23.6.3 DELIRIUM IN CRITICAL CARE

F05

DESCRIPTION

The risk of delirium is increased in patients with severe illness, with a prevalence of 40-60% in non-ventilated patients, and 50-80% in mechanically ventilated patients. Diagnosing delirium can be difficult due to its highly variable presentation. Symptoms may fluctuate over the course of a day with periods of reduced attention, awareness, and other features of cognitive dysfunction, along with periods of lucidity. Patients may present with agitated, disruptive and/or uncooperative behaviour (hyperactivity), sluggishness, lethargy, stupor (hypoactivity), or a mixture of these features. This variability is further complicated by the influence of analgo-sedatives and medical and surgical interventions. Delirium is associated with increased duration of mechanical ventilation, length of ICU and hospital stay, long-term cognitive impairment, and mortality.

Risk factors for delirium include: advanced age; pre-existing dementia; history of coma and/or other neurological disorders, hearing and visual impairment, pre-ICU emergency surgery or trauma, blood transfusions; and increased severity of underlying illness. Precipitating factors include sleep deprivation, pain, environmental insults (e.g., noise, physical restraint use, catheters), and psychoactive medicine use (e.g., benzodiazepines)..

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Strategies to prevent delirium include:

- regular patient reorientation
- noise reduction
- cognitive stimulation
- visual and hearing aids
- minimize use of sedative medicines
- early mobilization
- adequate hydration

» Recognise delirium early with daily clinical assessment and screening using a validated tool (See CAM-ICU 7 screening tool in Table 23.5).
» Be alert to hypoactive delirium, where the patient may be poorly responsive to questions.
» Screen for delirium in the absence of sedative effects.
» Use screening to explain what the symptoms mean and to reassure the patient and their relatives.

» Exclude:
  - Alcohol withdrawal delirium.
  - Psychosis, mania, or depression (either new onset or related to discontinuation of chronic medicines).

General management includes:
» Searching for, and correction of, precipitating factors.
» Intensified preventative strategies, particularly:
  - Pain control.
  - Minimising sedation.
  - Maintaining a calm, containing environment.
  - Re-orientating and explain all procedures to the patient.
  - Educating visitors (encourage visits).
  - Maintaining normal circadian rhythm.

Table 23.5: CAM-ICU 7 screening tool

Items	Grading
1. Acute Onset or Fluctuation of Mental Status Has the patient's mental status changed from his/her baseline? **OR** Has the patient had any fluctuation in mental status in the past 24 hours as evidenced by fluctuation on a sedation/ level of consciousness scale (i.e., RASS/SAS, GCS), or previous delirium assessment?	Absent = 0 Present = 1
2. Inattention 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. <u>SAVEAHAART</u> (Errors are counted when the patient fails to squeeze on the letter "A" and when the patient squeezes on any letter other than "A")*	≥ 8 correct (absent): Give score of 0 4-7 correct (Present): Give score of 1 0-3 correct (Severe): Give score of 2
3. Altered Level of Consciousness Present if the actual RASS score is anything other than alert and calm (zero)	RASS = 0 (Absent) Give score of 0 RASS = 1 or -1 (Present) Give score of 1 RASS >1 or RASS <-1 (Severely altered) Give score of 2
4. Disorganized Thinking <u>Yes/No Questions</u> i. Will a stone float on water? ii. Are there fish in the sea? iii. Does one pound weigh more than two pounds? iv. Can you use a hammer to pound a nail? Errors are counted when the patient incorrectly answers a question. <u>Command:</u> Say to patient "Hold up this many fingers (Hold two fingers in front of patient). Then say "Now do the same with the other hand" (Do not repeat number of fingers). An error is counted if patient is unable to complete the entire command.	Correct ≥ 4 (Absent) Give score of 0 Correct = 2-3 (Present) Give score of 1 Correct ≤ 1 (Severely disorganised) Give score of 2
Interpretation: 0-2: no delirium, 3-5: mild to moderate delirium, and 6-7: severe delirium.	

CAM-ICU: Confusion Assessment Method for the Intensive Care Unit; Richmond Agitation Sedation Scale; SAS: Sedation- Agitation Scale; GCS: Glasgow Coma Scale

Khan BA, Perkins AJ, Gao S, Hui SL, Campbell NL, Farber MO, Chlan LL, Boustani MA. The Confusion Assessment Method for the ICU-7 Delirium Severity Scale: A Novel Delirium Severity Instrument for Use in the ICU. Crit Care Med. 2017 May;45(5):851-857. doi: 10.1097/CCM.0000000000002368. PMID: 28263192; PMCID: PMC5392153.

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MEDICINE TREATMENT

For treatment recommendations, see section 20.8: Delirium with perceptual disturbances.

For delirium with severe agitation and/or aggression: See section: 15.1 Aggressive disruptive behaviour in adults.

Note:

» Antipsychotic medicines may reduce agitated behaviour and distress, but there is no evidence that they treat the delirium itself.
» For alcohol withdrawal see section 15.8.1: Alcohol Withdrawal Delirium (Delirium Tremens).