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Assessment of Falls on a Medical-Telemetry Unit

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Abstract

Purpose: The purpose of this quality improvement project is to implement a falls intervention to improve falls on the Medical-Telemetry unit.

Background: Between 700,000 and 1,000,000 falls occur in hospitals every year. Furthermore, approximately 30-35% of these falls result in injury and 11,000 falls result in death (Health Research & Educational Trust, 2016). Falls harm patients, families, and providers. They are also a high cost, as many insurance companies will not reimburse care when a fall occurs. As a hospital organization, it is important to ensure funds are going to the appropriate places. Currently the metropolitan hospital had an increase of 5 falls from 2016 fiscal year to 2017 fiscal year. Through data itemization it appears the current protocol and procedures is not meeting the need to decrease and diminish falls.

Introduction

Statement of Problem

According to the American Nurses Associated a fall is defined as "an unplanned descent to the floor with or without injury to the patient..." (Currie, 2008). Falls can then further be divided into three different categories according to Morris (2008); accidental falls, anticipated psychological falls, and unanticipated psychological falls. Anticipated psychological falls can be avoided with proper assessment and interventions within a microsystem. Falls are one of the most common types of injuries that patient sustain while during an inpatient stay. In addition to physical injury, it can lead to emotional and psychological stress. Falls occur on a nationwide scale; the joint commission explains that hundreds of thousands of falls happen every year within the United States and 30-50 percent of them result in injury to the patient. The average cost for each fall can exceed to over $14,000 (The Joint Commission, 2015). Nationwide in 2012 it had been reported that over $616.5 billion for direct medical costs for fatal falls in the hospital settings, and over $30.3 billion for non-fatal injuries from falls. Those numbers increased exponentially in 2015 to $637.5 billion for fatal injuries and $31.3 billion in non-fatal injuries (Burns, Stevens, & Lee, 2016).

The large metropolitan hospital in which this Master of Science in Nursing (MSN) Clinical Nurse Leader (CNL) student collected data and provided assessment has been experiencing an increase in the number of falls within a medical/telemetry unit. Falls on the medical-telemetry unit have slightly increased since fiscal year 2016. The unit reported 31 falls in fiscal year 2016 and 36 falls in fiscal year 2017. The falls were categorized by levels: Level 1 falls had no physical harm, Level 2 falls had only minor physical harm, Level 3 falls required sutures, Level 4 falls resulted in a fracture, and Level 5 falls resulted in death. In fiscal year

2016, there were 24 reported Level 1 falls, 6 reported Level 2 falls, and 1 reported Level 3 fall. In contrast, fiscal year 2017 had 27 Level 1 falls, 8 Level 2 falls, and 1 Level 3 fall.

The research was guided by the theoretical frameworks of chaos theory and complexity theory. Chaos theory explains how complex systems behave, having the understanding that small changes can result in a large difference, changes in which can have predicted outcomes ("A case for chaos theory in nursing," 2001). With this theory, the MSN student has come to the conclusion that the seemingly random events of the increase in patient falls have a pattern of association. Chaos theory also assists to understand that the within an acute care setting, processes and patterns are always changing (chaos), this theory allows for the interventions and approaches to change along with it. Additionally, the use of the complexity science has been proven to be effective as a framework for the problem being addressed. Complexity science is used to understand that the relationships between healthcare providers are crucial in understanding in how quality care emerges (Colón-Emeric et al., 2006). Both theories assist to explain that along that chaos and rapid changes that occur within a healthcare setting, a quality improvement project will be able to reflect that framework.

Proper and consistent assessment of patients to determine the level of fall risk is critical to prevent falls and injuries from occurring. This data indicates that the current measures do not seem to be sufficient in preventing injury and falls within the microsystem and an implementation of new evidence-based assessments is needed.

Literature Review

Several tools are used in an inpatient setting to assess the fall risk of patients; Morse Fall Scale, Saint Thomas Risk Assessment Tool in Falling Elderly (STRATIFY), Hendrich Fall Risk

Model, and John Hopkins Fall Risk Assessment. Each of these tools claim to be the most sensitive and accurate for measuring risk. Data was collected to examine the evidence on fall tools that have been proven to be the most sensitive for patients at risk for falling. The database that was used to find the literature in support of the interventions and evidence-based work for this quality improvement project includes PubMed, Fusion, and CINAHL. Key words searched within Fusion such as, "Fall assessment tool AND Fall risk assessment," limited to the last 20 years yielded 100 articles. This search was then narrowed down to articles available within the USF library collection and those that were peer reviewed. An advanced search in CINAHL with key words "Comparison AND fall risk", returned 28 articles on the subject. Examination of both research and peer reviewed articles had brought the number down to 19 different journals. Upon research with PubMed, an additional 28 articles were retrieved using similar key words for searching. Please refer to appendix A for an example of the three-common assessment tools (Morse Fall Scale, Hendrich Fall Risk Model, and STRATIFY).

The current protocol within this large metropolitan hospital is to use the Morse Falls scale for the assessment of the fall risk of each patient. The current literature has found to support that the Hendrich Fall Risk Model (HFRM) has been found to be more sensitive and effective upon assessment. Any patient that scored a five or higher using this scale would be considered a high fall risk. One prospective observation and cross-sectional design study completed in Lebanon comparing both scales found that it was recommended that in an acute care setting the HFRM had been found to have higher sensitivity and specificity (Nassar, Helou, & Madi, 2014). This study had used data collected from 1815 inpatients at a medical center in Lebanon where all patients were evaluated with both the MFS and HFRM. The study concluded that the internal consistency of both scales was moderate and the inter-rater reliability was high. The study also

further examines the ease for the nursing staff to conduct such an assessment. The HFRM only took 3-5 minutes to complete and was conducted with ease and minimal problems (Nassar et al., 2014).

Ivzuki, Matarese, and Pedone (2011) had continued the research on the validity of the HFRM scale specific to patients that are older than 65. The method in which the study had complied the results was that each patient was screened for falls using the HFRM within 24 hours of admission. Any falls that occurred were recorded and the inter-rater reliability, sensitivity, specificity, positive and negative predicted values and time were evaluated. The number of participants within the study included 179 elderly patients over the age of 65. The outcomes of this prospective study were that like the previous study no additional time was needed to complete the assessment and all the information needed could be gathered upon initial assessment and observation of the patient. The findings from this research can be significant for the application of this quality improvement project, though it does have limitations as well. The results are limited to both the elderly and acute care settings, and the study had not completed a comparison to other distinguished fall assessment tools. The conclusions of this study lead to the confirmation that the HFRM is a reliable and valid tool for screening and assessing elderly inpatients.

Comparisons of the three main fall assessment tools have also been completed in an article published in the journal for MedSurg nursing. The purpose of this study was to elaborate on the relationship between scores from the HFRM and fall occurrence as recorded for patients with diabetes mellitus, stroke, or heart failure in an acute care setting. The method of this study was focused on patients that had already fallen during admission compared to a control group that had not fallen. The patients were identified through the International Classification of

Diseases (ICD-9) code of heart failure or diabetes (Swartzell, Fulton, & Friesth, 2013). The conclusions of that article indicated that the HFRM score was significantly related to falls in the sample of patients with diabetes. Though an assessment is unable to be 100% accurate, this assessment can act as a starting point for the nurse to monitor different patients' more closely. The study also offers insight that a key to preventing falls at a hospital lies in addressing how the environment creates risk and how to improve upon the ability to assess the risk (Swartzell et al., 2013). The main concepts that are intertwined between all these articles state that the most effective assessment tool and scale for fall risk patients is the HFRM when compared to the MFS.

Clinical Microsystem Assessment

Purpose

The goal of this large metropolitan hospital is to continue to heal and improve the quality of life to members in the community. The specifics of the medical-telemetry unit are to carefully monitor patients who need specialized cardiac care. After meeting with the unit managers and patient safety officers of a large metropolitan hospital in regards to a medical-telemetry floor, it was determined the MSN/CNL students were going to conduct a thorough evaluation of the current fall assessments. The staff requested an assessment on the effectiveness and use of the Morse Fall Scale to gain a better understanding of how often current fall risk prevention interventions are taking place on the patients that are classified as a fall risk. Lastly, the team wanted these MSN students to collect data on how effective reporting between nurses on shift change is being communicated. These items will all contribute to the important root cause analysis which will assist in determining the best intervention to address the need for a reduction in the number of falls.

Patient Population

The most common patient population on a telemetry floor are patients that are in need of closer cardiac monitoring. Many times, these are the patients that are in need to continuous cardiac monitoring. The most common diagnosis that are seen on a telemetry unity includes chest pain, congestive heart failure, acute coronary syndrome, hemorrhage, arrhythmia, syncope, acute cerebrovascular disease, pulmonary disease/respiratory distress, electrolyte disorders, and sepsis (Chen & Hollander, 2007). Each patient on a telemetry unit can be categorized into a rating system by the American College of Cardiology Emergency Care Committee, Class I: Cardiac monitoring is indicated, Class II: Cardiac monitoring may be of benefit, and Class III: Cardiac monitoring is not indicated (Drew et al., 2004). The American heart association has established a set of criteria that a patient must meet in order to qualify for ECG monitoring. The criteria have been divided into 4 broad rationales. The first criteria would be under arrhythmia monitoring is the immediate recognition of sudden cardiac arrest. The second criteria that meets the need is the recognition of a deteriorating condition, for example the development of life-threatening arrhythmias. The third goal that continuous ECG monitoring would help facilitate is the management of arrhythmias, and lastly ECG would aid in the diagnoses of arrhythmias that cause symptoms such as syncope or palpitations (Sandau et al., 2017).

Alone from this criterion it can be determined that the patients within this microsystem are considered highly acute, making fall risk a more common problem. The use of the medical-telemetry unit can often consist of patients that are not directly acute, it is necessary to distinguish patients that do not need cardiac monitoring. Those diagnosis that are to be considered under class III. More evidence is being conducted in which patients are being over-monitored, particularly those who are diagnosed and admitted for chest pain (Durairaj et al.,

2001). Within this microsystem the patients are higher acuity and the healthcare providers must be mindful of the type of data that may be useful to assess for relevant changes. When a patient is considered needed under the criteria of being monitored closer with an ECG machine, attention of other patients that the nurse is looking after may be taken away.

Professionals

There are many different professionals that make up the unit within this large metropolitan microsystem. This 61-bed unit is comprised of many different healthcare professionals that assist to keep up with the demands that this unit requires. Within this unit are unit managers, registered floor nurses, charge nurses, and nursing assistants. Each title has its own set of responsibilities and tasks that are completed under that position. During a twelve-hour shift, there is one charge nurse, 12 to 15 nurses on the unit floor, and 3-4 nursing assistants. The charge nurse has more of the administrative responsibilities which include making schedules, informing staff of changes to protocol, maintaining adequate number of supplies on the unit, and plan budgets for the nursing staff and provide clerical assistance. The charge nurse also falls on the duties of being the resource for the floor nurses to rely on when they need assistance with a task or feel overwhelmed with the amount of work they need to get to. Other responsibilities that a charge nurse could take on includes the responsibility of conducting performance evaluations on nursing staff and collaboration with higher management to address and solve problems.

The floor nursing staff have a specific set of guidelines of what is involved within the registered nurse license. The board of registered nursing has a formalized explanation of the scope of practice that a registered nurse would be held accountable for. Those responsibilities are broken down into four different categories; independent functions, dependent functions, interdependent functions, and scope of medical practice. Under the independent functions this

includes insurance of safety, comfort, personal hygiene and performance of disease prevention and restorative measures. Performance of skin tests, immunization techniques and withdrawal of blood from veins and arteries. The dependent functions encompass the administration of medications and therapeutic agents as ordered by a physician. Interdependent functions allow the nurse to make changes and decisions of the plan of care of the patient based on signs and symptoms of illness, physical conditions, and exhibition of abnormal characteristics. Lastly, the scope of medical practice to use drugs or sever or penetrate the tissues and to use other methods in treatment of the diseases, injuries, or other physical conditions (Hartigan, 2016). Nursing assistances are vital members of the microsystem and provide needed support to the registered nurses. They are liable for assisting patients with activities of daily living, bathing, feeling, toileting, walking, re-positioning, recording vital signs, measuring intake and output, transportation of patients, and cleaning and sanitizing patients room and clothing.

Processes

The current processes that are taking place within this medical-telemetry unit to assess each patient for risk of falls is through the use of the Morse Fall Scale. Each patient is assessed once at the beginning of the shift and then continuous assessments are conducted as a shift in the patient's status may change. Other occasions in which a fall risk assessment may be necessary is if the patient is in need of transfer or and the of the discharge to ensure that discharge instructions are accurate and appropriate. The information that each nurse gathers during assessments are then documented into the patient's electronic medical record.

The Morse Falls Scale is a quick and simple tool used to conduct an assessment of the likelihood that a patient will fall. It comprises of six different variables that have predictive validity and evidence based reliability (Sardo, Simões, Alvarelhão, Simões, & Melo, 2016). The

six categories that are evaluated to determine the level of fall risk includes the patient's prior history of falls, obtainment of a secondary diagnosis, the use of ambulatory aids, the need for intravenous therapy, type of gait the patient displays and finally the current mental status. The scores for the patient can range from 0 to 125, the higher the score the higher the risk for falls (Schwendimann, De Geest, & Milisen, 2006). After a patient has been identified has being high risk for falls, the unit has interventions in place that aid in preventing the falls from happening and also providing information for others that this patient is at risk. Those interventions include use of a fall risk sign outside the room, use of non-skid socks, keeping the bed in the lowest position, turning the bed alarm on, yellow wristband with fall risk written, hourly rounding, placing the highest risk patients next to the nursing station, and toileting companion. All of these interventions should be conducted and continually implemented throughout the shift. In addition to the nursing staff being aware of the fall precaution implementations, the nursing assistants will need to be updated about the current status. As mentioned in the previous section, there are many tasks that the nursing assistant completes that involve ambulation of the patient, awareness of the fall risk can improve the chances of the patient having an incident of a fall.

Patterns

There are multiple patterns that occur within this medical-telemetry unit, at the beginning of every shift at 0700 the nurses and nursing assistants come together to go over the goals and current updates of the shift, a meeting that is led by the charge nurse. After this huddle occurs, the ongoing nurse and off going nurse come together for change of shift report. During these reports either an updated account is stated or a complete summary of that patient is give. Specific to this MSN's project, status of the patient's fall risk is also communicated between the nursing staff, although this does not happen every exchange.

Other patterns were not able to be assess completely due lack to IRB approval. These observations would have occurred during the change of shift report for both day and night shift. This MSN student would have witnessed the communication between the nursing staffs, as well as the nursing staff and nursing assistants. Also, this MSN student would have assessed the current patterns of how each patient is assessed for the level of fall risk using the Morse Fall Risk Scale.

Methods

The organization that this project was taking place has had a firm non-negotiable policy on writing an Institutional Review Board (IRB) the methodology portion of project was not completed due to lack of IRB approval. The process of IRB writing was long and with many different revisions. Instructions on the process of writing and what needs to be included were lacking transparency. The first draft that was constructed was based on an example that was provided by the facility. This example was followed thoroughly with collaborations of all members of the project and then the draft was sent to the research facilitator/nurse safety officer for further revision and editing. The first meeting that occurred to speak with the members of the unit of the quality improvement project was on September 21, 2017 during the Unit Based Council Meeting. During this meeting, the MSN students presented the proposed project along with goals and objects that were hoped to be achieved. This was followed up a discussion about the further revision needed of the IRB that had been sent in. Instructions were provided to include further details in the procedure section, which includes review of the electronic health records, observation procedures, staff interview procedures, patient interview procedures, and lastly data analysis. Our final meeting that occurred with members of the large metropolitan hospital was at the Research-based Council meeting. The function of this meeting was to present

to the research council the steps and reasons for the need of this project. The matters presented include the background and problem, data collection and synthesis, and possible interventions. This meeting seemed to be successful though it seemed that the council may have had a hard time understanding that this was not a research project. Questions about an inclusion/exclusion criteria were asked, something that is only included upon a research project. Please refer to Appendix B for final draft of IRB. The conclusion of all the meetings and revisions resulted in lack of approval in time to conduct a root cause analysis or proper assessment of the microsystem.

This is the methodology that would have been implemented upon IRB approval using translational science from data provided by USF.

The MSN students would have completed 12 on-site 12 hour shifts to conduct a throughout microsystem assessment and completion of the root cause analysis. Six of the shift would have been completed during the day and the other six would be completed during night shift. Times of concentrated observation would have been during change of shift and initial assessments of the patients. Perceiving the current processes taking place to communicate fall risk among healthcare providers and the procedures in assessment of the patient's risk of falling. Additionally, nursing staff and patient interviews were to be conducted and data collection on how falls assessments are documented. During nurse interviews, the focus of questions was on acquiring information about the current status and exploration of their perspective of all aspects of falls. Example questions include *Do you find that patient's family and friends understand that their loved one or friend is a fall risk and what that means specifically?* Or *Do you find that*

more patents fall during change or shift or during your breaks? For full list of questions please refer to appendix C. The patient interviews will take an altered approach, the interview questions are to gain an understanding of the level of comprehension the patient acquired about their risk of falls. Some example questions include *Did the nurse provide you with instructions for getting up to use the restroom?* Or *when you feel dizzy from standing, did the nurse speak to you about how you should react?* The use of these questions will provide an assessment of how adequate the current teaching on the floor is being conducted.

Once both assessment of the current understanding and policies are conducted, the MSN students will follow each nurse on the unit to assess the nurse's input for the use of the Morse Fall Scale. The MSN student will conduct an initial assessment of the nurse's use the MFS and determine how the assessment is being charted.

Results

Root Cause Analysis

The root cause analysis (RCA) that was conducted was based on data that University of San Francisco has provided due to the lack of IRB approval. The MSN student used the data provided to speak about what interventions would have taken place in the planning, implementation, and evaluation of this quality improvement project.

The goal of this quality improvement project is to have the MSN students provide an analysis of the data of assessments of falls, the communication between staff, and the current processes of documentation. Table 1 (Appendix D) provides that was collected from a comparable metropolitan hospital. There was a total of 5 shifts that were observed, 3 of them had occurred during the AM shift, and 2 shifts had occurred in the PM. Between the 3 different AM shift, 44 of the patients were identified as being a fall risk. The two night shifts have identified

34 patients as being classified as a fall risk, both shifts had totaled to 78 patients. There was a higher average number of fall risk patients during the day shift at 17 compared to the average number of fall risk patients during day at 14.6. Described in Table 2 (Appendix D) the data collected reflects the risk factor assessment composition, breaks down the different elements that are needed to be communicated during assessment of the patient. The most common data that was observed included patients level of orientation and cognition (78%), continence status (72%), number and types of prescribed medications (60%), number of diagnoses (45%) and gait and balance (42%). The final table 3 (Appendix D) provides data of the fall risk interventions that had been implemented during the 5 shifts observed. The data has revealed that 36% of nurses placed all three side rails up, 63% of nurses positioned the fall risk sign outside the door, 7% has activated the bed alarm, and 36% had placed the call light within reach.

The data reflect on these tables is an indication that the nurses at this large metropolitan hospital are lacking compliance to the interventions that assist to prevent falls currently in place. This root cause analysis has indicated that essential portions of the nursing falls assessments are not being performed at a high enough standard and that once the assessment of fall risk was diagnosed interventions to prevent falls were not executed per hospital policy.

Implementation

In absence of real data from the microsystem, alternate data will be used to provide the implementations that would have been conducted has time permitted. The collection of data thus far has been based on the observation of registered nurse's assessment of fall risk using the Morse Fall Risk Scale, documentation of the fall risk status in the electronic medical records, and the communication between nurses during change of shift. The most appropriate intervention to accomplish the goal of a reduction in the number of falls would be education of the nursing staff

on how to properly assess for falls. The educational endeavor would attempt to train nurses on the evidence-based Hendrich Fall Risk Model, followed up with observation of its proper use.

This MSN student applies Kotter's eight step change model to systematically approach the completion of the educational project with the use of Just-In-Time Training. The first step is to increase urgency, an assessment of the microsystem will be conducted to compile data on patient falls (incidence reports, staff and patient surveys, item analysis, and RN assessment observations) and present the problem of incorrectly done Morse Fall Scale assessments, how it contributes to patient falls, and the consequence of patient falls. This microsystem consists of 60 nurses, each MSN student will be working with 8 different nursing staff members to complete both the assessment and training. Times of collaboration would include change of shift, huddle, and RN fall assessments of patients. The second step is to elicit executive and peer sponsorship, in this step this MSN student would establish a group that would be committed to the process improvement of patient falls, including unit managers, senior management, nurses, and nursing assistants. The third step is to set the vision, this will be achieved through conduction of an end goal; clear understanding from staff on how to correctly conduct the Hendrich Fall Risk Model and a reduction in patient fall incidents and determine method of implementing change (Just-In-Time Training). Step four is to communicate for buy-in, this MSN student would communicate the vision and goal with staff and managers of the unit and ensure understanding of the process of Just-In-Time Training. Step five is to empower employees to implement the change, this step would require removal of barriers to encourage participation in the training process. Step six is to create short term wins, the short-term bench mark would be to check off staff on the Hendrich Fall Risk Model assessment competencies and observing for a reduction in patient falls within a month of Just-In-Time Training. The seventh step is focused on consolidating gains and

producing more change, this would be accomplished with the continuation of accomplishing more short-term goals over time to establish motivation to continue quality improvement and change in practice. The last step in Kotter's for change is to make the change stick, this will be completed with the continued effort to evaluate and motivate staff with performing an efficient Hendrich Fall Risk Model assessment so that it becomes a natural part of the microsystem's protocol.

The overall goal of this implementation is to provide proper education to healthcare staff providing care for patients about the proper assessment using the Hendrich Fall Risk Model through the Just-In-Time Training.

Cost Analysis

The current costs of patient falls are enormously high, as stated in the statement of the problem. Nationwide the most recent figures from 2015 to $37.5 billion for fatal injuries and $31.3 billion for non-fatal injuries. The cost of this quality improvement project aims to reduce the overall cost to healthcare facilities as a result of falls from injury or non-injury to patients. This MSN student has calculated the total costs Clinical Nurse Leaders accompanying registered nurses for the completion of 120 hours. The coordination, collaboration and communication between members of microsystem would amount to approximately five hours. Ten hours would be dedicated to the planning how to design the educational project to fit all staff participating. The total participating nurses amounts 60, each nurse would require one and half hours of training with three different evaluations. The total time of training for the nurses would amount to 90 hours. Lastly, there will be five hours dedicated to reporting back to the large metropolitan hospital the findings and data collected from the trainings.

The final number of hours that all the planning, organization, and training is 230 hours for all 60 registered nurses. The role of the Clinical Nurse Leader to fulfill this position would cost $38 per hour, totaling $8,740. Additional costs would come from the stake holders' participation in meetings and collaboration of the project. Since this work is being conducted my members of the MSN-CNL USF nursing students, this would amount to no cost of the healthcare facility, this would ultimately save this large metropolitan $8,740.

It has been described by the CDC that the average cost for a fall in an inpatient setting is $30,000. With the described cost for the implementation of this MSN's quality improvement project, the return investment would amount to $3.40 for every dollar spent. The time when the most amount of money being spent it within the first year, every year after that would only require money for retraining and evaluation.

Evaluation

The data that was provided from the University of San Francisco discloses that the nursing staff within that facility were not properly trained in the utilization of the Morse Fall Scale. The data shows that the nurses are also lacking compliance with the current healthcare policies, those that include putting three side rails up, posting the fall risk sign on the door and activation of the bed alarm. The need for an emphasis of nurse education of assessments is necessary to ensure patient safety and positive outcomes. The goal of this educational quality improvement project is a reduction in the number of falls on the medical-telemetry unit.

The evaluation of the success of this quality improvement project will occur in three different phases. The first phase of the evaluation would occur upon the third encounter as described in the interventions. The MSN student will evaluate the nurse's performance of the Hendrich Fall Risk Model on a patient and ensure that all competencies are met. The guidelines

for the check off would include *Did the nurse ask about history of falls prior to or during hospitalization? Did the nurse assess the patient's extremity strength while sitting?* or *Did the nurse assess the patient's mental status?* The second phase would include providing the patient with a questionnaire to examine if this process met their needs and how well they learned from the Just-In-Time training. This step is critical for if the training does not teach the staff how to properly assess, then the future efforts will be purposeless. The third step of evaluation is providing a questionnaire to gain insight to if the nurses enjoyed this learning process. This step is also important for if the process of learning is not enjoyed then the continued implementation will not be successful.

These three steps will then be followed with an ongoing, though less extensive, evaluation on the Medical-Telemetry unit. The CNL will continue to implement the Hendrich Fall Risk Model correctly and collect data to monitor the correlation to deceased number of falls on the unit.

Discussion

The focus of this discussion is the on the obstacles that lead to lack of ability to carry out the planned quality improvement project due to lack of IRB approval and miscommunication.

The differences between a quality improvement project and a research project is necessary to differentiate. This MSN student found that the large metropolitan hospital that this project was in collaboration with was not able to distinguish between the two different types of projects. A quality improvement project is defined as a systematic, data-driven activities designed to bring immediate improvements in the healthcare settings, this process that incorporates evaluating and learning from experience. When compared to a research project that is a systematic investigation that includes research development, testing, and evaluation to

contribute to the generalizable knowledge ("Quality Improvement vs Research | CHOP Institutional Review Board," n.d.). Further differences between the two types of projects include the design, in a research project there is a rigid protocol that needs to be followed that remains unchanged throughout the project. Comparatively to a quality improvement design that is adaptive and has the ability to change. One last comparison is that within a research project there is the possibility that the subjects may be placed at risk.("Quality Improvement vs Research | CHOP Institutional Review Board," n.d.).

The complexity of carrying out this project would have been difficult to manage due to the multiple functioning parts. Some of the committees that this MSN student would have needed to collaborate with, for example the falls committee, meets only once a month making communication challenging. Additionally, the task of bringing together all key stakeholders in one official meeting would be extremely taxing due to all the various schedules needed to take into consideration. Though this project is multifaceted and requires a lot of time and effort, it a critical role that the Clinical Nurse Leader has dedicated to for the improvement of patient safety. The timeline of the project would accumulate to 230 hours of labor for the implementation of the Just-In-Time Training. That would require 6 weeks of full time work, 5 days a week for 8 hours a day for the full implementations of the project from start to finish.

The role of the Clinical Nurse Leader is an essential role for the completion of this project, a role that is completely dedicated to quality improvement. Coordination, collaboration, communication, and evaluation are all steps that need to be taken by the CNL to ensure the success of this project. The coordination among all the stake-holder of the unit is required by the Clinical Nurse Leader to confirm the proper buy-in is met and the project is support by the members of the microsystem. The CNL then collaborates with the nursing staff to work together

to ensure the project is feasible and ownership is given to team. Communication is key to make certain that all members of the project are being given up to date information and unit of vision is created. Lastly, evaluation during every milestone of the project will be necessary to reflect on the progression toward the end of a reduction in the number of falls within a Medical-Telemetry Unit.

Nursing Relevance

This MSN's student project is focused on the improvement of nursing practice regrading fall preventions. The intervention of education of nursing staff on proper fall assessments will contribute to many nursing tasks, this includes the increase of patient safety. Overall, this project will have the goal of a reduction in the number of falls, which directly increases patient safety. The current patterns of assessment are that nurses rely on the pervious nursing assessment of the patient instead of a conduction of an assessment of their own. Per hospital policy, assessment should be occurring at change of shift, during transportation, and right before discharge. If these assessments are not occurring at the appropriate times, this places the patient at risk and doesn't ensure that the nurses are following patient advocacy for ambulation abilities.

Other aspects of this quality improvement project that is has nursing relevance is that it highlights the importance of re-education to patients about fall risk status. As each nurse cares for a new patient, emphasis of the education of the patient's fall status is critical and helps guarantee the compliance of the patient to their plan of care. Re-education could include the clarification of what their fall risk status means and the current directions in place to assist them to ambulate or ask for assistance. Fall risk patients should be a priority to nursing staff for a fall causes harm to patient, families and hospitals, even if no physical injury has occurred.

Healthcare facilities desire that patients are discharged with an improvement of health and proper assessment of falls with contribute to that goal.

Clinical Nurse Relevance

The Clinical Nurse Leader expertise is a valuable asset to the clinical microsystem for a number of reasons. The first reason is that CNLs possess the formal training and clinical expertise to improve processes within a microsystem. Within the CNL curriculum the training and education is focused on advance pathophysiology and assessment, improvement science, financial resource management, healthcare systems leadership, and healthcare informatics. The CNL's position is dedicated to working exclusively on improving workflow and the work environment. A total of 530 hours (300 CNL student hours and 230 hours for implementation/evaluation) would be required to complete this project. This equates to 3.3 months of full-time work exclusively on this quality improvement project. Even nurse managers, CNSs, floor nurses and the quality improvement department do not have the time to take on this level of dedication and responsibility. This quality improvement project is not just limited to this large metropolitan hospital, falls occur at all healthcare facilities and is a need for all to address. The process of this project with the support of clinical staff and leadership of a CNL could be conducted at any healthcare facility.

Future Directions

Clinical Nurse Leader Perspective

The biggest obstacle that did not allow this MSN student to carry out the plans of the quality improvement project was the lack of communication and understanding that the large metropolitan healthcare facility had regarding the purpose and process of this project. Understanding the differences between the steps that are required to carry out a research project

compared to a quality improvement project. Though the processes learned from the steps completed for the submission of an IRB was valuable, the process was time consuming and may not have been necessary for a quality improvement project. The future direction that this MSN student hopes is that the process of the IRB approval is either eliminated or expediting the process so that the implementation can begin. The overall experience was one of great learning of the many steps and details that are required to obtain IRB approval, though there was a level of disappointment due to the inability to carry out our proposed plans. The flexibility of the plan can also be altered with any changes that occur within the microsystem allowing future nursing students to make changes as they encounter them.

Sustainability plan

Suggestions for students that are carrying out the project in the future would include being more inclusive with other members of the interdisciplinary team. Those members include but are not limited to, the certified nursing assistant, physical therapists, occupational therapists, doctors, and nurse practitioner. Having an increased focus on performance-improvement, this would intend that the MSN student implement strategies proposed and evaluate its effectiveness. As stated in the Clinical Nurse Leader perspective, getting the IRB waived since this does not fall within the scope of practice for the MSN-CNL student. Further analysis of the hospital polices, diligent inspection of the healthcare facilities protocols on falls prevention per specialty will assist to measure the risk and outcomes of falls per microsystem. The final suggestions for future MSN students to carry out the use evidence-based practices that have shown to be effective through research, this will allow nurses to better advocate for patients and provide higher quality of care.

Conclusion

In conclusion, although the project did not gain IRB approval, the quality improvement process was followed. A plan was created with the MSN-CNL students and the plan was edited many times to ensure quality. The difference between research project and quality improvement project was understood. The University of San Francisco data revealed improvements after implementation of the project.

References

A case for chaos theory in nursing. (2001). *Australian Journal of Advanced Nursing, The*, (3), 14.

Burns, E. R., Stevens, J. A., & Lee, R. (2016). Special Report from the CDC: The direct costs of fatal and non-fatal falls among older adults — United States. *Journal of Safety Research*, *58*, 99–103. https://doi.org/10.1016/j.jsr.2016.05.001

Chen, E. H., & Hollander, J. E. (2007). When Do Patients Need Admission to a Telemetry Bed? *Journal of Emergency Medicine*, *33*(1), 53–60. https://doi.org/10.1016/j.jemermed.2007.01.017

Colón-Emeric, C. S., Ammarell, N., Bailey, D., Corazzini, K., Lekan-Rutledge, D., Piven, M. L., ... Anderson, R. A. (2006). Patterns of Medical and Nursing Staff Communication in Nursing Homes: Implications and Insights From Complexity Science. *Qualitative Health Research*, *16*(2), 173–188. https://doi.org/10.1177/1049732305284734

Currie, L. (2008). Fall and Injury Prevention. In R. G. Hughes (Ed.), *Patient Safety and Quality: An Evidence-Based Handbook for Nurses*. Rockville (MD): Agency for Healthcare Research and Quality (US). Retrieved from http://www.ncbi.nlm.nih.gov/books/NBK2653/

Drew, B. J., Califf, R. M., Funk, M., Kaufman, E. S., Krucoff, M. W., Laks, M. M., ... Hare, G. F. V. (2004). Practice Standards for Electrocardiographic Monitoring in Hospital Settings: An American Heart Association Scientific Statement From the Councils on Cardiovascular Nursing, Clinical Cardiology, and Cardiovascular Disease in the Young: Endorsed by the International Society of Computerized Electrocardiology and the

American Association of Critical-Care Nurses. *Circulation*, *110*(17), 2721–2746. https://doi.org/10.1161/01.CIR.0000145144.56673.59

Durairaj, L., Reilly, B., Das, K., Smith, C., Acob, C., Husain, S., … McNutt, R. (2001). Emergency department admissions to inpatient cardiac telemetry beds: a prospective cohort study of risk stratification and outcomes. *The American Journal of Medicine*, *110*(1), 7–11.

Hartigan, C. (2016). Scope of Practice. *Critical Care Nurse*, *36*(5), 70–72. https://doi.org/10.4037/ccn2016325

Ivziku, D., Matarese, M., & Pedone, C. (2011). Predictive validity of the Hendrich fall risk model II in an acute geriatric unit. *International Journal of Nursing Studies*, *48*(4), 468–474. https://doi.org/10.1016/j.ijnurstu.2010.09.002

Nassar, N., Helou, N., & Madi, C. (2014). Predicting falls using two instruments (the Hendrich Fall Risk Model and the Morse Fall Scale) in an acute care setting in Lebanon. *Journal of Clinical Nursing*, *23*(11-12), 1620–1629. https://doi.org/10.1111/jocn.12278

Quality Improvement vs Research | CHOP Institutional Review Board. (n.d.). Retrieved December 9, 2017, from https://irb.research.chop.edu/quality-improvement-vs-research

Sandau, K. E., Funk, M., Auerbach, A., Barsness, G. W., Blum, K., Cvach, M., … Wang, P. J. (2017). Update to Practice Standards for Electrocardiographic Monitoring in Hospital Settings: A Scientific Statement From the American Heart Association. *Circulation*, *136*(19), e273–e344. https://doi.org/10.1161/CIR.0000000000000527

Sardo, P. M. G., Simões, C. S. O., Alvarelhão, J. J. M., Simões, J. F. F. L., & Melo, E. M. de O. P. de. (2016). Fall risk assessment: retrospective analysis of Morse Fall Scale scores in

Portuguese hospitalized adult patients. *Applied Nursing Research*, *31*(Supplement C), 34–40. https://doi.org/10.1016/j.apnr.2015.11.013

Schwendimann, R., De Geest, S., & Milisen, K. (2006). Evaluation of the Morse Fall Scale in hospitalised patients. *Age and Ageing*, *35*(3), 311–313. https://doi.org/10.1093/ageing/afj066

Swartzell, K. L., Fulton, J. S., & Friesth, B. M. (2013). Relationship Between Occurrence of Falls and Fall-Risk Scores in an Acute Care Setting Using the Hendrich II Fall Risk Model. *MEDSURG Nursing*, *22*(3), 180–187.

The Joint Commission. (2015, September 28). Preventing Falls and fall-related injuries in health care facilites. Retrieved November 21, 2017, from https://www.jointcommission.org/assets/1/18/SEA_55.pdf

Appendix A

Hendrich II Fall Risk Model		
RISK FACTOR	RISK POINTS	SCORE
Confusion/Disorientation/Impulsivity	4	
Symptomatic Depression	2	
Altered Elimination	1	
Dizziness/Vertigo	1	
Gender (Male)	1	
Any Administered Antiepileptics (anticonvulsants): (Carbamazepine, Divalproex Sodium, Ethotoin, Ethosuximide, Felbamate, Fosphenytoin, Gabapentin, Lamotrigine, Mephenytoin, Methsuximide, Phenobarbital, Phenytoin, Primidone, Topiramate, Trimethadione, Valproic Acid)[1]	2	
Any Administered Benzodiazepines:[2] (Alprazolam, Chloridiazepoxide, Clonazepam, Clorazepate Dipotassium, Diazepam, Flurazepam, Halazepam[3], Lorazepam, Midazolam, Oxazepam, Temazepam, Triazolam)	1	
Get-Up-and-Go Test: "Rising from a Chair" If unable to assess, monitor for change in activity level, assess other risk factors, document both on patient chart with date and time.		
Ability to rise in single movement - No loss of balance with steps	0	
Pushes up, successful in one attempt	1	
Multiple attempts but successful	3	
Unable to rise without assistance during test If unable to assess, document this on the patient chart with the date and time.	4	
(A score of 5 or greater = High Risk)	TOTAL SCORE	

On-going Medication Review Updates:

1. Levetiracetam (Keppra) was not assessed during the original research conducted to create the Hendrich Fall Risk Model. As an antieptileptic, levetiracetam does have a side effect of somnolence and dizziness which contributes to its fall risk and should be scored (effective June 2010).
2. The study did not include the effect of benzodiazepine-like drugs since they were not on the market at the time. However, due to their similarity in drug structure, mechanism of action and drug effects, they should also be scored (effective January 2010).
3. Halazepam was included in the study but is no longer available in the United States (effective June 2010).

Morse Fall Scale

Item	**Item Score**	**Patient Score**
1. History of falling (immediate or previous)	No 0 Yes 25	_____
2. Secondary diagnosis (≥ 2 medical diagnoses in chart)	No 0 Yes 15	_____
3. Ambulatory aid None/bedrest/nurse assist Crutches/cane/walker Furniture	 0 15 30	_____
4. Intravenous therapy/heparin lock	No 0 Yes 20	_____
5. Gait Normal/bedrest/wheelchair Weak* Impaired†	 0 10 20	_____
6. Mental status Oriented to own ability Overestimates/forgets limitations	 0 15	_____
Total Score‡: Tally the patient score and record. <25: Low risk 25-45: Moderate risk		_____

Item	Item Score	Patient Score
>45: High risk		

* Weak gait: Short steps (may shuffle), stooped but able to lift head while walking, may seek support from furniture while walking, but with light touch (for reassurance).

† Impaired gait: Short steps with shuffle; may have difficulty arising from chair; head down; significantly impaired balance, requiring furniture, support person, or walking aid to walk.

‡ Suggested scoring based on Morse JM, Black C, Oberle K, et al. A prospective study to identify the fall-prone patient. Soc Sci Med 1989; 28(1):81-6. However, note that Morse herself said that the appropriate cut-points to distinguish risk should be determined by each institution based on the risk profile of its patients. For details, see Morse JM, , Morse RM, Tylko SJ. Development of a scale to identify the fall-prone patient. Can J Aging 1989;8;366-7.

STRATIFY Risk Assessment Tool

Answer all five questions below and count the number of "Yes" answers.

1	Did the patient present to hospital with a fall or has he or she fallen on the ward since admission (**recent history of fall**)?	Yes = 1	No = 0
2	Is the patient **agitated**?	Yes = 1	No = 0
3	Is the patient **visually impaired** to the extent that everyday function is affected?	Yes = 1	No = 0
4	Is the patient in need of especially **frequent toileting**?	Yes = 1	No = 0
5	Does the patient have a combined **transfer and mobility** score of 3 or 4? (calculate below)	Yes = 1	No = 0

<table>
<tr><td>1</td><td>Did the patient present to hospital with a fall or has he or she fallen on the ward since admission (recent history of fall)?</td><td>Yes = 1</td><td>No = 0</td></tr>
<tr><td rowspan="3"></td><td>Transfer score: Choose one of the following options which best describes the patient’s level of capability when transferring from a bed to a chair:

0 = Unable
1 = Needs major help
2 = Needs minor help
3 = Independent</td><td rowspan="3"></td><td rowspan="3"></td></tr>
<tr><td>Mobility score: Choose one of the following options which best describes the patient’s level of mobility:

0 = Immobile
1 = Independent with the aid of a wheelchair
2 = Uses walking aid or help of one person
3 = Independent</td></tr>
<tr><td>Combined score (transfer + mobility): _____</td></tr>
<tr><td colspan="4">Total score from questions 1-5: _____

0 = Low risk
1 = Moderate risk</td></tr>
</table>

1	Did the patient present to hospital with a fall or has he or she fallen on the ward since admission (**recent history of fall**)?	Yes = 1	No = 0
2 or above = High risk			

Appendix B

IRB Fall Prevention Plan Proposal

Background

The adverse event of a patient fall, regardless of the outcome, has the potential to cause physical and emotional harm to patients, staff, and the organization. In-hospital patient falls are the leading cause of injuries among the older population and can lead to patient injuries, prolonged hospital stays, and higher costs to the institution of care (Dunne, Gaboury, & Ashe, 2014). The American Nurses Association defined a fall in 2008 as an unplanned descent to the floor with or without injury to the patient (Anderson et al., 2008).

Falls among hospitalized patients are issues experienced at national level. Between 700,000 and 1,000,000 falls occur in hospitals every year. More importantly, approximately 30-35% of these falls result in injury and 11,000 falls result in death (Health Research & Educational Trust, 2016). Negative consequences of falls to patients include emotional harm, physical injury, and increased risk of hospital-acquired illnesses, prolonged hospital stays, and fatalities. Even falls that cause no physical injuries can cause harm, as the trauma from the adverse event can cause functional decline and fear related to events surrounding the fall, such as toileting. However, patient falls also impact the staff and organization as they contribute to emotional distress and increased hospital costs. In 2012, fatal falls resulted in $616.5 million and non-fatal falls resulted in $30.3 billion in direct and indirect healthcare costs. These costs increased in 2015 to $637.7 million for fatal falls and $31.3 billion for non-fatal falls (Burns, Stevens, & Lee, 2016). A multitude of factors contribute to patient falls including issues with communication, medication, education, call-light response, toileting, and fall assessment.

At St. Joseph Hospital, falls on the medical-telemetry unit have slightly increased since fiscal year 2016. The unit reported 31 falls in fiscal year 2016 and 36 falls in fiscal year 2017. The falls were categorized by levels: Level 1 falls had no physical harm, Level 2 falls had only minor physical harm, Level 3 falls required sutures, Level 4 falls resulted in a fracture, and Level 5 falls resulted in death. In fiscal year 2016, there were 24 reported Level 1 falls, 6 reported Level 2 falls, and 1 reported Level 3 fall. In contrast, fiscal year 2017 had 27 Level 1 falls, 8 Level 2 falls, and 1 Level 3 fall.

Falls cause potentially serious consequences that affect patients, providers, and the organization. Fall prevention programs serve to decrease the incidence of falls and, subsequently, reduce the potential for harm or injury. Proper and consistent assessment of every patient identifies risk factors associated with falls and allows providers to implement fall prevention interventions. Even though there is a general fall prevention protocol at St. Joseph Hospital, there is none specific to the medical-telemetry unit. The falls data on this unit demonstrates a need for an in-depth analysis of the problem and possibly modifications in the current fall prevention policy.

Policy

Per St. Joseph Fall Risk Assessments and Interventions protocol patients are assessed for fall risk by using the Morse Fall Assessment Risk Tool. The assessment occurs upon admission, during transfer, once a shift, and post-fall during hospitalization. Fall assessments are documented in the patient's record and fall prevention strategies are initiated based on the findings.

Problem Statement

The medical-telemetry unit at St. Joseph Hospital has experienced an increase in patient falls since fiscal year 2016.

Project Goal

The project's overarching goal is to utilize he information obtained from literature reviews, retrospective data analysis, observational studies, and patient and staff interviews to assist in a determination of the causes of falls on the telemetry unit and identify gaps in the current fall prevention protocol, A detailed assessment, a comprehensive root-cause analysis for patient falls and RN practices on the medical-telemetry unit will be completed. Based on findings, an evidence-based practice program will be suggested to decrease the incidence of patient falls.

Research Questions

1. Does fall pattern analysis reveal patient interventions that can prevent falls and increase patient safety?
2. Can Morse Fall Scale (MFS) help predict risk for falls on the telemetry unit at St. Joseph's Hospital?
3. Are the current fall protocol assessments and interventions followed per policy?

Procedure

This project will involve four separate data collection strategies, retrospective review of the electronic health record (EHR), observation of staff (RNs and nursing assistants), nursing interviews, and patient interviews.

Review of the EHR:

1. Evaluation of falls that occurred between fiscal year 2016 to present will be analyzed by performing a retrospective chart review. A total of 22 falls occurred from 2016 to present time.
2. An initial list of patients experiencing falls will be obtained from the Quality Management Department and/or patient safety officer. This list will have patient names, medical record numbers, date/time of fall a rating of the fall level, and circumstances surrounding the fall.
3. The co-investigators will create a 52-item data collection sheet that will be used to guide a review of the electronic health record and provided information. Patient names, medical record numbers, and other patient identification data will be omitted. The initial list with patient identifiers will be destroyed.

Observations Procedures

1. Staff will be informed that there is a quality management project occuring on the unit and that graduate nursing students will be observing communication and behaviors related to patient fall risk.

2. During change of shift co-investigators will observe the process and interactions among nurses and nursing assistants (guidlines for onsite-observations appendix B). Change of shift will be observed during day and night shifts.
3. Observers will "tally" interactions (communication and behaviors) on a data collection form.
4. Co-investigators will specifically focus on the information exchanged regarding fall risk..
5. Nurse and nursing assistant identification will be omitted from the data.
6. Use of guidelines will help to ensure co-investigator observations are consistent among observers.
7. Observation will occur continuous regarding the following
    a. Time for health care provider to respond to call lights or IV alarms.
    b. Patient tolieting time and the location of staff while patient is using the toliet.
    c. Changes in the patients' status regarding consiousness, over and under medication, acute patien sedation, nutrition imbalances, acute pain sedation/medication, cardiac status).

Staff Interviews Procedure

1. Staff interviews will be used to explore perspectives regarding ambulation, call light use, and elimination, while in the hospital setting.
2. Day and night shift RN, NA, and unit secretary staff will be interviewed.
3. No staff identifiers will be collected.
4. Interview guide with questions for staff and patients is attached..

5. A waiver of consent will be sought.
6. Information will only be collected from staff members indicating a willingness to be interviewd.

Patient Interview Procedure

1. Patient .interviews surrounding communication of falls will be conducted with patients who have been previously identified as a fall risk. This will allow investigators to understand if the patient is aware of, understands, and is willing to comply with fall
2. Inclusion criteria for the interveiws will be:
    a. Greater than 18 years of age.
    b. Cognitively intact
    c. English-speaking

    Exclusion:

    a. Patients “In custody” and/or classified as prisoners
    b. Patients who are cognitively impaired
    c. Patients who have a conservatorship.
3. A waiver of consent will be sought. Patients will be asked if they are willing to answer questions about falls and their own fall risk.
4. Data collection will be written on the data collection sheet next to the question. No patient identifiers will be collected.

Data Analysis

1. **Review of EHR** - Retrospective analysis of the chart and provided quality information will be used to describe falls occurring from 2016 to the present. Descriptive statistics with correlation will be used to identify factors related to falls. Linear regression will be used to determine which factors are most predictive of falls.
2. **Observation Procedures** – Graduate students will "tally" behaviors and communication observed. Descriptive statistics will be used to identify communication frequency and patient care related to call bells/IV alarms, and tolieting.
3. **Staff Interviews** – data from staff interviews will be typed and transcribed. Responses will be identified and grouped. Thematic analysis will be conducted to determine nurses/nursing assistants beliefs and understanding of falls, fall risk, and prevention strategies.
4. **Patient Interviews** – data from patient interveiws will be type and transcribed. Responses will be identified and groups. Thematic analysis will be conducted to determine patients' beliefs and understanding of falls, fall risk, and prevention strategies.

Appendix C

Interview Questions

Nursing Staff Questions:

1. What are some interventions most commonly used on this floor for fall prevention? In your opinion, is it effective? Why or why not?
2. What is the protocol used on this floor when a fall occurs?
3. Which patient population do you find to be most at risk for falls? Specifically, what age, gender and diagnosis are the most common.
4. Do you communicate with your patients the importance of using their call light when they need help out of bed? If so, how compliant are they, and what do you think would help them become more likely to comply?
5. Do you find that patient's family and friends understand that their loved one or friend is a fall risk and what that means specifically?
6. What are your feelings about falls? What is the climate on the unit about fall prevention?
7. What are the barriers that you have experienced while implementing the fall prevention protocol?
8. When you are giving a patient medication that might cause them to get up more (i.e diuretics), what interventions do you use to prevent them from falling? Do you feel these interventions are appropriate?
9. Under what circumstances would you implement the need for a patient to have a sitter if they are a fall risk?

10. Do you find that more patients fall during change of shift or during your breaks? Why or why not?

Patient Questions:

1. Do you feel that the nursing staff is communicative with you about the fall risks?
2. Do you understand why you are considered a fall risk?
3. Does your family and friends understand why you are considered a fall risk?
4. How safe do you feel, in terms of risk of falling, with these prevention measures in place?
5. Do you feel that the nurses taking care of you respond to your call light within a reasonable time (1-5 minutes)? Or do you find it taking more than 5 minutes?
6. When you have to use the restroom, knowing you are a fall risk, what is your initial action?
7. Did the nurse provide you with instructions for getting up to use the restroom?
8. Did the nurse communicate the safest way to ambulate?
9. When you feel dizzy from standing, did the nurse speak to you about how you should react?
10. Did the nurse address to you the importance of keeping on your non-slip socks?

Appendix D

Table 1

Number of Fall Risk Patients on a Medical-Telemetry Unit

Data	AM Shift	PM Shift	Total
Number of Shifts Observed	3	2	5
Number of Patients Identified as a Fall Risk	44	34	78
Average Fall Risk Patients per Shift	14.6	17	15.6

Table 2

Fall Risk Factor Assessment Composition

Fall Risk Factor	Percent Communication of Fall Risk Factor During Nursing Assessment
Patients level of orientation and cognition	78%
Continence status	72%
Number and types of prescribed medications	60%
Number of diagnoses	45%
Gait and balance	42%

Table 3

Care Planning Performance

Fall Risk Prevention Intervention	Percent Compliance with Fall Risk Protocol
Three side rails up	36%
Fall risk sign posted	63%
Bed alarm activated	7%
Call light placed appropriately within reach	36%