Prevention of Falls in Patient Care Settings
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Abstract

In the United States, approximately 700,000 to one million people fall in the hospital each year according to the National Database of Nursing Quality Indicators (Weycer, 2019). Of those people, around one-third will experience an injury from these falls and about 11,000 will die (Weycer, 2019). This demonstrates how significant this issue is in healthcare. However, falls can be extremely preventable in the acute care setting. Some interventions that may help reduce these numbers include fall risk assessments, mattress or chair alarms, enhanced supervision, toileting protocols, patient education, and fall prevention plan documentation. A review of the literature and statistical data will demonstrate the effectiveness of these interventions in preventing falls in the patient care setting.

Northwell Health Fall Rates

In January of 2018, the fall index was 1.50. Initially, falls started to decrease on the unit. In February and March of 2018, the fall index fell to 0.00. It then went back up and increased in April to 1.48. In May it also increased to 1.49 and in June it went up to the highest it’s ever been at 1.54. The unit has set up targets for 2019 to decrease the average fall index by 10% initially to 1.27 fall index and then by 15% at 1.20 by the end of the year.

Interventions

- Fall risk assessment: By identifying risk factors associated with falls, healthcare professionals will be able to implement fall risk precautions before a fall actually occurs.
- Post-fall review: Allows for the staff to identify and act on risk factors that could be modified. The review allows for the healthcare team to analyze the factors that may have impacted the fall which allows them to modify protocol or implement new guidelines to ensure the safety of their patients.
- Medication review: Some medications cause symptoms such as delirium, hypotension, and syncope. Common medications that are given in the hospital setting such as, hypertension medications, opioids for pain, benzodiazepines for sedation, and antihistamines such as diphenhydramine increase the patient’s risk of falling, especially in the older adult population.
- Non-slip socks: nonslip socks for patients who constantly need to get in and out of bed are also a way to decrease the risk of falls.
- Others: mattress or chair alarms, enhanced supervision, toileting protocols, adequate lighting and education.

Study Design

In this study, they created two groups, one with no interventions, which is the control group, and one with the interventions, which is the intervention group. The interventions included fall risk assessments, bedside alerts, patient education, and documentation of the fall prevention plan (Dykes et al., 2010). In the control group, the fall risk assessment included completing a Morse fall risk scale. In the intervention group, the Morse fall scale was used and interventions were automatically applied using patient information (Dykes et al., 2010). In the control group, the bedside alert intervention included putting a “high risk for falls” sign above the patient’s bed if they scored more than a 45 on the Morse fall scale. The intervention group received tailored posters for all at-risk patients that were updated if there was any change in the patient’s status. The data provided in the chart analyses the control group and the intervention group (Dykes et al., 2010). For patient education, the control group received booklets or handouts, while the intervention group received tailored handouts according to the patient’s status that was updated if the patient’s status changed. For documentation of the fall prevention plan, the control group had the plan recorded on paper or electronic record. The intervention group received a tailored plan that was created using the fall prevention tool kit (Dykes et al., 2010). Below are the results of the control and intervention groups.

Results

Fall prevention interventions can prevent 1 fall in every 862 patient days. This is the number of days in a typical 3 day stay for 287 patients (Dykes et al., 2010). Additionally, “There are two 862-patient-day periods each week in the 8 study units (control and intervention). Therefore, the FPTK could potentially prevent 1 fall every 4 days, 7.5 falls each month, and about 90 falls each year in the control units” (Dykes et al., 2010). Adherence in both groups was also measured. Adherence to using the Morse Falls Scale in the control group was 81%, while in the intervention group, adherence was measured at 94% (Dykes et al., 2010). Additionally, for the intervention group, it was found that 93.2% of the tools were printed and 89% adhered to putting the sign on fall risk patient’s beds. Fewer falls occurred in the interventions unit overall, however, the reduction was significant for the age group of people 65 and older. In the control group, there were 53 falls, while in the intervention group there were only 35 falls. Although statistically insignificant, “One older patient in an intervention unit and 2 in control units experienced a repeat fall (P=.50), and fall-related injuries were experienced by 7 in the intervention units vs 9 in the control units (P=.66)” (Dykes et al., 2010).