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Approach to Safety Improvement: Focusing on Better Care

(Fall Prevention in Medical Surgical/Intermediate Care Unit)

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Nursing 653: Internship: Clinical Nurse Leader

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Approach to Safety Improvement: Focusing on Better Care

(Fall Prevention in Medical Surgical/Intermediate Care Unit)

Clinical Leadership Theme

This project requires focusing on the CNL curriculum elements of Nursing Leadership and Care Environment Management. Based on AACN (2013), the skills which promote client-centered healthcare include horizontal leadership, effective use of self, advocacy and lateral integration of care. "Horizontal leadership is the knowledge and ability to coordinate patient care plans through advanced assessment, critical thinking, effective communication and role modeling of care. Effective use of self is being able to manage group processes regarding patient care through means of utilization of culturally and professionally competent communication skills. Advocacy entails interfacing with all interdisciplinary team members and the patient to support quality outcomes that meet the patient's and healthcare team's needs" (p. 3 & 4). Lastly, lateral integration of care advocates the multidisciplinary approach to care practice by pursuing collaboration from the entire care continuum to promote best practice (Bender, Connolly, & Brown, 2013). As a CNL, the goal within the microsystem is to create a process on how to improve patient safety by decreasing the fall episode by 25% by the end of the 1st quarter (September 2016) as compared with the previous quarters (July 2015 to June 2016) in the Medical Surgical/Intermediate Care Unit with the cooperation from the unit's team of registered nurses (RN), certified nursing assistants (CNA), and medical unit clerks (MUC). There will be close monitoring of fall incidence in the unit and if a fall incident occurs there will be an evaluation of potential solutions in preventing that fall incident. The whole team should lead the way in providing a safe environment to all patients by following and practicing the most recent evidence-based guidelines.

Statement of the Problem

Patient safety is the number one concern of any healthcare provider during their patient's hospital stay. "Falling is the most common hospital accident with an incidence of between 4 and 12 per 1000 bed-days and 15% of hospital fallers suffer serious injury" (Barker, Kamar, Morton, & Berlowitz, 2009). Therefore, it is important for all hospital institutions to monitor fall incidences and how to appropriately prevent the patient from falling. "Each year, between 700,000 and 1,000,000 persons fall in United States hospitals. Consequently, healthcare organizations are not reimbursed for these events, further adding to the financial burden placed on institutions" (Cox, Hawkins, Pajarillo, DeGennaro, Cadmus, & Martinez, 2015). Studies have shown that patient-centered proactive hourly rounding has been used to decrease the incidence of fall in an inpatient care setting. In one study, it was "found that a patient-centered proactive hourly rounding program, where leadership and front-line staff were actively involved in program design and unit champions were designated during the project run-in period, significantly reduced inpatient fall rates in an adult medical unit" (Goldsack, Bergey, Mascioli, & Cunningham, 2015).

In the microsystem level, there are numerous impediments that I have witnessed which resulted or could potentially result in the patient from falling in MSU/IMC unit. One is that there is no clear process in identifying potential high risk to fall (HRTF) patients prior to the patient admittance or transfer in MSU/IMC. Another hurdle is that the room location of HRTF patients was away from their primary RN, which limits the visibility factor of the RN to their patient. Also, the team has become too complacent in doing the patient-centered hourly rounding which led to the hourly rounding process not being done routinely. Lastly, both the nursing and medical teams are not compliant in the utilization of all of the fall preventative measures (i.e. SOMA

Enclosure bed, HRTF Door Sign, non-skid socks, bed alarms, etc.). The purpose of this project is to reduce falls and in turn provide a safer environment to all patients and prevent them from developing any potential harm or severe injuries during their hospital stay.

Project Overview

The objective of this project is to have a reduction of fall incidences by 25% by the end of the 1st quarter (September 2016) compared from the previous quarters (July 2015 to June 2016) in the Medical Surgical/Intermediate Care Unit. This process will be successful by re-educating the entire team on the importance of fall prevention, implementation of evidence-based guidelines for preventing falls and the potential cost saving at the microsystem level. The most important aspect of this project is the promotion of patient safety itself. Embarking on such process will not only improve the patient's ability to heal but also improve the morale of the team by feeling proud of the type of service they will provide to all their patients. Part of the plan is to send a survey monkey to determine if the team feels that the fall prevention action plans that had been implemented are working or not. It is crucial based on the survey that if the action plan set is not working to its fullness that it will be modified accordingly. It is important to include the entire team in the planning stage of the project to be successful. Goldsack, et al (2015), stated that "successful programs typically include combinations of strong leadership and support, a culture of safety, front-line staff who are engaged in program design, a multidisciplinary team that guides the prevention program, staff education and training, and changes in pessimistic attitudes toward fall prevention" (p. 25). The specific aim statement for this project is to identify all patients that are high risk to fall (HRTF) prior to their admittance or transfer to MSU/IMC and throughout their hospital stay until they are discharged.

This relates to the global aim statement of "decreasing the fall episode by 25% by the end of the 1st quarter (September 2016) as compared with the previous quarters (July 2015 to June 2016)" by ensuring that the processes and actions plans set are followed routinely by all staff members in the unit.

Rationale

When I conducted the clinical microsystem assessment while utilizing the tools established by the Dartmouth Institute Microsystem Academy for inpatient setting, there were some concerns among the staff members and the unit leadership team on how to improve patient safety (fall episodes) and care being given to patients. Due to the antiquated patient call light system, patient safety is a growing concern. The patient call light was about thirty years old and every time a patient placed a call for help, anyone who answered them from the nursing station had difficulty listening and understanding what the patients were saying. Patient's needs were not being addressed immediately and ending up falling due to the slow response from staff. Fall episodes which are monitored daily and reported on a monthly basis to the Quality Improvement (QI) Department showed a steady trend of fall incidences compared to last fiscal years' data of an average of 4.0 falls per month. (***See Appendix A to refer to the Fall Incidences Data in Medical Surgical/Intermediate Care Unit Table 1***).

Upon doing a root cause analysis (RCA)/Fishbone diagram, the writer was able to determine some factors that contributed to the problem of fall incidences in the unit. Those causes are sub-divided into four categories physical environment, patients, process, and staff. All of these categories play a major role in patient fall incidences. Not a single factor is the sole cause of any fall incident but rather it is the mixture of all factors. (***See Appendix B to refer to the Fishbone Diagram, Appendix D to refer to the Process Map and Appendix E to refer to the***

Medical Surgical/Intermediate Care Unit POD Assignment Layout Diagram). Data from the QI department from July 2015 to June 2016 showed the Medical Surgical and Intermediate Care Unit amounted 47% of the total fall incidences throughout the hospital.

As shown in ***Appendix B***, there were various reasons for these fall incidences, which include low lighting, patient's mentation level, lack of fall prevention process, inconsistency in doing hourly rounding, etc. There were multiple internal and external factors that were identified when the SWOT Analysis was conducted. Three important strengths include the staff commitment to reducing fall incidences, there were fall prevention methods available to staff to utilize, and HRTF patients were discussed/identified during Huddle time. These three factors played a major role in the success of the project as staff had the vested interest in providing a safe environment for all the patients. It was also crucial to communicate with the entire staff members during huddle time the patients who are HRTF to ensure that everyone was aware of the whereabouts of those patients within the unit. Two important weaknesses identified were the lack of consistency in assigning patients close to the room PODS where the nurse is located, and consistency of all staff members doing hourly rounding. These were critical because bed availability was an issue especially when the unit was at full capacity and the next available bed to admit a patient was away from the next admitting nurse room PODS. Complacency in doing the hourly rounding was an issue. Both the nurses and nursing assistants were not routinely doing the hourly rounding process. One opportunity seen was informing patients and families that safety is the unit's priority and their participation is very important. This matter was important because, in July 2016, a confused patient in a SOMA Enclosure bed had a fall due to a family member opening the enclosure bed who lacked the understanding why the patient was inside such type of bed. The threat for this project was nurses were leaving for a better-paying job in

other institutions. This will cause low staffing which could pose low morale due to shifts being understaffed and decrease buy-in in implementing the fall prevention action plans. (***See Appendix C to refer to the SWOT Analysis Diagram***).

Besides the safety aspect that needs to be addressed in promoting a safe environment to our patients, there is also a financial burden that is attached to fall incidences. There is an approximately $19 billion of direct medical costs related to nonfatal falls in 2000 in the U.S. This cost will reach up to $30 billion by 2020 (Towne, Ory, & Smith, 2014). Therefore, it is crucial that hospitals around the nation focus on reducing the incidences of fall. In analyzing the cost, it is important to also calculate how much the hospital will spend in training its staff members. Also, qualitative benefits of reducing fall incidents cannot be quantified by the dollar amount but it needs to be addressed to improve the delivery of care given to patients and promote the culture of safety in the unit. There are steps that could guide the potential cost savings to MSU/IMC over the end of the 1st quarter (September 30, 2016).

Step 1: Calculate your costs: There are 80 RNs that needed to have the 1-hour in-service training with an average salary of $55 per hour, which equals $4400 of productive time. There are 39 ancillary staff members (CNAs, Unit Clerk, and Monitor Techs) that are needed to have the same in-service training with an average salary of $20 per hour, which equals $780 of productive time. The Supervising nurse who will provide the training for 4 days with an average salary of $65 per hour, which equals $260 of productive time. The total expenses for training the entire unit would be approximately $5,440.

Step 2: Calculate your benefits to the employer: the direct cost associated with falls is approximately $17,000 (Towne, et. al, 2014). Every time there is a fall incidence, the patient

needs to have tests such as x-rays, cat scans, or MRIs depending on the severity of the fall to determine if the patient sustains any injuries not visible by the naked eyes.

In regards to the numbers of falls the unit had in the past fiscal year (48 fall incidences), the hospital on an average would have incurred roughly $816,000 of direct medical costs.

Step 3: Calculate Net Benefit: If the unit will decrease the fall incidence by 25% by the end of the 1st quarter of the fiscal year (September 2016) as compared to the previous quarters fiscal year (July 2015 to June 2016) the hospital will save nearly $204,000 of direct medical costs in the beginning of the fiscal year alone. This money could be used and allocated for staff training or improvements of the unit.

Step 4: Qualitative Benefit: Improving the delivery of care given to patients and promoting the culture of safety in the unit cannot have a monetary value attached to it. Instead, there will be a sense of pride amongst the entire team for promoting the culture of safety in delivering care and providing a safe environment for the patients during their entire hospitalization. In addition, another benefit connected to the reduction of fall incidence is the patient's and families' perception towards the unit that the safety of their family member is important to us. These are factors that are priceless which could lead the unit toward a path of excellence. (***See Appendix F to refer to the Projected Cost Analysis of Fall Prevention Project in MSU/IMC Table 2***).

Methodology

In the microsystem, the CNL is accountable for the application and evaluation of evidence-based practices and how each team member is incorporating the new evidence to their current practice. "Introducing any changes within the microsystem, the nurse leaders must

identify a plan for change prior to the initiation of the process. In order to properly institute change, the process of change needs to be planned out thoroughly. Change becomes successful when you have a qualified individual that would bring the importance of why the change is needed in the first place" (Caballes, 2015, p. 6). This would be the sole responsibility of the CNL. The CNL will educate the team members within the microsystem and individuals from senior administration of the proposed plan. Education would include the benefits and barriers that might occur when the change process happens. There are multiple types of change theories to use as guidelines in this project. The writer utilized Kotter's Eight Steps to Change to promote the change process of the fall prevention project. (***See Appendix G to refer to the Kotter's Eight Steps to Change Process Diagram***).

The objective of this project is to have a reduction of fall incidences by 25% by the end of the 1st quarter (September 2016) compared from the previous quarters (July 2015 to June 2016) in the Medical Surgical/Intermediate Care Unit. This project was initially implemented in May of 2015. Through any change process, there had been multiple barriers to fully implementing fall prevention in our unit. This is the reason why the writer is revisiting this project of fall prevention this time around. Prior to implementation of this project back in May 2015, there were numerous discussions among the leadership team on how to properly implement fall prevention in the unit.

In the first step, Kotter suggested that for change to be successful "75% of a group's management needs to buy into the change" (USF, 2014, p. 1). It was clear that there were problems in regards to patient safety as the unit's fall incidence rate amounts 47% throughout the hospital from July 2015 to June 2016. The urgency remains to be present to mandate improvement within the microsystem.

The second step consists of forming a powerful coalition. Forming a coalition with strong leaders is very important. In Grossman and Valiga (2013), leadership is described as "encompassing vision, the ability to communicate effectively, the ability to be steadfast, and the ability to demonstrate positive self-regard" (p. 29). Continuous support from the Chief Nursing Officer (CNO) alongside with the Unit's Director and Nursing Supervisors provides a robust coalition.

The third (vision), fourth (communication), and fifth (enable action/remove obstacles) steps coincide with each other. Creating a vision for change for the microsystem is crucial. The vision should be communicated to the rest of the staff in the unit in a form of in-service or staff meeting forum. Removal of possible obstacles builds on the change process itself. Identifying change leaders within the microsystem such as the Charge Nurses will help deliver the change. Recognizing and rewarding people for making the change to occur. It is important to make the entire team understand and help them see the need for the change. Creating a staff assessment survey will determine the nurse's perspective of the fall prevention action plans.

The sixth step encompasses of creating short-term wins. When short term goal is created, it motivates the entire staff to work harder and because they see results and that all their hard work paid off. In order for people to believe that the change is beneficial, the coalition team must provide the "group a taste of victory early in the change process" (USF, 2014, p. 3). One example of this is recognizing staff members who work hard in promoting the fall prevention action plans. Once the short term goal is achieved, celebrating the achievement in a form of a pizza party for the entire team is crucial. It is important to show them that all their hard work is paying off and appreciated.

The seventh step is building on the change. Once the short-term goal is achieved, it is crucial to analyze what is right and what needs improving within the change process. According to Caballes (2015), bringing in new change agents and leaders at this time will bring new ideas to keep the change process fresh from the mindset of the team members. Continuous monitoring of the fall prevention action plans is important by doing a random audit/observation of the staff members to ensure processes are being followed" (p. 7).

The eighth and final step is to anchor the changes in corporate culture. Kotter reiterated that change "should become part of the core of your organization" (USF, 2014, p. 3). Furthermore, the leaders must continue to support the change for it to stick with peoples' mind.

To execute any change process even the second time around, the writer must present profound evidence to all team members the need for the change that needs to happen prior to implementation. The goal must be clearly shared and understood by all parties involved prior to the initiation of the fall prevention action plans. All staff members must understand how to properly implement fall prevention action plans during their routine nursing care. In addition, staff members must display interest in supporting the processes set in promoting a safe environment for all patients during their hospitalization. Additionally, it is vital to monitor the staff to ensure that the action plans set forth are implemented accordingly on a consistent basis. (***See H to refer to the Fall Prevention Action Plan***).

The data that will be utilized for this project will reflect upon on the number of fall incidences or lack thereof on the daily and monthly basis. As shown in ***Appendix A***, there was a total of 48 fall incidences last fiscal year (July 2015 to June 2016). From the time the re-implementation of the fall prevention actions plans occurred in May 2016, the unit only had 1 fall incidence in June 2016. A fall cross will be utilized and updated by the charge nurse on duty

every midnight to monitor the incidence of fall. (***See Appendix I to refer to the Fall Cross Diagram***). The entire staff members have taken ownership in reducing fall with collaboration and teamwork to ensure a successful process. The unit is now emphasizing HRTF patients during huddle time as communication is a major component in any change process for it to succeed. Continuation of the current process in adhering to the fall prevention action plans will enable the unit to meet its goal of reducing the fall incidence by 25% by the end of the 1st quarter (September 2016).

Data Source/Literature Review

There are a tremendous number of articles available regarding fall prevention programs. A search of the CINAHL database using a PICO search strategy of falls, hourly rounding, fall prevention, huddle, and patient safety was reviewed to evaluate techniques on how to improve patient safety by preventing fall incidences. Ten articles with dates that range from 2013 to 2016 were found and all were timely for the essay and selected for review.

Cangany, Back, Hamilton-Kelly, Altman, and Lacy (2015) discussed their project to decrease the total number of falls by 50% entitling the project as “No Fall Zone” The action plan for this project included a 40-minute video where the video recreated a patient fall which resulted in harm. Also, it was discussed that during the in-service staff education related to the falls policy, documentation requirements, and the Morse Fall Scale (MFS). After the implementation of the intervention, the result was tremendous and the total number of falls, cost of falls decreased. This led to the fall rate below the NDNQI benchmark.

Cox, Thomas-Hawkins, Pajarillo, DeGennaro, Cadmus, and Martinez (2015) discussed in their study the factors which could contribute to falls among hospitalized adult patients. These

factors are extrinsic, intrinsic and workforce factors. They've examined 160 patients who were admitted to the Medical-Surgical Unit over the year 2012. It was found that patient falls during their hospitalization for many reasons. Greater than 25% of falls found in this study was connected to extrinsic factor and environmental hazards. Therefore, prevention plans such as re-orientation of the patient and immediately recognizing the environment hazards should be part of fall prevention. It was also determined in this study that a higher RN ratio significantly decreased the likelihood of falls.

Davis (2015) discussed the benefit of implementation of bed huddle. It was noted that during this process critical information is provided to staff member prior to the start of the shift regarding patient care. Topics discussed are high fall risk patients, the risk for skin breakdown, and any pertinent information needed to assist in patient care. It also stated that awareness of the process is the key to its success. Vital information regarding patient safety and patient-centered care is also conveyed to staff in a systematic approach. Huddle encourages face-to-face communication which helps the staff members to get to know one another, foster an environment where they can work together. Constant evaluation of the huddle process must be done on a continuous basis in based on the needs of the unit. Huddle also provided the staff to circulate ideas toward each other thus delivering the best care possible for all patients.

Dutka (2016) discussed that huddle work for the reason that they establish pattern of practice-level thinking which is "beneficial to the process and because staff learn to think like a team". During huddle time, the team stay informed, review work, make plans, move forward with critical information about the unit that needed to be discussed to staff members prior to the beginning of their shift. It was also discussed the benefits of the huddle as it encouraged team building by allowing the team to meet frequently, allow an organized problem analysis and

empower frontline staff to participate in team meetings. Discussion during huddle time of patient who are HRTF enables the entire staff to be aware and accountable regarding the whereabouts of those patients within the unit.

Dyck, Thiele, Kebicz, Klassen, and Erenberg (2013) discussed the change process that they've used in implementing hourly rounding for Fall Prevention. Tools to conduct the process were developed, reexamined and revised to suit the need of the initiative. The hourly rounding intervention was added to the Fall algorithm protocol. The process of hourly rounding was discussed in the meetings and feedback survey was generated and given to the staff members to determine the appropriateness of the initiative. A 6-minute video regarding hourly rounding and fall prevention strategy was showed to the staff members. Ultimately the initiative produced a positive outcome as it reduced the fall incidences but its sustainability was due to multiple factors. Such as ample preparation time, inquiring assistance from an expert from other organizations, fostering interprofessional collaboration, adopting a creative approach to implementation and staff engagement throughout the process.

Goldsack, Bergey, Mascioli, and Cunningham (2015) discussed two units that were involved in the study in promoting patient-centered proactive hourly rounding. In unit 1, nurse leaders and staff champions were involved in the process from the beginning of the process and in unit 2, the process was introduced to staff for training shortly before the intervention began. The 1-year baseline mean fall rate in unit 1 was 3.9 falls/1,000 patient days and during the project period, the fall rate decreased to 2.5 falls/1,000 patient days (P=0.059). In unit 2, the 1-year baseline mean fall rate was 2.6 falls/1,000 patient days and during the pilot period, it decreased to 2.5 falls/1,000 patient days (P=0.799). It was found that patient-centered hourly

rounding with the support from leadership and front line staff the process became successful which reduced the inpatient fall rates and call bell use in the adult medical unit.

Harris (2015) discussed the benefit of an enclosure bed as an alternative to prevent falls and provide a safer environment to who meets criteria. Indication for the usage of this enclosure bed are patients who are at risk for falls, confused, impulsive, restless, agitated, patients who are unable to ask for assistance or patients who climb out of bed when it's unsafe for them to do so. Enclosure bed has given a calming effect on patients and gives them more freedom than wrist and ankle restraints. It was also stated in this article that in an adult medical-surgical unit more than 200 patients that had used this enclosure bed had no fall episode or injuries. Staff involvement in identifying patient criteria, educating staff, patients, and families about the benefit of utilizing the bed will contribute to the successful implementation of the SOMA Enclosure bed. This provided a fall prevention method that is least invasive and addressed the patient safety aspect in the healthcare continuum.

Hicks (2015) discussed the study of hourly rounding. It was found that hourly rounding has been a key measure in the reduction of falls and overall patient safety of the patient. The study talked over that hourly rounding must happen between the hours of 0600-2200 (every hour) and 2200-0600 the following day (every two hours). This implementation process produced a 39% fall reduction and 36% call light usage reduction. It was described that hourly rounding is an intervention that assists nurses to keep patient safe by proactively meeting their needs. By reducing fall incidence, patient improve their outcomes and lessen the cost related to falls during patient hospitalization. The Center for Disease Control (CDC) database was used in interpreting fall definitions, statistics, and total costs.

Sampels, Twibell, Siela, Sproat, and Coers (2015) discussed the survey that was given to newly admitted patients and their perceptions of falls and the consequences which could lead to fall. The survey concluded that only 75% of patients would seek assistance when they need help. The alarming portion of this article is that acutely-ill patients lack the knowledge of their own limitations and continue to take the risks getting out of bed without asking for assistance from the nursing staff. It was also discussed that repeated re-enforcement to patients of the importance of asking for assistance shown decreased fall incidences.

Urquhart Wilbert (2013) discussed the effectiveness of utilizing a fall prevention program to minimize falls. Data were extracted from patients who fell at the VA Medical Center from January 1, 2009, to March 31, 2010-time period. It was stated in the article that 75% of death in the elderly population are due to falls which are second leading cause of death in the United States. The author also identified that there are multiple risk factors in leading to falling incidences. A major component of it is certain medications such as psychotropic medications have a significant effect in the patient fall episode. Certain medical conditions such disorientation, muscle weakness, depression, dementia along with medication usage revealed a prevalence of falls. Implementation of fall prevention program such as the use of bed alarms, hourly monitoring of patient, patient & family education was effective in preventing fall and reducing serious injuries to patients.

Timeline

This project initially began May 2015 as a result from the concerning fall incidences that the microsystem had amounted to. Due to multiple barriers, the implementation of the initial project did not have a very much success in terms of preventing fall thus reducing the fall incidents. Revisiting this project is important to ensure that the microsystem can promote a safe

environment to all of our patients. There are minimal challenges with this project as the reduction of fall incidences in the unit following a fall prevention action plans are very important to all of the staff members. (***See Appendix H to refer to the Fall Prevention Action Plans and Appendix J to refer to the Fall Prevention Action Plans Timeline Diagram***).

Expected Results

Since the initiation of this project, the entire staff within the microsystem and senior leadership within the macrosystem are closely monitoring the result of this project. Since the implementation of the action plans on May 2, 2016, the microsystem has had one goal achieved of no fall incidence for more than 30 days. It was 40 days after the first occurrence of fall incident happened on June 7, 2016. Although the staff was devastated with this result, it gave them a sense of responsibility and accountability to prevent it from happening again. Since the last fall incident, the unit has had no fall incident for 26 days. The entire staff had been diligently following the fall prevention action plans. In doing so, the unit has encouraged a more cohesive team approach as everyone is expected to do the same exact action in preventing falls.

In continuing the use of the fall prevention action plans, the writer will expect to improve the fall incidents in Medical Surgical/Intermediate Care Unit. The goal of decreasing the fall incidences by 25% by the end of the1st quarter (September 2016) compared from the previous quarters (July 2015 to June 2016) will not only happen but in the long term process the unit will have an image of culture of safety who gives importance to the safety of their patients who they deliver care. Fall incident cannot be eliminated but healthcare providers must attempt to prevent them from happening.

Nursing Relevance

The Centers for Medicare and Medicaid Services (CMS) considers a fall in a hospitalized patient a never-event. It is critical to promote a culture of safety that involves open and effective communication, teamwork, and supportive leadership. Best practices guidelines point toward the direction of using and following fall prevention methods in the acute care setting. In numerous occasions, the writer has stated in this paper that falls cannot be eliminated but by following a process that can positively impact the patient outcome should be pursued to empower our patients by involving them in their own care. A better understanding of the implications of falls of our patients and how to reduce them by following a fall prevention action plans can and will lead in a long run a delivery of care that is exceptionally centered on evidenced-base practice.

Summary

The writer's global aim is to improve the number of fall episodes in Medical Surgical Unit/Intermediate Care Unit by decreasing falls by 25% by the end of the 1st quarter (September 2016) compared from the previous quarters (July 2015 to June 2016). This process will begin with the initial notification that patient will be admitted/transferred to the unit and the process will end with the patient achieving appropriate goals for discharge without any fall episodes. By working in the process, it is expected that there will be an improvement on patient care and efficiency, patient outcomes, teamwork between colleagues. In addition, there will be a decreased or limited episode of fall incidences, decreased the amount of stress on patients, families, and staff, increased the opportunity to assess patient's needs, and lastly increased the opportunity to show patients that "we" as care providers are listening to them.

The actual population in the Medical Surgical/Intermediate Care Unit (MSU/IMC) is from 14 years old up through early 100 years. The types of patients admitted within the microsystem include patients who have endured traumatic episode, surgical/orthopedic

procedure, obstetrics/behavioral patients with underlying medical conditions, cardiovascular, renal, pulmonary, gastrointestinal, and metabolic diseases. Since the fall incidences were on a steady occurrence compared from the previous year, the writer used that urgency to address the safety concern of our patient population. CINAHL was utilized as the writer's primary research database to gather pertinent articles and information on how to implement any changes that are needed on MSU/IMC. The baseline data for this project was there were 48 fall incidences in the fiscal year 2013-2014, 47 fall incidences in the fiscal year 2014-2015, and 48 fall incidences in the fiscal year 2015-2016.

A literature review was conducted to examine the available evidence-based practices that would potentially help in fall prevention. A PowerPoint presentation which included evidence-based educational materials were shown to the entire staff members during a 1-hour in-service training regarding fall prevention. Open communication and discussion of HRTF patients during huddle time prior to the start of the shift at 0645 and 1845 were extremely important. This promoted a culture of awareness and safety for the entire team members.

The evaluation process for this project included doing PDSA cycles and handing out a fall prevention survey to the entire staff members (RNs, CNAs, and Medical Unit Clerks) which had to be returned back to the writer by July 15, 2016. The first PDSA cycle of this project, the writer along with unit supervisor identified the unit goal, gathered research/data, analyzed the research/data collected, and organized all research/data collected. On the second PDSA cycle, the writer continued to organize all research/data collected, then the importance of fall prevention was discussed among the unit champions (Charge Nurses), then all information was disseminated to all staff members and fall prevention action plans were initiated. On the third PDSA cycle, staff buy-in was addressed to ensure the success of the project. The staff members

were prepared for the changes that were about to happen by discussing the action plans during huddle times. Fall prevention survey was then given to entire staff members to determine if the fall prevention action plans that had been implemented are successful in reducing the fall incidences in the unit. Based on the survey result, eighty-five percent of staff members participated had a positive perspective of the process in preventing falls. (***See Appendix K MSU/IMC Fall Prevention Survey and Appendix L MSU/IMC Fall Prevention Survey Results***).

The conclusion and recommendation of this project are that proper identification of HRTF patients prior to admittance or transfer in the unit and continuous utilization of fall prevention action plans will create a safe environment for all patients. This will lead to fewer fall incident that can yield to cost savings and ultimately prevent patients from pain and suffering until they are safely discharged. A better understanding of the implications of fall incidence of our patients and how to reduce them by following a fall prevention action plans can and will lead in a long run a delivery of care that is exceptionally centered on evidence-based practice. The goal was to decrease falls by 25% by the end of the 1st quarter (September 2016) compared from the previous quarters (July 2015-June 2016), so far the unit is reaching that target goal.

The sustainability plan of this project depends on promoting the role of a CNL to uphold an ongoing culture of safety within the MSU/IMC unit and eventually through the other units within the organization. It is critical that communication remains open in discussing patients who are HRTF. New staff members will come into the unit and within the organization. It is crucial that those employees will also be informed of the overall fall prevention action plans to have a continuous success of reducing falls within the hospital.

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Appendix A

Table 1

Fall Incidences Data in Medical Surgical/Intermediate Care Unit

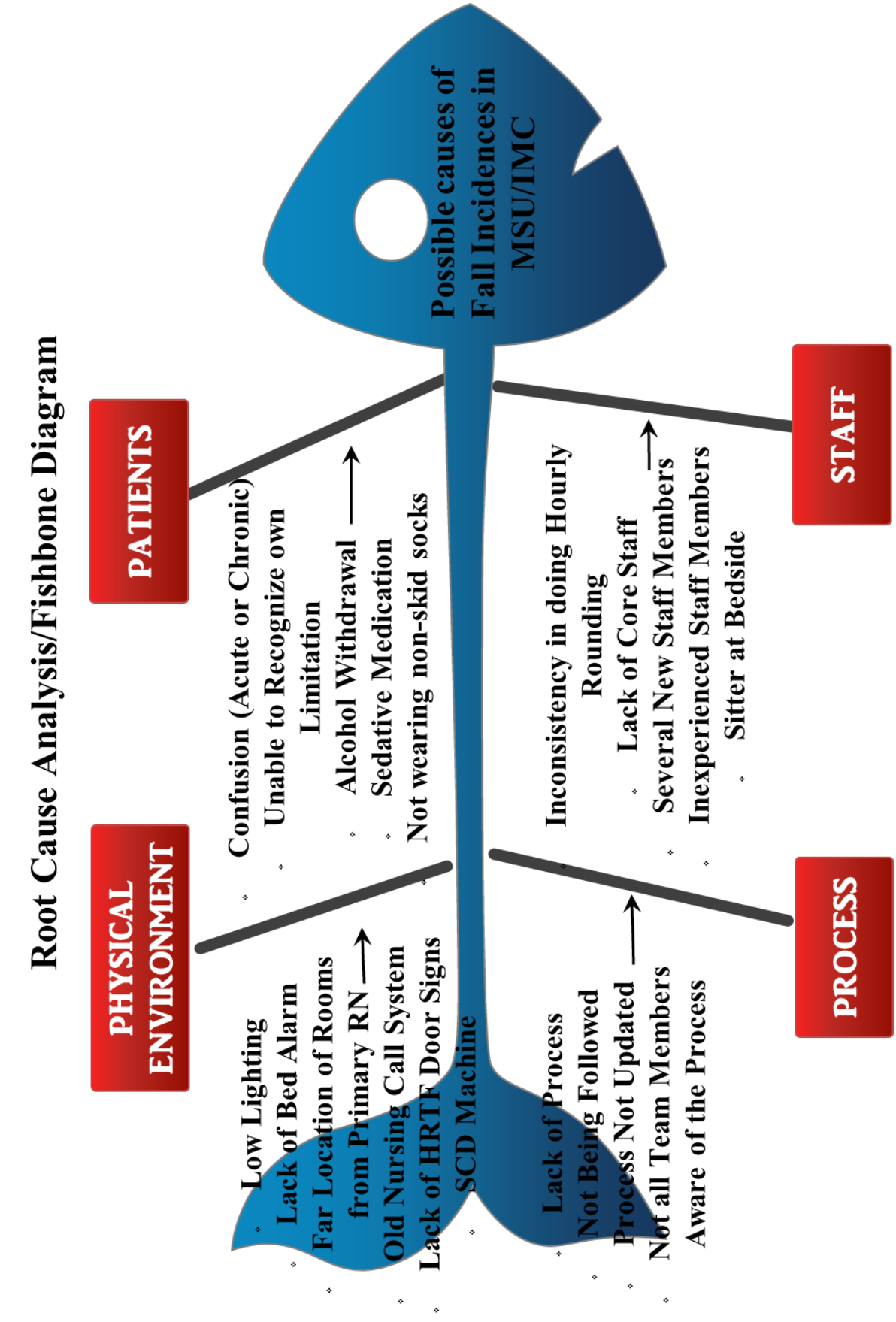
Months		Fiscal Year 2013-2014	Fiscal Year 2014-2015	Fiscal Year 2015-2016
July	1st Quarter	13	1	4
August			4	3
September			0	6
October	2nd Quarter	15	5	4
November			1	5
December			6	6
January	3rd Quarter	13	10	6
February			6	4
March			4	7
April	4th Quarter	7	7	2
May			1*	0 **
June			2	1
Total Numbers of Fall		**48**	**47**	**48**

***Initial Fall Prevention Strategy Started

**Fall Prevention Strategy Started

Appendix B

Root Cause Analysis/Fishbone Diagram



Appendix C

- Lack of consistency in assigning patients close to the room PODS where the nurse is located due to bed availability
- Complexity of the unit (MSU/IMC)
- Consistency by all staff in doing Hourly Rounding and becoming a part of their routine practice
- Placing of bed alarms on patients who are alert and oriented but score high on Morse Fall criteria and does not know their own limitations

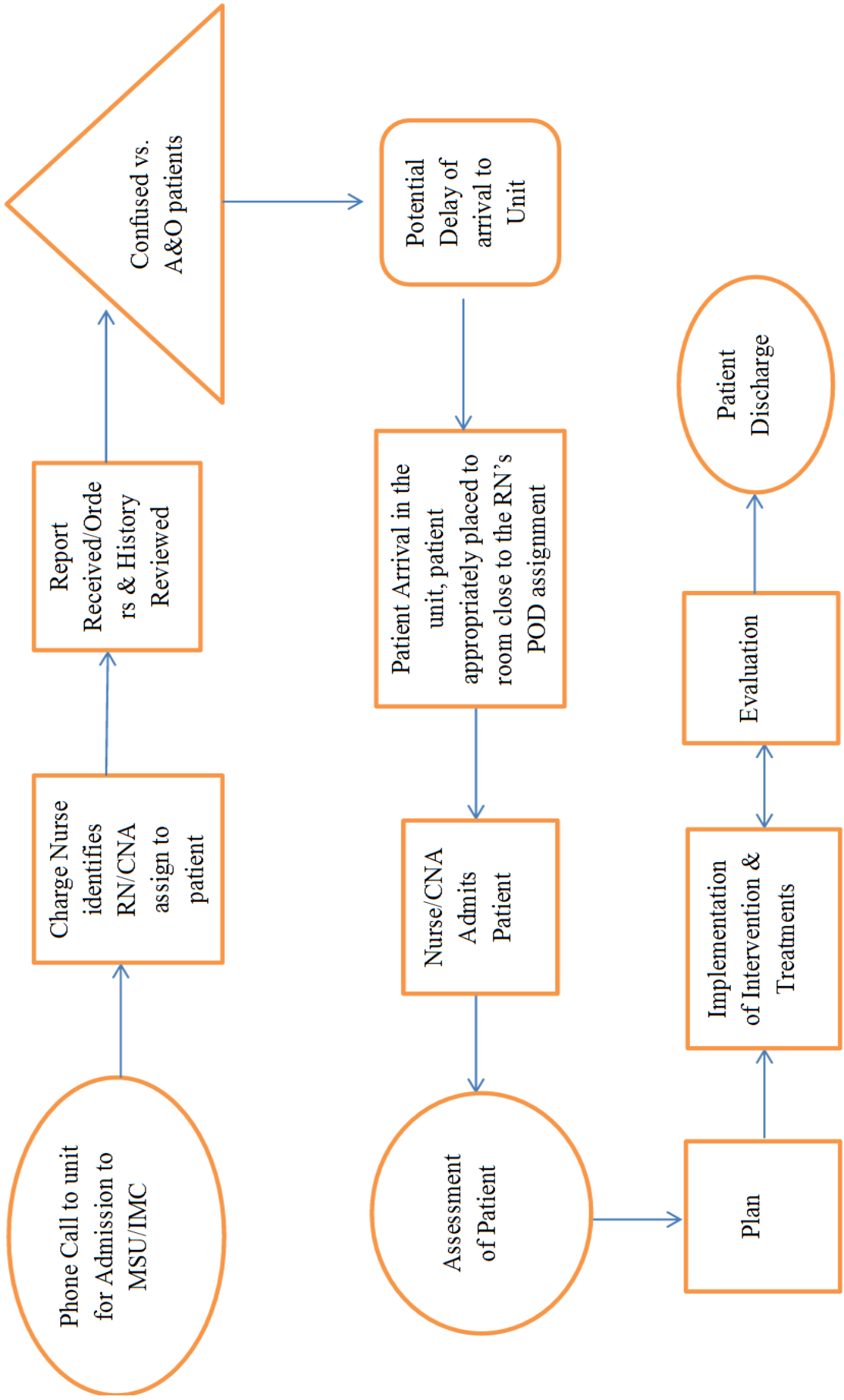
- Leadership Support
- Staff commitment in reducing fall incidences
- Fall prevention methods available for staff use (HRTF door signs, non-skid socks, purple bands, SOMA Beds, Bed Alarms)
- HRTF patients are discussed/identified during Huddle time

- Relies on the dependability of the staff – ability to learn and recognize the features of bed alarms on the new Stryker beds and ensuring a quick response time when alarm is heard.
- Nurses are leaving for better paying job in other institution.

- Informing patients & families – safety is our priority and their participation is very important
- Continuous education of families regarding use of fall preventative methods.
- Explanation of hourly rounding process is imperative so that patients are aware of what is going on
- Improving communication with all staff members (including Float Staff) regarding patient safety

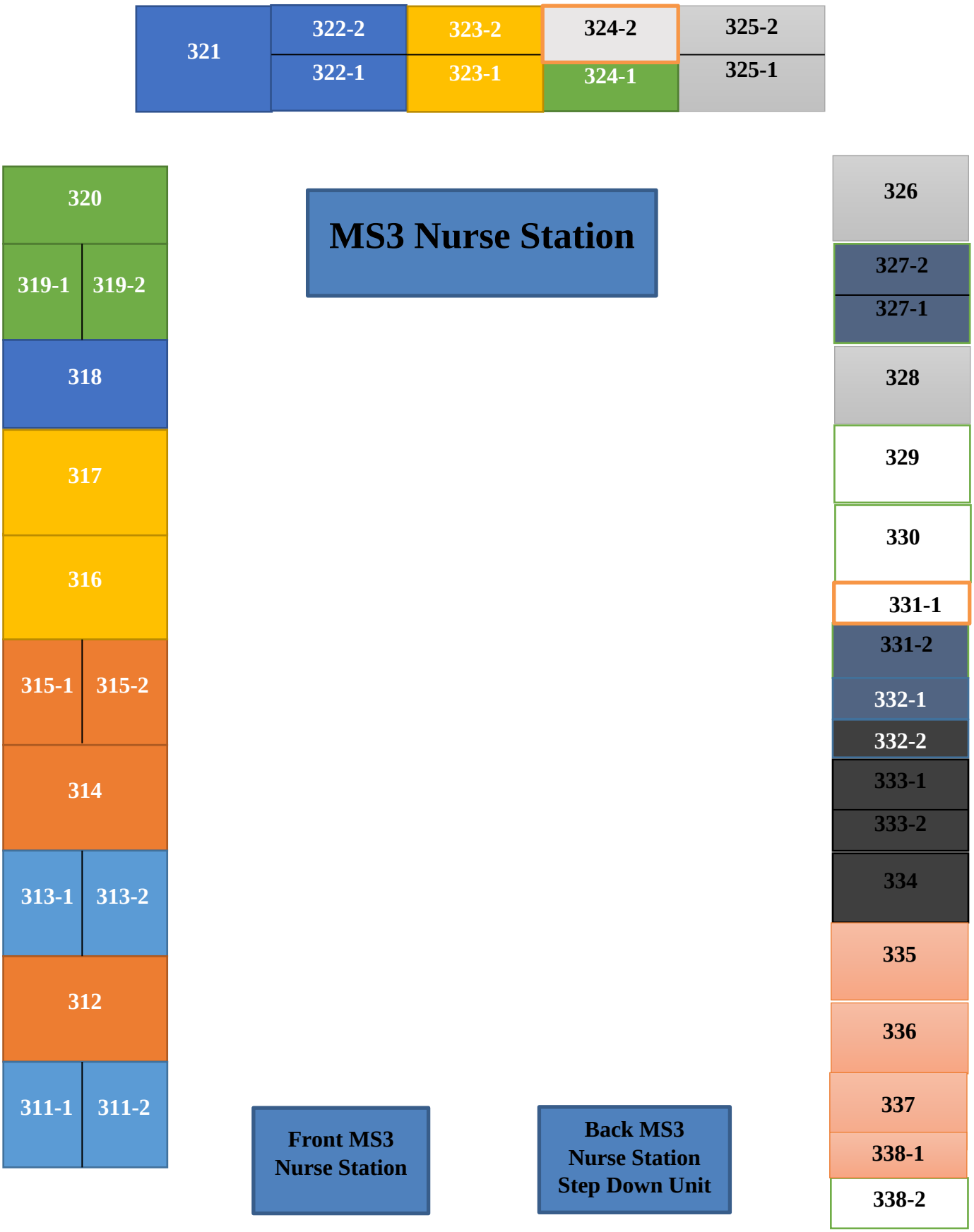
Appendix D

PROCESS MAP



Appendix E

Medical Surgical/Intermediate Care Unit POD Assignment Layout



Appendix F

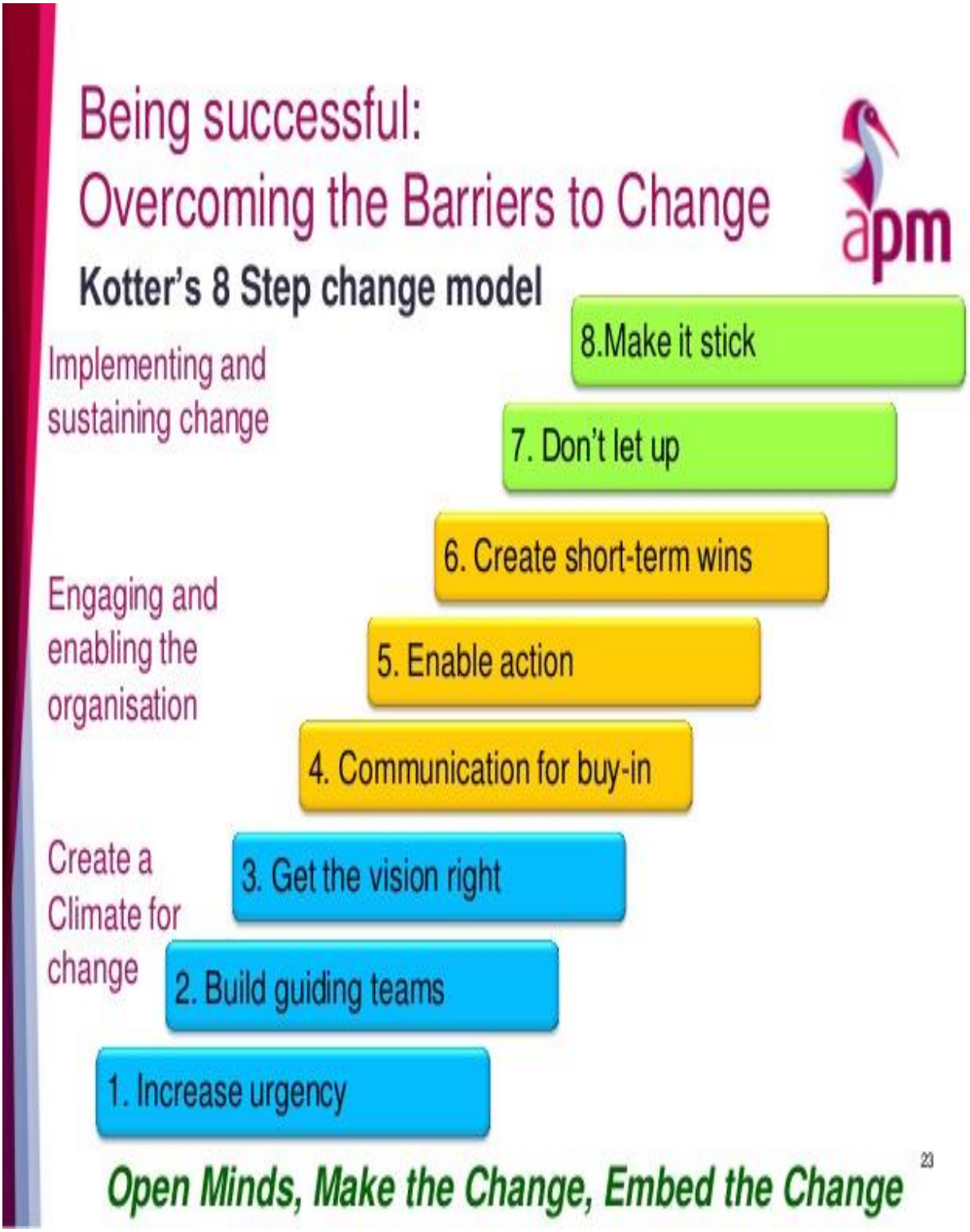
Table 2

Projected Cost Analysis of Fall Prevention Project in Medical Surgical/Intermediate Care Unit

	FY 2015-2016	FY 2016-2017	
	Costs	Costs	Savings
Personnel Expenses			
1-hr In-service Training $55/hour x 80 RN	$4,400	N/A	
1-hr In-service Training $20/hour x 39 Ancillary Staff (CNA, Tele-Tech, MUC)	$780	N/A	
Wage of 1 Supervising Nurse providing Training x3 days $65/hour	$260	N/A	
Total Personnel Expenses	**$5,440**	**N/A**	
Non-Personnel Expenses			
Direct Medical Cost Per Fall Incident	***$17,000***	$0	
Direct Medical Cost (x48 Fall Incidences)	$816,000	$0	
Cost Saving if Goal Met (Reduction of Fall by 25%)	$0		$204,000 (12 Fall Incidences)
Total Expense/Savings	$816,000	$0	$204,000
Total Expense/Savings	**$821,440**		**$204,000**

Appendix G

Kotter's Eight Steps to Change Process Diagram



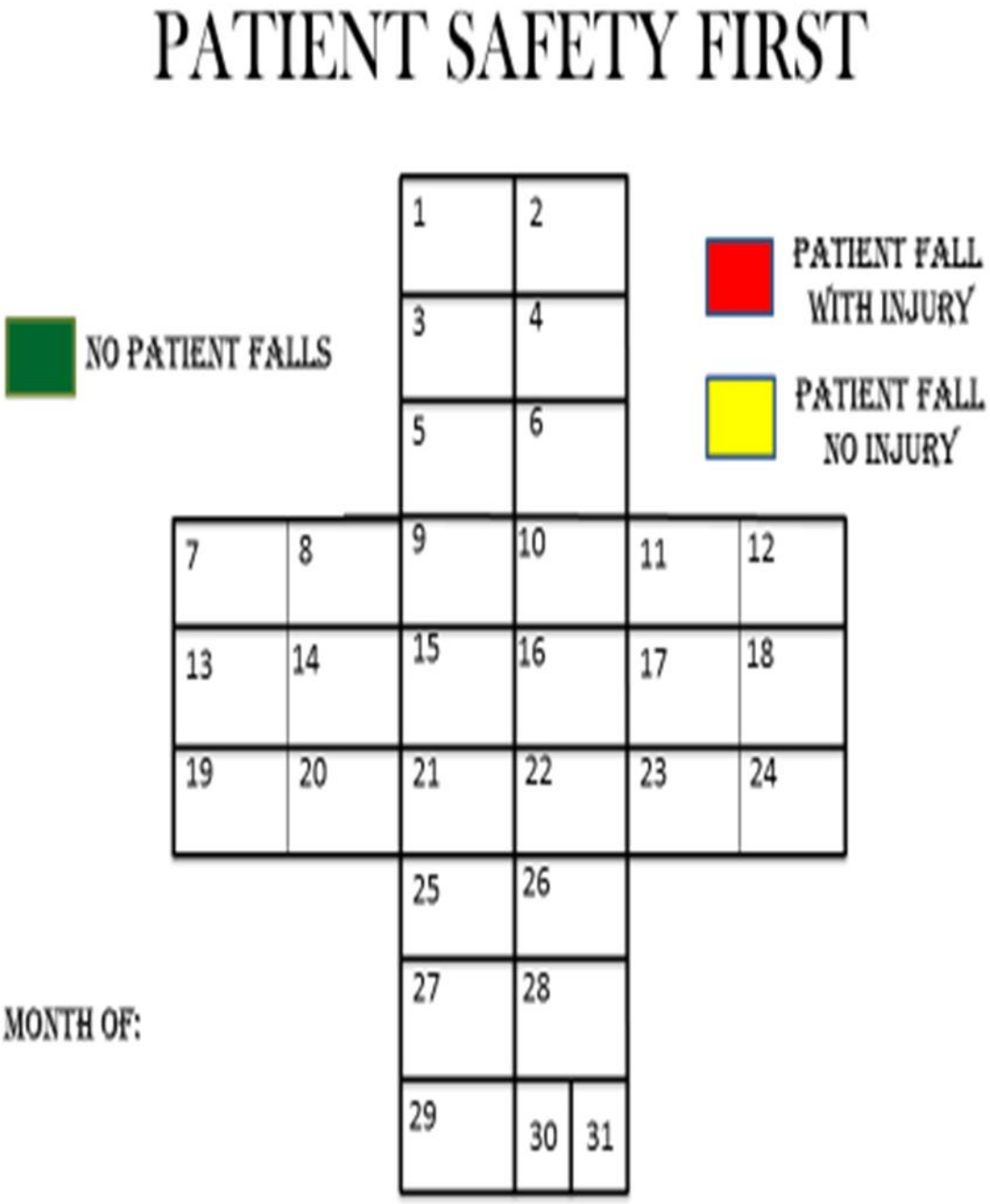
Appendix H

Fall Prevention Action Plans

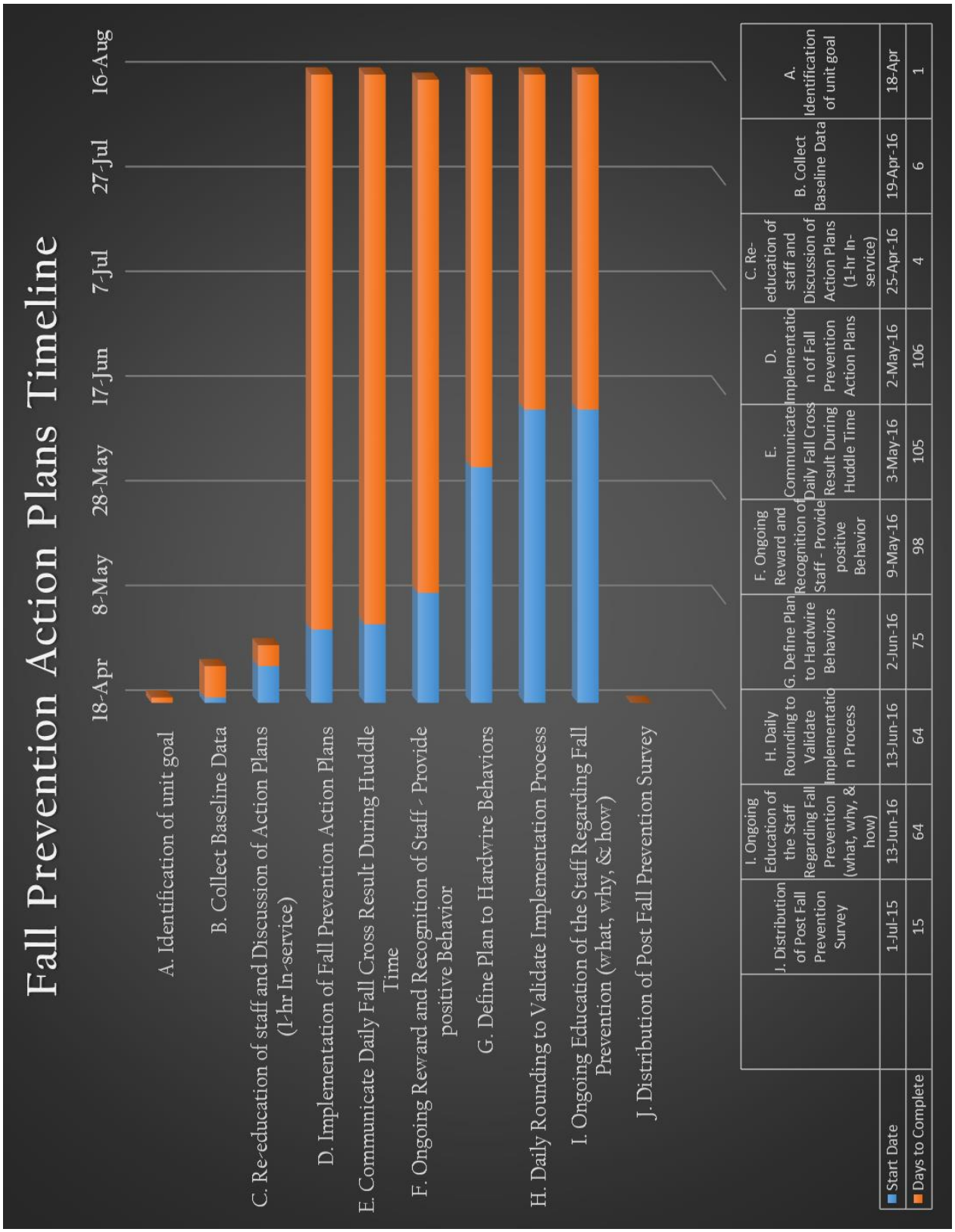
Action Steps	Target Date	Results
1. Identify Units Goals - reduce patient fall episode by 25% by the end of 1st quarter September 2016 compared with the previous quarters (July 2015 to June 2016)		
2. Collect baseline data		
3. Educate and engage staff set action plans (1-hour in-service) ➢ Discuss current Process Map – determining HRTF during Admission ➢ Discuss HRTF patient during Huddle time ➢ Ensure bed alarms are placed on all patient with High Morse Fall Score ➢ Place HRTF sign outside patient's room once identified patient who are HRTF ➢ Patient must wear Purple Arm Band ➢ Provide patient with purple non-skid socks ➢ Staff to continue purposeful rounding ➢ Use SOMA Enclosure bed to provide patient safety		
4. Implementation of Fall Prevention Action Plans		
5. Define plan to hardwire behaviors ➢ Identify leaders that would conduct spot checks ➢ Document on whiteboard in patient's room plan of care and 4Ps ➢ Leaders rounding daily on patients to validate consistency and behaviors of staff		
6. Distribution of Post Fall Prevention Survey		
7. Round on staff daily to validate understanding of why actions plans are being implemented		
8. Ongoing education of the staff on what, why and how ➢ Review during staff meeting ➢ Post on communication board ➢ Discuss during daily huddle meeting prior to start of shift		
9. Ongoing reward and recognition of staff who consistently role model the behaviors and coaching of staff who are lagging on following the new process		
10. Communicate daily fall cross to all team members during Huddle Time		

Appendix I

Fall Safety Cross



Appendix J



	J. Distribution of Post Fall Prevention Survey	I. Ongoing Education of the Staff Regarding Fall Prevention (what, why, & how)	H. Daily Rounding to Validate Implementation Process	G. Define Plan to Hardwire Behaviors	F. Ongoing Reward and Recognition of Staff - Provide positive Behavior	E. Communicate Daily Fall Cross Result During Huddle Time	D. Implementation of Fall Prevention Action Plans	C. Re-education of staff and Discussion of Action Plans (1-hr In-service)	B. Collect Baseline Data	A. Identification of unit goal
Start Date	1-Jul-15	13-Jun-16	13-Jun-16	2-Jun-16	9-May-16	3-May-16	2-May-16	25-Apr-16	19-Apr-16	18-Apr
Days to Complete	15	64	64	75	98	105	106	4	6	1

Appendix K

MSU/IMC Fall Prevention Survey

July 1, 2016

MEMORANDUM FOR MSU/IMC STAFF

FROM: Jose F. Caballes Jr, RN, MSN-CNL Candidate Student

SUBJECT: Fall Prevention Survey

1. This survey is aimed to see how you; the MSU/IMC nursing staff feels towards fall prevention as compared to where you were when the unit initially implemented the fall prevention intervention last year May 2015. Please fill out the following survey as honestly as possible so that I can better help out our patient and our unit to promote a safe environment for them. Please mark each corresponding line as needed.

	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
How prepared do you now feel in preventing falls?					
Has your knowledge base improved over the last 2 months in fall prevention?					
Do you feel that your patients are now safer since the implementation of our fall prevention action plans?					
Do you feel that falls can be prevented as long as patients are properly identified during admission and throughout their hospitalization?					
Huddle time is a good environment to discuss patient HRTF before the shift starts?					

2. Please return this survey no later than July 15, 2016. You may place them under my office door or give them to me personally. This is part of my final project for my Master's Degree and any feedback would be greatly appreciated.
3. If you have any questions, please feel free to contact me at (831) 578-3494 or (831) 783-2852 or via email me at caballesjf@natividad.com. Thank you for your assistance in this process improvement.

Jose F. Caballes Jr, RN
University of San Francisco MSN-CNL
Candidate Student

Appendix L

MSU/IMC Fall Prevention Survey Results

Numbers of Completed Surveys: 102

1.) **How prepared do you now feel in preventing falls?**

Strongly Agree: 79/102 = 77%

Agree: 22/102 = 22%

Neutral: 1/102 = 1%

2.) **Has your knowledge base improved over the last 2 months in fall prevention?**

Strongly Agree: 87/102 = 85%

Agree: 15/102 = 15%

Neutral: 0/102 = 0%

3.) **Do you feel that your patients are not safer since the implementation of our fall prevention action plans?**

Strongly Agree: 81/102 = 79%

Agree: 19/102 = 19%

Neutral: 2/102 = 1%

4.) **Do you feel that falls can be prevented as long as patients are properly identified during admission and throughout their hospitalization?**

Strongly Agree: 80/102 = 78%

Agree: 21/102 = 21%

Neutral: 1/102 = 1%

5.) **Huddle time is a good environment to discuss HRTF patient before the shift starts?**

Strongly Agree: 85/102 = 83%

Agree: 16/102 = 16%

Neutral: 1/102 = 1%