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## Implementing a Bedside Rounding Tool to Reduce Inpatient Falls

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**Implementing a Bedside Rounding Tool to Reduce Inpatient Falls**

Steve Garcia

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NURS 670-15 - Internship

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## Abstract

**Problem:** Each year, thousands of patients sustain falls while hospitalized, resulting in an increase in serious injuries or death. In a Neuroscience Step Down Unit (NSDU), fall rates in 2022 were higher than the NDNQI benchmark. Despite a thorough fall prevention policy, nurses inconsistently implemented preventative interventions, resulting in increased falls.

**Context:** The NSDU is a 15-bed inpatient unit providing intermediate-level care for patients with neurological and neurosurgical diagnoses. The unit is part of a 459-bed academic medical center and safety net hospital providing tertiary and quaternary care in southern California.

**Interventions:** A bedside safety rounds checklist for charge nurses was implemented. The outgoing and incoming charge nurses completed the checklist during their bedside rounds at the 07:00 and 19:00 shift changes. Deficiencies were communicated to the assigned incoming nurse.

**Measures:** The outcome measure was the number of patient falls per month. Process measures included the percentage of patients with a fall risk assessment completed within two hours of admission and the percentage of bedside safety rounds checklists completed. The balancing measure was the percentage of patients not assessed for fall risk within two hours of admission.

**Results:** Between June 1 and July 31, 2023, patient falls decreased to two and zero, respectively. Of 191 patients admitted, 90% (n=172) were assessed for fall risk within two hours, the bedside safety rounds checklists were completed 89% (n=109) of the time, and 8% (n=15) of patients did not have a fall risk assessment completed within two hours of admission.

**Conclusions:** A bedside safety rounds checklist for charge nurses may have contributed to the decrease in the number of falls during the implementation period. In addition, staff were more engaged and focused on implementing the necessary interventions to minimize fall prevention.

*Keywords:* checklist, fall prevention, safety rounds, interventions, neuroscience, inpatient

### **Implementing a Bedside Rounding Tool to Reduce Inpatient Falls**

Each year in the United States, nearly one million patients sustain a fall while hospitalized. Among those, approximately 4% to 8% result in moderate or severe injuries, with head injuries and hip fractures being the most common fall-related injuries (Francis-Coad et al., 2020). In 2015, more than 28,000 people died from injuries sustained during falls (Centers for Disease Control and Prevention [CDC], 2020). Staggs et al. (2020) found that bed and chair alarms are the most commonly used interventions to prevent falls in acute care hospitals. However, several variables make it increasingly difficult to determine which patients are best served using bed and chair alarms and other interventions (Staggs et al., 2020).

Despite these variables, the literature suggests fewer falls occur when interventions are implemented within two hours of admission and reinforced every 24 hours throughout the hospital stay (Francis-Coad et al., 2020). In addition, patient falls can lead to employee injuries. According to the CDC (2016), musculoskeletal injuries are the most common injury among healthcare workers due to lifting and moving an increasingly obese and elderly patient population. In a study by the Occupational Safety and Health Administration (OSHA) (2013), the average cost of work-related musculoskeletal injuries among all healthcare workers was \$22,440 per claim.

### **Personal Leadership Statement**

When developing practical leadership skills and traits, no silver bullet approach yields success. The key to successful leadership begins with knowing one's strengths (Rath & Conchie, 2008). According to Simounds (2019), successfully leading a team and keeping them motivated is accomplished by knowing one's strengths and the strengths of each individual on the team. This requires ongoing self-assessment and self-reflection on the leader's behalf. Based on the

CliftonStrengths assessment, my top five strengths include connectedness, empathy, intellection, input, and strategy. Connectedness and empathy fall within the relationship-building domain, while intellection, input, and strategy fall within the strategic thinking domain (Gallup, 2021).

My top three values in nursing leadership include accountability, an unwavering commitment to service, and collaboration. As a nursing leader, my vision is to care for those within my scope of responsibility so they can, in turn, provide the highest quality care for the patients and families we serve. This quality improvement project focuses on decreasing inpatient falls within a microsystem. I chose this topic because a quality gap exists, as evidenced by the quantitative data and qualitative reports from the nursing staff. In 2022, the microsystem was above the national benchmark for falls during six months of the year (Safety and Quality Information System [SQIS], 2023).

My values are visible in all aspects of the project. For example, accountability is one of the reasons this project is important to me. My team and I are accountable to our patients and the organization, especially when an untoward event happens. Therefore, I am perfectly positioned as the nurse leader to take accountability and drive improvement. This approach also aligns with my commitment to service. Improving the care we deliver in the microsystem provides higher quality service to patients and the nursing staff. Finally, collaboration is vital to this project. I have collaborated with staff, other nursing leaders, and physician partners to develop this project.

### **Problem Description**

Hospital A is a 459-bed academic and safety net hospital in southern California. The Neuroscience Step Down Unit (NSDU) is a 15-bed inpatient unit providing intermediate-level care for patients with neurological and neurosurgical diagnoses. According to Askari (2022), neurological patients are at a higher risk of falling because of their disease's impact on mobility

and cognitive function. Furthermore, this population's fall-related injuries are more likely to have life-changing consequences (Askari, 2022).

In the NSDU, the quarterly fall rate showed a positive downward trend during the first three quarters of 2022. During the first quarter, the fall rate was 3.83 falls per 1,000 occupied bed days (OBD). The second quarter improved at 2.27 falls per 1,000 OBD, while the third quarter results were zero falls per 1,000 OBD. Unfortunately, during the fourth quarter, the fall rate increased to 4.49 falls per 1,000 OBD (Safety and Quality Information System [SQIS], 2023). According to the Agency for Healthcare Research and Quality (AHRQ) (2013), hospitals often use the National Database of Nursing Quality Indicators (NDNQI) to benchmark their performance. In 2022, the NDNQI reflected a quarterly rate of all inpatient falls as less than three (NIH Clinical Center, 2022). Therefore, the NSDU fall rates were higher than the NDNQI benchmark during the first and fourth quarters of 2022.

One of the strategic priorities for Hospital A is to improve patients' health by developing and implementing care processes to achieve better performance in quality and safety (UCI Health, 2023). Reducing fall rates in the NSDU aligns with this and other strategic priorities of Hospital A. The project is designed to improve both patient and staff safety.

### **Specific Project Aim**

This quality improvement project aims to decrease the number of patient falls from the current baseline average of three per month to less than two per month over three months among all patients admitted to the NSDU in Hospital A (see Appendix A).

### **Available Knowledge**

The following PICOT question was used to guide the search for evidence: Among patients admitted to the Neuroscience Step Down Unit (P), how does implementing a bedside

safety rounds checklist for charge nurses (I) compared to the usual charge nurse rounds (C) affect patient falls (O) over three months (T)?

Using the online Gleeson Library, six databases were searched, including Cochrane, Cumulative Index to Nursing and Allied Health Literature (CINAHL), PubMed, the Agency for Healthcare Research and Quality (AHRQ), the Centers for Disease Control and Prevention (CDC), and the National Institutes of Health (NIH) Clinical Center, using the following search terms: patient falls, patient safety, checklists, inpatient, and neuroscience. Limitations included ages 18 and older, English language, United States, and publications between 2018 and 2023. The inclusion criteria were patients in an inpatient setting and acute care hospitals, while all other care delivery environments (e.g., ambulatory, observation, emergency department, etc.) were excluded. In total, 12 publications were selected for review. The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) Appraisal Tool was used to evaluate the level and quality rating of nine articles. The following is a critique of the five most relevant publications (see Appendix B).

In a nonrandomized controlled trial, Dykes et al. (2020) studied the impact of implementing a nurse-led fall prevention toolkit on overall fall rates and rates of falls with injury. Participants were from 14 inpatient medical units within three academic medical centers in Boston and New York City. A total of 37,231 patients were evaluated in the study between November 1, 2015, and October 31, 2018. The fall prevention toolkit aimed to provide nurses with a direct link between the patient's fall risk and interventions to decrease the risk of falling. In addition, the toolkit was designed to engage patients and families in more meaningful ways to reduce the likelihood of falling (Dykes et al., 2020).

Of the 37,231 patients evaluated, 17,948 were pre-intervention, and 19,283 were post-intervention. Following implementation, there was a 15% decrease in falls and a 34% decrease in falls with injury. The authors also concluded that the toolkit implementation resulted in a more significant partnership between patients, families, and the care team members, thereby contributing to the decrease in falls. These results demonstrate a correlation between implementing a standardized fall prevention toolkit and reducing falls (Dykes et al., 2020). Although this study was conducted in medical units, the sample size is large, and the hospital settings are similar to the NSDU in Hospital A.

In a quality improvement initiative, Johnston and Magnan (2019) evaluated implementing a 14-item falls safety checklist. The authors designed the checklist to assess whether the interventions outlined in the hospital's existing fall prevention policy were implemented. Nurses and nursing assistants (n=37) on a 19-bed bone marrow transplant unit completed the checklist at the shift change on 13 consecutive day shifts, followed by 13 consecutive night shifts. The staff completed a total of 90 checklists among patients determined to be at risk for falls. Following the data collection period, the team evaluated the usefulness of the checklist by asking the participants to complete an evaluation. (Johnston & Magnan, 2019).

The findings identified that 19% (n=17) of the patients had the incorrect or no bed alarm setting. The second most common error was the lack of proper signage identifying the patient as at risk for falls. The hospital's policy requires signage in the patients' rooms and the hallway. Signage was missing in the patients' rooms and the hallway 5% of the time. When evaluating the usefulness of the checklist, all respondents (n=14) found the checklist easy to use and added value to fall reduction efforts. However, there needed to be more agreement over who should use the checklist, nurses or nursing assistants (Johnston & Magnan, 2019). While the sample size in



this project was small, the unit size is similar to the NSDU in Hospital A, and the checklist intervention is similar to the bedside rounds checklist in this project.

In another quality improvement project, Loresto et al. (2019) implemented fall champion audits to assess fall risk perception, fall prevention interventions, and barriers to implementing the hospital's existing fall prevention policy. Fall champions (n=2) completed 55 audits over nine months in a 36-bed medical oncology unit at a 525-bed safety net hospital. Both fall champions were registered nurses (RNs) practicing in the participating unit, with one from each shift. The audits included qualitative and quantitative data collected from the patient, charge nurse, assigned RN, certified nursing assistant (CNA), and unit clerk (Loresto et al., 2019).

The fall rate in the participating unit six months before implementation was 3.67 falls per 1,000 patient days. Post-implementation, the fall rate decreased to 1.36 falls per 1,000 patient days, resulting in a 62% decrease in falls in the participating unit. Despite this decrease, the audits were only implemented in one unit and limited to healthcare workers and patients in the pilot unit. It was not possible to determine if the decrease in falls was attributed to the audits, the division-wide fall prevention program, or a combination of both (Loresto et al., 2019). Despite the decrease in falls, the limitations of this study warrant further research.

Runkel et al. (2021) conducted a cross-sectional survey of physicians in two different health systems in Portland, Oregon. The survey focused on identifying the perceptions and attitudes regarding fall prevention programs. The participating physicians (n=42) practiced as hospitalists at the Veterans Affairs (VA) hospital and a community-based hospital system. The survey response rate was 67.9% among the VA hospitalists and 22.3% among the community-based hospital system. The survey questions focused on four components of fall prevention: fall

risk assessments, medication review, communication between hospitalists and staff, and barriers to completing fall risk assessments (Runkel et al., 2021).

The results show that hospitalists in both systems agree on the importance of completing a fall risk assessment, with varying opinions on who is responsible. The hospitalists indicated the following disciplines carry responsibility in completing a fall risk assessment: nursing 79%, physical therapy 58%, occupational therapy 42.1%, and pharmacy 15.8%. Responsibility for medication review was 68.4% for pharmacists, 21.1% for nursing, and 10.5% for physical therapy and occupational therapy. The hospitalists felt strongly that hospital staff are responsible for communicating fall risk information. The most significant barrier to completing fall risk assessments is the perceived lack of responsibility by the hospitalists (Runkel et al., 2021). Although the number of respondents is small, the survey was administered across two hospital systems. In addition, it focuses solely on the attitudes and perceptions of physicians regarding fall prevention.

In a cross-sectional, descriptive study, Turner et al. (2020) examined how consistently hospitals implement fall prevention strategies. Eligible participants were selected from hospitals that participate in NDNQI. Invitations were sent to 700 hospitals, and 189 expressed interest in participating. Among those, 80 were randomly selected to participate, and 60 responded. They were stratified into four categories: less than 200 beds, greater than or equal to 200 beds, teaching hospitals, and non-teaching hospitals. The participating units were 43% medical and 57% medical-surgical. The survey measures fall prevention strategies and implementation efforts (Turner et al., 2020).

The most consistent finding was a considerable variation in fall prevention interventions among similar units. For example, 73% agree that the patient's bed must be locked, while only

15% agree on the importance of scheduled toileting. Similar variations existed with implementation strategies. For example, 60% agree it is important to post fall rates where the public can see them, while only 12% agree on the impact of multidisciplinary post-fall huddles. Despite concerns previously published by The Joint Commission (TJC) and AHRQ, this study found that 53% of the units utilize bed and chair alarms as primary interventions for fall prevention (Turner et al., 2020). Given the sample size and settings, this study may help develop standardized tools and strategies when spreading change to other departments.

The evidence selected and critiqued for this project will help guide the development of the intervention and data collection. The literature shows that the creation and implementation of fall prevention toolkits and checklists can result in an overall decrease in patient falls (Dykes et al., 2020; Johnston & Magnan, 2019). However, the literature suggests multiple limitations when considering fall audits as an effective intervention to decrease falls (Loresto et al., 2019). Gathering physicians' perceptions of their role in fall prevention is an essential element often overlooked (Runkel et al., 2021). Finally, the evidence also suggests a significant benefit in consistently implementing fall prevention interventions and strategies across multiple units in a hospital (Turner et al., 2020).

### **Rationale**

The Theory of Human Caring was developed between 1975 and 1979 and published in 1988 by Jean Watson (Dahlke & Stahlke Wall, 2016). This theoretical model has evolved into a framework with four primary concepts: human being, health, environment or society, and nursing. Critical to her theory are ten principles known as Caritas Processes. When nurses understand and follow the Caritas Processes, they deliver care more meaningfully and drive deeper connections with patients, families, visitors, and coworkers. The theory has provided a

foundation for nurses to care for human life more efficiently and compassionately (Dahlke & Stahlke Wall, 2016).

The Theory of Human Caring will guide this project. Three of the Caritas Processes relate directly to the importance of helping-trusting relationships, the scientific method for problem-solving and decision-making, and interpersonal learning. In addition, the seventh Caritas Process will guide the phase of educating staff on the ways patient safety is impacted by falls. The theory guides developing variables focused on nurses' feelings and perceptions of their responsibility to promote patient safety. Finally, elements of multiple Caritas Processes provide guidance and support for patient outcomes and mental and physical safety.

### **Context**

In the NSDU, leadership partners with front-line staff in setting realistic, achievable goals. Autonomy and accountability are fostered through a shared governance model in which staff is accountable for implementing changes to achieve the unit's goals. Most staff members feel valued but desire additional education, training, networking, and professional development opportunities. Staff interact and collaborate well, but there are opportunities to improve teamwork among the various disciplines within the microsystem. Patient-centered care is at the core of the professional practice model at Hospital A. Improvement efforts are focused on patients and staff in the NSDU. Still, little focus is placed on engaging the community and local market served.

Performance metrics in the NSDU are focused on clinical, staff, and financial outcomes. They are consistently measured and communicated to all team members via multiple channels, including email, monthly staff meetings, daily change-of-shift huddles, nurse leader rounds, and visibility boards in the nurses' station. Improvement initiatives are based on data. Although the

staff is empowered to innovate, most change ideas are implemented without a formal, disciplined improvement methodology. Information and technology are readily available for patients, staff, and providers. Patients can access standard medical details, which could be better customized to meet their needs. Staff and providers have access to the information needed, and the various technology platforms are regularly updated to support their needs within the microsystem.

### **Intervention**

This project's primary intervention is implementing a bedside safety rounds checklist for charge nurses (see Appendix C). The checklist incorporates two elements of the existing fall prevention policy at Hospital A: fall risk screening and fall prevention interventions for patients determined to be at risk for falls. The checklist will be completed in partnership between the incoming and outgoing charge nurses at each shift change. They will assess the accurate implementation of the fall prevention interventions for patients at risk for falls based on the fall risk screening. The checklist is designed with yes and no checkboxes to maximize efficiency.

Before implementing the checklist, all charge and relief charge nurses will attend a one-hour education meeting to learn how to use the checklist appropriately. During this meeting, they will have an opportunity to provide input on the layout and design of the checklist. Two weeks later, all nurses and nursing assistants will be re-educated on Hospital A's existing fall prevention policy during staff meetings. In addition, the staff will be educated on the checklist and the charge nurses' role in data collection for the project. For those unable to attend the staff meeting, individual education will be provided during their regularly scheduled workday. Finally, in the seven days immediately prior to implementation, the staff will be reminded about the project and their responsibilities during the change-of-shift huddles.

Costs associated with this project are minimal, while the potential savings recognized through cost avoidance are high (see Appendix D). Training and education costs for all staff are estimated at approximately \$2,295.00. Based on the project aim, decreasing falls by one per month can yield approximately \$162,882.00 in savings through cost avoidance. In addition, eliminating one employee injury due to safe patient handling during the three-month implementation period will result in approximately \$22,400.00 in additional cost avoidance. Overall, the net cost-benefit for this project is estimated to be approximately \$183,027.00.

### **Study of Intervention**

The bedside safety rounds checklist was designed to collect data on 11 elements of Hospital A's existing fall prevention policy. The checklist responses are yes-or-no, validating whether the nursing team accurately implemented the required interventions. The checklist is designed to collect data on all patients in the NSDU during shift changes at 07:00 and 19:00 daily when the charge nurses perform bedside rounds on all patients.

The outcome measure for this project is the total number of patient falls per month. Process measures include the percentage of patients assessed for fall risk within two hours of admission. Another process measure is the percentage of bedside safety rounds completed each shift. Finally, the balancing measure is the percentage of patients not assessed for fall risk within the first two hours of admission.

This project plan includes one Plan-Do-Study-Act (PDSA) cycle. Following staff education and finalization of the checklist, the charge nurses will implement the checklist for one month. Data collection will be reviewed, analyzed, and presented monthly to the NSDU staff and leadership teams in Hospital A.

### **Ethical Considerations**

Jesuit values at the University of San Francisco include respect for everyone, serving others, nurturing the mind, body, and spirit, and building a more humane and just world (University of San Francisco, n.d.). This project was developed collaboratively, showing respect for the roles of each healthcare worker involved. Further, this work is being conducted to serve our patients and colleagues better.

The American Nurses Association (ANA) published nine provisions of the code of ethics for nurses (American Nurses Association, 2015). The third provision addresses patient safety: "The nurse promotes, advocates for, and protects the rights, health, and safety of the patient" (American Nurses Association, 2015, p. 8). Implementing an improvement project to prevent patient falls succinctly aligns with this provision. Finally, this project has been approved as a quality improvement (QI) project by faculty using QI review guidelines and does not require IRB approval (see Appendix E).

### **Outcome Measure Results**

The outcome measure for this project is the number of patient falls per month. Since implementing the bedside safety rounds checklist on June 1, 2023, the NSDU has had two patient falls in June, zero in July, and zero thus far in August. Although the intervention is ongoing, these preliminary results meet the outcome measure's target of less than or equal to two patient falls per month.

Two process measures for this project include the percentage of patients with fall risk assessment completed and documented within two hours of admission and percent of bedside safety rounds checklists completed. Between June 1, 2023, and July 31, 2023, 191 patients were admitted to the NSDU. Of those, 90% (n=172) had a fall risk assessment completed and

documented within two hours of admission. During that same period, the bedside safety rounds checklists were completed 89% (n=109) of the time.

The one balancing measure for this project is the percentage of patients not assessed for fall risk within two hours of admission to the NSDU. Between June 1, 2023, and July 31, 2023, 8% (n=15) of patients did not have a fall risk assessment completed and documented within the first two hours of admission.

Based on the data collected thus far, all but one of the measures have met their corresponding targets, resulting in an overall decrease in patient falls. The target for completing the bedside safety rounds checklist was 100%, yet the charge nurses completed it 89% of the time. The most common reason cited for failure to complete the checklist at the change of shift was lack of time. Initially, they felt the checklist took too much time to complete. However, they acknowledged the benefit of finding deficiencies in implemented fall risk interventions and having the assigned incoming RN correct them.

### **Summary**

Current literature indicates that fall prevention strategies vary among hospitals, and preventative interventions are inconsistently implemented. Key findings associated with implementing the bedside safety rounds checklist include an overall decrease in patient falls. In addition, the staff and charge nurses identify when fall risk interventions are not implemented accurately according to Hospital A's policy, and the deficiencies are corrected on the spot. Despite their involvement in creating the checklist, the charge nurses found it time-consuming, resulting in 85% compliance with completing it as designed. Nevertheless, the number of patient falls is within the target of less than or equal to two per month.



Based on anecdotal feedback from staff and charge nurses, several factors have contributed to the success of this intervention. First, staff voiced their appreciation for the pre-implementation data shared during staff meetings. This information contributed to their understanding of the extent of the problem. Next, the charge nurses were more engaged because they had been involved in creating the checklist. Finally, the charge nurses share deficiencies identified during the bedside safety rounds with the assigned incoming RN in real-time. As a result, the staff has increased their awareness of the fall prevention interventions and the importance of ensuring they are implemented at all times.

### **Conclusions**

In the NSDU, the majority of patients are admitted for neurological and neurosurgical diagnoses, resulting in a patient population that has a higher incidence of impaired mobility. According to Kato et al. (2022), patient populations with higher degrees of impaired mobility are, understandably, at a higher risk of falling. Implementing a checklist focusing on fall prevention interventions has decreased patient falls in the NSDU. The intervention is easily sustainable but may benefit from additional PDSA cycles as the work becomes hardwired with staff and charge nurses. Because the checklist is based on Hospital A's existing fall prevention policy, spreading this intervention to other units within Hospital A would require staff and charge nurse engagement. In general, other acute care hospitals should be able to adapt the checklist to their fall prevention policies.

In this project, several implications for practice have come to light. First, nurses wanting to lead a project focusing on patient falls should consider ways to demonstrate the current state of the microsystem. In the NSDU, the staff and charge nurses viewed this as a call to action, leading to a sense of responsibility for improving patient safety. Next, patients will benefit from

the team approach used in this project. While the bedside nurse remains accountable for implementing the fall prevention interventions, the charge nurses who complete the checklist serve as an independent double check to ensure the interventions are implemented correctly. Finally, nurse leaders can continue to engage their teams in finding ways to individualize fall prevention interventions and advocate for updates to their organizations' fall prevention policies.

## References

- Agency for Healthcare Research and Quality. (2013). *Preventing falls in hospitals*.  
<https://www.ahrq.gov/patient-safety/settings/hospital/fall-prevention/toolkit/measure-fall-rates.html>
- American Nurses Association. (2015). *Code of ethics for nurses with interpretive statements* (Second ed.).
- Askari, H. (2022). *Neurological disorders: Take strides to reduce your fall risk*.  
<https://www.summahealth.org/flourish/entries/2022/07/neurological-disorders-take-strides-to-reduce-your-fall-risk>
- Centers for Disease Control and Prevention. (2016). *Healthcare workers: Physical hazards*.  
<https://www.cdc.gov/niosh/topics/healthcare/physical.html>
- Centers for Disease Control and Prevention. (2020). *STEADI - Older adult fall prevention*. Retrieved February 12, 2023, from <https://www.cdc.gov/steady/patient.html>
- Dahlke, S., & Stahlke Wall, S. (2016). Does the emphasis on caring within nursing contribute to nurses' silence about practice issues? *Nursing Philosophy*, 18(3), e12150.  
<https://doi.org/10.1111/nup.12150>
- Dykes, P. C., Burns, Z., Adelman, J., Benneyan, J., Bogaisky, M., Carter, E., Ergai, A., Lindros, M., Lipsitz, S. R., Scanlan, M., Shaykevich, S., & Bates, D. W. (2020). Evaluation of a patient-centered fall-prevention tool kit to reduce falls and injuries. *JAMA Network Open*, 3(11), e2025889. <https://doi.org/10.1001/jamanetworkopen.2020.25889>
- Francis-Coad, J., Hill, A.-M., Jacques, A., Chandler, A. M., Richey, P. A., Mion, L. C., & Shorr, R. I. (2020). Association between characteristics of injurious falls and fall preventive

- interventions in acute medical and surgical units. *The Journals of Gerontology: Series A*, 75(10), e152–e158. <https://doi.org/10.1093/gerona/glaa032>
- Gallup. (2021). *CliftonStrengths: Strengths-based leadership insight report*. Gallup, Inc.
- Johnston, M., & Magnan, M. A. (2019). Using a fall prevention checklist to reduce hospital falls: Results of a quality improvement project. *American Journal of Nursing*, 119(3), 43–49. <https://doi.org/10.1097/01.naj.0000554037.76120.6a>
- Kato, Y., Kitamura, S., Katoh, M., Hirano, A., Senjyu, Y., Ogawa, M., Maeda, H., Mukaino, M., Hirano, S., Sakurai, H., Shibata, S., & Otaka, Y. (2022). Stroke patients with nearly independent transfer ability are at high risk of falling. *Journal of Stroke and Cerebrovascular Diseases*, 31(1), 106169. <https://doi.org/10.1016/j.jstrokecerebrovasdis.2021.106169>
- Loresto, F. L., Grant, C., Solberg, J., & Eron, K. (2019). Assessing the effect of unit champion-initiated audits on fall rates. *Journal of Nursing Care Quality*, 35(3), 227–232. <https://doi.org/10.1097/ncq.0000000000000449>
- NIH Clinical Center. (2022). *Clinical and safety performance metrics*. <https://clinicalcenter.nih.gov/sites/nihinternet/files/assets/home/pdf/SafetyMetrics.pdf>
- Occupational Safety and Health Administration. (2013). *Caring for our caregivers: Facts about hospital worker safety*. [https://www.osha.gov/sites/default/files/1.2\\_Factbook\\_508.pdf](https://www.osha.gov/sites/default/files/1.2_Factbook_508.pdf)
- Rath, T., & Conchie, B. (2008). *Strengths based leadership: Great leaders, teams, and why people follow*. Gallup Press.
- Runkel, K. M., Rdesinski, R. E., & Miura, L. N. (2021). Hospitalist perceptions of fall prevention. *American Journal of Medical Quality*, 36(1), 36–41. <https://doi.org/10.1177/1062860620917206>

Safety and Quality Information System. (2023). *Monthly falls SQIS report by unit*. UCI Health.

Simounds, T. (2019). How to implement strengths based leadership to spark motivation.

*Australian Midwifery News*, 19(3), 27.

<https://web.p.ebscohost.com/ehost/pdfviewer/pdfviewer?vid=0&sid=e2d2f449-8605-403d-9d4c-f15a33bd8bd3%40redis>

Staggs, V. S., Turner, K., Potter, C., Cramer, E., Dunton, N., Mion, L. C., & Shorr, R. I. (2020).

Unit-level variation in bed alarm use in US hospitals. *Research in Nursing & Health*, 43(4), 365–372. <https://doi.org/10.1002/nur.22049>

Turner, K., Staggs, V. S., Potter, C., Cramer, E., Shorr, R. I., & Mion, L. C. (2020). Fall prevention practices and implementation strategies: Examining consistency across hospital units. *Journal of Patient Safety*, 18(1), e236–e242.

<https://doi.org/10.1097/pts.0000000000000758>

UCI Health. (2023). *UCI Health strategic vision*. <https://strategicplan.health.uci.edu/>

University of San Francisco. (n.d.). *Our Jesuit roots*. <https://www.usfca.edu/who-we-are/reinventing-education/jesuit-roots>

## Appendix A

### Project Charter

**Title:** Decreasing Falls in a Neuroscience Step Down Unit

**Global Aim:**

To improve patient safety in the Neuroscience Step Down Unit (NSDU) in Hospital A over three months.

**Specific Aim:**

To decrease the number of patient falls from the current baseline average of three per month to less than two per month over three months among all patients admitted to the NSDU in hospital A.

**Background:**

Throughout hospitals in the United States, nearly one million patient falls occur annually. Among those, approximately 4% to 8% result in moderate or severe injuries, with head injuries and hip fractures being the most common fall-related injuries (Francis-Coad et al., 2020). In 2015, more than 28,000 died from injuries sustained during falls (Centers for Disease Control and Prevention [CDC], 2020). Staggs et al. (2020) found that bed and chair alarms are the most commonly used interventions to prevent falls in acute care hospitals. However, several variables make it increasingly difficult to determine which patients are best served using bed and chair alarms and other interventions (Staggs et al., 2020). Despite these variables, the literature suggests fewer falls occur when interventions are implemented within two hours of admission and reinforced every 24 hours throughout the hospital stay (Francis-Coad et al., 2020). In addition, patient falls can lead to employee injuries. According to the CDC (2016), musculoskeletal injuries are the most common injury among healthcare workers due to lifting and moving an increasingly elderly patient population. In a study by the Occupational Safety and Health Administration (OSHA) (2013), the average cost of work-related musculoskeletal injuries among all healthcare workers was \$22,440 per claim.

**Sponsors:**

Chief Nursing Executive  
Nursing Director, Critical Care Services

**Goals:**

This project aims to improve patient safety in the NSDU by reducing patient falls to less than two per month through the following interventions:

1. Review and reinforce the existing fall prevention policy with all staff.
2. Assess all patients for fall risk and document this in the electronic medical record (EMR) within two hours of admission.
3. Implement standardized bedside safety rounds each shift.
4. Incorporate fall risk scores and fall-prevention interventions during change-of-shift handoff among all staff.

**Measures:**

<b>Types of Measures</b>	<b>Measure</b>	<b>Data Source</b>	<b>Target</b>
Outcome Measure	# of patient falls per month	Safety & Quality Information System (SQIS)	$\leq 2$
Process Measures	% of patients with fall risk assessment completed and documented within two hours of admission	Epic – assessment flowsheet	90%
	% of safety rounds completed each shift	Safety rounds data collection tool	100%
Balancing Measure	% patients who were not assessed for fall risk within two hours of admission	Epic – assessment flowsheet	$\leq 10\%$

**Team Members:**

## Core Team

MSN Student – Co-lead  
 Clinical Nurse Specialist - Co-lead  
 Day-shift staff  
 Night-shift staff

## Resource Team

Risk Management Coordinator  
 RN Quality Coordinator  
 Nurse Informaticist  
 Neurology Medical Director

## Appendix B

### Evidence Evaluation Table

#### PICOT Question:

Among patients admitted to the Neuroscience Step Down Unit (P), how does implementing a bedside safety rounds checklist for charge nurses (I) compared to the usual charge nurse rounds (C) affect patient falls (O) over three months (T)?

Study	Design	Sample	Outcome/Feasibility	Evidence Rating
<p>Dykes, P. C., Burns, Z., Adelman, J., Benneyan, J., Bogaisky, M., Carter, E., Ergai, A., Lindros, M., Lipsitz, S. R., Scanlan, M., Shaykevich, S., &amp; Bates, D. W. (2020). Evaluation of a patient-centered fall-prevention tool kit to reduce falls and injuries. <i>JAMA Network Open</i>, 3(11), e2025889.  <a href="https://doi.org/10.1001/jamanetworkopen.2020.25889">https://doi.org/10.1001/jamanetworkopen.2020.25889</a></p>	<p>Quasi-experimental  Nonrandomized controlled trial</p>	<p>37,231 patients in 14 adult medical units in three academic medical centers: one in Boston and two in New York</p>	<p><b>Outcome:</b> After implementing the fall-prevention toolkit:</p> <ul style="list-style-type: none"> <li>• Overall, 15% reduction in falls</li> <li>• 34% reduction in injurious falls</li> </ul> <p>Direct correlation between implementing a standardized fall prevention tool kit and reducing falls.</p> <p><b>Feasibility:</b> Demonstrates a benefit in using a patient-care team partnership approach to preventing falls and fall-related injuries.</p>	<p>II A</p>



Study	Design	Sample	Outcome/Feasibility	Evidence Rating
<p>Johnston, M., &amp; Magnan, M. A. (2019). Using a fall prevention checklist to reduce hospital falls: Results of a quality improvement project. <i>American Journal of Nursing</i>, 119(3), 43–49. <a href="https://doi.org/10.1097/01.naj.0000554037.76120.6a">https://doi.org/10.1097/01.naj.0000554037.76120.6a</a></p>	<p>Quality improvement</p>	<p>All patients admitted to a 19-bed bone marrow transplant unit over 26 days (n=90)</p>	<p><b>Outcome:</b> A fall prevention checklist was implemented, incorporating the fall prevention interventions listed in the organization’s existing fall prevention policy. The most commonly observed errors were the incorrect setting of the bed alarms and missing signage.</p> <p>Staff were surveyed to evaluate the usefulness and convenience of the fall prevention checklist. All respondents found the checklist easy to use and added value to fall reduction efforts. However, there needed to be more agreement over who should use the checklist, nurses or nursing assistants.</p> <p><b>Feasibility:</b> Provides insight into implementing a checklist similar to the tool to be used in my project.</p>	<p>V B</p>

Study	Design	Sample	Outcome/Feasibility	Evidence Rating
<p>Loresto, F.L., Grant, C., Solberg, J., &amp; Eron, K. (2019). Assessing the effect of unit champion-initiated audits on fall rates. <i>Journal of Nursing Care Quality</i>, 35(3), 227–232.</p> <p><a href="https://doi.org/10.1097/ncq.0000000000000449">https://doi.org/10.1097/ncq.0000000000000449</a></p>	Quality improvement	2 Fall champions completed 55 audits in one unit	<p><b>Outcome:</b> Decreased fall rate from 3.67 to 1.36 falls per 1,000 patient days</p> <p><b>Feasibility:</b> Despite a decrease in fall rates, the audits were only implemented in one unit and limited to healthcare workers and patients in the pilot unit. It was not possible to determine if the decrease in falls was attributed to the audits, the division-wide fall prevention program, or a combination of both.</p>	V B
<p>Runkel, K. M., Rdesinski, R. E., &amp; Miura, L. N. (2021). Hospitalist perceptions of fall prevention. <i>American Journal of Medical Quality</i>, 36(1), 36–41.</p> <p><a href="https://doi.org/10.1177/1062860620917206">https://doi.org/10.1177/1062860620917206</a></p>	Non-experimental  A cross-sectional survey of hospitalists	42 hospitalists from hospitals in Portland, OR <ul style="list-style-type: none"> <li>• 19 from the VA</li> <li>• 23 from a community hospital</li> </ul>	<p><b>Outcome:</b> Hospitalists agreed that fall risk assessments (FRAs) should be completed for all patients upon admission, but they should not be involved in completing the FRA. They believe communication with physicians can reduce falls because knowing a patient’s fall risk will change their actions.</p> <p><b>Feasibility:</b> Useful as it provides knowledge about physicians’ perceptions of their roles in fall prevention.</p>	III C

Study	Design	Sample	Outcome/Feasibility	Evidence Rating
<p>Turner, K., Staggs, V. S., Potter, C., Cramer, E., Shorr, R. I., &amp; Mion, L. C. (2020). Fall prevention practices and implementation strategies: Examining consistency across hospital units. <i>Journal of Patient Safety</i>, 18(1), e236–e242.  <a href="https://doi.org/10.1097/pts.0000000000000758">https://doi.org/10.1097/pts.0000000000000758</a></p>	<p>Non-experimental  Cross-sectional, descriptive study</p>	<p>80 medical or medical/surgical units across hospitals in the U.S. that participate in NDNQI and then divided into four strata:  &lt; 200 beds  <math>\geq</math> 200 beds            Academic (yes/no)</p>	<p><b>Outcome:</b>            Primary findings:</p> <ul style="list-style-type: none"> <li>• Fall prevention strategies implemented inconsistently</li> <li>• Educating staff on fall prevention varies</li> <li>• Strong correlation between adequate staffing and patient falls</li> </ul> <p><b>Feasibility:</b>            Helpful in guiding the development of standardized tools and strategies when spreading change to other departments</p>	<p>III B</p>



**Appendix D**  
**Proposed Budget**

<b>IMPROVEMENT PROJECT:</b>	Decreasing Falls in a Neuroscience Step Down Unit		
<b>AIM STATEMENT:</b>	Decrease the number of patient falls from the current baseline average of three per month to less than two per month over three months among all patients admitted to the NSDU in hospital A.		
<b>IMPLEMENTATION EXPENSES</b>			
<b>Training/Education:</b> <i>Conducted by MSN Student</i>	<b># of Employees</b>	<b>Average Hourly Rate</b>	<b>Cost</b>
- Charge Nurses and Relief Charge Nurses <i>(One-hour training class)</i>	12	\$85.00	\$1,020.00
- Direct Care RNs <i>(30-minute training class)</i>	30	\$65.00	\$975.00
- Nursing Assistants <i>(30-minute training class)</i>	12	\$25.00	\$300.00
<b>Total:</b>			\$2,295.00
<b>COST AVOIDANCE</b>			
<b>Avoided Safety Events:</b>	<b># of Events Avoided</b>	<b>Average Cost per event</b>	<b>Cost Avoidance</b>
Patient Falls with Injury	3	\$54,294.00	\$162,882.00
Employee Injuries related to Safe Patient Handling	1	\$22,440.00	\$22,440.00
<b>Total Cost Avoidance Related To Avoided Safety Events:</b>			\$185,322.00
<b>TOTAL COST AVOIDANCE:</b>			\$183,027.00

## Appendix E

### CNL Project: Statement of Non-Research Determination Form

**Student Name:** Steve Garcia

**Title of Project:**

Implementing a Bedside Rounding Tool to Reduce Inpatient Falls

**Brief Description of Project:**

Throughout hospitals in the United States, nearly one million patient falls occur annually. Among those, approximately 4% to 8% result in moderate or severe injuries, with head injuries and hip fractures being the most common fall-related injuries (Francis-Coad et al., 2020). In 2015, more than 28,000 died from injuries sustained during falls (Centers for Disease Control and Prevention [CDC], 2020). Staggs et al. (2020) found that bed and chair alarms are the most commonly used interventions to prevent falls in acute care hospitals. However, several variables make it increasingly difficult to determine which patients are best served using bed and chair alarms and other interventions (Staggs et al., 2020). Despite these variables, the literature suggests fewer falls occur when interventions are implemented within two hours of admission and reinforced every 24 hours throughout the hospital stay (Francis-Coad et al., 2020). In addition, patient falls can lead to employee injuries. According to the CDC (2016), musculoskeletal injuries are the most common injury among healthcare workers due to lifting and moving an increasingly elderly patient population. In a study by the Occupational Safety and Health Administration (OSHA) (2013), the average cost of work-related musculoskeletal injuries among all healthcare workers was \$22,440 per claim.

**A) Aim Statement:**

To decrease the number of patient falls from the current baseline average of three per month to less than two per month over three months among all patients admitted to the Neuroscience Step Down Unit (NSDU) in hospital A.

**B) Description of Intervention:**

This project's primary intervention is implementing a bedside safety rounds checklist for charge nurses. The checklist incorporates three elements of the existing fall prevention policy at Hospital A: fall risk screening, universal fall precaution interventions for all patients, and fall prevention interventions for patients determined

to be at risk for falls. The checklist will be completed in partnership between the incoming and outgoing charge nurses at each shift change. They will assess the accurate implementation of the universal fall precaution interventions for all patients. Next, the fall prevention interventions will be assessed for patients at risk for falls based on the fall risk screening. The checklist is designed with yes and no checkboxes to maximize efficiency.

**C) How will this intervention change practice?**

This intervention is expected to bring a deeper focus on decreasing patient falls by ensuring the existing policy is being accurately implemented. The bedside rounding checklist is a tool by which the charge nurses will validate whether the interventions prescribed in the policy are being carried out by the nursing staff.

**D) Outcome measurements:**

Types of Measures	Measure	Data Source	Target
Outcome Measure	# of patient falls per month	Safety & Quality Information System (SQIS)	$\leq 2$
Process Measures	% of patients with fall risk assessment completed and documented within two hours of admission	Epic – assessment flowsheet	90%
	% of safety rounds completed each shift	Safety rounds data collection tool	100%
Balancing Measure	% patients who were not assessed for fall risk within two hours of admission	Epic – assessment flowsheet	$\leq 10\%$

To qualify as an Evidence-based Change in Practice Project, rather than a Research Project, the criteria outlined in federal guidelines will be used:

(<http://answers.hhs.gov/ohrp/categories/1569>)

This project meets the guidelines for an Evidence-based Change in Practice Project as outlined in the Project Checklist (attached). Student may proceed with implementation.

This project involves research with human subjects and must be submitted for IRB approval before project activity can commence.

Comments:

EVIDENCE-BASED CHANGE OF PRACTICE PROJECT CHECKLIST \*

**Instructions: Answer YES or NO to each of the following statements:**

<b>Project Title:</b>	<b>YES</b>	<b>NO</b>
The aim of the project is to improve the process or delivery of care with established/ accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.	<b>X</b>	
The specific aim is to improve performance on a specific service or program and <b>is a part of usual care</b> . ALL participants will receive standard of care.	<b>X</b>	
The project is <b>NOT</b> designed to follow a research design, e.g., hypothesis testing or group comparison, randomization, control groups, prospective comparison groups, cross-sectional, case control). The project does <b>NOT</b> follow a protocol that overrides clinical decision-making.	<b>X</b>	
The project involves implementation of established and tested quality standards and/or systematic monitoring, assessment or evaluation of the organization to ensure that existing quality standards are being met. The project does <b>NOT</b> develop paradigms or untested methods or new untested standards.	<b>X</b>	
The project involves implementation of care practices and interventions that are consensus-based or evidence-based. The project does <b>NOT</b> seek to test an intervention that is beyond current science and experience.	<b>X</b>	
The project is conducted by staff where the project will take place and involves staff who are working at an agency that has an agreement with USF SONHP.	<b>X</b>	
The project has <b>NO</b> funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.	<b>X</b>	
The agency or clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care, i.e., <b>not</b> a personal research project that is dependent upon the voluntary participation of colleagues, students and/ or patients.	<b>X</b>	
If there is an intent to, or possibility of publishing your work, you and supervising faculty and the agency oversight committee are comfortable with the following statement in your methods section: <i>“This project was undertaken as an Evidence-based change of practice project at X hospital or agency and as such was not formally supervised by the Institutional Review Board.”</i>	<b>X</b>	

**ANSWER KEY:** If the answer to **ALL** of these items is yes, the project can be considered an Evidence-based activity that does NOT meet the definition of research. **IRB review is not required. Keep a copy of this checklist in your files.** If the answer to ANY of these questions is **NO**, you must submit for IRB approval.



\*Adapted with permission of Elizabeth L. Hohmann, MD, Director and Chair, Partners Human Research Committee, Partners Health System, Boston, MA.

STUDENT NAME (Please print): Steve Garcia

Signature of Student: Steve Garcia DATE 5/1/2023

SUPERVISING FACULTY MEMBER NAME (Please print):

Signature of Supervising Faculty Member Cynthia Hill DPER DATE 5/1/2023