

Broken Minds and Hearts: The Importance of Delirium Detection and Intervention Outside Critical Care



Session C291

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Session Objectives

- Learn about delirium occurrence and associated outcomes beyond the critical care setting.
- Gain insight into successful nurse-led implementation of delirium screening and intervention.
- Explore concepts related to the support of patients and families experiencing delirium.

Background

2012




- ❖ Enrolled in the Doctor of Nursing Practice post-Master's program at The College of Saint Scholastica, Duluth, Minnesota

2012 to 2014

- ❖ Delirium Reduction Doctor of Nursing Practice Clinical Project at St Cloud Hospital, St Cloud, Minnesota

2014

- ❖ Awarded a Doctor of Nursing Practice



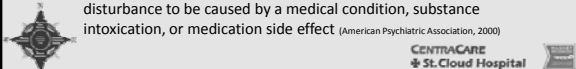
Why Choose Delirium?

- Clinical background as an adult health clinical nurse specialist and experience as an RN certified in progressive care nursing
- Encountered numerous patients and families experiencing delirium and recalled frustration at lack of effective therapies and interventions
- Aware of efforts in the intensive care units to reduce delirium
- Chronically curious with a personal interest in delirium



DELIRIUM

- An acute change in mental status characterized by disturbances of consciousness and cognition or perception, typically with a fluctuating course
- Four characteristic features:
 - disturbance of consciousness with reduced ability to focus, sustain, or shift attention;
 - change in cognition or the development of a perceptual disturbance that is not better accounted for by a preexisting, established or evolving dementia;
 - develops over a short period of time and tends to fluctuate during the course of the day;
 - evidence from history, physical exam, or lab findings demonstrate the disturbance to be caused by a medical condition, substance intoxication, or medication side effect (American Psychiatric Association, 2000)



Impact of Broken Minds

- Significantly increases a patient's risk of falling, length of stay, cost of care, morbidity, and mortality (Brooks, 2012; Fong et al., 2009)
- Increases older patients' risk of functional and cognitive decline (Inouye, Studenski, Tinetti, & Kuchel, 2007; Francis, 2012; Marcantonio, 2012; Waszynski, 2007)
- Postoperative delirium contributes to negative patient outcomes (Brooks, 2012; Inouye et al., 1990)
 - Increased costs of care
 - Increased lengths of stay
 - Increased morbidity and mortality
 - Increased risk of nursing home placement
 - Decrease in functional status



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Impact of Broken Minds

- Studies indicate patients with delirium are more likely to have long-term cognitive problems than hospitalized patients who did not suffer from delirium (van den Boogaard et al., 2012)
- One long-term follow-up study found that after two years, only one-third of patients who had experienced delirium still lived independently in the community (Francis & Kapoor, 1992)
- Signs of delirium may persist for 12 months or longer, particularly in those with underlying dementia (McCusker et al., 2003)
- Overall mortality associated with delirium is high, in part due to illness severity concurrent with delirium (Fong et al., 2012)



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Impact of Broken Hearts

- Patients may remember their delirium experience
 - In one study, some were able to describe their delirium experiences in detail; recall reactions ranging from pleasant to horrible and frightening; and even recall some interactions with nursing staff (Scholfield, 1997)
 - Patients who recovered from delirium may be able to recall feelings of extreme distress (Breitbart, Gibson, & Tremblay, 2002)
- Families experience delirium alongside loved ones
 - An adult daughter's of her mother's delirium relays feelings of hopelessness, fear, confusion, frustration, and anger related to her mother's delirium (Marcantonio, 2012)
 - Delirium is extremely distressing for families, caregivers, and patients (McLafferty, 2007)



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Prevalence

- Delirium is one of the most common cognitive disorders in medically ill patients, especially the elderly (Francis & Young, 2012)

AND YET...

- Delirium is frequently under recognized and poorly managed, particularly beyond critical care settings (Khan et al., 2012)

- Pathogenesis remains poorly understood (Fong, Tulebaev, & Inouye, 2009; Francis & Young, 2012; Inouye, Studenski, Tinetti, & Kuchel, 2007; Lemstra, Kallivaart, Vreeswijk, van Gool, & Eikelboom, 2008; Leung, Sands, Paul, Kinjo, & Tsai, 2009; Morimoto et al., 2009; Neitzel & Sendelbach, 2007; Robinson et al., 2008; Robinson et al., 2009; Rooij, van Munster, Korevaar, & Levi, 2007; van Munster, Rooij, & Korevaar, 2009)



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Clinical Project Site

- Clinical project conducted in a 9-bed surgical progressive care unit (SPCU) at St Cloud Hospital, St Cloud, Minnesota
 - SPCU is an intensive care unit step-down/surgical unit step-up unit
 - Patients have potential for serious physiologic instability
 - RN to patient ratio of 3:1

Licensed Beds	489
Inpatient Admissions	26,073
Patient Days	114,670
Average LOS	4.40 days
Outpatient Visits	269,799
Emergency Trauma Visits	61,980
Home Care Visits	34,801
Number of Surgeries	14,352



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Baseline Data

- Fiscal year 2012 (July 2011-June 2012) performance improvement data specific to delirium-associated ICD-9 codes analyzed among SPCU patients
 - 80 patients with delirium-associated ICD-9 codes

Mean length of stay	17 days
Mean mortality	12.5%
Mean direct cost	\$55,084



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What Can Be Done?

- The ideal is comprehensive prevention strategies aimed at modifiable risk factors:
 - Avoid factors known to cause or aggravate delirium, including polypharmacy, dehydration, immobilization, sensory impairment, and sleep disturbance
 - Identify and treat the underlying acute illness
 - Provide supportive and restorative care to prevent further physical and cognitive decline
 - Control dangerous and severely disruptive behaviors using low dose, short acting pharmacologic agents to accomplish above strategies

(Francis, 2015)



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What ELSE Can Be Done?

- Detection
 - Incorporation of a standardized delirium assessment as a means of detecting delirium promptly among hospitalized patients an integral delirium reduction strategy (Brooks, 2012; Flinn et al., 2009; Fong et al., 2009; Francis & Young, 2012; Mantz et al., 2010; Marcantonio, 2012; McLafferty, 2007; Neitzel et al., 2007; Sendelbach & Guthrie, 2009; Waszynski, 2007)

AND

- Intervention
 - When delirium is identified, multicomponent interventions targeting delirium risk factors may be implemented (Brooks, 2012; Elle et al., 1998; Inouye et al., 1999; Khan et al., 2012; Martinez et al., 2012; Syles, 2011; Vidan et al., 2009)



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Isn't delirium primarily a critical care issue?

- The highest rates of delirium are indeed typically found in intensive care units, emergency departments, hospice units, and post-acute care settings (Francis & Young, 2012)

BUT...

- The prevalence of delirium in general hospital admission is estimated at 14-24%;
- Among hospitalized elderly, delirium is estimated to affect 14-56%;
- Among elderly surgical patients, postoperative delirium is estimated to affect 15-53% (Fong et al., 2009)



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Detection – Where To Begin?

- Delirium is a multifactorial disorder; there is no single “gold standard” test to confirm a diagnosis of delirium (Francis & Young, 2012; Inouye & Charpentier, 1996)
- Screening tools can be used by clinicians to identify when delirium is the most probable diagnosis (Francis, 2015)
- Delirium screening is a foundational component of delirium reduction strategies (Flinn et al., 2009)
- Bedside nurses are optimally positioned to screen for delirium (Flagg, Cox, McDowell, Mwose, & Buelow, 2010; Rice et al., 2011; Schuurmans et al., 2003)



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Screening Instruments

- Most common delirium instruments cited in acute care literature include the Confusion Assessment Method (CAM), NEECHAM Confusion Scale, and Delirium Observation Screening Scale (Schuurmans, Deschamps, Markham, Shortridge-Baggett, & Duursma, 2003)
- Use of the CAM screening instrument for hospitalized adults is supported due to acceptable reliability and validity, numerous studies, and relative ease of use (Schuurmans, Deschamps, Markham, Shortridge-Baggett, & Duursma, 2003; Wong, Holroyd-Leduc, Simel, & Straus, 2010)
 - In medical and surgical settings, the CAM has a sensitivity of 94-100% and a specificity of 90-95% (Francis, 2015)



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CAM Screening Instrument

- The CAM is a standard screening device within clinical studies of delirium, across multiple settings
 - Administration takes five minutes to administer
 - Screening via CAM may be incorporated into the routine bedside assessment (Francis, 2015)
- In a review of 11 bedside instruments used to detect delirium in adults determined best evidence supported the use of the CAM, with the Mini Mental State Exam (MMSE) being the least accurate (Francis, 2015)



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CAM Instrument

Section A:

- ☐ Acute Onset: Is there evidence of an acute change in mental status from the patient's baseline?
- ☐ Fluctuating Course: Does the abnormal behavior fluctuate during the day, i.e., tend to come and go or increase and decrease in severity?
- ☐ Inattention: Does the patient have difficulty focusing attention, i.e., easily distracted or having difficulty keeping track of what is being said?



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CAM Instrument

Section B:

- ☐ Disorganized Thinking: Is the patient's thinking disorganized or incoherent, such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from subject to subject?
- ☐ Altered Level of Consciousness: Is the patient:
 - ☐ Vigilant (hyperalert) or;
 - ☐ Lethargic (drowsy but easily aroused) or;
 - ☐ Stuporous (difficult to arouse) or;
 - ☐ Comatose (unarousable)



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CAM Instrument

- IF all three Section A conditions present (i.e. "yes")
 - ☐ Acute onset +
 - ☐ Fluctuating Course +
 - ☐ Inattention
- AND
- IF at least one Section B condition present (i.e. "yes")
 - ☐ Disorganized thinking
 - OR
 - ☐ Altered level of consciousness

THEN

The CAM is positive and delirium is suggested



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CAM Instrument

- A CAM-ICU instrument is validated for identification of delirium in ICU patients.
 - Utilizes observed behaviors and nonverbal responses to simple questions, as well as visual and auditory recognition tasks for mechanically ventilated patients unable to communicate verbally (Francis, 2015)
 - Perceived advantage and consistency for organizations wishing to standardize delirium detection efforts

- Successful CAM implementation is dependent on user training and ability to administer and interpret the CAM accurately
(Adamis, Treloar, MacDonald, & Martin, 2005; Rice et al., 2011; Lemliengre et al., 2006; Rolison, McElhany, Jhangri, & Rockwood, 1998)



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Project Goal #1

- Implement daily delirium screening utilizing the Confusion Assessment Method administered by RNs
- Initial education and training for RNs, supplemented through ongoing consultation and mentoring provided by the DNP student
- Integration into Epic physical assessment and SPCU workflow
- Pocket cards, posters, 5x7 handouts



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Delirium Interventions

- Successful delirium reduction strategies include interventions aimed at delirium detection; delirium is often under-recognized in the absence of routine screening (Flagg et al., 2010; McCafferty, 2007)
- Numerous interventions have been developed to mitigate delirium in hospitalized patients (Vidan et al., 2009)
- Effective delirium interventions are both supportive and restorative (Francis, 2012)



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Delirium Interventions

- Common interventions described in delirium reduction studies include:
 - Orientation provided regularly
 - Sleep promotion with environmental modification and non-pharmacologic sleep aids
 - Early mobilization
 - Avoidance of physical restraints, even in agitated delirium patients
 - Visual and hearing aids
 - General supportive care, including fluid volume balance, nutrition support, and monitoring
 - Medication reviews to avoid medications known to worsen delirium



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HELP Program

- Hospital Elder Life Program (HELP) is a model of care incorporating delirium risk factor screening and targeted delirium interventions (Inouye, Bogardus, Baker, Leo-Summers, & Cooney, 2000)
- Initially developed and tested in 1999 as a model of care for delirium prevention in hospitalized elderly with a randomized clinical trial
 - Statistically significant decrease in rate of delirium in intervention group
 - Statistically significant decrease in delirium days in intervention group
 - No effect on delirium severity (Inouye et al., 1999)



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HELP Elements

Delirium Risk Factor	Intervention
Cognitive impairment	Orientation protocol and cognitive stimulation
Sleep deprivation	Nonpharmacologic sleep protocol
Immobility	Mobilization protocol
Visual impairment	Vision protocol
Hearing impairment	Hearing protocol
Dehydration	Dehydration protocol



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HELP Outcomes

- Disseminated to 17 mid-size academic teaching hospitals in urban areas by July 2005 (Inouye, Baker, Fugal, & Bradley, 2006)
 - 11 sites tracked delirium as a quality outcome measure of HELP
 - 9 of the 11 sites reported substantial improvement in delirium
- Community hospital study outcomes (Rubin, Neal, Fenlon, Hassan, & Inouye, 2011)
 - Decreased delirium rates among hospitalized elderly
 - Delirium-associated length of stay decreased from 8.8 to 7 days over a 6 year period
 - Annual financial return estimated to exceed seven million dollars based on decreased length of stay among delirium patients (cost avoidance)



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Clinical Project Interventions

Goal	Interventions
Cognitive functioning returns to baseline	<ul style="list-style-type: none"> Therapeutic activity provided each day (puzzles, conversation, discussion of current events, reading, etc.) Promote family involvement per patient's wishes Pharmacy consult to assess for medications that may contribute to delirium
Oriented to person, place, time	<ul style="list-style-type: none"> My Care Board updated with current date Clock visible to patient Orientation provided with each interaction
Adequate sleep and rest	<ul style="list-style-type: none"> Assess for perception of adequate rest Cluster cares to minimize disruption and noise during rest periods Discourage sleep during daytime Limit light sources and darken room at night Non-pharmacologic sleep promotion (back rub, relaxation channel, white noise) Avoid pharmacologic sleep aids
Mobility status returns to baseline	<ul style="list-style-type: none"> Physical activity provided at least twice daily (ambulation, chair) Minimize immobilizing equipment (catheters, wires, tubing, restraints)
Vision and hearing optimized	<ul style="list-style-type: none"> Hearing aids on and in place during day Visual aids in place while awake
Adequate fluid and nutritional intake	<ul style="list-style-type: none"> Intake and output monitored Daily weight/monitor for trend Dietitian consult
Comprehension of delirium and delirium interventions	<ul style="list-style-type: none"> Education utilizing standardized, commercially available patient education materials (UpToDate) provided to patient and family CNS consult



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Project Goal #2

- Implement daily delirium interventions for patients with positive CAM and suspected delirium
- Initial education, supplemented through ongoing consultation and mentoring provided by the DNP student
- Intervention resource guide added to intranet
- Pocket cards, posters, 5x7 handouts



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Project Population

- SPCU patients
 - Adult patients ages 18 and older who have undergone major general, plastic, urology, gynecology, and otolaryngology surgery
 - Inclusion criteria: adult patients age 18 and older admitted to SPCU who stay at least 24 hours in one calendar day
 - Exclusion criteria: any patient with comfort care/end of life orders and patients with provider documentation of alcohol withdrawal or delirium tremens



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Project Timeline

- Project implementation began with RN education in July 2013
 - All SPCU RNs (n=40) completed education and training prior to initiation of daily delirium screening and intervention
 - 3 RNs required written reminder; 1 also required verbal
- Delirium screening and interventions commenced one month later
 - Continued for 13 weeks from August 1, 2013 to October 31, 2013



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Month One Screening Results

- August 1 to 31, 2013
 - 36 patients met inclusion criteria
 - The 36 patients stayed a total of 138 patient days
 - CAM screening completed daily for 89.1% of patients
 - 123 daily screens/138 patient days
 - Surpassed the objective of at least 60% completion
 - 7 patients had a positive CAM
 - 11.1% of patients meeting inclusion criteria screened positive for delirium



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Month Two Screening Results

- September 1 to 30, 2013
 - 30 patients met inclusion criteria
 - The 30 patients stayed a total of 91 patient days
 - CAM screening completed daily for 93.4% of patients
 - 85 daily screens/91 patient days
 - Surpassed the objective of at least 80% completion
 - 2 patients had a positive CAM
 - 6.7% of patients meeting inclusion criteria screened positive for delirium



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Month Three Screening Results

- October 1 to 31, 2013
 - 39 patients met inclusion criteria
 - The 39 patients stayed a total of 138 patient days
 - CAM screening completed daily for 98.5% of patients
 - 136 daily screens/138 patient days
 - Surpassed the objective of at least 95% completion
 - 4 patients had a positive CAM
 - 10.3% of patients meeting inclusion criteria screened positive for delirium



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Month One Intervention Results

- August 1 to 31, 2013
 - 7 patients with a positive CAM
 - Dietitian consulted 100%
 - CNS consulted 100%
 - Pharmacist consulted 100%
 - 245 cumulative patients days of the 7 SPCU patients with a positive CAM
 - Cognitive activity daily 100%
 - Orientation strategies daily 100%
 - Sleep promotion daily 100%
 - Mobilization daily 100%
 - Vision/Hearing daily 100%
 - Fluid/Nutrition daily 100%



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Month Two Intervention Results

- September 1 to 30, 2013
 - 2 patients with a positive CAM
 - Dietitian consulted 100%
 - CNS consulted 100%
 - Pharmacist consulted 100%
 - 45 cumulative patients days of the 2 SPCU patients with a positive CAM
 - Cognitive activity daily 100%
 - Orientation strategies daily 100%
 - Sleep promotion daily 100%
 - Mobilization daily 100%
 - Vision/Hearing daily 100%
 - Fluid/Nutrition daily 100%



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Month Three Intervention Results

- October 1 to 31, 2013
 - 4 patients with a positive CAM
 - Dietitian consulted 100%
 - CNS consulted 100%
 - Pharmacist consulted 100%
 - 66 cumulative patients days of the 4 SPCU patients with a positive CAM
 - Cognitive activity daily 100%
 - Orientation strategies daily 100%
 - Sleep promotion daily 100%
 - Mobilization daily 100%
 - Vision/Hearing daily 100%
 - Fluid/Nutrition daily 100%



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Demographics

SPCU patient with a positive CAM (N=13)

- Mean age was 63.4 years
- Mean hospital length of stay was 20 days
- Mean ICU length of stay (n=7) was 8.6 days
- 61.5% male and 38.5% female
- Reason for admission:
 - Surgery (planned) 30.7%
 - Sepsis 30.7%
 - Trauma 23.1%
- Urgent admission 69.2% (n=9)
 - From outside hospital 55.6%
- Received general anesthesia 84.6%
- ICU stay 53.8%
- Positive CAM on SPCU admission 61.5%
- Common co-morbidities
 - Hypertension 61.5%
 - Hyperlipidemia 46.2%
 - Depression 30.7%
 - Anxiety 30.7%
 - Coronary artery disease 30.7%



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Project Findings: Screening

- Daily delirium screening completion rates support literature findings regarding bedside nurses' role in delirium detection
 - Bedside nurses are well positioned to screen patients for cognitive changes associated with delirium (Flagg et al., 2010; Rice et al., 2011; Schuurmans et al., 2003)
- Delirium screening reliably incorporated into the physical assessment flowsheets
 - Ensured RNs were prompted to complete delirium screening (Lemieux et al., 2006; Rice et al., 2011)
- Several nurses stated the CAM prompted them to "put it all together" when patients were exhibiting cognitive changes
 - Delirium is often under-recognized in the absence of routine screening (Flagg et al., 2010)



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Project Findings: Interventions

- Orientation strategies used to promote cognitive functioning and therapeutic activities included card playing, folding fabric, reminiscing, and puzzles
- Environmental modification, such as clustering care and decreasing sound and light, were regularly implemented
- Non-pharmacologic sleep aids such as backrubs and white noise were used for patients with disturbed rest and sleep-wake patterns
- Patients able to ambulate were mobilized at least twice daily and non-ambulatory patients were seated upright in chairs or wheelchairs, including being pushed through the unit for visual stimulation



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Project Findings: Interventions

- Physical restraint usage was minimized as much as possible, though several patients did require restraints to prevent self-harm or drain dislodgement
- Almost all patients with a positive CAM had visual impairments requiring glasses and some also used hearing aids; efforts were made to ensure their use during daytime hours
- Fluid and nutrition support were ensured by dietitian referral, whose findings and recommendations were communicated to nurses, physicians, and other involved disciplines via multidisciplinary progress notes in the EMR



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Project Findings: Interventions

- Pharmacist consultations provided medication management recommendations communicated to nurses, physicians, and involved disciplines via a multidisciplinary progress note in the EMR
- Discussion of delirium risk factors and effective interventions was incorporated into interdisciplinary bedside SPCU patient rounds, which aided facilitation and communication among the interdisciplinary team, and aided in communication with family members



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Project Findings: Demographics

- Mean age (63.4 years) of SPCU patients with a positive CAM supports the need for a delirium reduction program
 - Older patients diagnosed with delirium are at heightened risk of functional and cognitive deterioration if delirium occurs (Francis, 2012; Inouye et al., 2007; Marcantonio, 2012; Waszynski, 2007)
- Project demographic results mirror literature findings regarding severe illness and procedures precipitating delirium (Francis, 2012)
- Demographic analysis supports the project goals to implement delirium detection and intervention rather than solely focusing on delirium prevention (Francis & Young, 2012; Inouye et al., 1999; Sendelbach & Guthrie, 2009)



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Project Conclusions

- Project findings regarding daily delirium screening completion support literature findings regarding bedside nurses' role in delirium detection
- Incorporation of the CAM screening into routine assessments supported integration into daily practice
- Several nurses stated the CAM prompted them to "put it all together" when patients were exhibiting cognitive changes



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Project Conclusions

- Formative project evaluations provided by SPCU RNs, nursing assistants, physicians, dietitians, and pharmacists were positive regarding ease of intervention implementation
- SPCU RNs felt interventions were easily implemented and families could often take an active role in providing them
- SPCU RNs stated the ability to implement delirium interventions without a physician's order facilitated implementation in a timely manner and supported autonomous nursing practice



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Project Conclusions

- Conclusions cannot be drawn regarding project SPCU delirium rate of 8% relative to published postoperative patient delirium rates of 15-53% (Fong et al., 2009)
 - The sensitivity of the CAM in SPCU patients has not been established
 - SPCU is characterized as a transitional unit, meaning patients are considered to be physiologically unstable enough to require more intensive nursing care than general surgical units, yet less nursing care than an intensive care unit
- Based on incidental project findings SPCU patients and their families are likely to experience significant distress related to the diagnosis of delirium



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Project Conclusions

- Ongoing consultation and mentoring provided by the DNP student was key to achieving screening and intervention goals
 - Evidenced by gradual improvement in CAM completion rates
- Validates literature describing a coaching/teaching education strategy as more appealing to nurses than solely formal presentations (Lemliengre et al., 2006)
- Overall, SPCU RNs expressed the ability to seek real-time consultation on delirium assessment and intervention to be more helpful than the initial education



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Barriers & Facilitators

- Barriers
 - Failure of the CAM screening tool to always auto-populate the SPCU physical assessment flowsheet
 - Intervention implementation was dependent on RN initiation of the delirium interventions when a positive CAM was noted
- Facilitators
 - Overall positive reception of SPCU RNs with regards to the project
 - My Care Board



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Incidental Findings

- Families and friends of patients exhibiting signs and symptoms of delirium often experienced significant distress
- Families frequently expressed fears that the patient had experienced a stroke and nurses and physicians had failed to properly diagnose the patient
- Over half of the patients with delirium had a family member ask the DNP student, *Are they sure he didn't have stroke?*




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Incidental Findings

- The fluctuating course of delirium also added to family distress levels: following a *good day* wherein the patient appeared to be improving, there would often be one or more *bad days* wherein the patient appeared to actually worsen cognitively





- Those closest to the patient, typically spouses and adult children, found the fluctuation particularly disheartening



Implications for Nursing

- Numerous predisposing factors, including severe illness, medication, and anesthesia, all contribute to a patient's risk of developing delirium (Brooks, 2012)
- Use of an assessment tool specific to delirium is considered necessary in order to effectively implement delirium interventions (Brooks, 2012)
- Project findings reflect literature findings establishing the ability of bedside nurses to complete delirium screening using a formal, validated, and tested instrument (Brooks, 2012)
 - Nurses play an essential role in the management of delirious older adults as they are often the first to notice change in mental status (Balas et al., 2012)


Implications for Nursing

- All project delirium interventions were low-tech interventions that fell within nursing's scope of practice and do not require a physician order
 - Ensuring opportunities for RNs to apply knowledge will increase confidence in identification and management of delirium (Flagg et al., 2010)
 - Increased confidence in delirium management promotes nurses' ability to explain delirium presentation and management to families (Flagg et al., 2010)
- Given its complex nature, delirium requires significant collaboration and coordination among multiple disciplines, each with unique contributions





Implications for Nursing

- Caring for delirious patients is considered difficult and demanding (Schoormans et al., 2003)
- Overall effectiveness of interventions is critically dependent on staff adherence and compliance (Robinson et al., 2008)
 - Use of a clinical resource to monitor intervention implementation and effectiveness will increase the likelihood of delirium reduction effort success
- Multimodal interventions should be implemented; more interventions result in better patient responses (Robinson et al., 2008)




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Implications for Nursing

- Little literature exists on the experience of delirium patients and their families
- Evidence suggests patient and family education to be an important component of delirium interventions strategies (Inouye et al., 1999)
- Significant time was required to educate and support both patients and families, especially when delirium symptoms persisted and fluctuate
- Additional research is needed to determine the supportive needs of delirious patients and their families



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