

Bedside Nurse Recognition of Delirium in the Medical-Surgical Setting

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Background

- One goal of Healthy People 2020 is to “improve the health, function and quality of life for older adults”(Healthy People 2020).
- By the year 2030, 20% of all U.S. residents will be 65 or older and by 2050, this population is projected be over 83 million almost doubling the current population for that age group of 43 million (U.S. Department of Commerce, 2014).
- Older adults consume many health care services due to living longer, often requiring inpatient hospital stays (Institute of Medicine, 2008).



Problem /Purpose Statement

- Bedside nurses fail to recognize more than 50% of the delirium cases in elderly patients.
- A screening tool and nurse education (in comparison with no screening tool) will improve the identification of patients’ aged 65 or older with delirium on medical-surgical units.
- The purpose of the quality improvement project was to examine bedside nurse education and use of an electronic screening tool (Confusion Assessment Method Tool (phase 2) on medical surgical units to identify patients aged 65 or older who were at risk for or develop delirium during a hospital stay.

Goals and Objectives

The goal was to reduce the incidence of delirium in patients’ ages 65 or greater on medical-surgical units in the acute hospital setting.

Objectives

1. Objectives included increasing bedside nursing knowledge as measured with pretest and posttest scores.
2. The second objective was to increase (by 50%) bedside nurse recognition of delirium with the use of the Short CAM tool.

Social Change

- Society’s view of delirium as a normal part of aging contributes to the lack of recognition of delirium as a true medical emergency (Inouye, Schlesinger, & Lydon, 1999).
- Delirium is now being recognized as potentially preventable in the literature but resources are not being allocated for clinical care despite the socioeconomic impact of delirium (Leslie & Inouye, 2011).

Socioeconomic Impact

- The average cost per day for delirium patients reached nearly 3x the cost of patients not having delirium.
- The total health care costs ranged from \$38 billion to \$152 billion each year equaling the costs of falls and diabetes mellitus which receives far more attention than delirium (Leslie, Marcantoni, Zhang, Leo-Summers, and Inouye, 2008).

Predisposing and Precipitating Factors

Predisposing Risk Factors	Precipitating Risk Factors
Age	Drugs
Male sex	Neurological events
History of cognitive impairment	Infections
Functional status (sedentary)	Iatrogenic complications
Sensory impairment	Hypoxia
Dehydration and malnutrition	Poor nutritional status
Drugs	Metabolic imbalances
Co-existing medical conditions	Surgery (orthopedic, cardiac and vascular)
	Environmental factors

Three Subtypes of Delirium

Hypoactive	Hyperactive	Mixed
Lethargic	Agitation (Combative)	Waxing and waning between hypoactive and hyperactive delirium
Apathetic	Psychosis, Paranoia	
Somnolent	Restlessness	
Confusion (not readily identifiable)	Impulsiveness	
	Illusions, Hallucinations	
Risk for pressure ulcers and nosocomial infections	Risk for falls and pulling out invasive lines	Pressure ulcers, nosocomial infections, falls and pulling out lines

Interventions

Orientation (clock and calendar)	Prescribed hydration
Use of sensory aids	Monitored nutrition
Uninterrupted sleep schedule	Routine ambulation
Avoidance of intravenous catheters and indwelling urinary catheters	Medication reviewed by a geriatrician and pharmacist

Research Question

- Null hypothesis- There is no difference in the pretest and posttest scores following the educational PowerPoint.
- A pretest, educational PowerPoint and posttest were developed and administered electronically following IRB approval.
- The pretest had to be completed prior to the educational PowerPoint. The educational PowerPoint then followed.
- The pretest was then re-administered and served as the posttest.

The Participants

- 104 bedside medical-surgical nurses were invited to participate in the project.
- 56 nurses (53.8%) completed the pretest and educational PowerPoint.
- Of the 56 nurses who participated, 10 were excluded for failure to complete the posttest.
- An additional 10 nurses were excluded for completing the posttest outside the allotted time frame.
- Result- 36 nurses completed paired assessments resulting in an overall participation rate of 34.6% for the project.

Data Analysis

- Completed in a 4 week period from 9/21/15 through 10/23/15.
- Data analyzed using Microsoft Excel.
- Aggregate pretest and posttest scores were evaluated and crosschecked manually.
- Two tailed t-test analysis technique was used to examine differences with a p value of < 0.05 being considered as statistically significant.

Results/Discussion

	N	Mean score	SD	Minimum score	Maximum score	Two tailed t-test
Pretest	21	15.92	13.73	80	100	p = < 0.05
Posttest	21	18.95	7.16	80	100	p = < 0.05

The key finding in this project was that bedside nurses have a knowledge deficit in regard to delirium which may be improved with education.

Recommendations

- Robust educational program with geriatric competencies should be included in professional development for all health care providers.
- The rapidly increasing numbers of patients who are 65 or greater and the increasing life expectancy of this patient population merits a concentrated effort by all acute care facilities.
- Annual or ongoing competencies must be developed to ensure all professionals are utilizing this skill set in caring for the elderly on a routine basis.
- Focused attention must be given to delirium as delirium is considered a medical emergency.
- Nursing schools are generally unable to meet the expanding need for specialized education, this vital education is now falling on the hiring institution to ensure the appropriate knowledge and skill set is available to adequately care for this unique and ever expanding patient population.
- Institutions providing this education could also benefit as bedside nurses may feel more confident and competent in managing the complexities of care for this patient population.

