

# Assessment for Delirium in the Postoperative Patient to Impact Falls

Sharon A. Tylka DNP, RN, NE-BC

## Introduction of the Problem

- Delirium is an acute, reversible change in baseline cognition due to an underlying medical disorder (Bennett, 2019).
- 7 million hospitalized patients suffer from delirium annually in the United States (American Delirium Society, 2020).
- Delirium is often overlooked and under-recognized by clinicians (Babine et al., 2018).
- Delirium is a causative agent to patient falls in the healthcare setting (Glasper, 2019).
- The Confusion Assessment Method (CAM) diagnostic algorithm is used to identify delirium (Shenkin et al., 2019).

## Data Analysis

- Data analyzed the number of patient falls before and after the implementation of delirium assessment.
- Chi-square evaluated the impact of the intervention on the patient outcome without randomization.
- Statistical significance was defined as  $p < .05$ .
- Overall sample ( $N = 155$ ) had a mean age of 64.69 (SD 13.91).
- Patient falls accounted for 6% of the sample in the comparison group and 1% in the intervention group.

## Results

- Despite three less falls in the implementation group, the chi-square test demonstrated no statistical significance ( $p = .112$ ).
- Clinical significance exists due to less falls.
- Figure 1 demonstrates the relationship of fall risk at admission with the rates of delirium presence.
- Table 1 illustrates the chi-square analysis between the comparison and implementation groups.
- 29% of the patients in the intervention group experienced delirium.
- A reduction of patient falls occurred in the intervention group.

Figure 1: Bar Chart of Fall Risk at Admission to Rates of Delirium Present (n = 85)

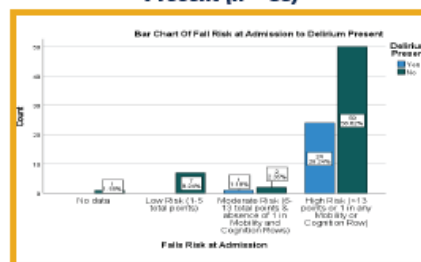


Table 1: Chi-Square Test of Falls Between Groups (N = 155)

Group	Did not Fall	Falls	X <sup>2</sup>	P
Comparison Group (n = 70)	65	4(6%)		
Implementation Group (n = 85)	84	1(1%)	2.53	.112

Note. \*\* =  $p < .05$ . Fisher's Exact Test = .129

## Discussion

- The quality improvement project depicted no statistical significance as demonstrated by the chi-square test of  $p = .112$ .
- Four patients fell in the comparison group and one patient fell in the intervention group.
- 29% of the patients experienced delirium.
- Analysis of the relationship between delirium being present and falls was found to have a low correlation ( $r = -.169$ ,  $p = .122$ ).

## Project Limitations

- The COVID-19 pandemic reduced surgical cases by 30%, limiting the initial sample population.
- Short project duration (4-weeks).
- Small sample size due to limited implementation time.
- Nurse compliance with delirium screening using the CAM diagnostic algorithm.
- Not statistically significant.

## References

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