



# Delirium Early Prevention Strategies

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**"AT LEAST 20% OF THE 12.5 MILLION  
PATIENTS OVER 65 YEARS OF AGE  
HOSPITALIZED EACH YEAR IN THE US  
EXPERIENCE COMPLICATIONS DURING  
HOSPITALIZATION BECAUSE OF  
DELIRIUM (FONG 2009)."**

# What is Delirium?



- ❑ It is an acute disturbance of a mental state that has a constant change in nature and is characterized by inattention and cognitive impairment.
- ❑ It results in confused thinking and a decrease in awareness of the environment

## PICO question

In elderly patients with delirium in the acute care setting, will the implementation of early prevention strategies work to prevent delirium as compared to only using standard practice of care during their hospital stay?

# Delirium Diagnosis

- ❑ Acute, transient, usually reversible, fluctuating disturbance in attention, cognition, and consciousness level
- ❑ Similar in presentation as dementia and depression- may be difficult to identify

# Diagnosing Delirium

- ❑ Have to meet these 4 criteria:
  - ❑ “(A) Disturbance of consciousness (that is, reduced clarity of awareness of the environment) with reduced ability to focus, sustain, or shift attention
  - ❑ (B) A change in cognition (such as memory deficit, disorientation, language disturbance) or the development of a perceptual disturbance that is not better accounted for by a pre-existing, established, or evolving dementia
  - ❑ (C) The disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day
  - ❑ (D) Evidence from the history, physical examination, or laboratory findings indicates that the disturbance is caused by the direct physiological consequences of a general medical condition (Fong 2009).”

# Risk factors for Delirium

- ❑ Hearing or vision loss
- ❑ Immobilization
- ❑ Medications (such as sedatives, anticholinergics, corticosteroids)
- ❑ Acute neurological deficits (such as acute stroke or intracranial hemorrhage)
- ❑ Pain
- ❑ Dementia
- ❑ Male sex



(Fong, 2009)

# Early Prevention Strategies

- ❑ Early ambulation
- ❑ Frequent orientation to surroundings
- ❑ Consistent use of hearing aids and glasses
- ❑ Cognitive stimulation
- ❑ Optimal nutrition and hydration



# CAM: Confusion Assessment Method

- ❑ It is a standardized evidence-based tool that enables clinicians that do not work in psych to identify and recognize delirium as quickly and accurately as possible
- ❑ This should be done both on admission and daily during the patients hospital stay for accurate results
- ❑ Questions asked include the categories of acute onset, inattention, disorganized thinking and altered level of consciousness
- ❑ For diagnosing with CAM the patient must have presence of acute onset and fluctuating discourse along with inattention and also disorganized thinking or altered level of consciousness to be diagnosed with delirium

The diagnosis of delirium by CAM requires the presence of **BOTH** features **A** and **B**

# CAM

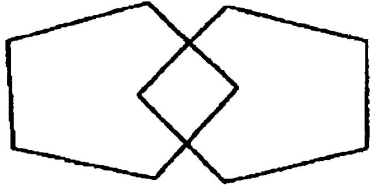
## Confusion Assessment Method

<b>A.</b> <b>Acute onset</b>	Is there evidence of an acute change in mental status from patient baseline?
and	Does the abnormal behavior:
<b>Fluctuating course</b>	<ul style="list-style-type: none"><li>&gt; come and go?</li><li>&gt; fluctuate during the day?</li><li>&gt; increase/decrease in severity?</li></ul>
<b>B.</b> <b>Inattention</b>	Does the patient: <ul style="list-style-type: none"><li>&gt; have difficulty focusing attention?</li><li>&gt; become easily distracted?</li><li>&gt; have difficulty keeping track of what is said?</li></ul>
<b>AND the presence of EITHER feature C or D</b>	
<b>C.</b> <b>Disorganized thinking</b>	Is the patient's thinking <ul style="list-style-type: none"><li>&gt; disorganized</li><li>&gt; incoherent</li></ul> For example does the patient have <ul style="list-style-type: none"><li>&gt; rambling speech/irrelevant conversation?</li><li>&gt; unpredictable switching of subjects?</li><li>&gt; unclear or illogical flow of ideas?</li></ul>
<b>D.</b> <b>Altered level of consciousness</b>	Overall, what is the patient's level of consciousness: <ul style="list-style-type: none"><li>&gt; alert (normal)</li><li>&gt; vigilant (hyper-alert)</li><li>&gt; lethargic (drowsy but easily roused)</li><li>&gt; stuporous (difficult to rouse)</li><li>&gt; comatose (unrousable)</li></ul>

# Mini Mental Status Examination

- ❑ This test targets cognitive function
- ❑ This test includes questions on orientation, attention, memory, language and visual-spatial skills
- ❑ After asking the questions pertaining to each category the patient then gets a score
- ❑ The total score is out of 30
- ❑ Score of 20-24=mild dementia
- ❑ Score of 13-20=moderate dementia
- ❑ Score of <12 = severe
- ❑ If the patient has dementia then they are at a higher risk for developing delirium

Avelino-Silvia (2017)

Section	Questions	Max Points	Score
1) Orientation	a) Can you tell me today's (date)/(month)/(year)? Which day is it today? Can you tell me which (season) it is?	5	
	b) What town/city are we in? What is the (county)/(country)? What (building) are we in and on what (floor)?	5	
2) Registration	I should like to test your memory. (name three common objects: "ball, car, man") Can you repeat the words I said? (1 point per word) (repeat up to 6 trials until all three are remembered)	3	
3) Attention and Calculation	a) From 100 keep subtracting 7 and give each answer. Stop after 5 answers. (93-86-79-72-65) Alternatively: b) Spell the word "World" backwards. (D_L_R_O_W)	5	
4) Recall	What were the three words I asked you to say earlier? (skip this test if all of these objects were not remembered during the registration test)	3	
5) Language Naming Repeating	Name the following objects (show a watch) and (show a pencil)	2	
	Repeat the following: "No ifs, ands or buts"	1	
6) Reading Writing	(show card or write: "Close your Eyes") Read this sentence and do what it says	1	
	Now can you write a short sentence for me?	1	
7) Three stage command	(present paper) Take this paper in your left (or right) hand, fold it in half, and place it on the floor	3	
8) Construction	Will you copy this drawing please? 	1	
Total score		30	

# Signs and Symptoms

Decrease in attention span

Intermittent confusion

Disorientation

Cognition changes

Hallucinations

Delusions

Dysphagia

tremors

# Management

- ❑ Management is overall prevention
- ❑ Screening for risk factors to identify patients who may need precautions such as medication adjustments, or more active monitoring for onset

**THINK: factors to consider when delirium is present**

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**T** Toxic situations: shock, dehydration, deliriogenic medications, new organ failure

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**H** Hypoxemia

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**I** Infection: sepsis, immobilization

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**N** Nonpharmacologic interventions: hearing aids, eyeglasses, reorientation, sleep protocols, music, noise control, ambulation

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**K** potassium or electrolyte imbalances

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**DR. DRE: strategies to consider when delirium is present**

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**DR** Disease remediation: sepsis, chronic obstructive pulmonary disease, heart failure

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**DR** Drug removal: substance abuse testing, benzodiazepines, opioid discontinuation

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**E** Environmental modifications: immobilization, day- and nighttime sleep, hearing aids, eyeglasses

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Adapted with permission from: Critical Illness, Brain Dysfunction, and Survivorship Center. For medical professionals: terminology and mnemonics. 2019. [www.icudelirium.org/terminology.html](http://www.icudelirium.org/terminology.html).

# THINK DR. DRE:

- ❑ THINK: Factors to consider when delirium is present
- ❑ DR. DRE: Strategies to consider when delirium is present

# Associations

- ❑ Dementia
- ❑ Age
- ❑ Functional status
- ❑ Urinary Tract Infections
- ❑ Male
- ❑ Greater mortality



# Environmental modifications

- ❑ Keep physical environment consistent and maintain routines
- ❑ Continuity of staffing for accurate assessment and consistent patient care
- ❑ Involve family in care
- ❑ Frequent orientation to promote sense of well-being
- ❑ Avoid bed and room changes when possible
- ❑ Encourage use of personal items to promote familiarity
- ❑ Create well-lit surroundings
- ❑ Reduce noise level

# Other Risk Factors for Delirium and Intervention Protocols

- ❑ Cognitive Impairment
  - ❑ Use of calm, gentle, verbal reassurance
- ❑ Sleep Deprivation
  - ❑ Provide private room if possible
- ❑ Immobility
  - ❑ Make minimal use of immobilizing equipment such as catheters and IVs
- ❑ Dehydration
  - ❑ Assess, monitor, and record intake and output
- ❑ Visual Impairment
  - ❑ Use visual aids with daily reinforcement of their use
- ❑ Hearing Impairment
  - ❑ Use portable amplifying devices with daily reinforcement

# Nurses' Role in Delirium

- UNDERSTAND there's a huge negative effect on the patient's outcome
- EXERCISE early prevention strategies



# Conclusion

- Medical emergency unless proven otherwise
- Affect the entire body system
  - lengthening hospital stay and increasing healthcare cost for the patient

For these reasons, prevention, early recognition and effective treatment of delirium are essential.

# Post Survey Questions

**Please indicate your level of agreement using this Rating scale of 1-5. 1=strongly disagree and 5= strongly agree**

1. After this education session I can recall at least three delirium prevention strategies
2. After this education session I can tell how to recognize early delirium symptoms
3. After this education session I can define what is meant by the term delirium
4. After this education session I can see myself using this content in my future practice in healthcare
5. Overall this presentation met my professional expectations and was appropriate and effective for the content presented

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