Improving Patient Outcomes in Geriatric Post-Operative Orthopedic Patients: Translating Research Into Practice
Tripping into The CAM

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Why worry about delirium in post-operative orthopedic patients?

- Delirium is found on general or specialty medical and surgical units.
- The highest incidence seen in post-operative patients undergoing cardiac or orthopedic surgery.
- Delirium during hospitalization is associated with increased morbidity and mortality, nursing home placement, and readmission, as well as costly prolonged hospitalizations.
- There is also evidence that delirium during hospitalization can prognosticate death for up to 12 months.
Try This: Best Practices in Nursing Care to Older Adults

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The Confusion Assessment Method (CAM)

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THE CAM

- Included in the Detroit Medical Center’s electronic medical record (EMR) is the short version of the CAM.
- The CAM was integrated into the EMR because evidence supports that it is a standardized tool for non-psychiatrically trained clinicians to identify delirium quickly and accurately.
- The short CAM uses 4 features that were found to have the greatest reliability to distinguish delirium from other types of cognitive dysfunction.

CAM: the clinician assesses for the presence or absence of delirium.

Four features assessed:
1. Mental status altered from baseline (acute onset or fluctuating)
2. Inattention (lack of attention)
3. Disorganized thinking (A failure to be able to "think straight." Thoughts may come and go rapidly. The person may not be able to concentrate on one thought for very long and may be easily distracted, unable to focus attention.
4. Altered level of consciousness

The diagnosis of delirium by CAM requires the presence of 1 and 2 and either 3 or 4.

Pre-test Administration

- Staff RN’s were given a 6 item pre-test to assess their knowledge of delirium assessment prior to self-learning module administration.
- 20 pre-tests were returned
Delirium Assessment Pre-Test

STAFF RN RESPONSES

• All of the items below put patients at risk for delirium except (1):
  - Older age, dementia, infection, severe illness.
  - Older age with multiple co-morbidities, dehydration, and psychotropic medication use.
  - Older age, hypertension, vision impairment, and fractures.
  - Older age, dysphagia, and use of beta blockers.

(1): NO RESPONSE

• How effective do you use the Confusion Assessment Method (CAM) to screen your patients for delirium?
  - Never (1)
  - Sometimes (2)
  - Only on patients over the age of 65 (5)
  - Always for every patient. (1)

(2): NO RESPONSE

• How often should patients be assessed using the CAM?
  - Just once upon admission.
  - Every shift. (16)
  - On admission and then every 4 hours.
  - On admission, after any procedures, and then every 4 hours. (3)

(3): NO RESPONSE

• CAM is a standardized method that enables clinicians to identify delirium quickly and accurately and is located in the electronic medical record (EMR) in the following assessments:
  - The Adult Admission assessment on the neurological system assessment (3)
  - The Adult Admission assessment and Ongoing Assessment under the Geriatric Assessment is the C in SPICES (9)
  - It is not located in EMR. (1)
  - The Adult Admission and Ongoing Assessment under Geriatric Assessment. (4)

(4): NO RESPONSE

• Training to administer and score the CAM is necessary to obtain valid results?
  - True (18)
  - False (1)

“Training to administer and score the CAM is necessary to obtain valid results.”

• 24 RN’s on the Post-operative orthopedic unit were instructed to read Issue Number 13 and then view the video available on: www.ConsultGeriRN.org
  - A PowerPoint presentation was available with step by step instructions
  - RN’s were given post-test after completing the module.

So What?

• After the educational module the staff nurses knew where The CAM was located in the EMR and they understood that:
  “The CAM is a standardized method that enables clinicians to identify delirium quickly and accurately.”
Post-Test Results

- 20 tests returned
- Question #5 previously answered correctly by only (9) RN's on the pre-test was answered correctly by (19) on post-test.
- Increase in clinician knowledge from 47% to 95%.

Take Away from our TRIP

- Because our hospitalized patient population is aging there is an escalation in the prevalence of delirium.
- Postoperative orthopedic patients are at an exponentially increased risk for delirium.
- The CAM (short version) is a reliable and valid tool that enables trained clinicians to identify delirium quickly and accurately and once identified warrants prompt intervention.

Tripping toward a practice change.
Positive CAM the RN must intervene

The Professional Nurse Council

- Present the outcomes at monthly meeting and utilize shared governance to decide on plan to educate and integrate use of The CAM in all patient care areas.
- Work with interdisciplinary team (e.g. NICHE Steering Council, Interdisciplinary Rounds, Unit Practice Councils to develop Delirium Protocols.
- PAT developing research study to utilize The Telephone Interview for Cognitive Status (TICS) for preoperative patients.