



Prevention, Early Detection, and Treatment of Delirium: A Quality Improvement Project

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Introduction

Delirium is the disturbance of consciousness and cognition usually associated with rapid onset and fluctuating course ¹

Delirium is a condition that impacts 9% to 87% of adults in the acute care setting and is generally associated with an acute onset during times of stress or hospitalization ⁹

Incidence is higher in patients admitted with hip fractures (61%) and the frail elderly (60%) ^{4,8}

The outcomes associated with delirium cost healthcare agencies \$16,303 to \$64,421 per patient annually and can lead to increase length of stay for patients, complicating their recovery ⁵

Background/Significance

Delirium is associated with long and short term effects such as increase mortality, decrease functional ability, increase length of stay, increase health care costs, increase admission to long term care facility, and the impact of delirium may last up to one year ^{3,4}

Lack of delirium identification can result in poor patient outcomes and increased medical costs ³

Undetected delirium is associated with mortality rates ranging from 22% to 76% ⁴

Periodic chart reviews were conducted on an intermediate care unit using the brief Confusion Assessment Method (bCAM). Results identified 15% of previously undiagnosed patients screened positive for delirium

Prevention is desirable, but early recognition and identification of delirium among acutely ill patients may also decrease complications, ineffective treatment modalities, and cost

Purpose

The purpose of this presentation is to describe the development of an evidence based delirium detection and prompt preventative intervention program for acute care patients admitted to an intermediate care unit



The Key to Delirium Prevention Use of Multicomponent Nonpharmacological Interventions

- Avoiding sensory deprivation
- Encourage sleep
- Pain management
- Early mobilization
- Cognitive orientation
- Integration of family
- Implementation of familiar objects

Synthesis of Evidence

- **Prevention:**
 - Education:
 - Participation in an educational intervention program on delirium showed statistically significant improvements in delirium knowledge and delirium recognition (p= 0.001) ⁶
 - Non-pharmacological Interventions:
 - Implementation of multicomponent preventative interventions showed an approximate 30% decrease in delirium incidence when compared to usual care (p=0.001)^{2,8}
- **Early Detection:**
 - Sensitivity rate of 84% and specificity rate of 95.8% was identified with use of the bCAM ³
 - Sensitivity rate of 98% and specificity rate of 54.8% was identified with use of the delirium triage screen (DTS) ³
- **Treatment:**
 - Haldol was preferred treatment for positive bCAM in hyperactive state ⁴
 - Benzodiazepines contribute to an increased risk for delirium and should be avoided ⁴

Conclusion

Implementation of a delirium prevention, early detection, and treatment protocol may reduce the incidence and complications associated with delirium in patients admitted to the intermediate care unit

Results of this non-experimental quality improvement pilot project may be used to guide the development of a more rigorous study and applicability to other units

Prevention and early detection of delirium can improve quality of patient care, reduce incidence of morbidity and mortality, and reduce projected unit based health care costs

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