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DELIRIUM IN ACUTELY III ELDERERS: The Role of Nurses



PURPOSE: The purpose of this activity is to enable the RN to describe delirium, its prevalence, pathophysiology, and risk factors, describe the impact delirium has on patient outcomes, and demonstrate how to use the CAM tool to monitor for delirium.

OBJECTIVES:
 Upon Completion of this CNE activity, the learner will:

- A. Describe delirium and risk factors
- B. Discuss independent nursing actions a nurse may employ in preventing delirium
- C. Describe independent nursing actions to manage delirium

CONTACT HOURS: 1.0 contact hours will be awarded for successful completion of this CNE activity.

REGISTRATION FEE: ARNA Members: \$10.00; Non-members: \$15.00

- DIRECTIONS:**
1. Please read the article “Delirium in Acutely Ill Elders: The Role of Nurses”.
 2. Complete the Continuing Education Registration Form which includes the post-test and evaluation.
 3. When you have completed all of the requirements, return the registration form and correct fee to the Arkansas Nurses Association; 1123 So. University, Suite 1015; Little Rock, AR 72204; (501)-244-2363.

Background and Problem

Delirium is a change in mental activity which results in compromised reasoning and a lack of environmental awareness. Delirium occurs in up to 56% of hospitalized elderly (Fong, Tulebaev, & Inouye, 2009) and up to 87% of critically ill patients (Cavallazzi, Saad, & Marik, 2012). Acute delirium is correlated with increased length of stay and an increased risk of hospital-acquired infections. While delirium most often occurs acutely, chronic delirium can occur and may precede the onset of functional decline, requiring institutionalization and often leading to death (Britton & Russell, 2006). Therefore, the ability of the nurse to recognize and call provider attention to acute delirium is critical. Nurses also have numerous evidence-based options they

may use independently. The purpose of this article is to provide education on the signs and symptoms of delirium and offer nurse-initiated interventions for the prevention and treatment of this potentially fatal brain dysfunction.

Healthcare team members often call delirium by other names, such as organic brain syndrome and Intensive Care Unit psychosis, but these terms may fail to convey the urgency required in treating the underlying cause of the delirium. In addition, terms such as hepatic encephalopathy may change how the healthcare team views the delirium. Morandi et al(2008) suggest that providers use the term encephalopathy to describe hypoactive delirium while using the term delirium to describe only the hyperactive type of delirium. The authors go on to stress the importance of using the term delirium to describe an acute alteration in mental status combined with inattention. It is important that nurses use the appropriate terminology, such as hepatic delirium, when communicating with providers.

Risk Factors and Causes of Delirium

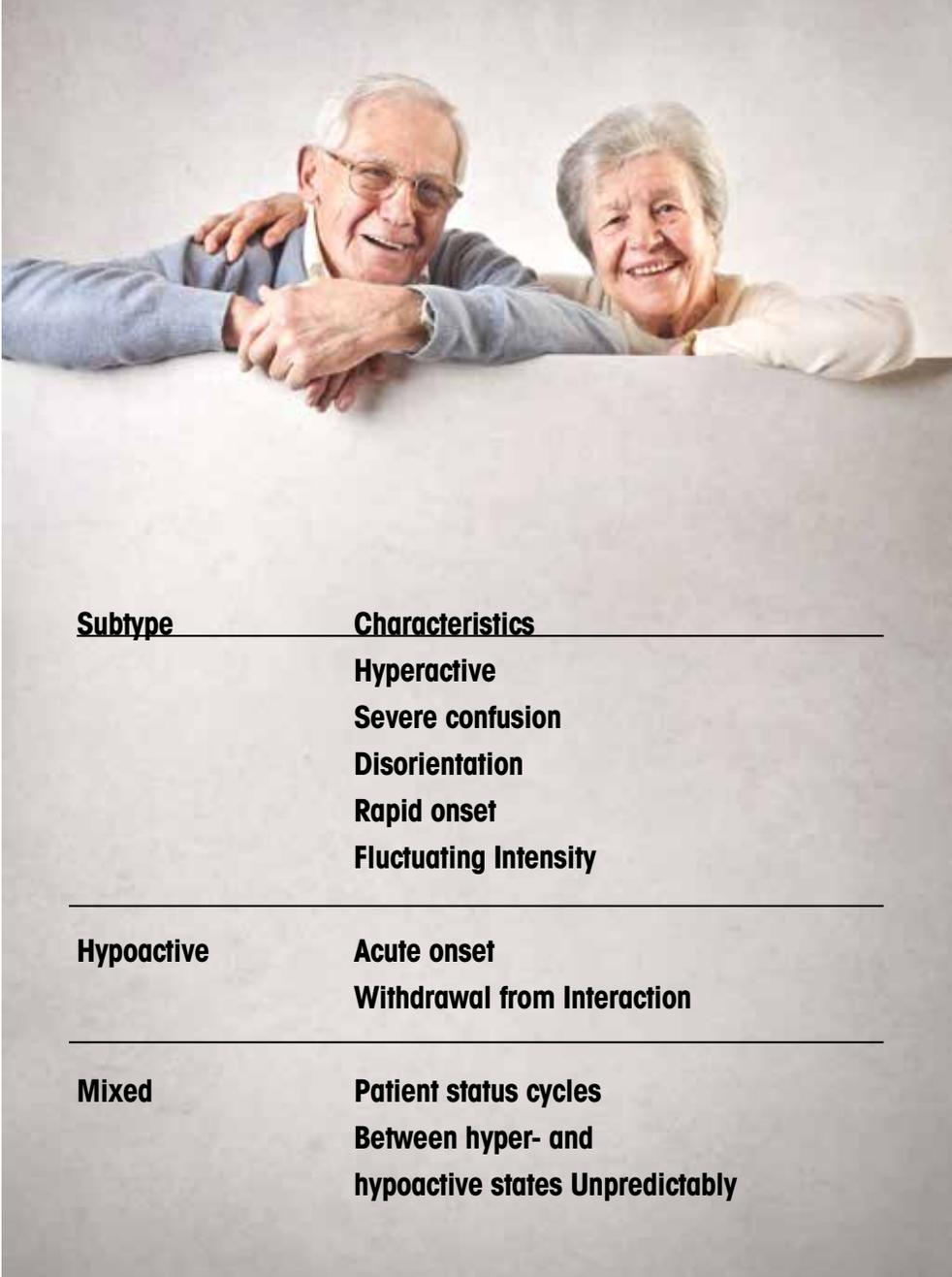
Risk factors for delirium are listed in Box 1. These variables provide nurses with the opportunity to proactively prevent delirium. Specific contributing factors for delirium seem to be consistent and could help identify high-risk patients. These risk factors include dementia, advanced age and medical illness. In addition, there are other risk factors playing a role in the development of delirium in elderly hospitalized patients.

When it does occur, delirium presents in three basic forms as noted in Table 1. Most healthcare workers are well acquainted with the presentation of hyperactive delirium, but hypoactive delirium may be overlooked since the presentation does not obviously impact patient safety. In its hyperactive form, delirium presents as severe confusion and disorientation, developing with relatively

SUCCESSFUL COMPLETION: The post-test will be reviewed and if a score of 70% or better is achieved, a certificate of successful completion will be issued. If a score of 70% is not achieved, a letter of notification of the final score and a second post-test will be sent. It is recommended that the article be reviewed prior to taking the second post-test. If a score of 70% or above is achieved on the second post-test, a certificate will be issued.

This CNE activity has no commercial support and the author(s) have declared no vested interest, conflict of interest or off-label use.

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older people, prescription medications are usually the cause.

**Nursing Interventions
Assessment**

As always, assessment is the first step in caring for our patients. However, many facilities do not routinely screen for delirium as part of nursing assessment, resulting in a missed diagnosis of delirium up to 80% of the time. Even when delirium screening is required in policy, only 47% of nurses report that they complete the required assessment as intended.

This is perplexing because assessing for delirium can be very simple. One easy and well-validated tool is The Confusion Assessment Method (CAM), which includes two parts. Part one is an assessment instrument that screens for overall cognitive impairment. Part two includes only those four features that were found to have the greatest ability to distinguish delirium or reversible confusion from other types of cognitive impairment. Concurrent validation with psychiatric diagnosis revealed sensitivity of 94-100% and specificity of 90-95%. The CAM significantly correlated with the Mini-Mental Status Examination, the Visual Analog Scale for Confusion and the Digit Span test. The CAM can be administered in less than five minutes, and it is consistent with Diagnostic and Statistical Manual of Mental Disorders -IV criteria for delirium. The tool identifies the presence or absence of delirium but does not assess the severity of the condition, making it less useful to detect clinical improvement or deterioration.

| Subtype | Characteristics |
|-------------------|--|
| | Hyperactive Severe confusion Disorientation Rapid onset Fluctuating Intensity |
| Hypoactive | Acute onset Withdrawal from Interaction |
| Mixed | Patient status cycles Between hyper- and hypoactive states Unpredictably |

rapid onset and fluctuating in intensity. In its hypoactive form, it is manifested by an equally sudden withdrawal from interaction with the outside world (Thomas, E, AD, & G, 2013). Delirium is characterized by an acute change (usually over hours to days) in mental status but the presentation often fluctuates in intensity. This variation in consciousness can result in conflicting reports from various caregivers about the patient’s mental state. Instabilities in cognitive skills, including memory, language, and organization, are also common (Waszynski, 2007). Delirium is most commonly related to illness, pharmacotherapy, an infectious process, surgery, or substance abuse. Being in the hospital, particularly in an ICU, can contribute to or trigger delirium. In ICUs, people may suffer from sleep loss

and sensory deprivation due to the intense nursing care required. Thus, people are deprived of normal sensory stimulation and can become disoriented. Sleep is disturbed by staff members who awaken people during the night to monitor and treat them and by beeping monitors, intercoms, voices in the hallway, or alarms. Furthermore, most people in ICUs have serious disorders and are treated with medications that can make delirium even more likely. The delirium that may result is sometimes called ICU psychosis but is more correctly termed ICU delirium (Anne, Thoo, H, & Ting, 2014). Delirium is also very common after surgery, largely believed to be related to the anticholinergic medications administered perioperatively. However, the most common reversible cause of delirium is medication. In

Evidence-Based Prevention Interventions

What can nurses do to prevent delirium for patients with numerous risk factors? One strategic action is to address those risk factors that are responsive to intervention. For example, reality orientation programs and planned therapeutic activities are useful to decrease delirium in those with pre-existing cognitive impairment (Inouye, 2000). Sleep promotion behaviors (such as noise reduction) (Strijbos, Steunenberg, van der Mast, Inouye, & Schuurmans, 2013), ensuring continuance of appropriate physical activity, and proactive maintenance of hydration are all important interventions nurses can use independently to prevent delirium. Nurses must always consider staff and patient safety, but it is important to note that the use of restraints is significantly associated with a 9.3 % increase in odds

“Nurses should pay special attention hospitalized, geriatric patients with dementia and medical illness, as these patients are at higher risk for developing a delirium.”

ratio for patients with delirium (Grover et al., 2013).

One program reported in the literature, the Hospital Elder Life Program (HELP) provides targeted interventions that may be individualized according to the needs of the patient. (Babayan, 2012; Bakker, Persoon, Schoon, & Olde Rikkert, 2013; Bradley, Webster, Schlesinger, Baker, & Inouye, 2006; Bradley, Webster, Baker, Schlesinger, & Inouye, 2005; Chen et al., 2011; Chen, Saczynski, & Inouye, 2014; Chen et al., 2014; Inouye, Bogardus, Jr., Baker, Leo-Summers, & Cooney, Jr., 2000; Rubin et al., 2006) In addition, the program uses an Elderly Care Nurse Practitioner, trained volunteers, and a patient-centric approach to providing this care. HELP has been effective in preventing and reducing the incidence and severity of delirium in geriatric patients by introducing targeted and early interventions, well trained staff and integral quality assurance procedures (Strijbos, 2013).

When delirium occurs, nurses continue to have opportunities to intervene independently. Reorientation of the patient with delirium is essential. This can be accomplished by ensuring nurses use plain, easily understood instructions while maintaining eye contact with the patient as much as possible. Patients with sensory deficits need to have their eyeglasses and/or hearing aids in place and fully functional to assist with environmental adaptation. Care coordination is essential to minimize the amount of stimuli the patient is getting. For example, when a medication is scheduled, the nurse can coordinate other interventions (such as vital signs, scheduled voiding, or exercise) to occur simultaneously. Adequate nutrition and hydration are also priorities that can be grouped into intervention clusters. “Care bundles”, when performed consistently by nurses, have been proven to improve patient outcomes in delirious patients. These are smaller sets of evidence based practices, combined together in

groups of three to five (Collinsworth, 2014). Preventing immobility, which is a major risk factor for delirium, is vital. Therefore, a planned, graduated program of mobility adapted to the needs of the patient is critical. Progressive mobility is a best practice in critical care areas, and can play a key role in prevention of delirium (Davidson, 2013). Nurses can provide a comfortable environment with the patient’s belongings, such as family pictures or other items of personal significance. Functional décor, such as clocks or calendars, can provide an orienting influence. Personal Comfort, such as ensuring personal and oral hygiene, muscle massage, patient-selected music, and aromatherapy can all contribute to decreasing distress and promoting restorative sleep (Inouye, 2000; Wand et al., 2014; Fong et al., 2009; Collinsworth, Priest, Campbell, Vasilevskis, & Masica, 2014). Removing attachments, such as indwelling catheters, intravenous lines and restraints, if able, are also staff interventions that can reduce risk factors for delirium (Wand et al., 2014).

Conclusion

Delirium is a very common, but serious clinical syndrome that can be reduced and prevented by skilled nursing interventions and assessment. Nurses have a critical role in the first line recognition of this syndrome. Therefore, nursing education in prevention and treatment is key in improving patient outcomes and their own nursing practice. Currently, nurses often do not routinely assess for delirium in their practice, but there are numerous risk factors of which nurses should be aware. Nurses should pay special attention hospitalized, geriatric patients with dementia and medical illness, as these patients are at higher risk for developing a delirium. The Confusion Assessment Method is a simple assessment tool, which nurses can use to screen their patients for delirium. Nurses should also use the correct terminology in reporting this syndrome to providers to stress the urgency

Risk Factors for Delirium in the Elderly (synthesized from (Cavallazzi et al., 2012) and (Inouye, 2000)

- Imbalanced Electrolytes
- Fever
- Sepsis
- Hypotension requiring Vasopressors
- Shock
- Infection/inflammation
- Anemia
- Hypertension
- Respiratory disease
- Dementia
- **Restraints**
- Malnutrition
- Presence of a bladder catheter
- **Limited environmental stimuli**

Bolded items are those which a nurse may manage independently

for treatment. There are many interventions a nurse can use to ensure that a high-risk patient does not develop a delirium. Nurses need to reorient their patients regularly, provide coordinated care bundles, ensure mobility, provide a comfortable, home-like environment and remove unnecessary attachments. It is advantageous for nurses to receive increased education on risk factors and interventions to prevent the onset of delirium, and to provide early symptom recognition and proper treatment for this condition if and when it presents.

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POST-TEST

Delirium in Acutely Ill Elders: The Role of Nurses

PLEASE CIRCLE THE CORRECT ANSWER.

1. Which of the following is the most appropriate screening tool for delirium?

- Confusion Assessment Method
- Folstein Mini-Mental Status Examination
- Katz Activities of Daily Living Scale
- Lawton Scale of Instrumental Activities of Daily Living

2. Delirium is primarily characterized by:

- Lack of appetite
- New onset of fluctuation in mental status
- Progressive memory loss
- Sleep deprivation

3. The most common REVERSIBLE cause of delirium is:

- prolonged stay in hospital
- medication
- infection
- sleep deprivation

4. Which is a factor in delirium for the elderly?

- respiratory disease
- presence of urinary catheter
- infection
- all of the above

5. Which is a strategic action nurses can do to prevent delirium:

- schedule medication at the same time every day
- sleep promotion
- therapeutic massage
- inform provider immediately of any acute changes in patient condition

6. Care coordination has little importance in prevention of delirium.

- True
- False

7. What does HELP stand for?

- Hospital Elder Life Program
- Helping Elders Live Properly
- Home Evaluation Life Program
- Healthy Elderly Living Package

8. Preventing _____, which is a major risk factor for delirium, is vital.

- comfort
- oral hygiene
- immobility
- progressive mobility

9. Another term for hypoactive delirium is:

- encephalopathy
- crazy
- dementia
- schizophrenic

10. Hypoactive delirium maybe overlooked by the clinician due to the following:

- lab work not reported
- it does not obviously effect patient safety
- severe confusion with fluctuation intensity
- none of the above

**Arkansas Nurses Association
South Central Accreditation Program
Registration/Evaluation Form**

Program Title: Delirium in Acutely Ill Elders: The Role of Nurses

Expiration Date: December, 2016
Registration Fee: ARNA Member: \$10.00
Non-Member: \$15.00

Directions: To earn 1.0 contact hours, complete sections A, B, and C and return with the correct registration fee to:

Arkansas Nurses Association, 1123, S. University, Suite 1015, Little Rock, AR 72204
Phone: 501-244-2363
If paying by credit card, you may fax this form to: 501-244-9903

Visa/Master Card # _____
Expiration Date: _____ (3) digit code _____
Signature: _____

Section A: (please print and complete all information)

Name (first, mi, last) _____
Address _____
City/State/Zip _____
Phone: _____ E-mail _____

State of Licensure: RN LPN Other

Section B: Post-test: mark your answers in the space provided. Each of the 10 questions has only one correct answer.

- | | A | B | C | D | | A | B | C | D |
|----|--------------------------|--------------------------|--------------------------|--------------------------|-----|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 6. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 7. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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| 5. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 10. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Section C: Learner Evaluation: please circle the appropriate answer.

- | | | | |
|----|---|---|---|
| 1. | Were all the objectives met? | Y | N |
| 2. | Was the learning method effective? | Y | N |
| 3. | Was the author(s) effective in presenting the material? | Y | N |
| 4. | Do you intend to change your nursing practice as a result of this activity? | Y | N |
| 5. | How long did it take to you to complete the activity & test? _____ | | |

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