### Confusion Assessment Method for the Intensive Care Unit

**Acronym**: CAM-ICU  
**Core Domain**: Delirium Screening  
**Area assessed (Number of questions)**: *Addresses 4 core features*: Acute onset or fluctuating course (feature 1); Inattention (feature 2); Disorganized thinking (feature 3); Altered level of consciousness (feature 4)  
8 items total

**Description**: An adaptation of the Confusion Assessment Method (CAM) to be usable by clinicians to screen for delirium in the intensive care unit setting, particularly for nonverbal (intubated) patients. The CAM-ICU utilizes the CAM diagnostic algorithm.

**Versions**: 1 (training manual updated periodically)

**Scoring information**: 3 of the 4 features must be present for CAM-ICU to be considered positive (1 and 2, and either 3 or 4), according to the original CAM algorithm. Items are rated absent/present based on specific thresholds.

**Cognitive testing**: Embedded in instrument; also requires use of a validated level of consciousness/sedation scale, such as Richmond Agitation-Sedation Scale (RASS)

**Estimated time to rate**: 2-3 mins

**Require trained rater**: Yes – trained lay raters or clinicians

**Administer to**: Patient in ICU setting, in-person

**Special resources required**: CAM-ICU Picture Packets (optional)

**How to obtain**: Detailed free instructions at [http://www.icudelirium.org/delirium/monitoring.html](http://www.icudelirium.org/delirium/monitoring.html)

**Licensing Fee**: None

**Languages available**: Arabic, Chinese, Czech, Danish, Dutch, Egyptian, French, German, Greek, Hindi, Italian, Japanese, Korean, Malayalam, Marathi, Norwegian, Persian, Polish, Portuguese, Russian, Serbian, Spanish, Swedish, Thai, Zulu

**Highest COSMIN** rating**: 5/6†

**Test Performance Characteristics**

| Reference standard | Determined by delirium expert (geriatrician or geriatric consult-liaison psychiatrist)  
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| Ranges reflect results as conducted by three raters: two nurses and one intensivist  
| • Reliability (Inter-rater), kappa=0.95  
| • Sensitivity: Compared to reference standard 95-100%; in subgroup of mechanically ventilated patients, 92-100%  
| • Specificity: Compared to reference standard 89-93%; in mechanically ventilated patients, 88-100%  
| • Accuracy: 95-96%

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**References**:  


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*Fees and licensing information is effective as of 2018, but is subject to change over time*
**COSMIN is used to rate a study's evaluation of a survey or test's measurement properties. COSMIN does NOT rate the instrument itself, but helps readers understand if they can have confidence in the results of studies evaluating measurement properties of surveys and tests. For example, a rigorous study evaluating a test with poor measurement properties will receive a “good” COSMIN rating, while a poorly-conducted study evaluating a test with good measurement properties will receive a “poor” COSMIN rating. Small sample size can impact all COSMIN ratings. You must consider both the COSMIN rating and the results of studies provided when forming your opinion about that test. COSMIN ratings shown are based solely on the instrument’s original validation study.

† COSMIN breakdown: content validity: GOOD effect indicators: GOOD, internal consistency: NONE, inter-rater reliability: GOOD, construct validity: GOOD

Reviews:


