Therapeutic Nursing Intervention- Fall Prevention

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Injuries related to a falls are frequently correlated to age; however further research has disclosed how side effects of medications could also be responsible. The Center for Disease Control stated that falls are the leading cause of death in those people 65 years of age and older. However, falls are not only related to aging, but also types of medication and the environment. For example, “among the fall-injured patients, 7450 patients (4.5%) had a new opioid dispensation within 28 days prior to the injury” (Soderberg, Laflamme, & Moller, 2013, pg. 155). This paper introduces a scenario based on a clinical experience, it then summarizes the importance of research articles that further depict the correlation between certain drugs and injuries related to falls, along with the intervention and practice guidelines that have been implemented to fix the problem. In addition, the formal nursing interventions, based on protocols, are compared to actual interventions that are implemented. The purpose is to highlight how the healthcare industry could better address fall related injuries and how fall risk analyzes should include what medications the patient is prescribed and their side effects.

Clinical Problem

On 2/20/14 my clinical experience was held on the 2-Tele floor of Obici Hospital. After receiving report from the night nurse, the day nurse and I introduced ourselves to our patient; a 49 year old female who was admitted for pancreatitis secondary to alcoholism. The patient was heavily medicated, with a blank, unfocused gaze and slurred speech. The nurse and I immediately realized that the patient was a severe fall risk, and that several fall risk prevention measures were not in place. For example, the
bed was elevated, the patient's side rails were down, she wasn't wearing “no-slip”
socks, and the safety alarm on the bed was off. In addition, the night nurse had been
allowing the patient to attempt to ambulate to the restroom instead of encouraging her
to call the nurse for help and placing a bedside commode by the bed. After
implementing fall prevention measures, we reviewed the medication consolation form as
well the Medication Administration Report (MAR) and found that the patient was
prescribed Norco PO every 4 hours PRN, Dilaudid IV 2mg every three hours PRN, and
Ativan IV 0.5mg every six hours PRN; in addition, the patient had received the Ativan at
0300 and the Dilaudid at 0630.

I chose this clinical experience to focus on because I felt that it is such a blatant
disregard for safety. The patient was heavily medicated and simple precautions were
not addressed at all. In addition, the correlation to preventable falls and serious injuries
are extremely high and by highlighting the correlation between preventable falls and
medication I hope to enlighten additional means to keep the patients’ safety a number
one priority.

Current Practice

There are several different means to address fall prevention within the hospital
setting; the formal approach and the informal approach. The formal approach of fall
prevention in the hospital begins with a fall risk analysis, depicting to what degree of a
potential fall risk the patient is; one of these models is called the Haddon matrix. The
Haddon matrix is used to “examine the potential reasons, consequences and factors of
falls, and possibilities for prevention” (Huang, et al., 2013, pg. 367). The Haddon matrix
is broken into key areas that have the most impact on falls, which includes the host, the
agent, and the environment; for example “changing medication use, modifying
prescribing practices and performing medication reconciliation at transitions” (Huang, et al, 2013, pg. 367). In addition, the Center of Disease Control and Prevention (CDC) also encourage fall prevention practices through education about falls, exercise, medication review by licensed physician and/or pharmacist, and home safety assessments (“Center of Disease”, 2008). For example, Sentara healthcare has three steps that are implemented daily to strive for “Performance Excellence”: “Daily Check-ins/Huddles to share and maintain situational awareness, Safety rounds to identify problems and reinforce safety as a priority, and Action Plans to manage and ensure accountability for improvement work (McCarthy & Klein, 2011). This system is what initiated the morning Huddle, which is when the breach in safety protocols for our patient was addressed and improvement was introduced.

The informal approach to fall prevention measures includes preventative measures that directly affect the patient and their safety. For example, fall prevention measures include limiting the mobility of the patient who is taking medications that are associated with dizziness or confusion. In addition, placing “no slip” socks to increase traction, and safety alarms on the bed or chair that allow the nurse to be rang if/when the patient was to attempt to get up. Patients that continue to get out of bed could be placed in a high visibility room where the nursing staff can, as a team, work together to ensure safety. Patients should also be encouraged to use the bedpan or bedside commode instead of walking to the toilet, and the nurse must make sure that it is placed close to the bed.
The formal approach is centered more around what the hospital dictates is the most helpful tools a staff member can use to acknowledge the risk for falls. This acknowledgement is then focused on how the staff as a unit will ensure patient safety is a priority. The informal approach is more interested in what the nurse or nursing care partner will actively implement. The informal approach takes the acknowledged risks and actively implements fall prevention measures to ensure safety.

**Nursing Interventions**

Every year between 700,000 and 1,000,000 people in the United States fall in the hospital resulting in injuries; research shows that around one third of these falls were preventable (“Preventing”, 2013). In 2000, there were 2.6 million reports of medically treated falls in the U.S; those nonfatal falls cost $19 billion to treat, while fatal falls cost an addition 2 billion (Costello & Edelstein, 2008). While the majority of falls are related to the effects of aging, other extrinsic factors, such as medications, also contribute to the risk of falls. We, as healthcare personal, need to become better at assessing our patients for fall risks, along with implementing nursing interventions to increase their safety through fall risk prevention measures, medication reconciliation, and an increase in knowledge related to Fall Risk Increasing Drugs (FRIDS). In improving our techniques and mandating protocols for increasing fall risk preventions, and then actually performing those interventions, the patients’ potential risk for injury and overall safety while in the hospital setting will improve.

Payne, Abel, Simpon, and Maxwell (2013) created a retrospective case cohort study that focuses on the relationship between falls and the recent prescription of cardiovascular and psychotropic medications. The focus was on those patients who
were admitted for fall related injuries within 60 days of receiving a change or additional prescription of a cardiovascular or psychotropic medication. Results indicated that 87% of those patients were admitted with falls had a change in or newly prescribed cardiovascular medication; in addition, 10.6% had a change in or newly prescribed psychotropic medication. The results indicate that there is a significant correlation between falls and the change in or prescription of cardiovascular and psychotropic medications. Reasons for psychotropic medications precipitating these falls could be associated with side effects of the medication such as "postural hypotension, sedation, dizziness, confusion", and ataxia with Benzodiazepines. As indicated earlier, the patient was taking Ativan, a Benzodiazepine, which this study has indicated to be a major cause of falls. This study just further corroborates that the patient was a true fall risk and should have had fall preventative measures in place. This association with FRIDS to the astounding numbers of falls also highlights the importance of medication reconciliation by the nurse or doctor to actively identify what medications the patient may be currently influenced by.

Huang, et al. (2012) focused on injuries related to falls and their causes and prevention methods associated. While their research focused on the elderly population, they are specifically concentrating on the affects that FRIDS have on falls; specifically cardiovascular drugs, benzodiazepines, antidepressants, antipsychotics, opioids, and urological spasmolytic drugs. While all of these drugs have been deemed FRIDS, this comprehensive study found that psychotropic drugs, in particular Benzodiazepines, were the most associated with injuries. The study also outlines affective nursing interventions related to preventing falls with assessment tools such as the Haddon
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Matrix, mentioned earlier. This study found that “educating Physicians about fall risks and offering clinical practice changes lowered the rate of serious fall related injuries (per 1000 persons) from 31.9 to 28.6” within the two year study (Huang et al, pg. 368). This research future indicates that through education about the drastic consequences of falls and the simple interventions to prevent injuries, the healthcare profession can drastically decrease the number of falls related to medication administration.

Practical Application

The research articles revealed a strong correlation to injuries occurring from a fall and FRIDS through statistics and methods of intervention. In addition, the articles were useful tools to indicate how prevalent falls occur in those patients taking such medication; for example, Dilaudid and Ativan, which the patient from the scenario was prescribed. Falls related to medications have been deemed the “most modifiable risk factor”, which furthers to increase the importance that the medical community should place on patient safety and prevention measures (Huang et al., 2012, pg. 371).

The current practice guidelines, both formal and informal, along with the nursing interventions highlighted by evidenced based research, like medication reconciliation and education, all come together to create a strategy to implement safety. The Haddon matrix and medication reconciliation are first used to identify the fall risk “level” the patient is deemed, through the assessment of multiple factors. In addition, the unit’s morning huddles and safety rounds notify the entire staff the level of fall risk the patient is, along with any potential aid that might be needed. For example, the patient could be moved to a high visibility room where the nursing staff is aware that they need to just check in and keep an eye out for the patient who continues to try to get out of bed.
Furthermore, the assessment notifies the nursing which informal interventions should be placed. This patient was given “no slip” socks, with the bed lowered to the floor, side rails up, safety bed alarm on, and the call bell within reach. She was notified that she should not get out of bed for any reason and would have to use the bedpan, however, she was heavily medicated and we took into consideration that she might not understand the instructions. Because of her highly confused state we also placed a mat on both sides of the bed to pad the floor just in case she did decide to get up and fell.

**Conclusion**

Beginning with an introduction to the impact of falls within the healthcare community, this paper then highlighted a clinical experience where blatant disregard for safety prevention measures was noted. The current clinical practice mechanisms, both formal and informal were then addressed and compared. Evidenced based research was then used to verify the importance and the documented impact that nursing interventions have when dealing with fall prevention measures. Lastly, the nursing interventions and clinical practice were used to derive a practical application of fall prevention for our clinical situation.
References


