Northwestern Memorial® Hospital

Development of a Plan for the Early Detection and Intervention for Delirium in Patients with Cancer

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EXCELLENCE IN NURSING SERVICES — AMERICAN NURSES CREDENTIALING CENTER — MAGNET RECOGNITION PROGRAM

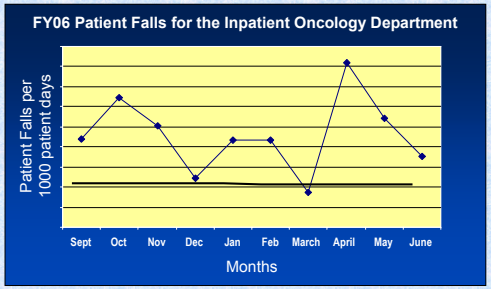
BACKGROUND

During a falls quality improvement project, it was noted that 35% of patients admitted to the oncology units who fell had developed mental status changes during their admission.

Delirium was also reported in patients anecdotally by nurses.

Existing Gaps:

- Absence of standardized, reliable delirium nursing assessment for oncology patients
- Absence of nursing education and competency in regards to delirium assessment and interventions for the management of delirium
- Absence of readily available references of appropriate nursing interventions to prevent, minimize, and manage delirium



OBJECTIVES

The objectives of the **evidence-based practice project** were to:

- Identify delirium assessment tools supported by existing research, appropriate for the oncology patient population
- Develop standardized assessment for the early detection of baseline cognitive dysfunction and delirium
- Identify evidence-based nursing interventions to prevent or minimize the experience and negative outcomes of delirium
- Develop a guide of evidence-based interventions for the nurses to utilize
- Develop an education and competency plan for oncology nurses in the assessment of delirium and implementation of appropriate interventions to prevent and mange delirium

ASSESSMENT TOOLS

- A **journal club** consisting of oncology nurses met every three weeks to review the literature.
- The initial screening tool determined to be useful in the assessment of the oncology patient was the portable mini mental status exam (SPMSQ). This screening tool was chosen to be utilized upon admission to the hospital.
- Multiple delirium assessment scales were reviewed and discussed for reliability, validity, and applicability for the oncology population. The instrument also had to be short and easy for the staff nurse to utilize, ensuring compliance and accurate findings.
- The Confusion Assessment (CAM) instrument was chosen as the reassessment instrument and would be performed every 12 hours. It met all the criteria and had established use with oncology patients.

The Short Portable Mental Status Questionnaire (SPMSQ)

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		1.What are the date, month and year?
		1.What is the day of the week?
		1.What is the name of this place?
		1.What is your phone number?
		1.How old are you?
		1.When were you born?
		1.Who is the current President?
		1.Who was the president before him?
		1.What is your mother's maiden name?
		10.Can you count backward from 20 by 3's?

SCORING*
0-2 errors: normal mental functioning
3-4 errors: mild cognitive impairment
5-7 errors: moderate cognitive impairment
8 or more errors: severe cognitive impairment

***One more error is allowed in the scoring if the patient has had a grade school education or less.**

***One less error is allowed if the patient has had education beyond the high school level.**

(Palmer, 2003)

Confusion Assessment Method Instrument (CAM)

***Instructions**: Assess the following factors:*
Acute Onset
1. Is there evidence of an acute change in mental status from the patient's baseline?
__YES __NO __UNCERTAIN __NOT APPLICABLE

Inattention
(The questions listed under this topic are repeated for each topic where applicable)
2A Did the patient have difficulty focusing attention (for example, being easily distracted or having difficulty keeping track of what was being said)?

___ Not present at any time during interview
___ Present at some time during interview, but in mild form
___ Present at some time during interview, in marked form
___ Uncertain

2B *(If present or abnormal)* Did this behavior fluctuate during the interview *(that is tend to come and go or increase and decrease in severity)*?
__YES __NO __UNCERTAIN __NOT APPLICABLE

2C *(If present or abnormal)* Please describe this behavior.
_____
_____

Disorganized Thinking
3 Was 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?
__YES __NO __UNCERTAIN __NOT APPLICABLE
Altered Level of Consciousness
4. Overall how would you rate this patient's level of consciousness?
___ *Alert (normal)*
___ *Vigilant (hyper- alert, overly sensitive to environment stimuli, startled very easily)*
___ Lethargic *(drowsy, easily aroused)*
___ Stupor *(difficult to arouse)*
___ Coma *(unarousable)*
___ Uncertain

* A Positive Score is: **1and 2 plus either 3 or 4**

(Inouye, 1990)

NURSING INTERVENTIONS

Review of the literature on nursing interventions for delirium yielded little research data. Therefore, expert interviews and published practice guidelines were used as the basis for developing guidelines for delirium interventions.

Interventions for the Prevention and Management of Delirium Department of Oncology Nursing

Interventions	
Orientation to surroundings • Clock in room • Calendar in room • Maintain time-appropriate lighting • Orient patient to time, place, and person • Date and names of caregivers posted on patient's dry eraser board • Educate family members to orient patient to time, place, and person as necessary • Familiar faces (family, continuity of assigned RNs and PCTs) • Educate patient that he/she may experience forgetfulness or lose track of time while in hospital	Medication Considerations • Provide adequate pain management • Collaborate with physician/pharmacy regarding appropriate use of antipsychotic agents such as haloperidol, resperidone, or olanzapine • Identify medications that may contribute to delirium: sedatives, opioids, anticholinergics, histamine 2 blockers, beta blockers, & corticosteroids
Consideration of sensory deficits • Minimize distractions (auditory and visual) • Clear and calm communication: simple direction, face patient, speak into "best" ear • Correction of sensory deficits: eyeglasses, hearing aids, magnifying lenses, portable amplification device	Consider infectious processes • Provide adequate hydration • Ensure adequate oral hygiene • Manage fever: medication, cooling techniques • Assess for possible infection sources contributing to delirium: respiratory, skin, urinary tract, & treat accordingly
Promote normal sleep patterns • Nighttime noise reduction (TV off, unnecessary equipment turned off) • Cognitive activities: art & recreation therapy, visitors • Encourage daytime activity: ambulation, range of motion, sitting in chair for meals • Schedule night time activities or nursing tasks to maximize the block of time for sleep & minimize disruption	Metabolic etiology Dehydration • Fluid replacement • Ensure accurate I&O • Assess ability to take in oral hydration • Ensure water is in easy reach of patient Electrolyte imbalance • Fluid Replacement • Assess for hyper & hyponatremia, hypokalemia, hyper & hypoglycemia • Electrolyte replacement
Maintain safe environment • Avoid use of restraints • Fall assessment and identification of risk • Offer feeding, hydration, and toileting as appropriate • Encourage family presence to maximize patient safety	Hypoxia • Pace activity • Hemodynamic maintenance • Oxygen as indicated • Optimal patient positioning (high Fowler's) • Assess pulse oximetry and source of hypoxia (infection, COPD, pulmonary embolism, anemia)
	Elimination • Routine toileting • Ensure accurate I&O • Document bowel movements • Avoid indwelling catheterization (if possible) • Assess need for bowel regimen: diet, laxatives, and/or stool softners

DELIRIUM EDUCATION

Inservices were provided to the oncology nursing staff to provide education on the prevalence of delirium in patients with cancer, and the importance of assessment, early detection and implementation of interventions for the patient experiencing delirium.

COMPETENCY

Delirium assessment and interventions were added to the annual RN competency training for oncology.

Delirium Case Study

Mr. J., a 68 year old male patient is completing a four day hospital stay for evaluation of dyspnea due to metastatic lung cancer. He is breathing comfortably on 3 liters of oxygen and is taking 30 mg of MS Contin every 12 hours. He has been receiving this dose and schedule of narcotics for one week, with no side effects except for constipation. As you enter the room the night before his planned discharge to home hospice care, he complains of seeing bugs on the walls and is irritated with you (the RN) when you state that there are no bugs on the walls. He also complains of dysuria and abdominal discomfort. You assess that the patient has acute delirium/confusion. You call the MD at 2 am and the MD orders 1 mg of Haldol IVP and discontinues the MS Contin.

1. What is the appropriate assessment tool to identify confusion/possible delirium?
   a. Confusion Assessment Method (CAM) tool
   b. Short Portable Mini-Mental Status Questionnaire
   c. There is no appropriate assessment tool to determine delirium/confusion
   d. Ask the physician/APN to come see the patient and assess for delirium/confusion
2. This patient should have been assessed with what tool to identify underlying dementia upon admission to the hospital?
   a. Confusion Assessment Method (CAM) tool
   b. Short Portable Mini-Mental Status Questionnaire
   c. Ask the physician/APN to assess for underlying dementia in this patient
   d. There is no appropriate assessment tool to determine underlying dementia
3. If the patient scores positive for confusion on the CAM what nursing interventions would you institute?
4. What problems/potential problems could be contributing to Mr. J.'s acute onset confusion?
   a. Brain metastasis
   b. New onset urinary tract infection
   c. Administration of benzodiazepines
   d. All of the above
5. If opioid narcotics are withdrawn in this patient what are the possible untoward reactions that the patient may experience?
   a. No effect on the clinical condition is expected
   b. Opioid withdrawal and worsening of the symptoms of confusion
   c. An increase in the patient's pain, but no effect on the symptoms of confusion
   d. A decrease in pain and an improvement in the symptoms of confusion

IMPLEMENTATION

The SPMSQ and CAM are now included in the assessment of all oncology patients. Nurses now have standard tools they utilize to assess and detect delirium earlier in the oncology patient. The oncology nursing staff also have a quick intervention guide to assist them in implementing interventions to prevent, minimize, and manage delirium in their patients.

Tips for Using and Documenting the Delirium Assessments

Oncology Nursing Services

- Assess all patients admitted to Oncology Services for baseline cognitive dysfunction at the time of admission and for acute cognitive changes every 12 hours during their stay.
- The **Short Portable Mental Status Questionnaire (SPMSQ)** is to be done on every patient upon admission. (This tool is on one side of the laminated card that you received.)
- The SPMSQ helps to detect baseline cognitive impairment, such as the presence of dementia.
  - Document the score of the SPMSQ in the "Neuro Assessment" on the admission assessment form.
  - In the comments section of the Neuro Assessment, document the score of the SPMSQ and what question (s) that the patient got wrong
  - Example: SPMSQ=3 (wrong answers=day of the week, current president, and president before current president)
- The **Confusion Assessment Method Instrument (CAM)** is done on every patient q 12 hours.
- The CAM helps to detect an acute change in cognitive function, such as delirium.
  - Document the CAM score in the comments section on the Neuro Assessment q 12 hours.
  - The RN must have 10 hours of observation of the patient to be able to use this assessment form.
  - A positive CAM score is **1 and 2 plus** either 3 or 4.
  - Example: CAM=positive (patient is lethargic)
- The **"Interventions for the Prevention and Management of Delirium"** should be reviewed for possible interventions when either the SPMSQ or the CAM are positive. This sheet should be passed from one RN to the next RN in change of shift report, including those actions that have been taken to prevent or manage delirium.
  - When a patient has a positive SPMSQ or a positive CAM it is also appropriate for the RN to ask the MD/APN about a consult to psychiatry, psych liason, or gerontology for the patient.
- Document interventions taken to prevent or manage delirium in the Neuro Assessment along with either the SPMSQ score or the CAM