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Implementation of Safe Patient Toileting to Decrease Patient Falls on Medical-Surgical Unit

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Abstract

BACKGROUND: Patient falls are a serious safety concern in the hospital setting throughout the country. Falls are one of the most challenging patient safety events to prevent, as there are many contributing factors with toileting activities producing the highest incidence. Fall prevention bundles are used to minimize and reduce these such events although multifaceted. The project was conducted with an academic medical center on an acute inpatient medical-surgical unit primarily housing burn wound patients. Nursing leaders and frontline nursing staff participated.

METHODS: Literature review to determine the gap in knowledge of interventions to prevent acute inpatient falls was completed. Concepts from purposeful rounding were used to identify a single intervention surrounding safe toileting activities. Staff actively self-reported via audit tool supervised patient toileting activities. Leadership support to develop increased engagement and satisfaction with the intervention was present.

INTERVENTION: Purposeful toileting rounds utilizing acquired knowledge and skills to encourage patient's participation in safe patient toileting activities. A daily shift self-reporting nursing staff auditing tool was deployed and utilized to track staff participation in supervised toileting bringing awareness to safe patient toileting. Lippitt's and Lewin's change theories were used to drive change with in the nursing unit and staff adoption of this workflow.

RESULTS: The post intervention staff survey demonstrated staff engagement and improvement in supervised safe toileting patient activities. Staff results showed 23% overall improvement in

satisfaction with time spent with patients, a 24% improvement in not feeling satisfied with unsupervised patient toileting, 31% combined positive satisfaction with providing privacy with toileting and 62% combined rating for satisfaction with safe toileting activities on the unit. Nurse Pre survey satisfaction scores of very dissatisfied were eliminated in the appropriate questions and increased in the one question regarding leaving patients unsupervised. The primary goal to reduce or eliminate falls was achieved with staff engagement. There were no patient falls during the project and continued without falls post implementation.

CONCLUSION: The deployment of a single focused fall prevention intervention can successfully prevent patient falls with engagement and support of frontline nursing staff.

Keywords: toileting, patient falls, fall prevention

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Introduction

Problem Description

In today's complex healthcare environment, hospitalized patients potentially face a wide range of obstacles and challenges as the result of the care and treatments provided to remedy acute illness and improve overall health outcomes. Patient falls are one such obstacle that is an unfortunate frequent occurrence during hospitalization. Falls occur with and without injury. This is one example of an adverse event that can affect health outcomes, increase financial burdens and deteriorate patient experience. The cost of patient falls impact organizations significantly across the nation. An estimated cost of $16 to $19 billion dollars for falls with injury and deaths related to falls accumulate to $170 million according to Currie (2006). As global reimbursement is pervasive to the ability to provide quality patient care, fall prevention is necessary in addition to the ethical application to do no harm. Preventing falls during toileting activities is the focus of this quality improvement project to directly influence cost, care and experience of our patients.

Patient falls specifically related to toileting is of particular concern. It is known that most falls occur during toileting or as a result of the patient needing to go to the bathroom. Bathroom activities in U.S. hospitals has resulted in 38%-47% of falls. (Tzeng, 2012). Comprehensive fall prevention programs are in use with bundled strategies to enhance patient safety, although minimal literature is available to demonstrate one single intervention as compared to a multitude of combined interventions that have reduced fall occurrences. The

use of fall bundles including fall risk assessment tools, patient education and patient identifiers are standard practice in fall prevention. (Degelau, 2012).

Patient falls during toileting occur for a number of reasons. As patients are in unfamiliar environments receiving medications that can cause frequent urination as well as confusion, the risk for falling is a significant risk during hospitalization. Patients themselves fail to realize the increase in falls without proper supervision during toileting activities while hospitalized. The lack of connection between activities performed at home without difficulty and those in the hospital attribute to these events.

The burn wound patient population is unique as the injuries sustained developed traumatically causing an immediate change to perform independent activities. The event creating the patient injury, whether a burn related to a home fire, chemical or electrical injury leads to a disconnect from the activities patients previously performed at home without support. Reinforcement from nursing to provide assistance with toileting activities is crucial in the prevention of falls. From the clinical aspect of burn related injury, pain management requires higher, more frequent high risk medication dosing to provide a tailored level of comfort acceptable to patients which can have adverse effects. Pain medication management directly affects patient cognition and increases the probability of falls during toileting activities. Patient mobility with burn injury influences safe toileting activities as the injury itself whether effecting limbs, digits, and or vision creates a barrier to mobilize safely without assistance. Falls related to toileting have a higher incidence of injury (Barker, 2016), making this area a prime target for quality improvement activities.

Patient falls is a global problem within healthcare facilities throughout the nation. Even though fall prevention and reduction strategies are robust including creative interventions to assist nursing staff in their efforts to provide safe patient care environments. Despite efforts single intervention such as toileting protocols are lacking therefore falls during these activities are still occurring at a high rate of incidence drawing the conclusion to implement a strategic safe toileting program for inpatient acute medical-surgical units.

Available Knowledge

Decreasing patient falls within the hospital setting is a significant harm reduction strategy. Nursing homes and community settings are typically studied for overall fall prevention strategies and very few within inpatient hospital settings. (Krass, 2008). Minimal studies have been published with defined safe toileting practices. As hospitals strive to mitigate and prevent harm, few studies published in regards to single intervention activities such as safe patient toileting although are recommended. Evaluating patient falls with and without injury within the acute hospital setting are scarce in the literature although closely monitored by hospitals and governing bodies as a measurable metric for reimbursement.

Defining falls with injury can include fractures, soft tissue trauma and even death in up to 30% of patients (Titler, 2016) who experience falls within the inpatient hospital settings. On average, between 4 and 12 falls per 1,000 patient days occur in hospitals (Krauss, 2008). As our population ages, and as increased and complex healthcare needs present, the potential for patient harm during hospitalization is alarming. In a recent study from 2016, from a trial conducted in an acute care hospital stated, falls without injury rates of 18 per 1,000 beds and

falls with injury rates of 4 per 1,000 beds were observed (Barker, 2016). The Institute for Clinical Systems Improvement (ICSI) found that a third of falls with injury directly related to bathroom use (Degelau, et al). Patient toileting needs during an inpatient hospitalization has contributed to as many as 45.2% of falls (Tzeng, 2009). This number believed to be even higher in some organizations dependent on patient population and organizational commitment to overall falls reduction and prevention strategies. Unfortunately, little research is published with specific focus on the effects of safe patient toileting interventions on the prevention of patient falls and the mitigation of risk itself. Fall prevention campaigns and programs are promoted and utilized in healthcare organizations throughout the country; however, there is noticeable lack of dedication to and enforcement of the implementation of a regimented safe patient toileting intervention not only individually, but even within fall prevention bundles.

Published documents providing detailed analysis on hourly rounding for patient satisfaction are prevalent in literature searches. Hourly rounding using the 4-P or 5-P methodology by nursing staff addresses several needs of the patient on an hourly basis although proven challenging, as staffing and competing needs not always permitting the needs to be addressed efficiently and effectively (Mitchell, 2014). The overall focus on patient experience drives the hourly rounding initiative with fall prevention as an element of purposeful rounds. What is missing is the layers needed to actively prevent patient falls through a structured safe toileting program. In a recent study using Lean methodology to deploy a purposeful rounding program, found that even when the process was followed routinely by the nursing staff the outcomes were not significant as benchmarked data showed little improvement (Goldsack, 2015). As described by the ICSI, multifactorial interventions that

increase observation and surveillance are found to be effective with fall prevention (Degelau, et al).

Rationale

Development and deployment of fall prevention bundles adopted as a standard method or grouped intervention to aid in the reduction of patient falls. As the literature has shown, there is not one specific intervention to overall fall prevention in regards to safe patient toileting. Developing an adjunct, additional intervention to ensure safety during this event is the next step to provide safe patient care during hospitalization. Studies have included bathroom supervision to ensure patient safety in addition to fall bundles (Barker, 2016). Escorting patients to the bathroom is one element of ensuring such a safe toileting environment. Remaining in the bathroom, outside the door or at a minimum in the patient room during toileting use allows for quick response by nursing staff, reassures the patient that assistance is nearby and has the potential to decrease the urge to mobilize without assistance. Providing this additional support not only with clear patient supervision but also recommended with support during mobility (von Rentlen-Kruse, 2007). Observing and surveilling patients during this activity has led to an approximate 60% fall reduction reported in hospitals (Quigley, 2008).

With focus on the several elements included in most fall bundles, the realization of the gap between toileting activities and safe toileting methods was identified through a systematic review of literature. Although included in fall bundles, toileting is discussed and plays a part in the program, specific detailed interventions are lacking. Prior to implementing change the

support of the team is needed otherwise, the success is limited and is detrimental to the initiative (Thomas & Hardy, 2011).

Lippitt's change theory is comprised of 7 phases and focuses on the change agent (Mitchell, 2013). Utilizing Lippitt's theory, patient falls with toileting activities was identified as the initial step as an opportunity for improvement. Determining motivation for change is the next phase in utilizing Lippitt's change theory. The staff of the burn wound unit is comprised of 70% novice staff (less than 2 years) and 30% experienced staff (greater than 2 years). Utilizing pre-intervention safe patient toileting surveys provided the necessary knowledge for early assessment of staff awareness and motivation for change. In addition, determining readiness for change aligns with the level of engagement of the staff. The burn wound staff were eager to participate. Nurses and PCTs were responsive, energized and engaged in conversations leading up to the deployment of the program. Lewin ties these three elements into one phase known as unfreezing, which sets the stage for successful implementation. The next three phases Lippitt describes is the process to plan the change and Lewin refers to this as the moving phase. The steps to implement the intervention including staff education, including clearly defined nurse and PCT roles, followed by activating the safe patient toileting program. Lippitt's theory expands upon Lewin's change theory by utilizing the change agent although recognizing the withdrawal of the change agent after the intervention has become standard work (Roussel, & Swansburg, 2009). The change agent in this scenario, the DNP candidate, was able to withdraw from intervening and became an observer to the program as sustainability was on the horizon. The nursing staff led the project and each day without a fall was successful and documented on the assignment board. Lewin's theory of change has a broader conception of

implanting change where Lippitt narrows the focus in a more detailed fashion and provides a solid role for the change agent throughout the process. Lippitt's theory of change mirrors the action of implementing a safe patient toileting intervention as an additional element in the fall bundle cohort.

Specific Aims

This quality improvement (QI) project focus on fall prevention including preventing falls with and without injury, with specific interventions deployed to implement and sustain supervised toileting utilizing the acute care medical center's fiscal year 2018 fall data comparing the pilot month from fiscal year 2019 against previous months in 2018. The goal of this intervention is to instill safe toileting practices with our patients and deepen the understanding and overall commitment to this practice by the nursing staff. Reducing toileting related falls by 10% during the pilot period would demonstrate an effective intervention for this nursing unit and patient population.

Methods

Context

The QI project will be implemented in a large urban acute care hospital located on the east coast is close to the I-95 corridor convenient to local city and surrounding counties. The hospital is one of the oldest institutions for health care on the east coast of the United States. Founded in the early seventeen hundreds the hospital has maintained dedication to the community and patient care around the globe. This medical center is home to the state's only

Regional Burn Center and a level II trauma center strategically located on the city county line. The hospital is licensed for 426 beds and one of several entities in the health system.

This fall prevention QI project includes all patients admitted to the Burn/Wound unit. The Burn/Wound unit is a 10 bed unit for floor status (lower acuity) patients including burn, plastics, medical and surgical patients. The average daily census is 8, the staffing matrix includes two registered nurses, one patient care technician and one nursing unit secretary for the dayshift (7 am to 7 pm) and on night shift (7pm to 7am) the staffing matrix is the same with the exception of not having a nursing unit secretary. The unit has an assigned charge nurse that covers both the Burn ICU and Burn/Wound units on both shifts. The Burn ICU and the burn/wound unit are connected through a small hallway. The unit based staff consists of 6 registered nurses, 4 patient care technicians, 1 unit secretary. There are 6 charge nurses that rotate in this role and responsibility. The project interventions will be an addition to the existing fall prevention bundle currently in use. The current fall bundle consists of fall risk assessment completed by the assigned nurse. Patients who deemed high risk for falls receive yellow skid prevention socks, yellow armband, fall risk sign outside of the patient room, bed alarm or chair alarm, fall prevention agreement (document explaining patients are to call for assistance) and documentation in the medical record.

This acute care hospital is committed to patient safety as demonstrated by inclusion of The Armstrong Institute after a generous donation from a board of trustee member to the health system. The focus on patient safety has generated the opportunity to bring forth best practices and interventions while supporting the mission of patient safety, including reduction and elimination of patient falls. Falls data is a reported indicator and a direct influence on

improving and ensuring safe patient care through implementation of this nurse driven intervention. After extensive research was completed, specific fall data was unavailable related specifically to burn patients or burn patients falls related to toileting specifically. For this project, the data that is collected is raw data from event reporting materials and electronic sources from the medical center as well as NDNQI data comparing similar institutions. In FY 19, 15 total falls occurred on the burn wound unit and of those total falls, 6 attributed to unsupervised toileting.

This intervention has implications to effect the repercussion of patient falls related to toileting. Patient falls have a direct financial impact to both the patient and the medical center. Patient falls with injury and without injury related directly affect the patient experience and satisfaction with providing a safe environment during hospitalization. In those events where pain and suffering occur, additional testing required and inconvenience leading to longer length of hospitalization are all negative effects of patient falls due to toileting needs. Nursing staff satisfaction influenced with the ability or lack thereof to provide safe patient care, hospitals acquire additional costs as providing the additional test and procedures needed and debt incurred by the medical center due to the failure in providing a safe environment. Patient days increase by approximately 6 days after experiencing a significant fall (Barker, et al). The increase in length of stay in the hospital adds additional costs by stalling throughput efforts to ensure bed availability for new admissions requiring care and creates a backlog of patients waiting for inpatient beds delaying that care and treatment that is not available in the emergency room environment leading to delay in treatment of more patients. This creates a cyclical event.

Cost of implementation of the safe toileting program requires nursing training, support and materials. This additional step in the existing workflow does not require additional labor or FTEs (full time equivalent) although will require creative workflow development within the current nurse staffing matrix. In review of nursing hours required for training the overall cost is an estimated $477 dollars (Table 1). This includes the one-hour training for each burn wound unit staff member. There is no addition cost as there will not be additional staff added to the current staffing matrix.

Table 1. Safe Toileting Practice – Training Cost

Role Type	# of Employees	Hours of training	Training Cost per hour	Training Cost by role
RN	6	1	$33.99	$407.88
PCT	4	1	$14.08	$56.32
NUS	1	1	$13.09	$13.09
TOTAL	11			$477.29

There is minimal cost to produce patient educational information with an estimated $20 value to produce the patient informational signage and pamphlets (Table 2). To continue this project for an ongoing basis in addition to the existing fall prevention efforts, educational documents may be reproduced internally through the nursing department. Growth of the program as a hospital wide initiative supplemental costs need consideration through the medical center's internal marketing department to produce the materials printed professionally. The room signage is a one-time cost including printing and lamination as required by the Joint Commission.

Table 2. Safe Toileting Practice – Materials Cost

MATERIALS	# of documents needed	Print cost	Lamination cost	Totals
Room Signage	10	0.10	1.00/sheet	$10.00
Patient Pamphlets	100	0.10	N/A	$10.00
Total Cost				$20.00

Intervention

The specifics of the fall reduction intervention will include patient and staff education, including scripting for nursing staff, strategies to provide privacy and safety during toileting, and in addition purposeful toileting rounds. An improvement in staff responsiveness noted through patient experience is a secondary outcome improvement of this intervention. Increasing patient satisfaction in relation to increased attention to toileting requests and needs directly impact nursing staff satisfaction as requests for toileting assistance decreases. Incorporating and standardizing these additional actions or steps into the existing established fall bundle protocols currently in practice on this medical/surgical unit will aid and assist ensuring patients are safely toileted.

Upon admission and at change of shift education provided to patients and families about the safe patient toileting program is completed. A member of the nursing team will remain in close proximity to the bathroom or bedside commode/urinal while in use by the patient in order to prevent patients from falling during this activity or in attempt to participate in this activity. All patients admitted to the unit will be included in this intervention regardless of admitting service. Patients will be encouraged to participate in a toileting schedule of every

four hours or as needed by use of the call bell to notify staff of need and during purposeful rounding. Routine interventions conducted every four or every eight hours on the nursing units per hospital policy. Purposeful rounding to be conducted without request to the patient but rather an encouraging statement explaining, staff are present to escort to the bathroom at this time. Prompting patients to use the bathroom with nursing assistance reduces variability in following the workflow. The nursing staff will remain at the patient's bedside when the patient is using bedside urinals and or commodes. Escorting patients to the bathroom and remaining in and or outside the patient bathroom door will be a required step in this intervention. It is a recommended practice to remain within the arms reach of the patient during the duration of any toileting activity (Titler, et al).

Scripting for successful explanation and understanding of the process provided to the Patient Care Manager, Clinical Nurse Specialist, Nurse Educator, charge nurses, bedside nurses, patient care technicians and the nursing unit secretary to provide gentle, supportive messaging to the patient and family as to ensure privacy and dignity. The DNP student will provide the education, support, and reinforcement to all nursing staff members participating in the intervention. Messaging this safe toileting program to this diverse patient population and family is crucial to the success and improvement in decreasing patient falls (Appendix A).

Notification of the safe toileting program displayed in each patient room for patient and family to view provides a visual reminder to everyone (Appendix B). The safe toileting program sign placed strategically in each patient bathroom above the toilet paper holder as reminder during the toileting activity. Upon admission, nursing staff provide orientation to the program setting expectations early in the patient stay verbally and visually through the safe patient

signage. Sharing the program at this crucial time is key to successful deployment. The DNP student will optimize communication of the program through daily nurse patient rounds; the local nursing leadership rounds including the Patient Care Manager (PCM) and Director of Nursing (DON) and unit shift huddles to provide an opportunity to reinforce safe toileting practice and securing privacy to our patients. Nursing staff is provided with one hour of education to develop competence in deployment of this project. The crucial objectives, time allocated and resources dedicated to program are defined in the teaching plan (Table 3).

Table 3. Safe Patient Toileting Nursing Staff Teaching Plan

In-service Teaching Plan	Objective	Time	Resources
1	Learner will demonstrate understanding of safe toileting intervention at completion of in-service using teach back methods	15 minutes	Safe Toileting signage Scripting document Audit Tool
2	Learners will use provided scripting in communicating to patients and families on safe toileting practices at the completion of the in-service	15 minutes	Scripting document
3	Learners will demonstrate use of proactive prompting statements to guide patients in safe toileting practices	15 minutes	Scripting document
4	Learners will demonstrate 90% accuracy in documentation on self-reported audit sheets using the key provided	15 minutes	Dayshift and Nightshift Audit Tool

The timeline for the project is as follows:

- Safe patient toileting staff pre-intervention survey disseminated to PCM, Charge RNs, bedside RNs and PCTs prior to staff education.
  (October 7 – October 11, 2019)
- Staff education and awareness provided including dayshift and nightshift nursing staff.
  (October 7 – October 11, 2019)
- Patient education signage placed in the patient room and bathroom. All staff to review with patients upon admission and throughout patient stay.
  (October 14, 2019)
- Staff provides program information to patients, explaining nursing staff will escort all patients to the bathroom and remain with them or nearby during toileting events.
  (October 14 – November 10, 2019)
- Purposeful rounding by nursing staff conducted to include toileting rounds every four hours or as needed.
  (October 14 – November 10, 2019)
- Nursing staff documents patient supervised toileting activity on the safe patient toileting audit tool at the nurse station.
  (October 14 – November 10, 2019)
- Safe Patient Toileting Audit tool is collected by the DNP candidate daily.
  (October 14 – November 10, 2019)
- Fall data collected.
  (October 14 – November 10, 2019)
- Anonymous documented patient events (signal events) and fall huddle sheets utilized to evaluate fall events, which is standard work for the unit.
  (October 14 – November 10, 2019)
- Safe patient toileting staff post-intervention survey completed at the conclusion of the intervention period and completed as the pre-intervention survey.
  (November 10 – November 15, 2019)
- A comparison of the pre and post survey will be completed and shared with the nursing team.
  (December, 2019)
- Fall data reviewed, analyzed and presented to the nursing team within one month of the conclusion of the project.
  (December, 2019)

Study of the Intervention

Prior to disseminating education and deployment of the intervention, an anonymous staff satisfaction pre-intervention survey provided to the charge nurses, bedside nurses and patient care technicians was completed (Appendix C). The same survey given to the same group of nursing staff at the conclusion of the intervention pilot period (Appendix D). Responses to the questions were graded on a Likert scale using 1-5 measurements, as 1 indicates a low score, not satisfied and 5 indicates a high score, very satisfied. The pre and post staff satisfaction safe toileting intervention questions included were as follows:

- How satisfied are you with unit patient safety practices related to toileting?
- How satisfied are you with spending time with your patient at the patient bedside?
- How satisfied are you with providing patient privacy during toileting events?
- How satisfied are you with leaving your patients unsupervised during toileting activities?

Pre and Post staff satisfaction surveys delivered and anonymously completed by the Burn Wound nursing staff with a 93% completion rate. The first question on the survey asked, how satisfied are you with spending time with your patients. Staff satisfaction pre-intervention survey response revealed 69% satisfied, 15% unsatisfied, 8% neutral and 8% very unsatisfied leaving opportunity for improvement. Post-intervention survey resulted with increased staff satisfaction with time spent with patients by a combined 23% overall improvement between

very satisfied and satisfied. The results showed 23% very satisfied, 46% satisfied, and 8% neutral and 23% unsatisfied (Table 4 & 5).

The second survey question, how satisfied are you with leaving your patient unsupervised in the bathroom, on the pre-intervention survey nursing scored 38% neutral and 31% both satisfied and unsatisfied equally. Post-intervention satisfaction survey results demonstrated more staff were neutral (62%) and unsatisfied (31%) with leaving patients alone in the bathroom. Upon clarifying staff response, they reported some confusion with the question that may have affected the results. The overall results showed the nursing staff were less satisfied with patients unsupervised during toileting activities with an overall neutral/dissatisfaction rate improving by 24% from the pre-survey responses.

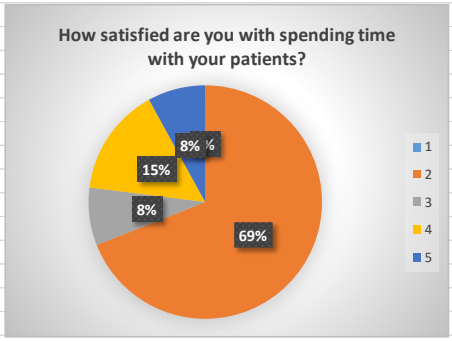
With the next question, how satisfied are you with providing patient privacy during toileting events, pre-intervention staff satisfaction survey results scored 46% satisfied, 23% neutral, 15% unsatisfied, 8% scored extremely satisfied and very unsatisfied equally. The post-intervention survey results demonstrated more staff were very satisfied and satisfied overall as compared to the pre-intervention survey with an increase of 31% combined.

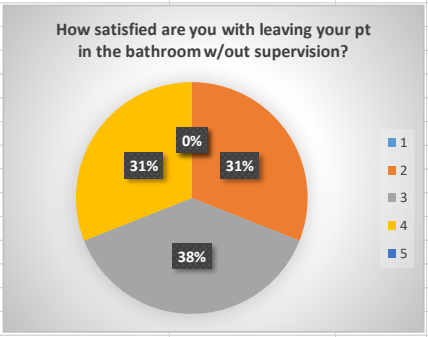
The last question from the pre-intervention survey, how satisfied are you with your unit patient safety practices related to toileting, staff responded with 38% satisfied, 31% remained neutral, 23% were unsatisfied and 8% were very unsatisfied. The pre-intervention survey provided opportunities to demonstrate improvement in several elements of safe toileting in which the post-intervention survey revealed. Post-intervention survey results showed a combined 62% for extremely satisfied (23%) and satisfied (39%) with neutral (23%) and

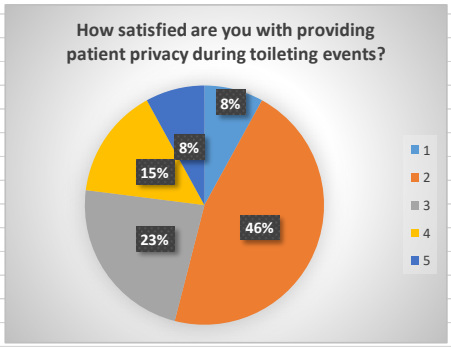
unsatisfied (15%) with lower ratings. Overall, Improvement in staff ratings in extremely satisfied and less staff scoring unsatisfied and very unsatisfied with time they spend with their patients, providing privacy and safety during toileting activities.

Table 4. Pre Intervention Staff Survey Results

Staff Satisfaction Survey - Safe Patient Toileting Pre-Intervention	Extremely Satisfied 5	Satisfied 4	Neutral 3	Unsatisfied 2	Very Unsatisfied 1
How satisfied are you with spending time with your patients	0%	69%	8%	15%	8%
How satisfied are you with leaving your patient in the bathroom without supervision	0%	31%	38%	31%	0%
How satisfied are you with providing patient privacy during toileting events	8%	46%	23%	15%	8%
How satisfied are you with your unit patient safety practices related to toileting	0%	38%	31%	23%	8%







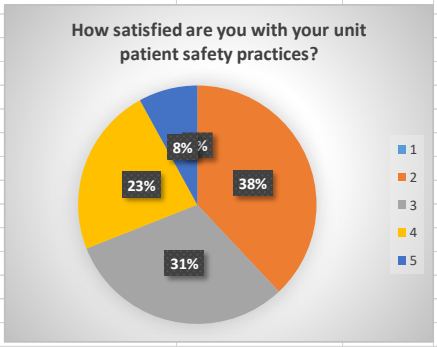
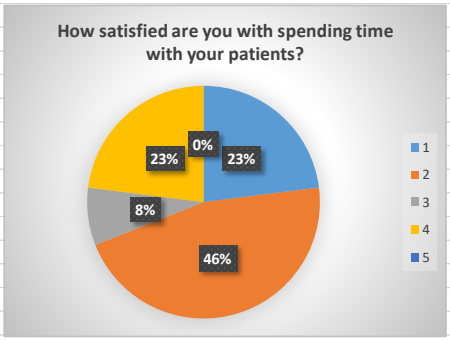
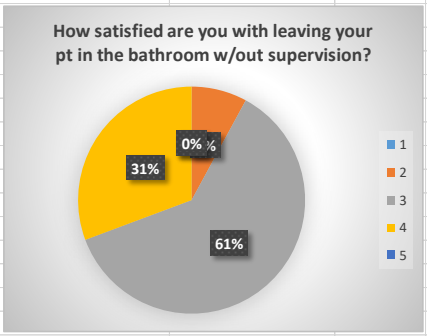
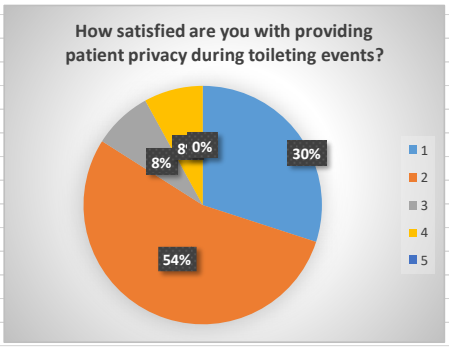


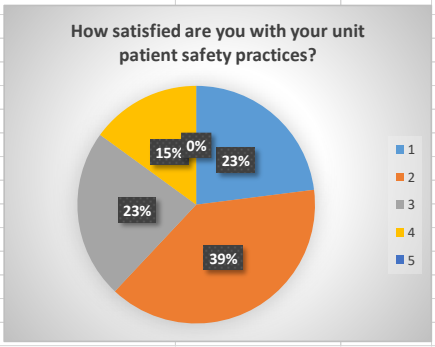
Table 5. Post Intervention Staff Survey Results

Staff Satisfaction Survey - Safe Patient Toileting POST-Intervention	Extremely Satisfied 5	Satisfied 4	Neutral 3	Unsatisfied 2	Very Unsatisfied 1
How satisfied are you with spending time with your patients	23%	46%	8%	23%	0%
How satisfied are you with leaving your patient in the bathroom without supervision	0%	8%	62%	31%	0%
How satisfied are you with providing patient privacy during toileting events	30%	54%	8%	8%	0%
How satisfied are you with your unit patient safety practices related to toileting	23%	39%	23%	15%	0%









Measures

The clinical outcome in reduction of patient falls with and without injury is the primary focus of the quality improvement intervention. The DNP student will utilize the organizations fall huddle written documentation, online electronic event report data and National Database on Nursing Quality Indicators (NDNQI) data for the implementation site. NDNQI data is a national database that provides comparative data at the unit level and benchmark against similar organizations for measurable patient outcomes (Table 6). The Burn Wound unit patient fall data demonstrated an average of 3.15 total patient falls per 1,000 patient days. Noted in quarter 1 and 2 for 2019, rise in patient falls was reported unlike previous quarters. Falls with

injury documented an average of 2.27 per 1000 patient days, which is higher as compared to like hospitals although patient falls with moderate or greater injury severity was significant without events. Unassisted patient falls for the unit is evident in the data for several quarters and provides clear opportunity for improvement. On average 3.15 unassisted patient falls per 1000 patient days occurred with two of eight quarters falling below the mean and one quarter data was not reported. Falls with injury per 1000 patient days shows an average of 2.27 with 5 quarters above the mean and one quarter without data (Appendix E).

Table 6. Burn Wound NQNQI Results FY 17-19

TYPE OF FALL	AVERAGE FALLS PER 1,000 PATIENT DAYS
TOTAL FALLS	3.15
FALLS WITH INJURY	2.27
UNASSISTED FALLS	3.15

The patient post-fall huddle documentation occurs with every patient fall lead routinely by the unit charge nurse (Appendix F). This is standard practice and reviewed by hospital leadership for themes, improvement opportunities, and analysis. In addition, the hospital requires a signal event recorded in an electronic system. These data sources will allow the student to capture past and present fall data by the departmental unit and review benchmark indicators for like units in the region. In addition to the data that will be captured, the nursing staff participating in this intervention will be audited for compliance with the intervention on a

daily basis and discussed at shift unit huddles to maintain awareness and opportunity to discuss challenges and successes with the intervention. During intervention observation rounds by the DNP candidate, will be completed to monitor and support nursing staff participation during toileting activities and purposeful toileting rounds every four hours. These observations will be discussed with nursing staff in real-time to understand barriers to supervised toileting. Staff will document toileting activities on a daily log sheet.

Staff perception and comfort levels with this safe toileting program may directly influence the success and outcome with this quality improvement intervention. Staff engagement and cooperation is crucial to any change, as resistance will hinder the movement to improve patient outcomes (Thomas & Hardy, et al). Over the last year, the nursing staff of the Burn Wound unit received refresher education and new training in fall prevention with onboarding several new staff members. The nursing staff have demonstrated a genuine interest and engagement in fall prevention activities, which aids in the implementation of this additional fall prevention intervention.

During the study timeframe of 4 weeks, data collected and reviewed to determine incidence of falls, barriers and success of the safe toileting program. Staff huddles at the time of fall, anonymous electronic documented reports (signal events) and open dialogue to review additional barriers that may have contributed to the patient fall are conducted. Demonstrating a reduction and or elimination of falls related to patient toileting through deployment and sustainability with staff engagement and patient participation is reviewed. An additional aspect influencing staff satisfaction through improving patient satisfaction demonstrated through staff responsiveness and communication is a secondary impact of this project. Decreasing the

volume of call lights directly influences the workload of nursing staff and decreases call light fatigue and caregiver stress (Degelau, et al).

Analysis

Quantitative data will be analyzed and reviewed for the pre and post staff satisfaction survey as well as the incidence of falls during the intervention period. The analysis of the 4-question survey should demonstrate an overall improvement in staff satisfaction. The outcome behaviors of the burn wound unit nursing staff should demonstrate standard work in providing safe patient toileting behaviors with patients. The goal of the intervention to decrease and/or eliminate patient falls should demonstrate an overall improvement as compared to previous months leading up to the deployment of the quality improvement intervention and overall FY 18 data for the medical – surgical unit. The DNP student will categorize any falls that occur during the described period to determine if falls occurred due to toileting need or during toileting activity.

Ethical Considerations

A cautionary factor in compliance with this program involves nursing staff adoption, patient participation and acceptance. Nursing has hardwired and maintained stringent fall prevention bundle program processes for many years. The addition of this specific intervention will be an addition to the existing workflow. Patients who choose not to follow nursing staff recommendations will affect the successful implementation of safe toileting practice (Krauss, et al).

Providing patient privacy during toileting events while balancing the safety intervention is a secondary challenge. Using strategic methods to provide and respect patients is crucial and required as the observation or close proximity can be intrusive and unwarranted by patients during a vulnerable time. Sensitivity with scripting during the monitoring of patients will enhance participation. Ensuring patients are comfortable with nursing staff presence demands effective communication and consistency in practice.

ETHICS APPROVAL

This Quality Improvement project was approved by the acute care medical center as well as the University of New Hampshire.

Results

Dissemination of the project provided to the nursing team including target goals, tools including scripting, visual aid, and role-play with scenarios and the audit tools was completed the week of October 7, 2019. Time during the presentation permitted opportunity for staff to ask questions, obtain clarification and share concerns. There was no deviation from the original intervention plan and deployment.

Nursing staff completed the safe toileting daily audits using a self-reporting methodology (Appendix G & Appendix H). The audit tool remained at the nurse station and replenished daily by the nursing unit secretary. The nursing staff completed toileting rounds every four hours, supervising patient toileting activities using the provided scripting and behaviors.

Data was collected for 4 weeks (Monday – Sunday, including days and nights) which accumulated to 28 shifts; four shifts were missing data with a compliance rate of 86% (Appendix I). Of the four missing audit sheets were two on dayshift and two on nightshift. No clear explanation or rationale was determined for missing the audits other than that of human error. Of the 28 shifts audited, there were 527 toileting events logged for dayshift and 362 toileting events logged for nightshift. Dayshift hours defined as 7am to 7pm and nightshift hours as 7pm to 7am. The average volume of toileting events for dayshift was 18.82 per shift and nightshift was 12.92 per shift. Toileting assistance was refused 17 times of the 527 events (3%), these patients were alert/oriented/self-care patients. One patient within the census for 11 days had a Foley catheter. The average daily midnight census for the Burn Wound unit was 7 and fluctuated between 6 and 10 patients per day.

The project did not provoke negative or unintended consequences. Within the first few days, there were opportunities to clarify use of the audits as the intervention was in motion. Clarifying and addressing staff questions in real-time enabled and supported staff engagement with the project. Active observations were telling of the utilization of the intervention. In the early activation of the intervention, minor prompts were provided to the staff. Purposeful rounding with toileting as the driver became a standard process. Patients began to comment on staff rounds pre-emptively stating they were ready for their escort to the bathroom. The Nursing Unit Secretary (NUS) using technology created an unintended positive consequence during this project. The NUS developed a process to contact the staff using the clinical communication device (internal cell phones) to enhance communication when patients called on the call bell system to use the bathroom. Group messaging notified the team when a nurse

was occupied with a patient so another staff member could assist the patient in need in a timely manner. There were no additional costs accumulated throughout the project timeline.

Discussion

Summary

The specific aim of this QI project is fall reduction. No patient falls occurred during this intervention period. Through the interventions deployed, improvement in staff satisfaction with safe toileting interventions was remarkable. The action of auditing the process aided nursing staff to engage in the purposeful toileting rounds. Providing a visual aid in the patient room and each bathroom engaged the patients in the process. Each day the nursing staff prevented patient falls became a milestone and the energy of the team was evident. The expectation was set with each patient upon admission and reinforced. Conversations were continuous with patients to ensure understanding of the safe toileting interventions. Many of the staff reported patients commenting on the required assistance with toileting activities as it was a safety procedure demonstrating the engagement of the patients in addition to the staff.

Limitations

The Burn Wound unit is contains a small staff, which may be a limitation of the project. Smaller staff sizes are easier to communicate and deploy interventions in a shorter timeframe. The time required to follow up and reinforce with staff is less due to the sheer volume of staff members. The unit size is manageable with a maximum census of 10. The midnight census is the patient volume utilized for financial purposes for staffing. The average census of seven allowed nursing staff to monitor toileting activities on a reliable basis. This unit although small

was comprised of medicine, surgical and burn patients, which is more comparable to a typical medical-surgical unit. Having semi-private and private rooms could also been an advantage to the project. Semi-private rooms provide closer proximity in comparison to all private rooms, which creates longer hallways adding additional travel time for rounding.

Utilization of supplemental float pool nursing staff when a burn wound unit nurse or PCT staff member is not available is a limitation to the project. The regular unit staff provided just-in-time education around the project when float staff were reassigned to the unit. The infrequency and consistency of float pool staff on the unit was a challenge to ensure interventions were deployed appropriately. There were a few occasions the unit was staffed with three nurses and absent a PCT due to staffing constraints or two nurses without a PCT, or one nurse and one PCT mandated by the approved staffing matrix according to patient census. The survey questions were developed to obtain clear response from staff. The second question, however, how satisfied are you with leaving your patient in the bathroom without supervision reported slightly challenging to interpret from staff feedback. The goal was to demonstrate significant improvement with most responses as unsatisfied or very unsatisfied.

Conclusion

Safe patient toileting interventions were effective and integrated into the existing nursing standard daily workflow. As a part of the workflow, completing audits each shift by the frontline staff provided consistency and active involvement in ensuring the nursing team were actively participating. Nurses and PCTs held each other accountable through the visual reminder, as the tool was useful to ensure rounds were occurring as designed.

As fall bundles are inaction, the effectiveness and success of the project was driven by the awareness and engagement of the nursing team with support from nursing leadership. The interventions aided nursing in prevention of patient falls and continued as standard work at the conclusion of this project.

Safe patient toileting interventions can be utilized in other medical surgical units. Larger units with larger staff would require more time with training, tailoring audits to the design and the layout of patient assignments and unit structure. To implement in larger nursing units additional time to complete observations and support to ensure all staff are participating.

Varying staffing models would affect the ability to implement this project. Units without PCTs and increased nurse to patient ratios would create a challenge to maintain the scheduled four-hour toileting rounds as well as remaining with patients during toileting activities. Considering additional staffing needs influences the cost of the project.

Fall prevention studies are limited in safe toileting interventions as the majority of studies review fall bundles. There is quite a bit of difficulty to obtain single intervention studies related to fall prevention. Many of the studies in the present literature review refer to toileting schedules to prevent further clinical decline including bladder training. Further study is needed to actively determine single intervention improvement with safe patient toileting to reduce and eliminate patient falls.

Funding

This project did not receive or require additional funding to support implementation. Materials were readily available and provided by the organization with approval of the

intervention. Utilizing non-productive time for nursing staff provided the opportunity for surveying and training.

Acknowledgements

The DNP student would like to acknowledge the nursing staff of the Burn Wound Unit at Johns Hopkins Bayview Medical Center, Dr. Joanne Samuels from the University of New Hampshire and Dr. Kelly Krout from Johns Hopkins Bayview Medical Center.

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Appendix A

SAFE PATIENT TOILETING STAFF SCRIPT

Admission:

Your safety is a priority for us as we work together to help you heal. During your stay, we will keep you safe from falling by ***always*** escorting you **to and from** the bathroom. We will provide you with privacy while in the bathroom so we will remain outside your door or within arm's reach to keep you safe from falling.

Escorting patients to the bathroom:

Mrs. Jones, I am here to escort you to the bathroom and stay with you to ensure you are safe from falling. When you are finished ***do not stand up alone***. I will help you.

Patients using the bedside commode/urinal:

Mr. Jones, I am here to help you to the commode/use the urinal. I will stand nearby to ensure you are safe. If you feel uneasy on your feet at any time please tell me. I am here to keep you safe.

STAFF TIPS

- ✓ Toileting rounds are every 4 hours by nurses and pct.
- ✓ Prompt each patient, do not ask if they want to go.
- ✓ All staff are to remain within arm's reach of the patient during toileting activity.
- ✓ Ensure privacy is provided as able (stand nearby, within arm's reach, stay close to your patient, and talk with your patient while you are nearby so they know you are there to keep them safe especially when you turn your back to provide privacy).

Appendix B

Safe Patient Toileting

Welcome to the Burn Wound Unit. We are here to provide you with a safe environment during your stay with us. One way for us to help you is during bathroom activities. Our staff will assist you to the bathroom, remain nearby and assist you back to your bed or chair.

- Nurses and Patient Care Techs round every 4 hours
- We will assist you to the bathroom
- We will remain with you or close by while you are in the bathroom
- When using the urinal or commode we will stay with you or within an arm's reach
- When you need to use the bathroom please call at anytime
- When in the bathroom, please pause so we may help you

We appreciate your partnership with safe toileting activities on the Burn Wound Unit. Thank you.

Appendix C

Staff Satisfaction Survey - Safe Patient Toileting Pre-Intervention

Please place an X in the column next to your answer to each survey question listed on the left. Please place an X next to the role you perform. RN _____ PCT _____

	Extremely Satisfied 5	Satisfied 4	Neutral 3	Unsatisfied 2	Very Unsatisfied 1
How satisfied are you with spending time with your patients?					
How satisfied are you with leaving your patient in the bathroom without supervision?					
How satisfied are you with providing patient privacy during toileting events?					
How satisfied are you with your unit patient safety practices related to toileting?					

Thank you for completing this staff satisfaction survey.

APPENDIX D

Staff Satisfaction Survey - Safe Patient Toileting Post-Intervention

Please place an X in the column next to your answer to each survey question listed on the left. Please place an X next to the role you perform. RN _____ PCT _____

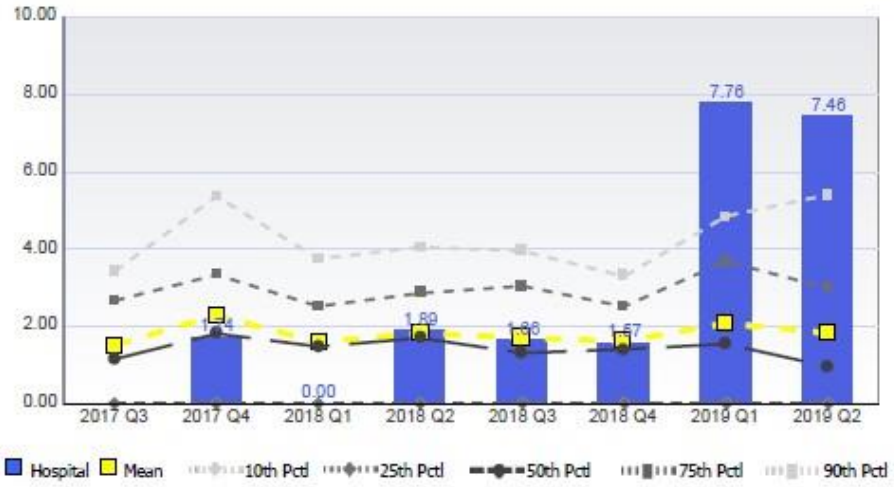
	Extremely Satisfied 5	Satisfied 4	Neutral 3	Unsatisfied 2	Very Unsatisfied 1
How satisfied are you with spending time with your patients?					
How satisfied are you with leaving your patient in the bathroom without supervision?					
How satisfied are you with providing patient privacy during toileting events?					
How satisfied are you with your unit patient safety practices related to toileting?					

Thank you for completing this staff satisfaction survey.

Appendix E

NDNQI
A Press Ganey Solution

Compared by: All Hospitals
Peer Group: All Hospitals
Unit Type: Adult Burn Unit
Unit: Burn/Wound Unit
Measure: Total Patient Falls Per 1,000 Patient Days

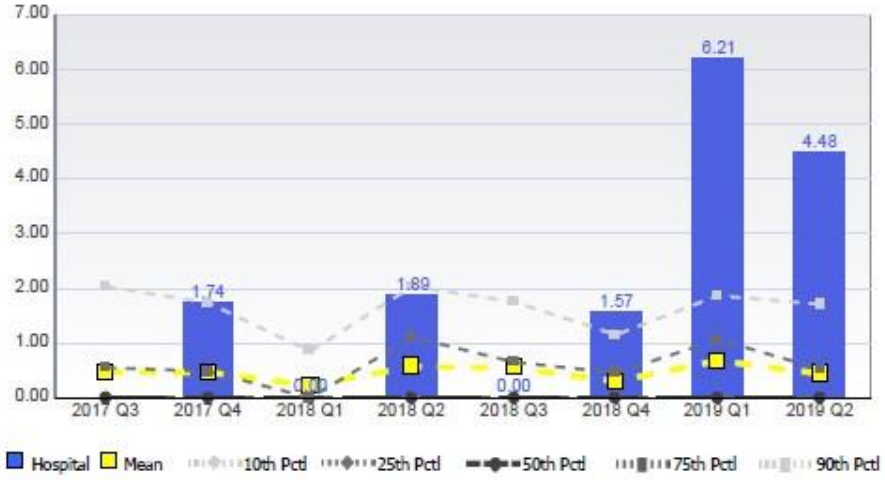


Quarter	2017 Q3	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	Average
Unit	No Data	1.74	0.00	1.89	1.66	1.57	7.76	7.46	**3.15**
Mean	1.51	2.29	1.58	1.83	1.70	1.61	2.08	1.82	**1.80**
Standard Deviation	1.49	2.25	1.56	1.67	1.75	1.68	2.05	2.10	**1.82**
10th Percentile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
25th Percentile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
50th Percentile (Median)	1.15	1.81	1.48	1.70	1.31	1.41	1.54	0.96	**1.42**
75th Percentile	2.66	3.33	2.52	2.86	3.04	2.51	3.68	2.99	**2.95**
90th Percentile	3.42	5.37	3.75	4.05	3.95	3.29	4.85	5.41	**4.26**
# Units	35	35	36	35	37	36	41	39	**37**

If the number of units or hospitals is less than five, comparison data are suppressed to maintain confidentiality. If the number of units or hospitals is less than 20, comparison data may vary substantially over the time period and should be used with caution. For additional information, please refer to NDNQI reference documents.

NDNQI
A Press Ganey Solution

Compared by: All Hospitals
Peer Group: All Hospitals
Unit Type: Adult Burn Unit
Unit: Burn/Wound Unit
Measure: Injury Falls Per 1,000 Patient Days

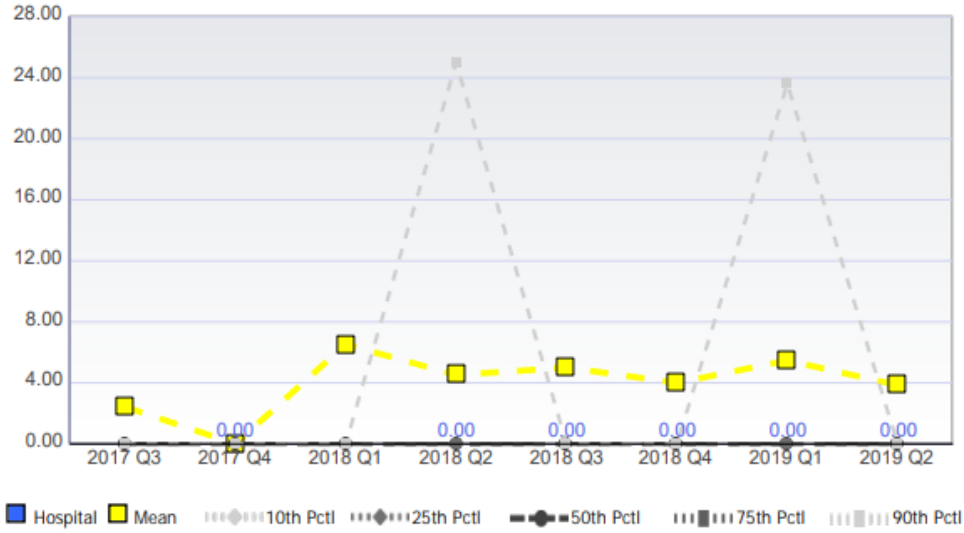


Quarter	2017 Q3	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	Average
Unit	No Data	1.74	0.00	1.89	0.00	1.57	6.21	4.48	**2.27**
Mean	0.48	0.47	0.23	0.57	0.55	0.30	0.68	0.44	**0.46**
Standard Deviation	0.99	1.11	0.60	0.90	1.30	0.55	1.22	1.02	**0.96**
10th Percentile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
25th Percentile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
50th Percentile (Median)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
75th Percentile	0.55	0.48	0.00	1.11	0.65	0.46	1.06	0.53	**0.61**
90th Percentile	2.04	1.74	0.85	2.04	1.75	1.15	1.87	1.71	**1.64**
# Units	35	35	36	35	37	36	41	39	**37**

If the number of units or hospitals is less than five, comparison data are suppressed to maintain confidentiality. If the number of units or hospitals is less than 20, comparison data may vary substantially over the time period and should be used with caution. For additional information, please refer to NDNQI reference documents.

NDNQI
A Press Ganey Solution

Compared by: All Hospitals
Peer Group: All Hospitals
Unit Type: Adult Burn Unit
Unit: Burn/Wound Unit
Measure: Percent of Patient Falls that were of Moderate or Greater Injury Severity

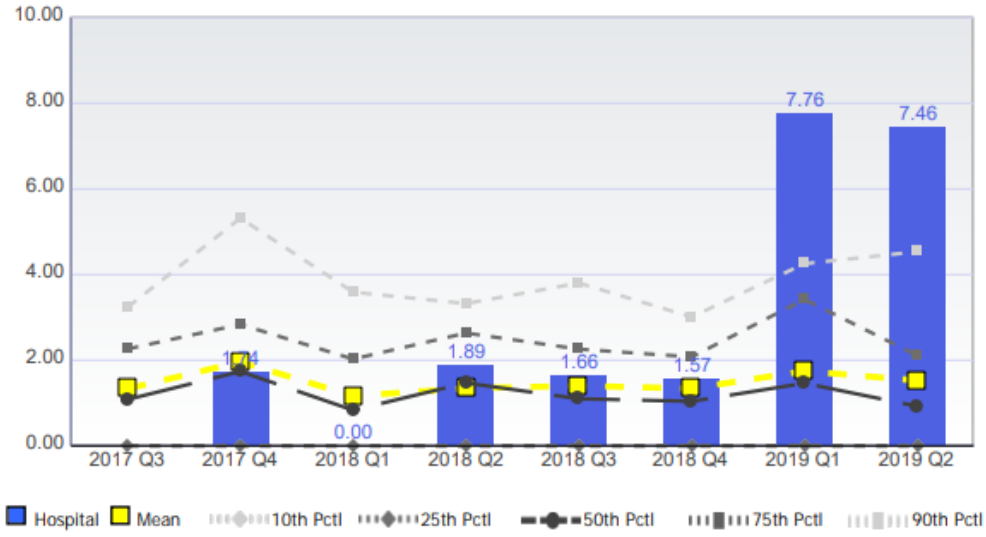


Quarter	2017 Q3	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	Average
Unit	No Data	0.00	No Data	0.00	0.00	0.00	0.00	0.00	**0.00**
Mean	2.42	0.00	6.52	4.51	5.00	4.00	5.46	3.85	**3.97**
Standard Deviation	8.11	0.00	22.88	12.76	20.64	20.00	15.72	19.61	**14.97**
10th Percentile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
25th Percentile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
50th Percentile (Median)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
75th Percentile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
90th Percentile	0.00	0.00	0.00	25.00	0.00	0.00	23.61	0.00	**6.08**
# Units	22	26	23	24	24	25	30	26	**25**

If the number of units or hospitals is less than five, comparison data are suppressed to maintain confidentiality. If the number of units or hospitals is less than 20,

NDNQI
A Press Ganey Solution

Compared by: All Hospitals
Peer Group: All Hospitals
Unit Type: Adult Burn Unit
Unit: Burn/Wound Unit
Measure: Unassisted Patient Falls Per 1,000 Patient Days



Quarter	2017 Q3	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	Average
Unit	No Data	1.74	0.00	1.89	1.66	1.57	7.76	7.46	**3.15**
Mean	1.33	1.96	1.17	1.34	1.40	1.34	1.74	1.53	**1.48**
Standard Deviation	1.38	1.96	1.38	1.33	1.45	1.63	1.90	1.93	**1.62**
10th Percentile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
25th Percentile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
50th Percentile (Median)	1.08	1.74	0.83	1.47	1.10	1.04	1.46	0.92	**1.21**
75th Percentile	2.26	2.84	2.03	2.63	2.26	2.08	3.42	2.11	**2.45**
90th Percentile	3.24	5.32	3.59	3.32	3.80	3.01	4.26	4.54	**3.88**
# Units	35	35	36	35	37	36	41	39	**37**

If the number of units or hospitals is less than five, comparison data are suppressed to maintain confidentiality. If the number of units or hospitals is less than 20, comparison data may vary substantially over the time period and should be used with caution. For additional information, please refer to NDNQI reference documents.

Appendix F

Post-Fall Huddle Tool

Date/Time of fall_____Unit/Room_____

Type of fall:

- □ **Anticipated Physiological –** due to an assessed risk factor: e.g. post anesthesia, medication, confusion
- □ **Accidental –**environmental factor e.g. wet floor, clutter, lighting, desired item out of reach
- □ **Assisted –** assisted to floor by a staff member
- □ **Intentional –** patient deliberately changes position from higher to lower level, e.g. chair to floor
- □ **Unanticipated Physiological –** due to an unknown risk not identified on assessment e.g. F&E imbalance, MI, CVA

Admitting diagnosis_____

Fall **Risk Assessment** last completed? Date/Time_____Risk score pre-fall_____

Length of time since patient seen by a staff member prior to fall?_____ □ With patient

Activity order: □ Ambulate ad lib □ As tolerated □ Ambulate w/assist □ OOB to chair w/assist

□ Bed rest w/bathroom privileges □ Complete bed rest

Toileting: □ Bathroom privileges □ Assist to Bathroom □ Bedside commode □ Urinal/Bedpan

□ Adult Diaper/Incontinence pads □ Foley in place □ Other device _____

Mental status pre-fall: □ Alert □ Oriented x_____□ Confused □ Vertigo/Dizzy □ Lethargic

□ Other_____**Changed post-fall? How?** _____

Close Observation: □ Companion □ CNA □ PCT □ Video monitor □ Other_____□ N/A

Injury/Medical Intervention: □ No □ Yes _____

_____

_____

Were these items easily available for the patient? □ Urinal □ Bedside table □ Phone □ Call light

If **assistive device** (cane, walker, wheelchair) was it within reach: □ Yes □ No □ N/A

Was **call light** on at the time of the fall? □ Yes □ No

Bed/chair/personal **alarm** on? □ N/A □ Yes □ No _____

Were **visual cues** in place (door sign, room sign, fall risk bracelet, yellow socks) □ Yes □ No

Fall prevention interventions <u>in place at the time</u> of the fall:_____

_____

_____

Was this patient **recently** (within the last 24 hour) **transferred** to a new area? □ Yes □ No

Staffing at the time: Nurse/Patient ratio_____PCT or CNA/Patient ratio _____

Complete this page as a multidisciplinary team within 30 minutes of the fall. Cause of the fall should be investigated and the back of form completed during the shift in which the fall occurs.

Not Part of the Patient's Medical Record
Privileged and Confidential/For Internal Quality Assurance Only Page 2 of 2
Mini Root Cause Analysis

Patient/family report on the reason for the fall (obtain by interview)? _____

_____

_____

Patient fell, why? (Ask why each event occurred until you get to the root cause of the fall.)

Root cause(s) of fall determined to be: _____

_____

Measures taken to directly address the root cause(s) of the fall: _____

_____

Interventions added post fall: _____

_____

_____

Debrief Checklist: The team should address the following questions during the debrief (comment as needed across multiple lines to describe problems)

Yes No

□ □ Was communication clear? □ Between staff? □ Between staff & patient _____

□ □ Were roles and responsibilities understood? _____

□ □ Was situation awareness maintained? _____

□ □ Was workload distribution equitable? _____

□ □ Was task assistance requested or offered? _____

□ □ Were errors made or avoided? _____

□ □ Were resources available? _____

What went well? _____

What should improve? _____

_____

Post-fall tasks: □ Appropriate interventions instituted □ Provider notified (if not present)
□ Patient's family notified □ Post fall note entered in Epic □ Fall risk score updated
□ Plan of care updated □ HERO report entered □ PCM/PCC notified □ Fall status in hand-off

List names of multidisciplinary team members participating in the huddle:

PCM/PCC _____

Charge RN _____

Patient's RN _____

Patient's PCT _____

Other/House staff/Attending _____

Signature of person completing this form: _____

Immediately upon completion, both sides of the form are to be faxed to 0-4254. Further use can be determined on a unit by unit basis.

Appendix G

DAYSHIFT Safe Toileting Audit Tool

Please complete this auditing tool each shift. The nursing unit secretary will place this document at the nurse's station daily. Once completed please place into the YELLOW folder labeled **COMPLETED SAFE TOILETING AUDITS.** The safe patient toileting project includes *all patients* admitted to the unit beginning Monday, October 14th through Sunday, November 10th. Any questions please contact Kim Goldsborough MSN, RN @ kgoldsb1@jhmi.edu. Thank you for your assistance with this audit.

Date:	**Morning (7a – 11a)**	**Afternoon (11a-3p)**	**Evening (4p-7p)**
311A			
311B			
312A			
312B			
313			
314A			
314B			
315A			
315B			
316			

KEY

- **V** = no patient assigned to room
- **X** = room is vacant/patient is off unit at testing
- **BR** = patient is on **Bedrest**
- **F** = patient has **Foley** catheter
- **T** = patient **Toileted** without assistance
- **A** = patient **Accompanied** by staff while toileting
- **R** = patient refused assistance

Appendix H

NIGHTSHIFT Safe Toileting Audit Tool

Please complete this auditing tool each shift. The nursing unit secretary will place this document at the nurse's station daily. Once completed please place into the YELLOW folder labeled **COMPLETED SAFE TOILETING AUDITS.** The safe patient toileting project includes *all patients* admitted to the unit beginning Monday, October 14th through Sunday, November 10th. Any questions please contact Kim Goldsborough MSN, RN @ kgoldsb1@jhmi.edu. Thank you for your assistance with this audit.

Date:	**Evening (7p – 11p)**	**Midnight (11p-3a)**	**Morning (3a-7a)**
311A			
311B			
312A			
312B			
313			
314A			
314B			
315A			
315B			
316			

KEY

- **V** = no patient assigned to room
- **X** = room is vacant/patient is off unit at testing
- **BR** = patient is on **Bedrest**
- **F** = patient has **Foley** catheter
- **T** = patient **Toileted** without assistance
- **A** = patient **Accompanied** by staff while toileting
- **R** = patient refused assistance

Appendix I

Patient Toileting Events Per Shift Per Day

PATIENT TOILETING EVENTS PER SHIFT PER DAY																													
Midnight Census	7	6	6	7	7	7	7	7	9	8	9	8	8	9	9	10	8	8	8	9	8	5	8	7	6	7	6	9	
	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct	23-Oct	24-Oct	25-Oct	26-Oct	27-Oct	28-Oct	29-Oct	30-Oct	31-Oct	1-Nov	2-Nov	3-Nov	4-Nov	5-Nov	6-Nov	7-Nov	8-Nov	9-Nov	10-Nov	
Dayshift																													
7a-11a	6	6	3	5	5	9	6	6	6	1	7	3	7	9	6	0	1	3	8	5	0	5	5	9	8	6	8	14	
11a-3p	6	8	2	4	7	9	5	6	8	0	4	7	8	5	5	0	0	4	8	4	0	4	4	8	6	7	6	10	
3p-7p	9	8	2	5	8	0	7	7	8	0	0	8	6	5	5	0	0	3	0	5	0	6	11	6	4	6	6	0	
Total	21	22	7	14	20	18	18	19	22	1	11	18	21	19	16	0	1	10	16	14	0	15	20	23	18	19	20	24	
Nightshift																													
7p-11ap	3	5	5	6	6	6	5	7	4	1	7	4	5	6	4	0	3	5	4	5	0	5	6	7	3	7	6	7	
11p-3a	5	3	5	6	7	6	6	5	6	1	4	3	7	5	7	0	7	3	3	5	0	3	4	7	3	0	6	5	
3a-7a	5	5	4	2	7	7	7	3	5	1	4	4	4	4	3	0	3	3	4	6	0	3	4	7	2	0	9	3	
Total	13	13	14	14	20	19	18	15	15	3	15	11	16	15	14	0	13	11	11	16	0	11	14	21	7	7	21	15	
24 hr total	13	25	21	28	40	37	36	33	37	4	26	29	37	34	30	0	14	21	27	30	0	26	34	44	25	26	41	39	
	Avg events per 12 hr dayshift 15.25																												
	Avg events per 12 hr nightshift 12.9																												
	Avg events per 24 hours 27.75																												
	11 of 28 days, 1 patient in the census had a foley placed																												
	Patients refused assistance 17 times																												
	Falls 0																												
	no documentation (0) was noted for 4 complete 12 hour shifts																												