	Confusion Assessment Mathed for the Intensive Care Unit
Instrument	Confusion Assessment Method for the Intensive Care Unit
	NOTE: This card is populated with information from the instrument's original validation study only.
Acronym	CAM-ICU
Core Domain	Delirium Screening
Area assessed (Number of	Addresses 4 core features: Acute onset or fluctuating course (feature 1); Inattention
questions)	(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
Licensing Fee*	None
Languages available	Arabic, Chinese, Czech, Danish, Dutch, Egyptian, French, German, Greek, Hindi, Italian, Japanese, Korean, Malayalam, Marathi, Norwegian, Persian, Polish, Portugese, Russian, Serbian, Spanish, Swedish, Thai, Zulu
Highest COSMIN** rating	In progress
Test Performance	Ely 2001 (Crit Care Med)
Characteristics	Reference standard: interview and diagnosis of delirium according to DSM-IV criteria
	determined by delirium expert (geriatrician or geriatric consult-liaison psychiatrist)
	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%
*Fees and licening information is effective as of 2018, but is subject to change over time	

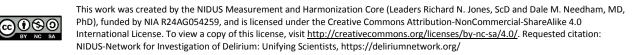
*Fees and licening information is effective as of 2018, but is subject to change over time

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**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 poorlyconducted 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.*

Reviews:

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Luetz, A., Heymann, A., Radtke, F. M., Chenitir, C., Neuhaus, U., Nachtigall, I., ... & Wernecke, K. D. (2010). Different assessment tools for intensive care unit delirium: which score to use?. *Critical care medicine*, *38*(2), 409-418.

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