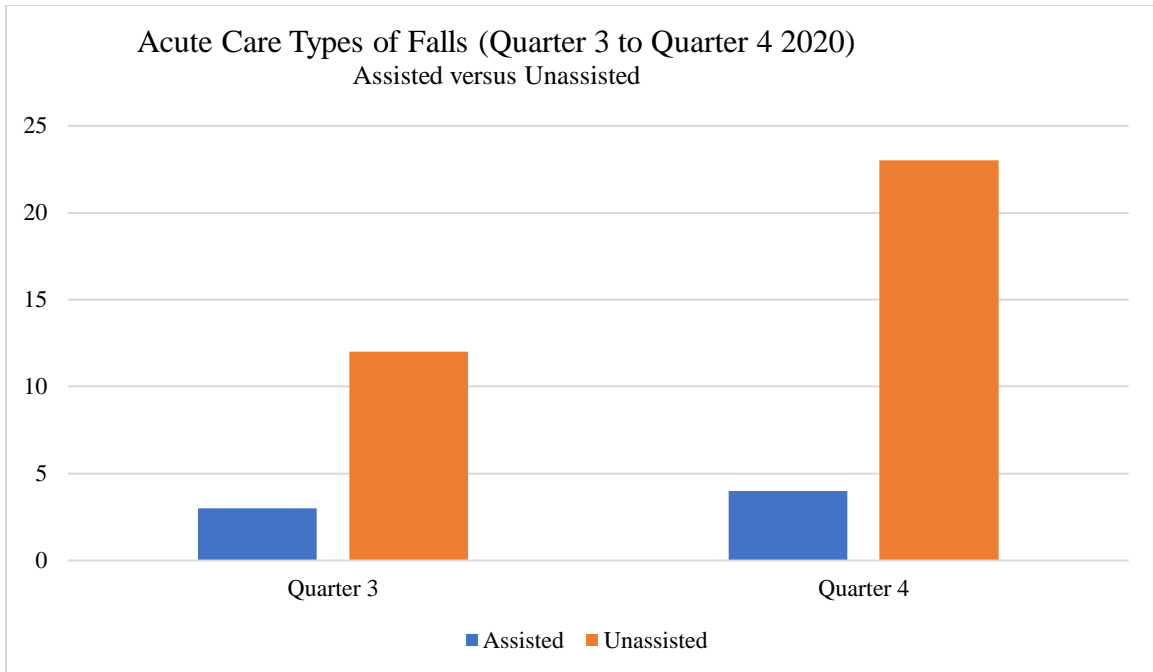


Figure 2. Acute care types of falls; assisted versus unassisted from 3Q2020 to 4Q2020.

Unassisted falls make up for 80% of falls in the third quarter and 85% in the fourth quarter in the acute care units. Unassisted falls include patients who were found on the floor, patients who reported to staff that they fell after the fact, and patients who were witnessed either by staff or visitors at the time of falling but were not assisted in breaking the fall. According to Staggs, Mion, and Shorr (2014), unassisted falls place patients at greater risk for sustaining a fall-related injury when compared to assisted falls. For this reason, fall prevention initiatives should be directed towards decreasing this type of fall (Staggs et al., 2014).

The most common location for patient falls in the acute care units is the patient's room, which makes up 93% of the falls in the third quarter and 70% of falls in the fourth quarter. As can be seen in Figure 3, there is an increase in the number of falls that occurred in the bathroom from 6% in the third quarter to 26% in the fourth quarter.

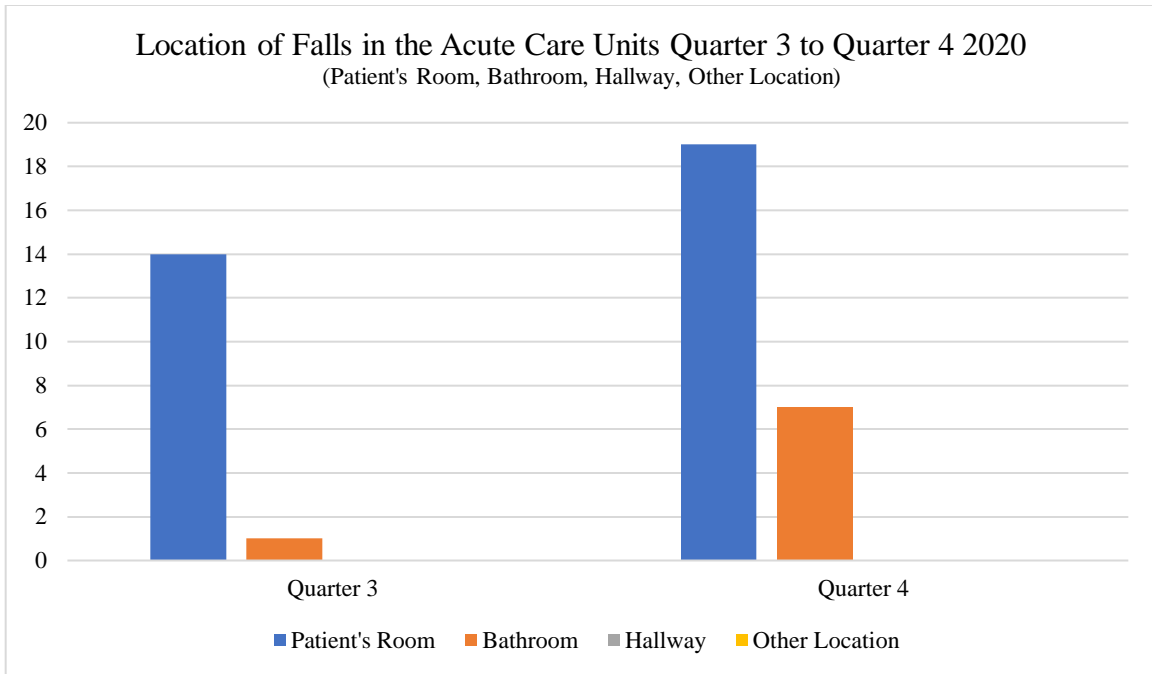


Figure 3. Location of falls in the acute care units.

Sliding off the bed or chair makes up the most common activity noted at the time of fall in the third quarter, which was 33% of falls, followed by toileting at 27%. However, in the fourth quarter, there was a marked increase in toileting-related falls, from 27% to 48% (see Figure 4). These data are consistent with findings indicated by Fridman (2019), France et al. (2017), and Dykes et al. (2010) that 40% to 48% of falls were due to patients' toileting needs.

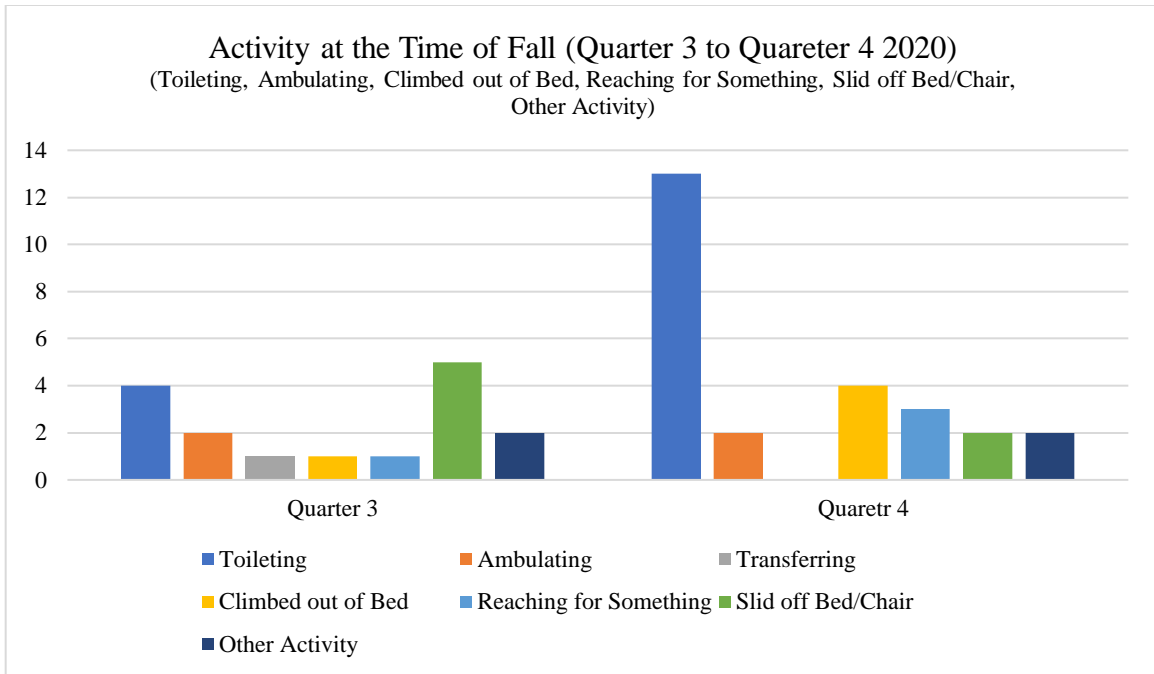


Figure 4. Patients' activity at the time of fall.

Falls occurring around a change of shift make up 55% of falls in the fourth quarter. As shown in Figure 5, this was an increase from 33% in the third quarter.

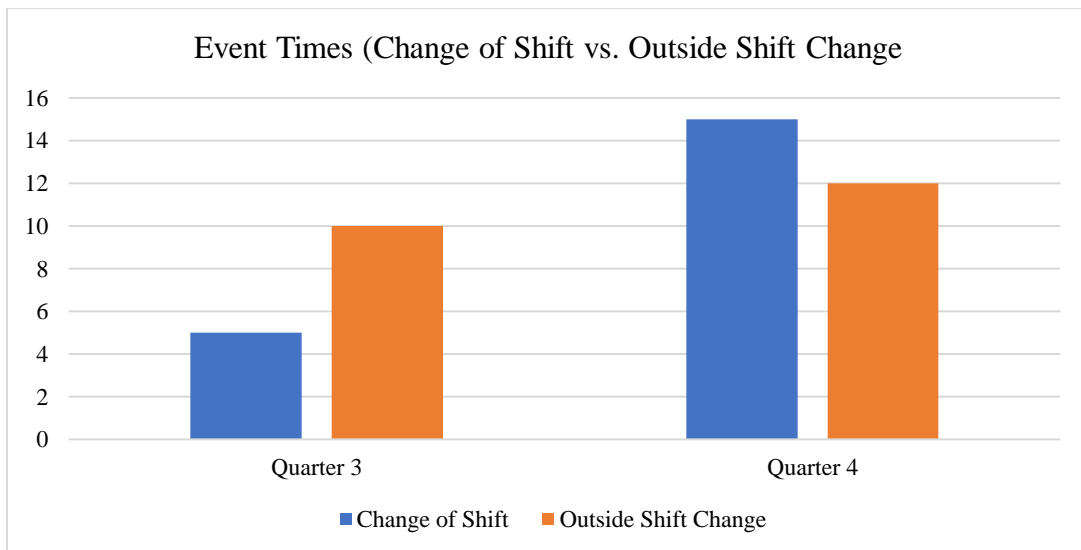


Figure 5. Patient falls occurring around a shift change.

Problem Identification

The hospital in this study conducted a Safety and Mobility Rounding Initiative led by the Clinical Nurse Specialist in two acute care units from April to July 2020. A dedicated staff nurse was assigned the role of a safety and mobility rounder with the goal to promote patient mobility and help decrease falls in the acute care units. The rounder conducted a Gemba Walk on day one of the initiative to observe actual fall prevention and patient mobility practices in the acute care units. The Gemba Walk developed by Toyota is a method used to collect information by observing and interacting with workers (Six Sigma Daily, 2018). The process helps management teams to identify any variations in actual practices from assumed or expected actions (Six Sigma Daily, 2018). The dedicated staff nurse rounded on all patients admitted to the medical and surgical acute care units three times a week during the initiative period. The rounder continued the observation and data collection process while providing patient and family education on falls prevention and mobility, and staff assistance in getting patients up out of bed for meals. The initiative also intended to identify opportunities for improvement and potential barriers to falls prevention and promoting patient mobility. Findings from the Gemba Walk and succeeding rounding observations during the initiative are shown in Table 1 below.

Table 1

Safety and Mobility Rounds Findings

| |
|--|
| PROCESS |
| <ul style="list-style-type: none">• Inconsistent hand-off on patients' fall risk status. |
| <ul style="list-style-type: none">• Fall Contract inconsistently signed. |
| <ul style="list-style-type: none">• Patient mobility and mobility assistance needs were inconsistently updated on the communication white board. |
| <ul style="list-style-type: none">• Reactive versus proactive toileting. |
| <ul style="list-style-type: none">• External urinary catheters were used on many non-incontinent/non-bedrest patients, allowing them to remain in bed rather than get up for toileting needs |
| <ul style="list-style-type: none">• Fall risk patients left unattended in the toilet/bedside commode. |
| <ul style="list-style-type: none">• Breakfast trays were delivered during shift change; staff were unable to assist patients up to the chair in time for breakfast. |
| <ul style="list-style-type: none">• Purposeful hourly rounding logs were inconsistently being initialed. |
| <ul style="list-style-type: none">• The hospital did not have a standardized bedside mobility assessment tool. |
| EQUIPMENT |
| <ul style="list-style-type: none">• Bed alarms were charted as being on in the Electronic Medical Record but were off. |
| <ul style="list-style-type: none">• Some rooms did not have chairs readily available for patients to sit, particularly in the medical acute care unit that has double occupancy rooms. |
| <ul style="list-style-type: none">• Fall risk patients were missing fall risk bands, fall risk socks, and fall risk door magnets. |
| PEOPLE |
| <ul style="list-style-type: none">• Many patients needed to use the toilet during breakfast rounds. |
| <ul style="list-style-type: none">• Staff were hesitant to get patients up out of bed, waiting for Physical Therapy to mobilize patients. |
| <ul style="list-style-type: none">• Staff were unsure of the patient's mobility status. |
| <ul style="list-style-type: none">• Some patients viewed the bed alarm as an instruction to stay in bed. |
| <ul style="list-style-type: none">• Delayed call light response. |
| <ul style="list-style-type: none">• The majority of patients' ambulation were done by rehab staff. |
| <ul style="list-style-type: none">• Some patients refused to get out of bed due to pain, feeling cold, tired, or fear of falling. |

Based on the organization's quarterly falls report and the data collected from the Safety and Mobility Rounding Initiative, the following SMART goals were established. The number of falls in the acute care units will decrease by 25% during the project implementation period compared to the number of falls from the previous quarter. Additionally, the number of toileting-related falls and unassisted falls in the acute care units will decrease by 25% during the implementation period compared to the previous quarter.

Selecting Changes

After establishing the project aims, the following key factors were taken into consideration in developing a multicomponent fall prevention strategy:

- The hospital's current state based on the quarterly acute care falls report.
- Opportunities for improvement identified within the organization.
- Evidence-based fall prevention interventions found in the literature review.

The proposed strategies include:

(1) Modifying the current purposeful hourly rounding and scheduled toileting process

(a.) Replace the white board hourly rounding log with a purposeful hourly rounding visual communication tool which reminds patients that staff will be rounding on them every hour during the day and every 2 hours after 10PM to address the 4Ps (pain, potty, position, personal items) and to call if they need help before the next round (see Appendix A). A revised purposeful hourly rounding script coinciding with the above-mentioned visual communication tool will be introduced (see Appendix B for purposeful hourly rounding script). The revised purposeful rounding practice will include caregiver hand-off on patients needing to be rounded on when the assigned staff goes on break. There will be consistent communication between nurse and CNA assigned to a patient as to when the next patient rounding is scheduled and what the patient might need at that time.

(c.) Implement a scheduled/proactive toileting program. The process includes assisting patients to the toilet before breakfast, after every meal, and before bedtime. Patients will be assisted to the toilet every 2 hours between 6AM and 10PM and every 3 to 4 hours after 10PM while awake if they have any of the following (confusion/forgetfulness, urinary incontinence, on intravenous (IV) fluids, diuretic, or laxative, or requires any mobility assistance). The staff will remain with the patients at all times during toileting, with the exception of patients who are completely independent and require no assistance in getting in and out of the bathroom. Careful consideration of patients' diagnosis, hemodynamic stability, and overall fall risk factors must be considered in identifying patients as "independent." A script in assisting patients to the toilet rather than offering or asking if they need to use the restroom will be introduced, and a script on why safety trumps privacy in response to patients requesting to be left alone while toileting will be provided (see Appendix C). Scheduled toileting will be imbedded in the purposeful hourly rounding process.

(c.) Optimize the role of the Resource Nurse/Break Nurse to help support staff in adhering to the proposed purposeful hourly rounding and scheduled toileting process. Clearly define the duties and responsibilities of the Resource Nurse to encourage purposefully rounding on patients, particularly at shift change, in between relieving nurses for breaks, and while covering nurses for breaks (see Appendix A-1). The Resource Nurse will be provided with a Rounding Checklist which will be collected at the end of their shift to help evaluate the process (see Appendix G2).

Rationale

Purposeful hourly rounding is an evidence-based fall prevention practice and must be a part of the standard practice in keeping patients safe. Adhering to this process is just as essential

as giving patients prescribed treatment and medication. Purposeful hourly rounding in the acute care units is a shared responsibility between Registered Nurses and Certified Nursing Assistants. The expectation is that staff will round on patients every hour from 6AM to 10PM and every two hours from 10PM to 6AM. Patients' pain, positioning, potty (toileting needs), and personal items, also known as the 4Ps, are addressed during rounds. Staff members will initial the hourly rounding log located on the patients' white communication boards after every round. However, random audits have shown staff inconsistency in performing purposeful hourly rounding practice. Hourly rounding logs often have missing initials, and while this may not necessarily correlate with how often staff members round on patients, it suggests a need for improving staff adherence to the current fall prevention policy.

In addition to covering breaks, the Resource Nurse is currently utilized to perform different tasks to help nurses on the floor, such as passing scheduled meds, interpreting telemetry strips, checking blood sugars, answering call lights, and random patient care tasks the staff may need assistance with. The Resource Nurse can potentially be more efficient in supporting the staff if the role is structured to purposefully round and anticipate patients' needs rather than waiting for nurses to delegate patient care tasks as needed.

Numerous falls in the acute care units were related to toileting; 27% to 48% of the acute care falls reported in the last two quarters of 2020 were toileting-related. The Safety and Mobility Rounding Initiative found many patients needing to use the bathroom during breakfast rounds. When asked about scheduled toileting, one CNA replied, "There's no set schedule; we just take them when they have to go." A number of fall risk patients were also found unattended while using the bathroom or bedside commode.

This proposed revision of the current purposeful hourly rounding will help promote staff accountability, encourage patient and family engagement, and enhance communication between caregivers.

(2) Implementing and educating staff on the use of a bedside mobility assessment tool, and promoting staff engagement in patient mobility.

(a.) The use of the Banner/Bedside Mobility Assessment Tool (BMAT) will be implemented (see Appendix D for comprehensive explanation of the tool). The BMAT, seen briefly below in Figure 6, is a quick four-step mobility assessment tool that helps guide the user to assess the patient’s level of mobility and identify appropriate support and needed equipment to safely mobilize the patient based on their mobility level (Boynton, Kelly, Perez et al., 2014).

Mobility Assessment

The results of the mobility assessment will help determine what equipment is needed

| BMAT LEVEL | Definition | Result |
|-------------------------|--|---|
| Mobility Level 1 | Dependent patient. This patient is unable to move or transfer self | Dependent Equipment |
| Mobility Level 2 | Moderately dependent patient. This patient can come to a sitting position but cannot stand or transfer | Mechanical sit to stand and other mod dependent equipment |
| Mobility Level 3 | Minimal assistance required. This patient can bear weight and may require assistive devices. | Non-powered Stand aid, walker, cane, crutches, or other minimal asst device |
| Mobility Level 4 | Independent. This patient can move and transfer self and requires no patient handling asst. | Safety checks, call don't fall, no patient handling equipment |



Figure 6. Banner/Bedside Mobility Assessment Tool. Source: Sustainable Patient Handling Solutions by WY’ EAST MEDICAL (n.d.). BMAT Overview. <https://www.sph-solutions.com/wp-content/uploads/2017/12/BMAT-Overview.pdf>

Using this tool, nurses will be expected to assess patients' mobility once a shift changes and update the white board with patient's mobility status and assistance needs. All staff members assisting patients with activity are expected to perform a bedside mobility assessment before any transfer or ambulation. The data collected from a previous pilot testing of BMAT in the surgical acute care unit including results of a staff survey to see what worked and what did not work during the pilot will be reviewed to help create a staff education and implementation plan. The nursing education team will collaborate with rehabilitation services (Physical Therapy and Occupational Therapy) and the Lift Team to form a multidisciplinary team in providing staff education on integrating BMAT into current practice. The BMAT champions will be recruited and trained to help with the implementation process.

(b.) All able patients are expected to get up to the chair with every meal and ambulate in the hallways at least once per shift.

(c.) *Activity as tolerated* or *up ad-lib* orders will be replaced with specific orders including frequency and weight-bearing status as prescribed (for example, ambulate at least 50 feet three times a day or up to chair three times per day with assistance) unless bedrest is clinically indicated.

(d.) Patient mobility plan of care will be established with patient/family member and communicated between staff members.

Rationale

Prolonged immobility is found in the literature to be one of the contributing factors of acute care falls. Currently, there is no standardized bedside mobility assessment tool in the acute care units. This is concerning for safe patient handling and may also be affecting the staff's confidence in mobilizing patients. Some of the findings from the Safety and Mobility Rounding

Initiative suggest that some staff are hesitant in getting patients up out of bed because of uncertainty of the patient's mobility status. The culture of waiting for Physical Therapists to see the patient before getting up out of bed was also noted. Audits suggest that the majority of patient ambulation was done by the rehab staff. There is an ongoing challenge in promoting patient mobility, particularly in ensuring that patients are up out of bed for meals.

The Safety and Mobility Rounding Initiative, which focused on getting patients up out of bed for meals suggested an increase in the number of able patients who were up to the chair for meals and a decrease in acute care falls during the initiative period.

(3) Replacing the Fall Contract with the use of Laminated Fall TIPS (Tailoring Interventions for Patient Safety).

(a.) Replace the use of Fall Contract (see Appendix E) with Laminated Fall TIPS (see Appendix F). Fall TIPS (Tailoring Interventions for Patient Safety) is an evidence-based, patient-centered fall prevention intervention, which incorporates a three-step process of:

- 1) Identifying patients' fall risk factors through performing fall risk assessments;
- 2) Creating an individualized fall prevention plan, and
- 3) Consistently implementing the individualized plan in conjunction with universal fall precautions (Dykes, Duckworth, Cunningham et al., 2017).

The Laminated Fall TIPS contains two sections of color-coded icons showing the patient's Fall Risk Factors on the left and corresponding evidence-based Fall Risk Interventions on the right. The RN assigned to the patient will go through the fall risk assessment with the patient (upon admission, or transfer from another unit, once per shift, or with any change in condition) and check any risk that applies to the patient. The RN will then review with the patient any appropriate fall intervention tips tailored to the patient's risk factors, including the

Toileting Schedule. Upon completion, the Laminated Fall TIPS is hung next to the patient's white board as a visual communication tool to remind the patient and alert other members of the healthcare team of the patient's fall prevention plan.

Rationale

Compared to the Fall Contract, the Laminated Fall TIPS directly correlates interventions with patient-specific fall risk factors and improves communication among staff members and between patient/family and staff members regarding patients' fall risks and fall prevention plans (Dykes et al., 2017). Healthcare workers found Fall TIPS to be standardized and easy to understand by patients and staff members (Dykes et al, 2017). According to Dykes and colleagues (2017), the approximate overall cost of implementing Fall TIPS on a 30-bed hospital unit was \$4,600, which is less than half the cost of a single serious fall-related injury, estimated at \$15,100 as of 2016. The Fall Contract requires constant reprinting of the form with every patient admission which can be contributing to staff having difficulty complying with the process.

On the other hand, Laminated Fall TIPS can be sanitized, remain in the patient's room, and can be reused. Recent audits suggested an inconsistency in staff compliance in using the Fall Contract. For example, during the Gemba Walk, only one patient on the surgical acute care floor had a completed form. After the Fall Contract is reviewed and signed, it is hung next to the white board, but what is written on the form is not easily visible. Unlike the Fall TIPS, the Fall Contract does not readily communicate the patient's fall risk and intervention plans to other caregivers who enter the patient's room. Most patients with cognitive impairment cannot sign the Fall Contract, but the icons on the Laminated Fall TIPS makes it simpler to review and remind patients of their fall risk factors and fall prevention plan of care.

(4) Deploying a trained and designated Certified Nursing Assistant (CNA) or Registered Nurse (RN) as a Patient Safety and Mobility Rounder.

(a.) Train several CNAs or RNs to rotate into the role of a Patient Safety and Mobility Rounder (see Appendix G) to support frontline staff in adhering to revised fall prevention strategies.

(b.) The Patient Safety and Mobility Rounder will be provided with a Rounding Checklist which will be collected at the end of the shift to help evaluate the process (see Appendix G2).

Rationale

Studies suggest that workload, patient acuity, and time constraints are perceived by staff members as having a direct impact on performing consistent, purposeful hourly rounding (Toole et al., 2016). To overcome these barriers, the role of the Patient Safety and Mobility Rounder will be tailored to assist the primary nurse specifically, and CNA assigned to the patients in conducting scheduled/proactive toileting, purposeful hourly rounding addressing the 4Ps, and promoting patient mobility. Providing the staff with resources to help them meet expectations and adhere to process changes shows leadership support and encourages staff buy-in. Many hospitals in the United States have successfully implemented nurse-driven mobility programs by incorporating the role of either a mobility aide, mobility coordinator, mobility technician, mobility volunteer, or any dedicated staff to help address some of the barriers to promoting patient mobility (Dermody, Odom-Maryon, Zimmerman et al., 2020; Hastings, Sloane, Morey et al., 2014; Jones, Merkle, Ruvalcaba et al., 2020; Vollman, 2018; Wood, Tschannen, Trotsky et al., 2014).

Vollman (2018) points out that one of the advantages of having a mobility team is that nurses and therapists could maximize their respective roles. The role of a “mobility technician”

with clinical expertise (over 20 years of experience as a rehabilitation technician), positive personality, and strong interpersonal skills helped to consistently ensure that mobility is part of patients' routine (Johnson & Howell, 2019). Literature suggests that investing in the role of a mobility support staff provides continuity of care, a strong emphasis on the importance of mobility, and a consistent reminder for patients that mobility is an expected part of their plan of care (Dermody et al., 2020; Hastings et al., 2014; Johnson & Howell, 2019; Wood et al., 2014).

The Safety and Mobility Rounding Initiative conducted in the acute care units from April to July 2020 utilized a dedicated Registered Nurse to round on every patient in two acute care units, three days a week, around breakfast and lunch time. The dedicated RN performed safety checks on all patients' rooms; made sure all universal fall and high fall risk prevention interventions were in place; helped ensure all able patients were up for meals; provided patient and family education on fall prevention and mobility; communicated with staff about perceived barriers and opportunities for improvement in falls prevention and promoting patient mobility; and provided just-in-time feedback.

During the initiative period, the percentage of able patients who were sitting up to the chair for breakfast and lunch increased, and the total number of falls in the intervention units decreased when compared to the previous three months. Additionally, the impact of patient immobility extends far beyond patient falls, therefore the role of a Patient Safety and Mobility Rounder can potentially help prevent pneumonia and pressure ulcer, decrease the length of hospital stay, and decrease the likelihood of being discharged to a skilled nursing facility, to name a few. The role of a Patient Safety and Mobility Rounder can also help increase staff and patient satisfaction.

Establishing Measures

Outcome Measures

The overarching goal of this proposed Quality Improvement Project is to decrease the number of falls in the acute care units. As such, the number of falls in this particular setting will be monitored during the implementation period and compared to the number of falls three months prior. This applies to all four proposed interventions.

Process Measures

Specific process measures can be individually established for each component of the proposed Quality Improvement Project to determine that change is an improvement.

(1) Modifying the current purposeful hourly rounding and scheduled toileting process

- The number of toileting-related and unwitnessed falls (found and patient-reported) will be monitored during the initiative period and compared to three months before.
- A staff survey will be utilized to measure staff satisfaction with the optimized Resource Nurse's role.
- The data collected from the completed Rounding Checklist by the Resource Nurse will be used to evaluate the process (for instance, how many patients were assisted by the Resource Nurse to the toilet during her/his shift).

(2) Implementing and educating staff on the use of a Banner Mobility Assessment Tool (BMAT), and promoting staff engagement in patient mobility

- A staff survey will be utilized to measure staff's level of confidence in mobilizing patients before and after BMAT implementation.
- The number of patients getting up out of bed for meals and ambulating at least once per shift will be monitored.

(3) *Replacing the Fall Contract with Fall TIPS (Tailoring Interventions for Patient Safety)*

- Using the pre- and post-implementation patient survey, the patient's awareness of their fall risk factors and fall intervention plan of care will be measured.
- Staff adherence to the use of Fall TIPS will be measured using the Fall TIPS bedside audit tool.

(4) *Deploying a designated, trained Certified Nursing Assistant (CNA) or Registered Nurse as a Patient Safety and Mobility Rounder*

- The number of patients getting up for meals and ambulating in the hallway will be monitored to determine if the role was effective in promoting patient mobility.
- Staff and patient post-implementation survey will also be used to measure staff and patient satisfaction.

Balancing Measures

In implementing the optimized role of the Resource Nurse, the number of staff missed breaks will be monitored to determine if the revised role resulted in missed breaks since the Resource Nurse is now expected to perform purposeful hourly rounding.

Testing Changes

A small-scale Plan-Do-Study-Act (PDSA) Cycle will be designed for each intervention to be pilot tested individually, in any order. Studies suggest that in implementing a multicomponent fall prevention strategy, it was difficult to determine the individual impact of each intervention in fall preventions (Avanecean et al., 2017; DiBardino et al., 2012). Pilot testing of the strategies separately will help evaluate the specific contribution of each component in achieving the project's SMART goals. Alternatively, the two acute care units can potentially do a pilot test of different interventions simultaneously. For example, the medical acute care unit can pilot test the

use of Fall TIPS, while the surgical acute care unit can pilot test the modified purposeful hourly rounding and scheduled toileting process.

A pilot plan including the selection of a pilot unit, strategy to be piloted, and staff education/training will be established with the stakeholders (Acute Care Clinical Nurse Specialist, Unit Managers, Acute Care Nurse Educator, and Acute Care Clinical Nurse Leaders).

Implementing Changes

Revisions of the proposed strategies will be done based on the data collected from the small PDSA cycles. Once revisions are completed, and change is determined as an improvement, a plan for implementation on a larger scale will be established with the stakeholders. The implementation process will be done in different phases depending on the pilot completion and availability of resources needed for implementation. Unit Champions will be recruited to help with dissemination of information and staff training.

Spreading Changes

After successfully testing and implementing the proposed intervention or series of interventions in one unit, a plan to roll strategies out to the rest of the acute care units in the hospital will be determined. The IHI's Framework for Spread will help guide this process (Massoud et al., 2006).

1. Prepare for Spread

- Collaborate with the stakeholders in developing a road map to spread change effectively in all the acute care units.
- Identify key leadership (Unit Managers, Lead Nurses) and supporting roles (Unit Champions) and establish commitment.

- Ensure that the organization has all the resources needed for spread (example: supplies such as the Laminated Fall TIPS, staff education/training materials).

2. Establish an Aim for Spread

- Meet with leaders from the units to where the project will be disseminated and determine the people who will be directly involved in the process within each unit level.
- Identify specific goals and timelines, for instance, staff training and education, and when they need to be completed.

3. Develop a Spread Plan

- Enlist Unit Champions to help with the roll out (dissemination of information, changing the white board, hanging posters, engaging other staff members).
- Make necessary staffing adjustments to allow every staff member to attend to any necessary education or training.
- Ensure staff buy-in of the strategies being implemented by sharing success stories, and supporting data from pilot testing and implementation in other acute care units.
- Send emails or flyers to keep everyone informed of the spread plan, including roll-out dates.
- Address any potential barriers for an efficient transition.

4. Executing and Refining the Spread Plan

- Obtain regular staff and patient feedback and bedside audits to help evaluate the process; make necessary changes, and promote sustainability.
- Provide continuous support and encourage consistent and open communication between the leadership team and nursing staff; provide just-in-time feedback.
- Keep staff informed of any progress; provide staff recognition and celebrate small wins.

Project Approval Process

Forming the Team

The Project Leader formed a collaboration with the Acute Care Clinical Nurse Specialist (CNS) who oversees the Falls Program and is in charge of reviewing all in-patient falls and the Director of Nursing Education to whom the CNS directly reports to. A meeting was set for the Project Leader to present the project for expert feedback and to help identify key stakeholders for the proposed initiative. Due to COVID-19 restrictions, all meetings were held virtually.

Initial Project Proposal Presentation

A PowerPoint presentation of the Quality Improvement Project Proposal (see Appendix N) was presented in the meeting with the Acute Care Clinical Nurse Specialist and the Director of Nursing Education. The experts found the overall project to be aligned with the organization's fall prevention goals and appropriate for the acute care setting. The experts discussed some of the work currently being done within the organization to see if there were any redundancy, complementing, or conflicting ideas. According to the experts, one of the initiatives recently being explored is implementing the Banner Mobility Assessment Tool (BMAT), which is one of the four components of the proposed fall prevention strategies. The experts recommended that the Project Leader coordinate with the workgroup in charge of BMAT to see how the two projects could be integrated. The Director of Nursing Education raised a concern regarding the proposed changes in the Resource Nurse's role and how the staff might perceive it. The Clinical Nurse Specialist, on the other hand, agreed that the current role of the Resource Nurse is not clearly defined, and the practices vary depending on who is assigned to the role. Both experts identified budget restrictions and leadership buy-in to be some of the potential implementation barriers in proposing a role for a designated Patient Safety and Mobility Rounder. The experts

helped identify key stakeholders to review the project proposal and establish implementation plans. The stakeholders include the Acute Care Leadership Team (Acute Care Director, Unit Managers), Clinical Nurse Leaders, Clinical Nurse Educators, and Unit Fall Champions. The experts also recommended a review of the proposed project by the Institutional Review Board. The Clinical Nurse Specialist made arrangements for the Project Leader to present the proposal in the Acute Care Leadership Meeting to gain buy-in from the stakeholders.

The feedback from the experts was taken into consideration and addressed in preparation for the stakeholder presentation. Changes to the project presentation included a more specific description of the optimized role of the Resource Nurse in comparison to current practice. The Project Leader also clarified that the proposed initiative would not take away from the Resource Nurse's primary role of providing break reliefs; and would not result in additional work but rather shifting priorities to ensure patient needs are anticipated instead of waiting to respond to call lights or task delegation from staff. The Project Leader also highlighted the results from the Safety and Mobility Rounding Initiative previously conducted in the acute care units, which indicated an increase in the percentages of patients getting out of bed to the chair for meals and a decrease in falls in the intervention units. Acute care mobility programs from other organizations which suggested the role of either a mobility aide, mobility coordinator, or mobility team in helping to implement the program successfully were emphasized to help support the proposed role of a Safety and Mobility Rounder.

Meeting with the Stakeholders

The Quality Improvement Project proposal was presented to the stakeholders at the Acute Care Leadership Team Meeting. Present at the virtual meeting was Acute Care Directors, Acute Care Nurse Managers, Clinical Nurse Leaders, Clinical Nurse Educators, Acute Care CNS, the

Director of Nursing Education, and other Clinical Nurse Specialists within the organization. The stakeholders acknowledged the significance of the proposed project and the need to address fall prevention in the acute care units. The team appreciated that the proposed project included an overview of the hospital's current state and was supported by a review of the literature. The potential implication of the proposed project on other patient outcomes such as pressure ulcers was also acknowledged. Some of the work in progress within the organizations were discussed to see how the proposed project might impact them. Concerns were raised regarding potentially overwhelming staff with simultaneous changes. Immediate feedback from some stakeholders also included potential budget constraints in hiring a Safety and Mobility Rounder.

The idea of using the hospital's current Lift Team program to help perform this role was brought up by the Acute Care Director. The allotted time for the Project Leader to present the proposed initiative was 30 minutes. The Acute Care Director felt that a second meeting dedicated to a more in-depth discussion of the proposal is warranted. Another meeting will be scheduled to discuss a roadmap for the project. After the meeting, the Project Leader sent the following six questions electronically to the stakeholders to obtain feedback: Did you find the presentation informative?

- 1) Is there any information that would have made the presentation more effective?
- 2) Does the project address a relevant need?
- 3) Is the project applicable in the acute care setting?
- 4) What barriers do you perceive for future implementation?
- 5) What recommendations do you have for improvement?

Stakeholder Feedback

Two Acute Care Nurse Managers, three Clinical Nurse Leaders, a Clinical Nurse Educator and the Acute Care CNS replied to the email sent by the Project Leader and provided insightful comments on the proposed initiative. The responses are summarized herein, according to the questions asked.

1. Did you find the presentation informative?

The stakeholder respondents found the presentation very informative. According to the Acute Care CNS, the presentation not only showed the effects of falls on patients, but it also demonstrated its financial impact on organizations. Some of the strengths identified were the integration of literature and evidence-based practices to the organization's current state and the recommendations for improvement. The use of data to highlight areas of concern/improvement was appreciated by one of the Acute Care Nurse Managers. According to one of the Clinical Nurse Leaders, "the presentation was very thorough, and the recommendations were on point; the Project Leader demonstrated confidence and knowledge of the current practices at the microsystem level." Another Clinical Nurse Leader commended the use of SMART goals in the presentation. According to another Acute Care Nurse Manager, "the project was well presented," and it reignited her desire to continuously work on falls.

2. Is there any information that would have made the presentation more effective?

Recommendations from the stakeholders included revising the current status of falls presented to show falls in the Acute Care Units only since the project's goal is to specifically decrease the falls in this particular setting. The presentation showed the hospital-wide falls per 1,000 patient days, which includes all units in the hospitals. It was also recommended that the project provide a specific timeline and roll-out process. One of the Clinical Nurse Leaders

recommended clarification of how to specifically achieve the optimized role of the Resource Nurse given the other obligations of the Resource Nurse; and the purpose of the proposed rounding checklist. One of the Clinical Nurse Managers commented that the presentation had “a good balance of data, graphic presentations, and questions to be thought-provoking and informative.” However, the oral presentation could have been better if it was a little slower; time constraints might have affected the delivery of the presentation. The Acute Care CNS thought the presentation would have been more effective if the meeting was not done virtually, but due to the current pandemic, this was unavoidable.

3. Does the project address a relevant need?

The stakeholder respondents found the project relevant and of priority as the falls in the acute care units are still rising, and there are inconsistencies in current practices. One of Acute Care Nurse Managers found falls to be an “elusive problem to solve.” According to the Acute Care CNS, “There is a definite need for change and implementation of new ideas and strategies to help improve upon the current data and patient safety concerns, and I feel this project addresses that need. Setting standards and holding staff accountable for patient safety as reflected in this project in rounding and education is a need that is due for revitalizing.”

According to the Acute Care Clinical Nurse Educator, “the presentation did a great job at summarizing the NDNQI data and where the organization falls short in protecting patients from falls.” The Clinical Nurse Educator recognized that the project does a great job at diving into factors affecting falls, specifically, the lack of purposeful hourly rounding, specifically the gap around toileting; the project promotes realistic goals in addressing this trend. The SMART goal of decreasing toileting-related falls and the interventions of proactive/scheduled toileting and communication through the use of the Falls TIPS sheet were also commended.

4. Is the project applicable in the acute care setting?

The project was found to be applicable to the acute care setting. One of the Clinical Nurse Leaders agreed that there is an opportunity to redesign the white board to include the Fall TIPS and recommended hourly rounding signage. According to the Acute Care CNS, “This project is definitely applicable in the acute care setting; it very much addresses the patient population and needs. It shows the need for increased communication between staff, staff and patient, and staff and family; all should be involved as much as possible and take ownership of their roles. Patient mobility also plays an important factor in this project, which I feel is lacking in the acute care setting.”

5. What barriers do you perceive for future implementation?

The three Clinical Nurse Leaders identified the following potential barriers for future implementation:

- Multiple new changes already in place within an extremely challenging environment and fatigued, stressed staff with a tight staffing matrix.
- Resource Nurse is tasked with many duties, will be difficult to add more to that role.
- Liked the Fall TIPS but may be difficult to change to a new patient education format at this time given the current environment.
- Financial constraints may hinder the ability to pay for staff training as well as fund a Mobility Rounder.
- Sustainability—It is typically easy to implement something for the short term, but with competing priorities and constant new rollouts, trials, etcetera, it becomes difficult to hardwire practices.

- Having all patients observed during toileting would be a barrier for both patients and staff. Those who truly are independent have complained about their privacy, and staff who try to persuade them get caught in the middle.

The Acute Care CNS perceived limited resources at this time as a potential barrier. The Clinical Nurse Educator identified financial limitations and increasing demands on the unit as some of the barriers to the feasibility of staffing a specific Patient Safety Mobility Rounder (CAN or RN). The Clinical Nurse Educator also raised a concern that employing the role of the rounder might segment the care provided and decrease empowerment of RNs and CNAs to get patients mobilized—waiting for the resource people to assist with this task. The Acute Care Nurse Managers suggested that sustainability is the issue to focus on and identified the following as potential barriers to implementation:

- Behavior changes
- Knowledge and motivation
- Availability supporting staff
- Need for change champion
- Lack of resources or equipment

6. What recommendations do you have for improvement?

One of the Clinical Nurse Leaders and Acute Care Nurse Managers recommended additional ways to help decrease falls such as modifying the Morse Fall Scale to identify fall risk patients who may otherwise score low on the scale; using gait belts, and educating high-risk patients/families on fall prevention interventions. Implementing one part of the project at a time was suggested by another Clinical Nurse Leader. The project has many components, which addresses different factors of patient falls but can be challenging when it comes to the

implementation process. Staff involvement was also recommended to help both with buy-in and momentum, and can contribute to the overall success of the project. Focusing on sustainability and accountability of the standard work process was also suggested by another Acute Care Nurse Manager.

Institutional Review Board Approval

While waiting for a second meeting with the stakeholders, the Project Leader completed an Institutional Review Board (IRB) application and submitted it for review. After the initial review and revisions of the project protocol were completed, the Project Leader was invited to deliver a five-minute presentation of the proposed Quality Improvement Project at an IRB meeting. Present at the meeting were members of the IRB committee, the hospital's Chief Medical Officer, and the Clinical Nurse Specialist for Translation Science. The Project Leader provided the committee with a brief overview of the proposed project, including the specific aims; proposed changes; outcomes, process, and balancing measures; plans for testing the change; implementing the change; and plan for spread. The Project Leader emphasized that the data will be collected throughout the process and plans on how to protect patients' privacy and the hospital's identity. There were no revisions recommended after the meeting, and the Quality Improvement Project received IRB approval.

Project Implementation Timeline

The Quality Improvement Project was written during the COVID-19 pandemic and was proposed in December 2020, at the height of the coronavirus surge in California. During this period, it was critical for the hospital to activate its "Surge Protocol" as rapid changes were happening within the organization to cope with the impact of the pandemic. While falls in the acute care settings continue to rise, priorities were shifted to address the current need to handle

the COVID-19 crisis, particularly the depleting number of available intensive care unit beds within the hospital, throughout the county, and almost all of California. For this reason, the plan for a meeting to discuss the roadmap for project implementation was put on hold.

Discussions

Project Strengths

The proposed Quality Improvement Project utilizes previous data collected from the organization's Safety and Mobility Rounding Initiative, which provides an overview of the hospital's current fall prevention practices and certain areas needing improvement. This baseline information, as well as the hospital's current falls report, were essential in tailoring targeted fall prevention strategies, which allows for a more specific resource allocation. Not only are the strategies recommended evidence-based, but they were also developed specifically to address the hospital's current needs.

The proposed project encompasses multiple initiatives, and while this can pose some challenges for implementation, it was designed to mitigate some of the foreseen barriers. For example, introducing changes in practice such as the proposed modification of the purposeful hourly rounding and scheduled toileting process can be overwhelming for staff. The proposal to optimize the role of the Resource Nurse can potentially help support the staff in adhering to the proposed changes. The project also has a strong emphasis on promoting patient mobility, another area where competing for nursing care priorities can potentially affect compliance. However, the proposed Patient Safety and Mobility Rounder role can help ensure that patient mobility becomes a priority rather than a task performed based on staff's convenience.

Project Limitations

The most significant project implementation barrier perceived is financial constraints in having a dedicated Patient Safety and Mobility Rounder role. The proposal fell short in providing a strong argument supporting the cost versus benefit of having a Patient Safety and Mobility Rounder. The proposal demonstrated the data collected from the previous Safety and Mobility Rounding Initiative suggesting that having a dedicated staff assume this role increased the percentage of patients getting up out of bed for meals and helped decrease falls in the acute care intervention units. However, in attempting to gain stakeholder buy-in, it would have been more effective if the Project Leader was able to show the estimated cost of the rounder versus the estimated cost of falls, pressure ulcers, and other patient outcomes impacted by immobility.

The timing of the project proposal was a limiting factor. Due to the COVID-19 pandemic, the organization was unable to pilot test the proposed project. However, there was a marked increase in the number of falls in the acute care units, particularly in the COVID-19 unit, from four falls in the third quarter of 2020 to eight falls in the fourth quarter of 2020 during the virus surge. COVID-19 patients being on isolation and staff needing to don personal protective equipment (PPE) before entering the rooms—which are required to remain closed at all times—could potentially be a contributing factor to these falls. Hypothetically, if a staff member is coming from one isolation room to assist a patient in another isolation room, it will take some time for that staff member to don and doff PPE to get to the other patient requiring assistance. The total number of falls in the acute care units went up from 18 in the third quarter of 2020 to 27 in the fourth quarter of 2020, which highlights the significance of the proposed project.

Another limitation of the proposed project is the lack of frontline RN and CNA presence in the stakeholder meeting. Although the project recommended recruiting staff members to be Unit Champions, the stakeholder meeting was comprised mostly of the leadership team.

Future Plans

At this time, COVID-19 vaccinations are underway; however, the pandemic is far from over. Once the dust settles, and the hospital's operational needs return to a more "normal" state, a follow-up meeting is needed with the stakeholders to revisit this proposed Quality Improvement Project. In the meantime, the Project Leader can work on collecting data to justify the cost of the proposed interventions, particularly the cost of a designated Patient Safety and Mobility Rounder. Once a specific timeline for pilot testing is established, it is essential to recruit frontline RNs and CNAs as part of the stakeholder group.

Conclusion

This thesis describes the proposal of a Multicomponent Fall Prevention Strategy using the IHI's Model for Improvement framework and IHI's Framework for Spread. The project was developed based on the hospital's current falls state, opportunities for improvement identified within the organization, and a review of relevant literature. Project revisions have been made based on expert and stakeholder feedback. The project was deemed significant and relevant given the increasing number of patient falls in the acute care settings. However, with competing priorities due to the COVID-19 virus surge, pilot testing and implementation plans for the project were placed on hold. The proposal process suggests the need to clearly demonstrate financial implications of proposed initiatives to help gain stakeholder buy-in. Additionally, the need for frontline staff (RNs and CNAs) involvement in the proposal process was also emphasized.

The continued rise in patient falls in the acute care units remains a challenge. The stakeholders see a potential for the proposed project to implement changes that will help address this ongoing problem. Given the right timing, pilot testing the proposed strategies separately can help examine the specific impact of each targeted intervention in decreasing falls in the acute units.

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Appendix A: Hourly Rounding

HOURLY ROUNDING

YOUR SAFETY and COMFORT are OUR PRIORITY

**We will check on you EVERY HOUR
and every 2 HOURS after 10PM**



PAIN



POTTY



POSITION



**PERSONAL
ITEMS**



Please USE YOUR CALL LIGHT
if you need **HELP** before our next round

Appendix A-1: HUDDLE GUIDE: Optimized Resource Nurse Role

SITUATION: Falls in the acute care units remain an on-going challenge, two of the three acute care units' falls per 1000 patient days have consistently been above national benchmark from Quarter 1 to Quarter 4. Additionally, there has been a significant increase in falls in all acute care units from Quarter 3 to Quarter 4. A number of these falls were toileting-related, unassisted, and occurred around change of shift.

BACKGROUND: Purposeful hourly rounding and proactive/scheduled toileting are evidence-based practices that helps prevent hospital falls. While performing purposeful hourly rounding and scheduled toileting may conceptually seem burdensome, studies have shown that purposeful hourly rounding in fact decreases call light use and allows caregivers to manage their time better by anticipating patient's needs and clustering care.

ASSESSMENT: Random audits have shown hourly rounding logs were inconsistently being initialed. Patient acuity, competing priorities, and staffing related issues make it challenging for staff to diligently perform purposeful hourly rounding. There is an urgent need for team work and collaboration to ensure our patients' needs are proactively met and that their safety remains on the top of our priority.

The Resource Nurse covers nurses for rest (15 minutes) and meal (30 minutes) breaks. Rest breaks start after the first hour of the shift, while waiting to send a nurse for break, the Resource Nurse does random tasks depending on the unit work flow. There is no set standard on the Resource Nurse's role apart from the expectation to cover nurses for breaks. When covering nurses, the Resource Nurse gets delegated to perform whatever (if there is any) task the bedside nurse assigns him/her while the bedside nurse is on break.

RECOMMENDATION: The role of the Resource Nurse can be optimized to focus on helping perform purposeful hourly rounding, and scheduled toileting, particularly during shift change, while covering rest and meal breaks and in between break coverages. Instead of doing random tasks delegated by nurses such as passing scheduled meds, interpreting telemetry strips, or checking blood sugars, the Resource Nurse will assist staff with purposeful hourly rounding and scheduled toileting. The Resource Nurse will help answer call lights, give PRN medications, and respond to alarms in between rounds. When covering a nurse for either a 15-minute break or 30-minute break, it is expected that the Resource Nurse will perform purposeful hourly rounding on the patients he or she is covering. Scheduled med passes and other non-urgent patient care tasks should not be delegated to the Resource Nurse so he or she can continue to help with purposeful hourly rounding, and proactive/scheduled toileting.

Appendix B: Hourly Rounding Sample Script

I. Initial Patient Encounter

STAFF (DAY SHIFT): Good morning Mrs. Smith! My name is _____, I will be your (ROLE) today. To ensure your safety and comfort, we commit to checking up on you every hour to see if you need anything for pain, assist you to use the restroom, get up and move around or reposition in bed, and to make sure you can reach any personal items you need (allow patient to respond, address needs). Between myself, and other members of your nursing team, someone will be here to check on you by (STATE NEXT HOURLY ROUNDING TIME). If you need anything before then or if we are not here around that time please feel free to press your call light or call the extension written on your white board.

STAFF (NIGHT SHIFT): Good evening Mrs. Smith! My name is _____, I will be your (ROLE) tonight. Your sleep and rest is our priority but to ensure your safety and comfort, we commit to checking up on you every 2 hours at night to see if you need anything for pain, assist you to use the restroom, and make sure you can reach any personal items you need (allow patient to respond, address needs). Between myself, other members of your nursing team, someone will be here to check on you by (STATE NEXT ROUNDING TIME). If you need anything before then or if we are not here around that time please feel free to press your call light or call the extension written on your white board.

II. Subsequent Rounding with Proactive Toileting

STAFF (ALL SHIFTS): Hi Mrs. Smith! I am here to check to see if you are having any pain (allow patient to respond). I am also here to assist you to the restroom (allow patient to respond, assist to restroom as needed) or get up and move around or reposition in bed to make sure you are comfortable. Is there anything else you need (check phone, call light and other personal items)? It is now (STATE CURRENT TIME). Between myself, and other members of your nursing team, someone will be here to check on you by (STATE NEXT HOURLY ROUNDING TIME). If you need anything before then or if we are not here around that time please feel free to press your call light or call the extension written on your white board.

III. Staff Communication

For every patient rounded on, staff members will communicate to one another once a rounding is completed and when the next rounding will be. Any patient needs addressed or needs requiring attention will also be communicated.

Appendix D: BMAT

| Test | Task | Response | Fail = Choose Most Appropriate Equipment/Device(s) | Pass |
|---|---|---|---|--|
| Assessment Level 1 Assessment of: -Cognition -Trunk strength -Seated balance | <p>Sit and Shake: From a semi-recined position, ask patient to sit upright and rotate* to a seated position at the side of the bed; may use the bedrail.</p> <p>Note patient's ability to maintain bedside position.</p> <p>Ask patient to reach out and grab your hand and shake making sure patient reaches across his/her midline.</p> <p>*If needed, use slider sheet/tube sheet to make it easier for patient to rotate to side of bed; then complete assessment.</p> | <p>Sit: Patient is able to follow commands, has some trunk strength; caregivers may be able to try weight-bearing if patient is able to maintain seated balance greater than two minutes (without caregiver assistance).</p> <p>Shake: Patient has significant upper body strength, awareness of body in space, and grasp strength.</p> | <p>MOBILITY LEVEL 1</p> <ul style="list-style-type: none"> - Use total lift with sling and/or repositioning sheet and/or straps. - Use lateral transfer devices such as roll board, friction reducing (slide sheets/tube), or air assisted device. <p>NOTE: If patient has 'strict bed rest' or bilateral 'non-weight bearing' restrictions, do not proceed with the assessment; patient is MOBILITY LEVEL 1.</p> | Passed Assessment Level 1 = Proceed with Assessment Level 2. |
| Assessment Level 2 Assessment of: -Lower extremity strength -Stability | <p>Stretch and Point: With patient in seated position at the side of the bed, have patient place both feet on the floor (or stool) with knees no higher than hips. Do not attempt to raise the knee if hip replacement; follow hip precautions.</p> <p>Ask patient to stretch one leg and straighten the knee, then bend the ankle/flex and point the toes. If appropriate, repeat with the other leg.</p> | <p>Patient exhibits lower extremity stability, strength and control.</p> <p>May test only one leg and proceed accordingly (e.g., stroke patient, patient with ankle in cast).</p> | <p>MOBILITY LEVEL 2</p> <ul style="list-style-type: none"> - Use total lift for patient unable to weight-bear on at least one leg. - Use sit-to-stand lift for patient who can weight-bear on at least one leg. | Passed Assessment Level 2 = Proceed with Assessment Level 3. |
| Assessment Level 3 Assessment of: -Lower extremity strength for standing | <p>Stand: Ask patient to elevate off the bed or chair (seated to standing) using an assistive device (cane, bedrail).</p> <p>Patient should be able to raise buttocks off bed and hold for a count of five. May repeat once.</p> | <p>Patient exhibits upper and lower extremity stability and strength.</p> <p>May test with weight-bearing on only one leg and proceed accordingly (e.g., stroke patient, patient with ankle in cast).</p> <p>If any assistive device (cane, walker, crutches) is needed, patient is Mobility Level 3.</p> | <p>MOBILITY LEVEL 3</p> <ul style="list-style-type: none"> - Use non-powered raising/stand aid; default to powered sit-to-stand lift if no stand aid available. - Use total lift with ambulation accessories. - Use assistive device (cane, walker, crutches). <p>NOTE: Patient passes Assessment Level 3 but requires assistive device to ambulate; standby and set-up assistance required for ambulation; patient is MOBILITY LEVEL 3.</p> <ul style="list-style-type: none"> - May use gait belt to help steady and guide movement NOT to lift patient. | Passed Assessment Level 3 AND no assistive device needed = Proceed with Assessment Level 4. Consult with Physical Therapist when needed and appropriate. |
| Assessment Level 4 Assessment of: -Standing balance -Gait | <p>Walk: Ask patient to march in place at bedside.</p> <p>Then ask patient to advance step and return each foot.</p> <p>NOTE: There are ortho and neuro conditions that may render a patient unable to step backward; use your best clinical judgment.</p> | <p>Patient exhibits steady gait and good balance while marching, and when stepping forwards and backwards.</p> <p>Patient can maneuver necessary turns for in-room mobility.</p> | <p>MOBILITY LEVEL 3</p> <p>If patient shows signs of unsteady gait or fails Assessment Level 4, refer back to MOBILITY LEVEL 3; patient is MOBILITY LEVEL 3.</p> | <p>MOBILITY LEVEL 4</p> <p>MODIFIED INDEPENDENCE</p> <p>Passed = No assistance needed to ambulate; use your best clinical judgment to determine need for supervision during ambulation.</p> |

Always default to the safest lifting/transfer method (e.g., total lift) if there is any doubt in the patient's ability to perform the task.

Originated: 2011; Adapted from the 'Quick 3' and 'Egress Test'; revised: 2/27/12, 3/02/12, 3/07/12, 3/19/12, 4/19/12 Boynton, Teresa OT/L CSPHP, Miller, Meri MS AT-C CIE, Perez, Amber LPN, CSPHA,

RETRIEVED FROM:

<https://www.uclahealth.org/nursing/workfiles/ContinuingEducation2015/TeachBack/UmoveBMAT-TrainingPresentation.pdf>

Appendix E: Fall Contract

Patient label here

My Risk of Falling in the Hospital

- Each year, up to one million people in the United States fall in the hospital. Of those, 30-51% result in injury, varying from scrapes to broken bones.
- Any patient of any age or physical ability can be at risk for a fall due to a medical condition, medications, or procedures that can leave them weakened.
- In one study, a fall with injury added 6 days to the hospital stay.

MY RISKS

- Current illness or surgery
- Recent history of falling down
- Equipment or tubes connected to me
- Recent weakness
- Recent changes in alertness
- Needing help to the bathroom

MY MEDICATIONS

- Pain Medications
- Water Pills (diuretics)
- Blood Pressure Medications
- Sedatives/Sleep Aides
- Laxatives
- Allergy Medications
- Muscle Relaxants
- Seizure Medications
- Anxiety Medications

OUR COMMITMENT TO YOU

- We will respond to your call light in a timely manner
- We will check on you every hour during the day (every 2 hours at night) and address the 4 P's: Pain, Position, Potty, and Personal Belongings
- We will obtain the proper safety equipment that you need

HOW TO KEEP YOURSELF SAFE

- Call and WAIT for staff assistance before getting out of the bed or the chair
- The edge of the hospital bed is not a safe surface for sitting. Sit in a chair when you're not lying down
- Talk to your health care team if your medicine makes you feel unsteady or dizzy

Patient Signature: _____
Family Signature: _____
Nurse Signature: _____
Nurse Name (Print) _____

RETRIEVED FROM: NorthBay HealthCare

Appendix F: Fall TIPS

Fall TIPS (Tailoring Interventions for Patient Safety) Talking Points

What is Fall TIPS?

- Fall TIPS the only fall prevention tool with over a decade of research showing that it prevents patient falls and fall related injuries in hospitals
- After completing the Morse Fall Scale documentation in eCare, nurses can fill out the laminated Fall TIPS bed poster located in each patient's room
- Each risk factor for the Morse Fall Scale is linked with one or more evidence-based interventions
- This Fall TIPS bed poster (report) can be used as:
 - An educational tool for the patient and family members
 - A communication tool between nurses, PCAs, and other bedside caregivers

| | | | |
|--|---|--|---|
| Patient Name: _____ | | Date: _____ | |
| Increased Risk of Harm if You Fall <input type="checkbox"/> | | Fall Interventions (Circle selection based on color) | |
| Fall Risks (Check all that apply) | | Communicate (Secure Fall and/or Risk of Harm) | |
| History of Falls <input type="checkbox"/> | Medication Side Effects <input type="checkbox"/> | Walking Aid <input type="checkbox"/> | IV Assistance When Walking <input type="checkbox"/> |
| Walking Aid <input type="checkbox"/> | IV Pole or Equipment <input type="checkbox"/> | Toileting Schedule: Every _____ hours <input type="checkbox"/> | Bed Pan <input type="checkbox"/> |
| Unsteady Walk <input type="checkbox"/> | May Forget or Choose Not to Call <input type="checkbox"/> | Assist to Commode <input type="checkbox"/> | Assist to Bathroom <input type="checkbox"/> |
| Bed Alarm On <input type="checkbox"/> | | Assistance Out of Bed | |
| | | Crutches <input type="checkbox"/> | Cane <input type="checkbox"/> |
| | | Walker <input type="checkbox"/> | Bed Rest <input type="checkbox"/> |
| | | 1 person <input type="checkbox"/> | 2 people <input type="checkbox"/> |

Why implement Fall TIPS?

- Falls in the hospital are a serious problem
 - 3% of patients fall a year, 30% of these falls results in injuries
- Patient falls can be prevented using the

3-step fall prevention process:

1. Completing a Fall risk assessment using the MFS with the patient at the bedside
2. Creating a tailored or personalized care plan based on the individual patient's risk factors
3. Partnering with the patient/family to consistently implement the interventions






















Next Steps

- Nurse Champions on each unit will be responsible for
 - Educating staff members about Fall TIPS
 - Identifying barriers to implementation and addressing workarounds
 - Conducting Fall TIPS Patient Engagement Audits (3 questions):
 1. Is the patient's Fall TIPS poster updated and hanging at the bedside?
 2. Can the patient/family verbalize the patient's fall risk factors?
 3. Can the patient/family verbalize the patient's personalized fall prevention plan?

RETRIEVED FROM: www.falltips.org

Fall TIPS (Continued)

| | | |
|---|---|---|
|  | Patient Name: _____ | Date: _____ |
|  Increased Risk of Harm If You Fall <input style="border: 2px solid red; width: 30px; height: 20px;" type="checkbox"/> | Fall Interventions <i>(Circle selection based on color)</i> | |
| Fall Risks <i>(Check all that apply)</i> | Communicate Recent Fall and/or Risk of Harm   | Walking Aids    Crutches Cane Walker |
|  History of Falls <input style="border: 2px solid red; width: 30px; height: 20px;" type="checkbox"/> | IV Assistance When Walking  | Toileting Schedule: Every _____ hours    Bed Pan Assist to Commode Assist to Bathroom |
|  Medication Side Effects <input style="border: 2px solid yellow; width: 30px; height: 20px;" type="checkbox"/> | Walking Aid <input style="border: 2px solid blue; width: 30px; height: 20px;" type="checkbox"/> | Bed Alarm On  |
|  IV Pole or Equipment <input style="border: 2px solid green; width: 30px; height: 20px;" type="checkbox"/> | Unsteady Walk <input style="border: 2px solid orange; width: 30px; height: 20px;" type="checkbox"/> | Assistance Out of Bed    Bed Rest 1 person 2 people |
|  May Forget or Choose Not to Call <input style="border: 2px solid purple; width: 30px; height: 20px;" type="checkbox"/> | Fall TIPS © Brigham & Women's Hospital 2016; do not alter without written permission. | |

RETRIEVED FROM: www.falltips.org

Appendix G: Patient Safety and Mobility Rounder Role

The role of a Patient Safety and Mobility Rounder is to help perform purposeful hourly rounding particularly with proactive/scheduled toileting, and promote patient mobility by making sure all able patients are up to the chair for meals and ambulating in the hallways. The Safety and Mobility Rounder will help answer call lights, and respond to alarms in between rounds.

Below is a sample schedule and specific tasks for Designated CNA or RN Safety Rounder:

DAY SHIFT 0630-1500

0630 - obtain written unit report from Unit Lead Nurse – report to include the following:

1. fall risk status
2. diet
3. activity order – level of assistance needed/assistive device needed
4. RN and CNA assignment sheet including extension numbers
5. Any special needs

0645 – Begin purposeful rounding on all patients in the unit

1. Assist patients with toileting then help them sit in the chair for breakfast
2. Using the safety checklist ensure the following are in place for

ALL Fall Risk Patients:

- yellow fall wrist band
- fall risk door magnet sign
- yellow non-skid socks
- bed alarm or chair alarm if appropriate

All Patients:

- updated white board including filled out Laminated Fall TIPS
- beds locked and in the lowest position
- clutter free environment
- call light within reach
- personal belongings within reach

(Communicate with Primary Nurses/CNAs which patients you were able to round on after their change of shift report and collaborate with them in ensuring all able patients are up in the chair for meals and are proactively assisted to the bathroom)

0930 – Take 15-minute rest break

0945 – Continue with purposeful hourly rounding in collaboration with primary RNs and CNAs.

At this time, help with proactive toileting and/or ambulating patients before assisting them back to bed.

11AM – Take 30-minute lunch break

1130 – Continue with purposeful hourly rounding. At this time, assist RNs and CNAs in ensuring patients sit up to chair for lunch

1315 – Take 15-minute rest break

1330 – Help with proactive toileting and/or ambulating patients before assisting back to bed

1430 – Complete Unit Report and give hand off to on-coming Safety Rounder

EVENING SHIFT

1430 - Obtain Unit Report and receive hand off from off-going Safety Rounder. Report to include the following:

1. fall risk status
2. diet
3. activity order – level of assistance needed/assistive device needed
4. RN and CNA assignment sheet including extension numbers
5. Any special needs

1545 – Begin purposeful rounding on all patients in the unit

1. Assist patients with toileting, then help them ambulate as needed and/or sit up in the chair for dinner.
2. Using the safety checklist ensure the following are in place for

ALL Fall Risk Patients:

- yellow fall wrist band
- fall risk door magnet sign
- yellow non-skid socks
- bed alarm or chair alarm if appropriate

All Patients:

- updated white board including filled out Laminated Fall TIPS
- beds locked and in the lowest position
- clutter free environment
- call light within reach
- personal belongings within reach

(Communicate with Primary Nurses/CNAs which patients you were able to round on after their change of shift report and collaborate with them in ensuring all able patients are up in the chair for meals and are proactively assisted to the bathroom)

1745– Take 15-minute rest break

1800 – Continue with purposeful hourly rounding in collaboration with primary RNs and CNAs. Help with proactive toileting and/or ambulating patients before assisting them back to bed.

1930 – Take 30-minute lunch break

2000 – Continue with purposeful hourly rounding. Assist patients with toileting and/or ambulation before helping them back to bed

2130 – Take 15-minute rest break

2145 – Continue with purposeful hourly rounding and helping with proactive toileting, assist patients with toileting and/or ambulation before helping them back to bed

2230 – Complete Unit Report and give hand off to Unit Lead Nurse

Appendix G-2: Sample Patient Safety and Mobility Rounds Checklist

| RM NO: Patient Initial | Diet | Activity Order Toileting Schedule: | Fall Risk Y/N | Safety Checks ALL Patients (CIRCLE & FIX MISSING) | Fall Risk Must Haves: (CIRCLE & FIX MISSING) | Toileted TIME NO-WHY | Up For Meals YES NO- WHY | Ambulated in the Hall | Other needs addressed (Pain/Position) |
|------------------------------|------|---|---------------------|--|--|---|---|--|---|
| | | Activity: <hr/> Toileting Schedule: Standard <input type="checkbox"/> Q 2HRS <input type="checkbox"/> | | White Board Updated Fall TIPS Updated Clutter Free Call Light Within Reach Personal Belongings Within Reach | Wrist Band Yellow Socks Magnet Alarm- needed VMT- needed | TIME: _____ NO/WHY _____ TIME: _____ NO/WHY _____ TIME: _____ NO/WHY _____ TIME: _____ NO/WHY _____ TIME: _____ NO/WHY _____ | Breakfast: _____ NO/WHY _____ Lunch: _____ NO/WHY _____ Dinner: _____ NO/WHY _____ | TIME: _____ Distance: _____ NO/WHY _____ TIME: _____ Distance: _____ NO/WHY _____ TIME: _____ Distance: _____ NO/WHY _____ | |
| | | Activity: <hr/> Toileting Schedule: Standard <input type="checkbox"/> <input type="checkbox"/> | | White Board Updated Fall TIPS Updated Clutter Free Call Light Within Reach Personal Belongings Within Reach | Wrist Band Yellow Socks Magnet Alarm- needed VMT- needed | TIME: _____ NO/WHY _____ TIME: _____ NO/WHY _____ TIME: _____ NO/WHY _____ TIME: _____ NO/WHY _____ | Breakfast: _____ NO/WHY _____ Lunch: _____ NO/WHY _____ Dinner: _____ NO/WHY _____ | TIME: _____ Distance: _____ NO/WHY _____ TIME: _____ Distance: _____ NO/WHY _____ TIME: _____ Distance: _____ NO/WHY _____ | |

Appendix H: Patient Laminated Fall TIPS Pre-Implementation Survey

As part of a Quality Improvement Project and our commitment to patient safety, we would like to assess how well you know your risks for falling and your knowledge on how to prevent yourself from falling. Please take the time to answer the questions below by circling 1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree
We appreciate your time in completing this survey.

1. I am able to identify my risks for falling.

1= Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

2. I know what I need to do to prevent myself from falling.

1= Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

DATE SURVEY COMPLETED _____
AGE _____
GENDER _____
RACE _____
LENGTH OF HOSPITAL STAY _____

(For Staff Collecting Survey Only: AOX4 YES _____ NO _____)

Appendix I: Patient Laminated Fall TIPS Post-Implementation Survey

As part of a Quality Improvement Project and our commitment to patient safety, we would like to assess how well you know your risks for falling and your knowledge on how to prevent yourself from falling. Please take the time to answer the questions below by circling 1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree
We appreciate your time in completing this survey.

1. I am able to identify my risks for falling.

1= Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

2. I know what I need to do to prevent myself from falling.

1= Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

DATE SURVEY COMPLETED _____
AGE _____
GENDER _____
RACE _____
LENGTH OF HOSPITAL STAY _____

(For Staff Collecting Survey Only: AOX4 YES _____ NO _____)

Appendix J: Nursing Staff Post Fall TIPS Implementation Survey

Age _____
Gender _____
Race _____
Nursing Role (RN or CNA) _____
Shift Worked (Days, Evenings, Nights) _____
Years of Experience in Current Role. _____

*Thank you for participating in the Laminated Fall TIPS pilot testing. As part of this Quality Improvement Project and our commitment to patient safety, we would like to get your perspective on the toolkit's effectiveness and usability in the acute care setting. Please take the time to answer the questions below by circling
1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree
We appreciate your time in completing this survey.*

1. I received adequate training on Fall Tips prior to its implementation.
1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

2. I have used Fall TIPS consistently since go live
1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

3. Fall TIPS is easy to understand
1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

4. Fall TIPS is easily understood by patients
1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

5. Fall TIPS is easy to use
1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

6. Fall TIPS is effective in helping prevent falls in my unit
1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

7. I recommend the use of Fall TIPS in the acute care units
1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

Appendix K: Fall TIPS Quality Audit Instructions

1) Is the patient's Fall TIPS report hanging at the bedside?

Instructions: Record "Yes" if there is a Fall TIPS poster hanging at the bedside and it is for the correct patient.

Record "No" if there is no Fall TIPS poster hanging at the bedside or if it is for the incorrect patient (i.e. wrong patient name).

2) Can the patient/family verbalize the patient's fall risk factors?

Instructions: Record "Yes" if the patient/family can verbalize any of the fall risk factors that are displaying on the Fall TIPS poster.

Record "No" if the patient/family cannot verbalize any of the fall risk factors that are displaying on the Fall TIPS poster.

Record "N/A" if the patient is nonverbal or not alert and oriented, and no family is present.

3) Can the patient/family verbalize the patient's personalized fall prevention plan?

Instructions: Record "Yes" if the patient/family can verbalize any of the fall prevention interventions that are displaying on the Fall TIPS poster.

Record "No" if the patient/family cannot verbalize any of the fall prevention interventions that are displaying on the Fall TIPS poster.

Record "N/A" if the patient is nonverbal or not alert and oriented, and no family is present.

4) If you answered "No" to any question, did you provide peer-to-peer feedback?

Instructions: Record "Yes" if you followed up with the nurse whose patient you audited. Record "No" if you did not follow up with the nurse whose patient you audited.

Record "Other" if you would like to share why you did not provide peer-to-peer feedback.

**We have found that the peer-to-peer feedback piece is especially important for implementation. By following up with the nurse, you can identify if there is a gap in knowledge or another barrier to Fall TIPS completion that we can address.

Conduct 5 audits per month per unit.

RETRIEVED FROM: www.falltips.org

Appendix L: Nursing Staff Post Revised Purposeful Hourly Rounding/Scheduled Toileting PILOT Survey

Age _____ Gender _____ Race _____
Nursing Role (RN/CNA/Resource Nurse/Nurse Supervisor) _____
Shift Worked (Days, Evenings, Nights) _____

Thank you for participating in the Revised Purposeful Hourly Rounding/Scheduled Toileting Pilot. As part of this Quality Improvement Project and our commitment to patient safety, we would like to get your perspective on the effectiveness of the Revised Purposeful Hourly Rounding Process in ensuring our patients' needs are proactively met and improving staff workflow.

Please take the time to answer the questions below by circling

*1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree
We appreciate your time in completing this survey.*

1. I received adequate training on the Revised Purposeful Hourly Rounding/Scheduled Toileting Process prior to its pilot implementation.

1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

2. Purposeful hourly rounding is consistently done on my patients with the revised process

1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

3. My patients are proactively assisted to the toilet with the revised process.

1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

4. I am able to better manage my time and cluster patient care with the revised process.

1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

5. My patients mobility increased with the redefined role of the Resource Nurse

1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

6. The redefined role of the Resource Nurse is effective in making sure patient needs are proactively met

1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

7. I recommend the revised Purposeful Hourly Rounding/Scheduled Toileting Process

1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

8. I recommend the Redefined Role of the Resource Nurse

1=Strongly disagree, 2= Disagree, 3= Neither Agree nor disagree, 4= Agree, 5= Strongly agree

COMMENTS:

Appendix M: Revised Purposeful Hourly Rounding/Scheduled Toileting Patient Post-Implementation Interview

1. Ask patient to name his or her care team for the shift

2. Ask patient how often the nursing staff check on him or her

3. Ask patient what the nurses or CNAs typically do when they check on him or her other than when they are there to give scheduled medications or check his or her vital signs

4. Ask patient if he or she knows what the role of a Resource Nurse is

5. Ask patient if anyone has talked to him or her about purposeful hourly rounding and what it means

6. Ask patient when was the last time he used the toilet and if he was accompanied by staff to the toilet

DATE INTERVIEW COMPLETED _____

AGE _____

GENDER _____

RACE _____

LENGTH OF HOSPITAL STAY _____

Patient AOX4 YES _____ NO _____

Appendix N: Quality Improvement Project Proposal Presentation



All Eyes On Falls A Multicomponent Fall Prevention Strategy

Nhadine Fabro-Brown

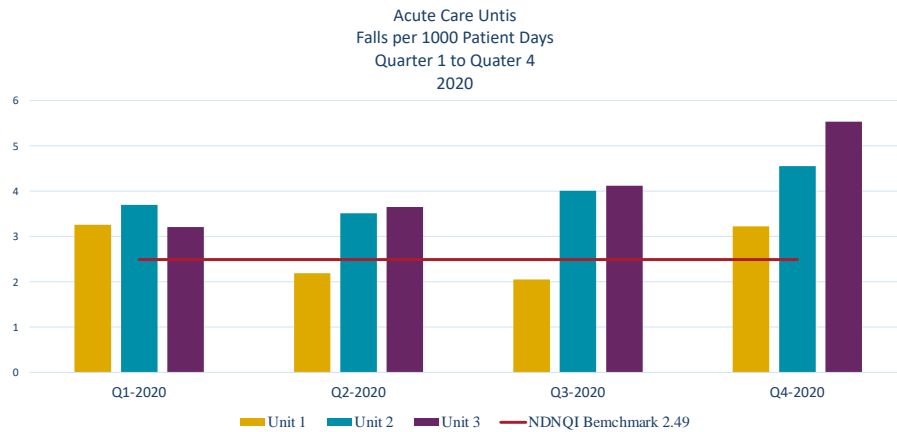
MS-L

University of California Davis- Betty Irene Moore School of Nursing

Hospital Falls...Why do we care about them?

- 700,000 to a million individuals fall in United States hospitals every year.
- Over one-third of hospital falls cause patient harm such as fractures and head trauma
- 1 in 20 falls can result in serious injury
- Cost of a single serious fall-related injury estimated at \$15,100 as of 2016.
- Organizations do not get paid for any fall-related expenses
- Death or severe injury from an inpatient fall is a “never event” based on Centers for Medicare and Medicaid Services guidelines

Current Fall Rate



SMART Outcome Goals

- The number of falls in the acute care units will decrease by 25% during the project implementation period compared to the number of falls from the previous quarter.
- The number of toileting related falls and unassisted falls in the acute care units will decrease by 25% during the implementation period compared to the previous quarter.

Current Fall Prevention Strategies



- Purposeful hourly rounding
- Bed/chair alarm
- Video Monitoring
- No Pass Zone
- Patient education
- Fall contract
- Hand off communication
- Post fall huddle
- Promoting patient mobility

Safety and Mobility Rounds-Findings



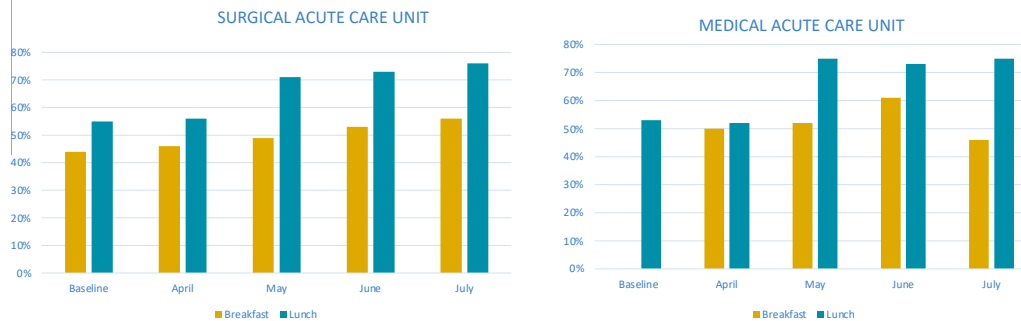
- Purposeful hourly rounding log inconsistently initialed
- Inconsistent hand off on patient's fall risk status
- Fall contract inconsistently signed
- Patient mobility and mobility assistance needs inconsistently updated on white board
- Bed alarms charted as on in cerner but off during rounds
- Many patients needing to use the toilet during breakfast rounds

Safety and Mobility Rounds Cont ...



- Staff hesitant to get patients up out of bed, waiting for PT
- Staff unsure of patient's mobility status
- Reactive vs proactive toileting
- Non-incontinent patients placed on purewick
- Patients left unattended in the toilet/bedside commode
- Delayed call light response

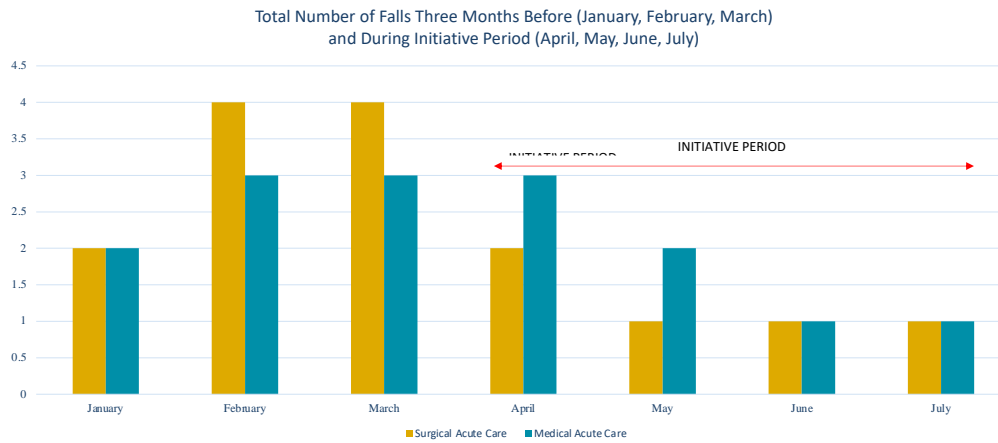
PROCESS MEASURE: Percentage of Patients Up to Chair for Meals



October 4, 2020 - Unit 1600/1700: (STAFFING- 11 RNs, 3 CNAs, 2 RRNs)

- 6 out of 40 patients were up for breakfast (unknown how many total were able to get up), RRN assisted 1 of the 6 patients up to the chair
- 7 out of 40 patients got up for lunch, 2 of the 7 patients were assist by RRN to the chair

OUTCOME MEASURES: Number of Falls



Literature Review



- AHRQ Fall Prevention Toolkit
- National Veterans Affairs Healthcare Administration (VHA) Falls Toolkit
- Falls Prevention Toolkit by Missouri Health Association
- Quality Improvement Projects
- Cluster Randomized Study
- Qualitative Study
- Meta Analysis
- Systematic Reviews

What Does The Literature Say?



▪ Top Fall Contributing Factors

- Toileting needs

- Patients' overestimation of current ability and functional status
- Inadequate fall risk assessment

- Prolonged Immobility

- Medication side effects
- Call light response

- Ineffective communication of patients' fall risks and interventions

- Lack of individualization in selecting fall prevention interventions

What Does The Literature Say Cont...



▪ Fall Prevention Interventions

- Patient-centered fall prevention program

- Single strategy versus multicomponent fall prevention interventions
- Multidisciplinary
- Scheduled/proactive toileting and purposeful hourly rounding
- Standardized, validated, and reliable fall risk assessment tool
- Patient mobility
- Staff, patient and family education
- Communication of fall risks and interventions
- Post fall huddle and assessment

Proposed Quality Improvement Project



Multicomponent Fall Prevention Strategy

- (1) Reigniting the spirit of rounding- redesign purposeful hourly rounding and scheduled toileting process
- (2) Reintroduce Bedside Mobility Assessment Tool (BMAT) and promote staff engagement in patient mobility
- (3) Replace the Fall Contract with Fall TIPS (Tailoring Interventions for Patient Safety)
- (4) Deploy a designated, trained CNA or RN as a Patient Safety and Mobility Rounder

STRATEGY #1 : Reigniting the Spirit of Rounding

🕒 HOURLY ROUNDING

YOUR SAFETY and COMFORT are OUR PRIORITY

We will check on you **EVERY HOUR**
and every **2 HOURS** after 10PM



PAIN



POTTY



POSITION



**PERSONAL
ITEMS**

- Reeducate/ Retrain Staff
- Replace Old Hourly Rounding Log
- Optimize the Resource Nurse Role
- Implement Scheduled/Proactive Toileting Process
- Utilize Rounding Checklist

Please **USE YOUR CALL LIGHT**
if you need **HELP** before our next round



STRATEGY #2 : BMAT- Promote Patient Mobility

| Test | Task | Response | Fail = Choose Most Appropriate Equipment/Device(s) | Pass |
|--|--|--|--|--|
| Assessment Level 1 Assessment of -Cognition -Trunk strength -Seated balance | Sit and Shake: From a semi-reclined position, ask patient to sit upright and rotate to a seated position at the side of the bed; may use the bedrail. Note patient's ability to maintain bedside position. Ask patient to reach out and grab your hand and shake making sure patient reaches across their midline. If needed, use utility sheet/roll sheet to make it easier for patient to rotate to side of bed; then complete assessment. | 1st: Patient is able to follow commands, has some trunk strength; caregivers may be able to try weight-bearing if patient is able to maintain seated balance greater than two minutes (without caregiver assistance). Shake: Patient has significant upper body strength, awareness of body in space, and grasp strength. | MOBILITY LEVEL 1 - Use total lift with sling and/or repositioning sheet and/or straps. - Use lifters transfer devices such as roll board, hoist, rearing slide (elevators), or air assisted device. NOTE: If patient has lower bed rest or distal non-weight bearing restrictions, do not proceed with the assessment; patient is MOBILITY LEVEL 2 . | Passed Assessment Level 1 = Proceed with Assessment Level 2. |
| Assessment Level 2 Assessment of -Lower extremity strength -Stability | Stretch and Point: With patient in seated position at the side of the bed, have patient place both feet on the floor or drape with knees no higher than hips. Do not attempt to raise the knee if hip replacement; follow hip precautions. Ask patient to stretch one leg and straighten the knee, then bend the ankle/foot and point the foot. If appropriate, repeat with the other leg. | Patient exhibits lower extremity stability, strength and control. May test only one leg and proceed accordingly (e.g., allow patient, patient with ankle in cast). | MOBILITY LEVEL 2 - Use total lift for patient unable to weight bear or at least one leg. - Use lift-to-stand lift for patient who can weight bear on at least one leg. | Passed Assessment Level 2 = Proceed with Assessment Level 3. |
| Assessment Level 3 Assessment of -Lower extremity strength for standing | Stand: Ask patient to sit on the bed or chair (seated to standing) using an assistive device (cane, walker). Patient should be able to raise buttocks off bed and rest for a short time. May repeat one. | Patient exhibits upper and lower extremity stability and strength. May test with weight bearing on only one leg and proceed accordingly (e.g., stroke patient, patient with ankle in cast). If any assistive device (cane, walker, crutches) is needed, patient is MOBILITY LEVEL 3 . | MOBILITY LEVEL 3 - Use non-powered repositioning and, default to powered lift-to-stand lift if no stand and assistive. - Use total lift with ambulation accessories. - Use assistive device (cane, walker, crutches). NOTE: Patient passes Assessment Level 3 but requires assistive device to ambulate; standby and set-up assistance required for ambulation; patient is MOBILITY LEVEL 3 . - May use gait belt to help steady and guide movement NOT lift patient. | Passed Assessment Level 3 AND no assistive device needed = Proceed with Assessment Level 4. Consult with Physical Therapist when needed and appropriate. |
| Assessment Level 4 Assessment of -Standing balance -Gait | Walk: Ask patient to march in place at bedside. Then ask patient to advance step and return each foot. NOTE: There are ortho and neuro conditions that may render a patient unable to step backward; use your best clinical judgment. | Patient exhibits steady gait and good balance while walking, all when stepping forwards and backwards. Patient can maneuver necessary turns for in-room mobility. | MOBILITY LEVEL 3 If patient shows signs of unsteady gait or falls Assessment Level 4, refer back to MOBILITY LEVEL 2 , patient is MOBILITY LEVEL 3 . | MOBILITY LEVEL 4 MODIFIED INDEPENDENCE Passed = No assistance needed to ambulate; use your best clinical judgment to determine need for supervision during ambulation. |

Always default to the safest lifting/transfer method (e.g., total lift) if there is any doubt in the patient's ability to perform the task.

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- Review data from Pilot Implementation
- Make necessary changes
- Nursing, PT and Lift Coach collaboration in providing staff training and education
- Ensure all able patients are OOB for meals and ambulating TID
- Specific activity orders

STRATEGY #3 Fall Contract VS Laminated Fall TIPS

My Risk of Falling in the Hospital

Each year, up to one million people in the United States fall in the hospital. Of those, 30-51% result in injury, varying from scrapes to broken bones.

Any patient of any age or physical ability can be at risk for a fall due to a medical condition, medications, or procedures that can leave them weakened.

In one study, a fall with injury added 6 days to the hospital stay.

Patient Initials: _____

MY RISKS

- Current illness or surgery
- Recent history of falling down
- Equipment or tubes connected to me
- Recent weakness
- Recent changes in alertness
- Needing help to the bathroom

OUR COMMITMENT TO YOU

- We will respond to your call light in a timely manner
- We will check on you every hour during the day (every 2 hours at night) and address the 4 P's: Pain, Position, Potty, and Personal Belongings
- We will obtain the proper safety equipment that you need

MY MEDICATIONS

- Pain Medications
- Water Pills (diuretics)
- Blood Pressure Medications
- Sedatives/Sleep Aides
- Laxatives
- Allergy Medications
- Muscle Relaxants
- Seizure Medications
- Anxiety Medications

HOW TO KEEP YOURSELF SAFE

- Call and WAIT for staff assistance before getting out of the bed or the chair
- The edge of the hospital bed is not a safe surface for sitting. Sit in a chair when you're not lying down
- Talk to your health care team if your medicine makes you feel unsteady or dizzy

Family Signature: _____
Nurse Signature: _____
Nurse Name (Print): _____

WILLIAM AND MARY HOSPITAL Patient Name: _____ Date: _____

Increased Risk of Harm If You Fall

Fall Risks (Check all that apply)

- History of Falls
- Medication Side Effects
- Walking Aid
- IV Pole or Equipment
- Unsteady Walk
- May Forget or Choose Not to Call

Fall Interventions (Circle selection based on color)

Communicate Recent Fall and/or Risk of Harm

Walking Aids

Crutches Cane Walker

IV Assistance When Walking

Toileting Schedule: Every _____ hours

Bed Pan Assit to Commode Assit to Bathroom

Bed Alarm On

Assistance Out of Bed

Bed Rest 1 person 2 people

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STRATEGY #3 Cont ...

| Fall Contract | Laminated Fall TIPS |
|--|---|
| <ul style="list-style-type: none">• Individualized risk factors - generic interventions• Confused patients can't sign the contract• Does not readily communicate patient's fall risk and intervention plans• Requires constant reprinting with every admission• Inconsistent use | <ul style="list-style-type: none">• Directly correlates interventions with patient specific fall risk factors• Review with patients every shift• Standardized and easy to understand• Communication tool among staff members and between patient/family and staff members regarding patients' fall risks and fall prevention plans• Can be sanitized, and remains in the patient's room and can be reused |

Where Do We Begin?



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