



VANDERBILT UNIVERSITY
MEDICAL CENTER

Delirium Screening Tools: Just- In- Time Education and Evaluation Using the EMR



Implementation of an EMR based protocol for detection of delirium in elderly Medical and palliative care patients

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Definition

1. A disturbance in attention (i.e. reduced ability to direct, focus, sustain, and shift attention) and awareness (reduced orientation to the environment).
2. The disturbance develops over a short period of time (usually hours to a few days), represents a change from baseline attention and awareness and tends to fluctuate in severity during the course of a day.
3. An additional disturbance in cognition (e.g. memory deficit, disorientation, language, visuospatial ability or perception).
4. The disturbances in Criteria 1 and 2 are not better explained by another pre-existing, established or evolving neurocognitive disorder and do not occur in the context of a severely reduced level of arousal, such as coma.
5. There is evidence from the history, physical examination or laboratory findings that the disturbance is a direct physiological consequence of another medical condition, substance intoxication or withdrawal (i.e. because of a drug of abuse or to a medication), or exposure to a toxin, or is because of multiple etiologies.

Adapted from American Psychiatric Association: Diagnostic and Statistical Manual of Mental Disorders



Problem

- › Identifying delirium in hospitalized elderly is challenging and often delirium remains undetected
- › Delirium has a prevalence rate in the range of 20-27% in Acute hospitalized adults
- › Much higher prevalence rate in hospitalized palliative care patients

Guidelines for delirium detection are facilitated by education, EHR documentation and prompting



Design & Setting

- We implemented a tool for screen for delirium (CAM) into the work-flow of nurses on a unit with high prevalence of delirium (Palliative Medical Care Unit) thereby providing automated physician notification of positive nursing screens for delirium in the EMR.
- In-service training on use of these tools was provided to medical and nursing staff prior to implementation.



CAM	
Acute change in mental status?	<input type="text"/>
(Abnormal) behavior fluctuate?	<input type="text"/>
Difficulty focusing attention?	<input type="text"/>
Thinking disorganized or incoherent?	<input type="text"/>
Altered level of consciousness	<input type="text"/>
	<ul style="list-style-type: none">Alert (normal)Vigilant (hyperalert)Lethargic (drowsy, easily aroused)Stupor (difficult to arouse)Coma (unarousable)



Delirium has been detected in your patient.

A nurse has completed a confusion assessment method (CAM)* score and a diagnosis of delirium is suggested.

Most recent Richmond Agitation Sedation Score:
"rass target as of 08/17/15 12:57 : -2 light sedation"

Would you like to activate the geriatric delirium treatment order set/pathway?

yes no

Do not display this again until there is another positive finding for suggested delirium.

Submit

Cancel

*Confusion Assessment Method. □□ 1988, 2003, Hospital Elder Life Program. All rights reserved. Adapted from: Inouye SK et al. Ann Intern Med. 1990; 113:941-8.



Delirium Treatment Order set

Delirium represents a reduced ability to maintain attention, with disorganized thinking or speech and an abrupt onset of symptoms with fluctuation in level of consciousness, altered perceptions, sleep disturbances, disorientation, memory impairment, and increased/decreased psychomotor activity.



Delirium Treatment Order set: Management Considerations I

Consider coexistent acute and chronic illness and pain.

Consider medication effects/interactions.

Consider environmental change and influences.

Labs if indicated

1. Lytes, BUN, Creat, Gluc, Calcium x1
2. CBC / PLT CT x1
3. THYROID STIM HORMONE BLOOD x1
4. urinalysis with microscopic (when indicated) x1
5. CULTURE URINE BACT x1

Diagnostic Tests if indicated

6. CHEST PA & LAT XR x1
7. HEAD CT W/O IV CONTRAST x1
8. HEAD CT W/IV CONTRAST x1

Please D/C deliriogenic meds as appropriate (benzodiazepines, sedatives, hypnotics, psychotropics, anticholinergics, antihistamines).

Medications to modify agitation associated with delirium should be used judiciously to avoid excessive sedation and masking of other illnesses.



Delirium Treatment Order set: Management Considerations II

Doses of the following may be cautiously increased and/or given bid or q6h prn if initial dose ineffective.

Reminder: Long term therapy in higher doses is contraindicated in older adults.

Select ONE of the following if indicated:

9. HALOPERIDOL: HALDOL ___ mg ___ ___ ___ ___ (___)

10. HALOPERIDOL INJ: HALDOL ___ mg ___ ___ ___ ___ (___)

11. olanzapine: zyprexa (atypical anti-psychotic) ___ mg ___ ___ ___ ___ (___)



Delirium Treatment Order set: Management Considerations III

Consider short-term use of restraints if patient is a danger to self or others, despite use of lesser measures/interventions.

Reminder: Restraints should only be used if patient is a danger to self or others and after lesser measures are used.

Nursing Interventions

12. NURSING: (delirium care): orient patient to person, place and time; provide emotional support

+ **NURSING:** (delirium care): provide information to family/caregiver about delirium to help reduce fear and shame

+ **NURSING:** (delirium care): minimize external stimuli by dimming light at night, television off, reducing unnecessary intrusions

+ **NURSING:** (delirium care): modify environment to increase familiarity and include cues that facilitate orientation (clock, calendar, etc.)

+ **NURSING:** (delirium care): lower patient bed and raise the side rails

+ **NURSING:** (delirium care): if necessary contact MD for restraint orders



Results

- 57 staff nurses and 49 physicians and other staff were trained in the delirium screening program 2012-2015.
- 767 patients screened for delirium, with a 7% prevalence
- Overall 59% patients were screened for delirium
- Delirium order set utilized 9 times year 1, 85 times year 2, 51 times year 3
- Geriatric consults requested 24 times year 1, 54 times year 2, 202 times year 3



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Confusion Assessment Method: Training Manual and Coding Guide, Copyright © 2003, Hospital Elder Life Program, LLC

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