Nurses strive to provide quality care which translates into safe care and positive patient outcomes. However, accidents happen and may bring untoward consequences. The very word accident implies something unplanned occurred. In an effort to improve patient outcomes and improve safety for patients, health care organizations through the discipline of nursing implement precautions to prepare for and protect individuals against accidents. A patient fall represents an unwanted and unplanned event. Although standard fall precautions exist in the Same-Day Surgery/Postanesthesia Care Unit (SDS/PACU) of this project, falls continue to occur. The purpose of this paper is to identify the events leading to patient falls in a SDS/PACU and describe the processes developed to reduce fall events.

Fall Assessment in Post Anesthesia Care
With the task of promoting patient safety and positive patient outcomes, a health care facility must implement protocols to reduce the risk of falling after anesthesia. In addition, health organizations run the risk of non-payment from the Centers for Medicare and Medicaid Services for treatment of fall injuries (Foisy, 2013). Therefore, the staff must assess a patient's risk for falls based on its own population and setting (The Joint Commission, 2012). The SDS/PACU in this community hospital represents a unique situation because the majority of patients are categorized as outpatients. The majority of patients are military service members aged forty years old or less. They must be capable of mobilizing soon after a surgical procedure in order to be discharged to home. They may have no family support on hand, only fellow service members. Standard falls-risk reduction interventions including signs with a falling star and Humpty Dumpty are coupled with the completion of a falls-risk assessment tool at the initiation of a patient encounter. Although the falls-risk signs sit appropriately positioned above each bed cubicle in the SDS/PACU, staff realized that all patients in a post anesthesia setting represent a falls risk, therefore the signage serves no constructive purpose. Furthermore, despite the signs, falls continued to occur. In light of the problem, the staff set out to investigate improved interventions.

All forms of anesthesia create an alteration in awareness and balance. However, patients with a femoral nerve block (FNB) for knee surgeries represent the only demographic of patients who fell in this unit in the past year. An altered sensorium was not linked to the patient population at the time of the falls since the incidents occurred well into the phase II of recovery. Rather, the altered sense of balance predisposed individuals to the fall event. The anesthesia staff encourages the utilization of FNBs for lower extremity surgery since a FNB reduces the need for general anesthesia and narcotics by providing pain relief without the side effects of excessive sedation, nausea, and vomiting (Foisy, 2013). However, the FNB produced sensory and proprioceptive alterations which subsequently increased the risk for fall (Atkinson, Hamid, Gupte, Russell, & Handy, 2008). Upon review, staff noted the falls in the unit occurred after the patient completed recovery and attempted to ambulate to the bathroom, or to the wheelchair for discharge.

Impact of Patient Falls in Post Anesthesia Care
Patient fall events in any health care setting represent a patient safety issue with correlating financial consequences (National Quality Forum, 2012). Literature suggests the issue related to falls and FNB posed a threat to safety (Atkinson et al., 2008). The patient population in our SDS/PACU consists mainly of young, relatively healthy soldiers with a common procedure of knee arthroscopy. Therefore, factors such as general weakness, aging, or diabetes, Parkinson’s, malnutrition, vertigo and incontinence do not apply to our patient population (Clyburn, 2011). Anesthetists combine regional anesthesia with a FNB with either intravenous anesthesia or general anesthesia for patients undergoing lower extremity surgery. Although FNBs reduce anesthetic complications, early ambulation in an outpatient setting predisposes any individual to falls due to impairment of balance. Each of the patients who fell in the unit sustained no injury secondary to the fall.

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Strategies to Improve
In addition to the standard falls risk assessment and falls risk signage, nurses recognized the need for new and specific interventions once they identified the patient demographics in the data. Therefore, all patients in SDS/PACU received standard falls precautions prior to surgery, but to reduce the risk of falling after anesthesia a new mobility algorithm was developed. Prior to undergoing knee procedures, patients receive crutch training from the physical therapy staff. In order to reduce fall events in this unit, nurses now provide detailed instructions on altered balance related to the lack of sensation in the affected leg. This instruction is also presented to the family member/battle buddy for continued care at home. Despite previous crutch training by the physical therapy department, the added influence of leg numbness requires additional training in the unit prior to ambulation and discharge. Before attempting mobilization, the nurse assesses balance and height considerations and asks colleagues for assistance with any patient taller than herself or himself. Staff does not allow patients to attempt ambulation for any distance beyond a few steps within the unit, even for elimination needs. In the event elimination needs arise, the patient makes the decision to either use a wheelchair for transport to the bathroom or use a urinal or bedpan. While in the bathroom either a family member or a staff member attends the patient with all due respect to privacy. Nurses recognized their knowledge deficit in the area of crutch training with impaired sensation in an operative lower extremity, therefore the physical therapy department provided a special in-service on the unit. Gait belts, which are plastic belts secured with a clip at the waist, enable an ambulation assistant to retain control of an individual who becomes off balanced while walking. Subsequent to that education, the management purchased gait belts for unit use which now assist in safety during ambulation. Furthermore, the discharge needs of the patient in arriving home were not ignored. In the discharge instructions, nurses encourage family members/battle buddies to seek assistance of a neighbor or friend to guide patient from car to house. If the patient lives in a two-story dwelling, a urinal is provided. The urinal reduces at-home fall injuries by reducing the need to climb steps to a second floor bathroom in the immediate post-operative period.

The largest deterrent to implementation of the new fall precautions related to regional anesthesia revolved around staff buy-in. Some nurses do not want to attend a patient while in the bathroom, some do not recognize the need to ask for assistance and some forget the availability of the gait belts. The staff in this PACU recently changed to all registered nurses without licensed practical nurses or certified nursing assistant staff. The presence of only registered nurses improved compliance with the new standards.

Continued evaluation of fall metrics by each staff member combined with group input into problem-solving, provided feasible and effective strategies to combat the fall issue. Since implementation of the new falls policy and mobility algorithm, no falls have occurred in the SDS/PACU for the past nineteen months. Furthermore, the new algorithm and policy became the foundation for the hospital-wide process improvement project which resulted in an 81% reduction in falls in all units.

Analysis of Nursing Influence.
Staff registered nurses provide the best influence in the implementation of patient safety precautions. Although senior staff may collect and correlate data from safety metrics, the direct-care nurse not only bears the responsibility for implementation, but also serves as the best resource for solutions. Although only four falls occurred in the year prior to these interventions and did not raise significant alarms with the leadership, the staff nurses took it upon themselves to identify the root causes and strategize for solutions on the issue identified by the staff. The details of fall events stand clear in the minds of the direct-care nurses and aid the process change in a way that numbers on a page cannot.

Summary
Despite adherence to standard patient fall precautions a patient’s risk for falling in the outpatient setting of a SDS/PACU increased when anesthesia staff employed a femoral nerve block on the lower extremity. The subsequent alteration in balance and sensation shifted equilibrium and predisposed patients to fall despite a patient receiving pre-operative crutch training. Nursing interventions based on the specifics of a patient population fulfills The Joint Commission’s directive and serves as the best strategy for interventions. Additional crutch training post-operatively, increased supervision with elimination and mechanical support with the use of gait belts serve as feasible and effective solutions to improve patient safety. Direct-care nursing staff stand uniquely positioned to identify and implement targeted improvements in patient safety as demonstrated in this PACU/SDS Unit.

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References


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Same-Day Surgery Mobility Algorithm

Criteria for Mobility
- Able to follow commands
- Stable vital signs
- Pain, nausea tolerable

Lower Extremity Regional Block Safety Measures
- Patient taller than nurse-2 person assist
- Use gait belt if unstable
- Evaluate gait technique
- Discharge via wheelchair only
- Patient is in clothed before discharging
- Discharge with home safety

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