Delirium

Delirium Prevention in the ICU

An Honors Thesis (Nur 425)

By

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Abstract

Delirium is a disorder that is commonly found in Intensive Care Units (ICU). Although patients who experience delirium often suffer poorer outcomes, there is a lack of education in the hospitals regarding this topic. Delirium is often misdiagnosed; therefore, it is often untreated. I taught the Cardiac Recovery and Intensive Care units at Riverview Hospital in Noblesville, Indiana about the signs and symptoms of delirium, assessment tools, and treatments in order to create positive outcomes for the critical patients at Riverview Hospital.
Acknowledgements

I would like to thank Dr. Cynthia Thomas for advising me throughout this project.

I would also like to thank my family for encouraging me to complete my Honors College requirements.

Finally, I would like to thank my daughter, Sophia, for being my inspiration to achieve the goals I had set for myself.
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Author’s Statement

I chose to teach about the subject of delirium, because I am currently completely my Capstone experience at in ICU (Intensive Care Unit). Patients in Intensive Care Units are at high risk for developing delirium. I began my research by accessing the ProQuest Nursing & Allied Health Source database. I used the keywords delirium and ICU. I also modified my search to only full-text articles that were written in the past three years. This brought me to my two research articles. I used these articles in order to strengthen my research. I also used the Google search engine to discover other scholarly websites. The search words I used on Google were: delirium, ICU, prevention, treatments, statistics, and signs and symptoms. From this information, I created my thesis.

Patients in an Intensive Care Unit have many risk factors for developing delirium. First off, these patients tend to be described as poly-pharmacy. This indicates that the patient is prescribed a multitude of medications. These medications can react to create confusion in patients. This confusion can often lead to delirium. Sedative drugs, in particular, are very high risk. Sedative drugs are used solely in Intensive Care Units. Another reason patients may develop delirium in an Intensive Care Unit is due to electrolyte imbalances. Many critical patients have difficulty maintaining electrolyte levels. For example, a patient with renal insufficiency would have difficulties excreting urine; therefore, the electrolytes are building in the blood. This causes high levels of electrolytes.

Delirium has a quick onset, and is characterized by changes in mood, level of consciousness; sleep patterns, memory, and attention. In untreated, these patients have an
increased chance of death and post-hospitalization complications. Although delirium is a serious
issue, nurses and doctors often misdiagnose the issue. The recommended assessment tool to
detect delirium is the CAM-ICU (Confusion Assessment Method-Intensive Care Units). The
CAM-ICU measures changes in the patient regarding level of consciousness and thinking
patterns. Using this tool routinely can help detect delirium quickly.

Currently, the only method of treatment for delirium is to eliminate the causative factors.
During my teaching, I spoke of the mnemonic THIINK. This mnemonic is used to help identify
the common causative factors of delirium. The letter "T" stands for toxic situations. Examples
of toxic situations include dehydrations, use of sedative medication, and organ failure. The letter
"H" represents hypoxemia. This term describes low oxygen saturation in the blood. The next
two factors are both represented by the letter "I." These factors are immobilization and infection.
Patients in an Intensive Care Unit are often bedfast and sick. The letter "N" is used for the term
non-pharmacologic interventions. Non-pharmacologic interventions are classified as any
intervention not using medication. Examples of this include: sleep, family support, use of
hearing aids, and providing a quiet environment.

During my teaching, I used a PowerPoint to outline the topics. I left a printed version of
this PowerPoint at the unit for the nurses to reference. I also gave the unit a poster board
explaining the correct use of the CAM-ICU assessment. Finally, I left the unit with many
laminated cards that contain a condensed version of the CAM-ICU assessment. This is to
provide nurses with a quick reference to use while assessing a patient. I was also able to
evaluate that learning had occurred. I created a pre-test and a post-test. In the pre-test I
conducted, the average score was thirty-six percent. However, in the post-test, the mean score
was ninety-four percent. This shows a dramatic increase in score and proves learning occurred in the unit.

Overall, I believe I created a very detailed teaching experience. I think I could use improvement in my public speaking skills. I allowed my nerves to show while speaking to the unit. My biggest strength was that I was able to use many different teaching styles. I provided reading, pictures, and a lecture. Therefore, nurses were able to use the learning style that best suits their personality. In summation, this project was a great opportunity to grow my knowledge in nursing care, and it proved to be a great learning experience for the Cardiac Recovery and Intensive Care Units at Riverview Hospital.
**PowerPoint Outline**

**Introduction**

- 11-87% of patients admitted in an ICU experience delirium (Forsgren & Eriksson, 2010).
- Delirium is associated with an increased risk of death and post-ICU complications
- Delirium is often underdiagnosed due to patients commonly being able to speak.
  - Usually due to mechanical ventilation
- In the absence of a validated assessment tool, delirium goes undetected in more than 65% of patients (AACN, 2013).

**What is Delirium?**

- The National Institutes of Health define delirium as being “most often caused by physical or mental illness and is usually temporary and reversible. Many disorders cause delirium, including conditions that deprive the brain of oxygen or other substances.”
  - (Dugdale, 2013).

**Symptoms**

- The symptoms of delirium have a rapid onset. Some of these include:
  - Changes in alertness
    - Typically more alert in the morning and less alert in the evening
  - Changes in sensations and perception
  - Changes in level of consciousness
  - Changes in movement
    - Hypoactive or hyperactive
• Changes in sleep patterns
• Confusion and disorientation regarding time and place
• Decrease in short-term memory
  • Anterograde amnesia: unable to remember events since the onset of delirium
  • Retrograde amnesia: unable to remember events prior to the onset of delirium
• Wandering attention
• Disorganized thinking
• Emotional or personality changes
• Incontinence
• Psychomotor restlessness
  • (Dugdale, 2013).

Assessment Tools

• RASS-The Richmond Agitation-Sedation Scale
  • Measures the arousal level of the patient,
  • If the patient measures a -3 or higher the nurse can move to the CAM-ICU test.
• CAM-ICU-Confusion Assessment Method
  • Measures whether a patient is experiencing delirium

Current Research on Assessments

• A prospective cohort study was performed in 2008.
Patients older than 18 years old in a clinical-surgical ICU in Southern Brazil for more than 24 hours were considered for the study.

Participants were excluded if they had a RASS score of -4 or -5.

Participants were evaluated for delirium using the CAM-ICU and ICDSC twice daily.

- ICDSC- Intensive Care Delirium Screening Checklist

Results

- 162 patients were used in this study
- There was agreement with the two assessment scales in 147 of the patients.
- In 14 cases, the ICDSC was positive, but the CAM-ICU was negative.
- In 1 case, the CAM-ICU was positive, but the ICDSC was negative.

Interpretation of Results

- Although the two tests had similar outcomes, the ICDSC had positive results for patients who were not experiencing delirium.
- The CAM-ICU is the suggested assessment method for determining delirium.
  - (Tomasi et. al. 2012).

Treatment Options

- No drug has been approved by the FDA to treat delirium.
- The Society of Critical Care Medicine states that identifying the causes of delirium is the first step in treatment.
  - (Dugdale, 2013).
• The mnemonic THIINK can help determine the cause of delirium in ICU patients (Dugdale, 2013).

  • T: Toxic Situations
    • CHF, shock, dehydration
    • Deliriogenic medications
    • Organ failure
  • H: Hypoxemia
  • I: Infection
  • I: Immobilization
  • N: Non-pharmacologic interventions neglected
    • Hearing aids, sleep, noise control, etc.
  • K: K+ (Potassium) or other electrolyte issues

Current Research on Treatments

• A descriptive design research study was completed in Swedish ICUs in 2006.
• 55 ICUs were included.
• The research included questionnaires that were mailed out to the nurse managers in the ICUs.

Results

• 9.4% of the patients in these units were experiencing delirium.
• Only 34 of the 55 ICUs used an assessment method to determine delirium.
• 94% of the units focused the assessments on patients with alcohol addiction
• 50% focused on patients with dementia
- 44% focused on elderly patients
- 37% focused on patients with mental-health issues

Non-pharmacological Approaches

- More than 85% of the units used the following non-pharmacological approaches to treat delirium
  - Relative contact
  - Sleep
  - Reduction of restraints
  - Individual Care
  - Orientation of patient
  - Adequate CNS oxygenation
  - Calm/familiar environment
  - Adequate nutrition and hydration
  - Sufficient sight and hearing
  - Person present during spells of anxiety
  - Pain reduction

Pharmacological Approaches

- Two of the ICUs did not use any medication to treat delirium
- 49 of the ICUs used Haloperidol
- 46 of the units used Propofol
- And 39 of the units used benzodiazepines

Discussion
• Overall, the study showed that there is a lack of education on delirium
• Interventions showed the biggest need for additional teaching
• ICUs need to place an emphasis on continual teaching of delirium

Preventative Measures

• Prevention should focus on eliminating the predisposing and causative factors
• These factors are listed in the mnemonic THIINK

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Oral Presentation Script:

"As registered nurses on an Intensive Care Unit, it is your job to assess, discover, and treat delirium. How many of you have treated a patient with delirium before? How many of you use delirium assessment tools during your typical assessment? During my research, I have determined that delirium occurs more often than many nurses believe.

While reading through a current research article, I found a statistic stating that delirium occurs in eleven to eighty-seven percent of all patients admitted to an Intensive Care Unit. This is a broad statistic. However, as I read on, the percentage increased in hospitals that did not regularly assess, prevent, and treat delirium.

Why is this important? The AACN stated that patients who experience delirium are at a higher risk of death or post-Intensive Care Unit complications. Delirium can easily be missed, however. As you all know, many patients admitted on an intensive care unit are unable to communicate with you. This is due to the use of sedative and being placed on mechanical ventilation. Therefore, it is important that you use a delirium assessment tool along with every assessment. If this important step is neglected, more than sixty-five percent of patients with delirium may be missed.

What exactly is delirium? I believe in my entire five semesters of nursing school, I may have had half a lecture dedicated to delirium. Therefore, it was important to me to ensure that I fully understand the definition of delirium before delving into my research. The National Institutes of Health state the definition as, ‘most often caused by physical or mental illness and is usually temporary and reversible. Many disorders cause delirium, including conditions that deprive the brain of oxygen or other substances.’ What does this mean to you?
Besides using an assessment tool, the easiest way of discovering a delirious patient is by recognizing the signs and symptoms. What signs and symptoms do you know? Common signs and symptoms of delirium include: changes in alertness (patients tend to be more alert in the morning and less alert at night), changes in sensation and perception (for example, patients may suddenly begin to feel hot), changes in levels of consciousness, changes in movement (patient may begin to become more or less active than their baseline), changes in sleep pattern, confusion, disorientation regarding time and place, decrease in short-term memory (this applies to events both before and after the onset of delirium), wandering attention, disorganized thinking, emotional or personality changes, incontinence, and psychomotor restlessness. Being aware of these signs and symptoms is imperative in order to give the patient the best care possible.

Now, we move to the assessment tools. To assess for delirium, you should use a two-step process. First the Richmond Agitation-Sedation Scale (RASS) should be used. Depending on the results from this assessment, you would move to the Confusion Assessment Method (CAM-ICU).

The RASS scale measures the level of arousal of the patient. Scores can range from a five to a negative five. Zero indicates a normal level of arousal with positive scores being hyperactive, and negative scores indicating some level of sedation. If a patient scores a negative four or negative five, the assessment is over. The patient cannot be appropriately assessed for delirium due to extreme levels of sedation. However, if the patient scores a negative three or higher, you can move to the CAM-ICU assessment.

The CAM-ICU assessment is divided into four features. With each feature, you must determine if the symptom is present. Feature one states: 'Is the patient different than his/her baseline
mental status, or has the patient had any fluctuation in mental status in the past twenty-four hours as evidenced by fluctuation on sedation scale, Glasgow Coma Scale, previous delirium assessment? If you can answer yes to either of those questions, then you would mark that feature. Feature two states: Say to the patient, 'I am going to read you a series of 10 letters. Whenever you hear the letter ‘A,’ indicate by squeezing my hand.' Read letters from the following letter list in a normal tone 3 seconds apart. The letters are: SAVEAHAART. Errors are counted when patient fails to squeeze on the letter ‘A’ and when the patient squeezes on any letter other than ‘A.’ Feature three can be marked as present if the patient scored anything other than zero on the RASS scale. Finally, Feature four consists of a series of yes or no questions. These questions include: will a stone float on water; are there fish in the sea; does one pound weigh more than two pounds; and can you use a hammer to pound a nail? These questions measure disorganized thinking. Next, you would give the patient the following command, ‘hold up this many fingers.’ Show the patients two fingers. Then after the patient attempts to follow the command, you would ask the patient to add one finger. If the patient has more than one error with the command and questions combined, you would mark this feature as present. Lastly, you add up the features that are present. A patient is delirium positive if Feature one and two are present and either Feature three or four is present. A poster board explaining the assessments will be left in the break room for you to refer to as needed.

A study was performed in two thousand and eight. Adult patients who were admitted to a Brazilian Intensive Care Unit for more than twenty-four hours were considered for the study. The only exclusion criterion was a RASS score of a negative four or five. The patients were evaluated for delirium twice daily. Two assessment tools were used. The first was the CAM-
ICU, which was discussed earlier. The second was a tool called the Intensive Care Delirium Screening Checklist (ICDSC).

At the conclusion of the study, one hundred forty-seven of one hundred sixty-two patients had identical results with both the assessment tools. In fourteen cases, the ICDSC was positive for delirium; however, the CAM-ICU showed a negative result. Lastly, one instance showed a positive assessment for delirium using the CAM-ICU assessment, while the ICDSC resulted in a negative score. Although the two assessment tools had similar results overall, the ICDSC had far more false positives than the CAM-ICU. This is why the CAM-ICU is the preferred assessment method for delirium.

Are you aware of any treatment options for delirium? Many of you might suggest drugs such as Haldol; however, The Food and Drug Administration has not approved of any drugs to treat delirium. The recommended treatment from the Society of Critical Care Medicine is to treat the underlying cause.

There are many causes to delirium, so how does one determine which one is affecting the patient. The mnemonic THIINK can help simplify the process. The “T” in THIINK stands for toxic situations. Toxic situations can include: heart failure, shock, dehydration, delirogenic medication, and organ failure. The “H” indicates hypoxemia. As you all know, this indicates that the patient’s oxygen saturation levels are low. “I” stands for infection. Preventing nosocomial infections is key. Next, the other “I” stands for immobilization. Many patients in the intensive care unit cannot mobilize due to the drugs and equipment used. The next letter, “N,” stands for negligence of nonpharmacologic interventions. Examples of these include: losses of hearing aid, sleep disturbances, and noise control. Finally, the “K” in THIINK stands
Delirium is a significant risk for all critically ill patients. In order to provide the best care possible, we need to be aware of what the best care is. I am providing pocket cards to each of you. These can be used as a reference so that you all can appropriately assess each of your
patients for this disorder. Are there any questions? Thank you for your time; I hope I left you with some valuable information. Please answer your post-test before you leave.”
Delirium Assessments Poster Board

Step 1: RASS assessment

Step 2: CAM-ICU

Flowsheet

Delirium Assessments

By: Morgan Larimore

Confusion Assessment Method for the ICU (CAM-ICU) Flowsheet

1. Acute Change in Mental Status
   - A sudden change in the patient's mental status
   - Usually associated with a medical condition
   - CAM-ICU positive

2. New Illness or Change in Illness
   - A new illness or change in the patient's current illness
   - CAM-ICU positive

3. Risk Factors for Delirium
   - CAM-ICU positive

4. Delirium Risk Factors
   - CAM-ICU positive

5. Previous Delirium
   - CAM-ICU positive

6. Delirium Symptoms
   - CAM-ICU positive

Overall CAM-ICU Score

CAM-ICU Score

CAM-ICU Positive

CAM-ICU Negative

A CAM-ICU score of 3 or more indicates a positive diagnosis of delirium.
Pre-Test/Post-Test Outline

1. The onset of delirium is gradual?
   True  False

2. Which of these are symptoms of delirium? (Select all that apply)
   a. Change in level of consciousness
   b. Decrease in long-term memory
   c. Euphoria
   d. Incontinence
   e. Patient is alert in morning, but not at night

3. What is the suggested assessment method for delirium?

4. What FDA approved drug is used to treat delirium?

5. What does the mnemonic THIINK mean?
   T:
   H:
   I:
   I:
   N:
   K:
Works Cited


# CAM-ICU Worksheet

## Feature 1: Acute Onset or Fluctuating Course

<table>
<thead>
<tr>
<th>Score</th>
<th>Check here if Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Either question Yes</td>
<td>☐</td>
</tr>
</tbody>
</table>

- Is the pt different than his/her baseline mental status? OR
- Has the patient had any fluctuation in mental status in the past 24 hours as evidenced by fluctuation on a sedation scale (i.e., RASS), GCS, or previous delirium assessment?

## Feature 2: Inattention

### Letters Attention Test (See training manual for alternate Pictures)

**Directions:** Say to the patient, “I am going to read you a series of 10 letters. Whenever you hear the letter ‘A,’ indicate by squeezing my hand.” Read letters from the following letter list in a normal tone 3 seconds apart.

- S A V E A H A R T

Errors are counted when patient fails to squeeze on the letter “A” and when the patient squeezes on any letter other than “A.”

| Number of Errors >2 | ☐ |

## Feature 3: Altered Level of Consciousness

- Present if the Actual RASS score is anything other than alert and calm (zero)

| RASS anything other than zero | ☐ |

## Feature 4: Disorganized Thinking

### Yes/No Questions (See training manual for alternate set of questions)

1. Will a stone float on water?
2. Are there fish in the sea?
3. Does one pound weigh more than two pounds?
4. Can you use a hammer to pound a nail?

Errors are counted when the patient incorrectly answers a question.

| Combined number of errors >1 | ☐ |

### Command

Say to patient: “Hold up this many fingers” (Hold 2 fingers in front of patient) “Now do the same thing with the other hand” (Do not repeat number of fingers) *If pt is unable to move both arms, for 2nd part of command ask patient to “Add one more finger”

An error is counted if patient is unable to complete the entire command.

## Overall CAM-ICU

- Feature 1 plus 2 and either 3 or 4 present = CAM-ICU positive

<table>
<thead>
<tr>
<th>Criteria Met</th>
<th>☐</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAM-ICU Positive (Delirium Present)</td>
<td>☐</td>
</tr>
</tbody>
</table>

| Criteria Not Met | ☐ |
| CAM-ICU Negative (No Delirium) | ☐ |
Assessing Consciousness: Linking Sedation and Delirium Monitoring

**Step 1 Level of Consciousness:** RASS

<table>
<thead>
<tr>
<th>Scale</th>
<th>Label</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+4</td>
<td>COMBATIVE</td>
<td>Combative, violent, immediate danger to staff</td>
</tr>
<tr>
<td>+3</td>
<td>VERY AGITATED</td>
<td>Pulls to remove tubes or catheters; aggressive</td>
</tr>
<tr>
<td>+2</td>
<td>AGITATED</td>
<td>Frequent non-purposeful movement, lights ventilator</td>
</tr>
<tr>
<td>+1</td>
<td>RESTLESS</td>
<td>Anxious, apprehensive, movements not aggressive</td>
</tr>
<tr>
<td>0</td>
<td>ALERT &amp; CALM</td>
<td>Spontaneously pays attention to caregiver</td>
</tr>
<tr>
<td>-1</td>
<td>DROWSY</td>
<td>Not fully alert, but has sustained awakening to voice (eye opening &amp; contact &gt;10 sec)</td>
</tr>
<tr>
<td>-2</td>
<td>LIGHT SEDATION</td>
<td>Briefly awakens to voice (eyes open &amp; contact &lt;10 sec)</td>
</tr>
<tr>
<td>-3</td>
<td>MODERATE SEDATION</td>
<td>Movement or eye opening to voice (no eye contact)</td>
</tr>
</tbody>
</table>

If RASS is ≥ -3 proceed to CAM-ICU (Is patient CAM-ICU positive or negative?)

-4 DEEP SEDATION: No response to voice, but movement or eye opening to physical stimulation
-5 UNAROSEABLE: No response to voice or physical stimulation

If RASS is -4 or -5 → STOP (patient unconscious), RECHECK later

**Step 2 Content of Consciousness:** CAM-ICU

**Feature 1:** Acute change or fluctuating course of mental status

And

**Feature 2:** Inattention

And

**Feature 3:** Altered level of consciousness

Or

**Feature 4:** Disorganized Thinking

1. Acute Change or Fluctuating Course of Mental Status:
   - Is there an acute change from mental status baseline?  **OR**
   - Has the patient's mental status fluctuated during the past 24 hours?
     - **NO**
     - **YES**

2. Inattention:
   - "Squeeze my hand when I say the letter ‘A’.”
     Read the following sequence of letters: S A V E A H A A R T
     ERRORS: No squeeze with ‘A’ & Squeeze on letter other than ‘A’
     - If unable to complete Letters → Pictures
     - > 2 Errors

3. Altered Level of Consciousness
   Current RASS level
   - RASS = zero

4. Disorganized Thinking:
   1. Will a stone float on water?
   2. Are there fish in the sea?
   3. Does one pound weigh more than two?
   4. Can you use a hammer to pound a nail?
   Command: "Hold up this many fingers" (Hold up 2 fingers)
     "Now do the same thing with the other hand" (Do not demonstrate)
     **OR**  "Add one more finger" (If patient unable to move both arms)
     - > 1 Error
     - 0 - 1 Error
Delirium in ICU
Post-test
By: Morgan Larimore

1. The onset of delirium is gradual?
   True  [ ] False [X]

2. Which of these are symptoms of delirium? (Select all that apply)
   a. Change in level of consciousness  [X]
   b. Decrease in long-term memory  [X]
   c. Euphoria [X]
   d. Incontinence [X]
   e. Patient is alert in the morning, but not at night. [X]

3. What is the suggested assessment method of delirium?
   CAM

4. What FDA approved drug is used to treat delirium?
   None

5. What does the mnemonic THIINK mean?
   T: toxic situations
   H: hypoxemia
   I: infection
   I: immobilization
   N: non-pharmacologic
   K: K+potassium and other electrolyte issues
Delirium in ICU
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   d. Incontinence
   e. Patient is alert in the morning, but not at night.

3. What is the suggested assessment method of delirium?
   CAM-I CU

4. What FDA approved drug is used to treat delirium?
   None

5. What does the mnemonic THIINK mean?
   T: toxic
   H: hypoxic
   I: immobile
   I: infection
   N: nosocomial
   K: potassium issues
Delirium in ICU
Post-test
By: Morgan Larimore

1. The onset of delirium is gradual?
   True    False

2. Which of these are symptoms of delirium? (Select all that apply)
   a. Change in level of consciousness
   b. Decrease in long-term memory
   c. Euphoria
   d. Incontinence
   e. Patient is alert in the morning, but not at night.

3. What is the suggested assessment method of delirium?
   CAM-ICU

4. What FDA approved drug is used to treat delirium?
   None

5. What does the mnemonic THIINK mean?
   T: TOXIC
   H: hypoxemia
   I: immobilization
   N: non-pharmacologic interventions
   E: infection
   L: electrolyte imbalance
1. The onset of delirium is gradual?  
   True False  

2. Which of these are symptoms of delirium? (Select all that apply)  
   a. Change in level of consciousness  
   b. Decrease in long-term memory  
   c. Euphoria  
   d. Incontinence  
   e. Patient is alert in the morning, but not at night.  

3. What is the suggested assessment method of delirium?  
   CAM  

4. What FDA approved drug is used to treat delirium?  
   Haloperidol (Haldol)  

5. What does the mnemonic THIINK mean?  
   T:  
   H:  
   I:  
   I:  
   N:  
   K:
Delirium in ICU
Pre-test
By: Morgan Larimore

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   CAM

4. What FDA approved drug is used to treat delirium?
   Haldol

5. What does the mnemonic THIINK mean?
   T:
   H:
   I: infection
   I:
   N:
   K: potassium
Delirium in ICU
Pre-test
By: Morgan Larimore

1. The onset of delirium is gradual?
   - True
   - False

2. Which of these are symptoms of delirium? (Select all that apply)
   - a. Change in level of consciousness
   - b. Decrease in long-term memory
   - c. Euphoria
   - d. Incontinence
   - e. Patient is alert in the morning, but not at night.

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   - CAM

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   - Haldol

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   - I:
   - N:
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4. What FDA approved drug is used to treat delirium?
   Haldol

5. What does the mnemonic THIIK mean?
   T:
   H:
   I:
   I:
   N:
   K: Potassium
1. The onset of delirium is gradual?
   - True
   - False

2. Which of these are symptoms of delirium? (Select all that apply)
   - Change in level of consciousness
   - Decrease in long-term memory
   - Euphoria
   - Incontinence
   - Patient is alert in the morning, but not at night.

3. What is the suggested assessment method of delirium?
   - CAM

4. What FDA approved drug is used to treat delirium?
   - Haldol

5. What does the mnemonic THIINK mean?
   - T: Thought
   - H: Hallucination
   - I: I:
   - I: I:
   - N: N:
   - K: K: 
Delirium in ICU
Post-test
By: Morgan Larimore

1. The onset of delirium is gradual?
   True      False

2. Which of these are symptoms of delirium? (Select all that apply)
   a. Change in level of consciousness
   b. Decrease in long-term memory
   c. Euphoria
   d. Incontinence
   e. Patient is alert in the morning, but not at night.

3. What is the suggested assessment method of delirium?
   CAM

4. What FDA approved drug is used to treat delirium?
   None

5. What does the mnemonic THIINK mean?
   T: toxic situations
   H: hypoxemia
   I: Infection
   M: immobile
   I: non-pharm
   N: potassium issues
1. The onset of delirium is gradual?  
   True  
   False

2. Which of these are symptoms of delirium? (Select all that apply)
   a. Change in level of consciousness  
   b. Decrease in long-term memory  
   c. Euphoria  
   d. Incontinence  
   e. Patient is alert in the morning, but not at night.

3. What is the suggested assessment method of delirium?  
   C.A.M.

4. What FDA approved drug is used to treat delirium?  
   NONE

5. What does the mnemonic THINK mean?
   T: TOXIC  
   H: HYPOXIC  
   I: INFECTIONS  
   I: IMMOBILE  
   N: NON INTERVENTION  
   K: POTASSIUM & OTHER ELECTROLYTE ISSUES
### RASS

If score is a -4 or -5 then stop and recheck later

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+4</td>
<td>Combative</td>
</tr>
<tr>
<td>+3</td>
<td>Very Agitated</td>
</tr>
<tr>
<td>+2</td>
<td>Agitated</td>
</tr>
<tr>
<td>+1</td>
<td>Restless</td>
</tr>
<tr>
<td>7</td>
<td>Alert &amp; Calm</td>
</tr>
<tr>
<td>1</td>
<td>Drowsy</td>
</tr>
<tr>
<td>2</td>
<td>Light Sedation</td>
</tr>
<tr>
<td>3</td>
<td>Moderate Sedation</td>
</tr>
<tr>
<td>4</td>
<td>Deep Sedation</td>
</tr>
<tr>
<td>5</td>
<td>Unarousable</td>
</tr>
</tbody>
</table>
Feature 1: Is patient different from baseline mental status? Yes
Feature 2: Read letters aloud. Have patient squeeze hand every
time he/she hears the letter “A” SAVEAHART More than 2
errors
Feature 3: RASS score Anything other than 0
Feature 4: 1. Will a stone float on water?
2. Are there fish in the sea?
3. Does one pound weigh more than 2
pounds?
4. Can you use a hammer to pound a nail?
More than 1 error
If 1 and 2 are
present and
either 3 or 4
then delirium
is present