

Instrument	Brief Confusion Assessment Method
	NOTE: This card is populated with information from the instrument's original validation study only.
Acronym	bCAM
Primary use	Delirium Screening
Area assessed (Number of questions)	Addresses 4 core features: Acute onset or fluctuating course (feature 1); Inattention (feature 2); Altered level of consciousness (feature 3); Disorganized thinking (feature 4) 7 items
Description	A modification of the Confusion Assessment Method for the Intensive Care Unit (CAM-ICU) for non-psychiatrically trained physicians to quickly screen for delirium outside of the ICU. The bCAM utilizes the CAM diagnostic algorithm.
Versions	1
Scoring information	3 of the 4 features must be present for bCAM to be considered positive (1 and 2, and either 3 or 4), according to the original CAM algorithm. Items are rated absent/present. The bCAM scoring sheet is presented as a flow chart to determine delirium presence quickly.
Cognitive testing	Embedded in instrument; also requires use of a validated level of consciousness/sedation scale, such as Richmond Agitation-Sedation Scale (RASS) to determine feature 3
Estimated time to rate	<2 minutes to perform interview and rate
Require trained rater	Yes – trained lay raters or clinicians
Administer to	Patient, in-person
How to obtain	Detailed free instructions at http://www.icudelirium.org/non-icu.html
Licensing Fee*	None
Languages available	English, Zambian (Bemba and Nyanja dialects available)
Highest COSMIN** rating	In progress
Test Performance Characteristics	Han 2013 <ul style="list-style-type: none"> •Reliability (inter-rater), correlation coefficient kappa=0.88 (95% CI 0.81-0.95) •Sensitivity (Compared to DSM-IV diagnosis by psychiatrist), performed by research assistant: 0.78 (95% CI 0.65-0.87); performed by physician: 0.84 (95% CI 0.72-0.92) •Specificity (Compared to DSM-IV diagnosis by psychiatrist), performed by research assistant: 0.97 (95% CI 0.95-0.99); performed by physician: 0.96 (95% CI 0.93-0.97)

* 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.*

Reference:

Han, J., Wilson, A., Vasilevskis, E., Shintani, A., Schnelle, J., Dittus, R., Graves, A., Storrow, A., Shuster, J., Ely, E.W. (2013). Diagnosing Delirium in Older Emergency Department Patients: Validity and Reliability of the Delirium Triage Screen and the Brief Confusion Assessment Method. *Annals of Emergency Medicine*, 62(5):457-465. doi:10.1016/j.annemergmed.2013.05.003

Reviews:

De, J., Wand, A.P.F. (2015). Delirium Screening: A Systematic Review of Delirium Screening Tools in Hospitalized Patients. *The Gerontologist*, 55(6):1079-1099. doi:10.1093/geront/gnv100

Mariz, J., Castanho, T.C., Teixeira, J., Sousa, N., Santos, N.C. (2016). Delirium Diagnostic and Screening Instruments in the Emergency Department: An Up-to-Date Systematic Review. *Geriatrics*, 1,22. doi:10.3390/geriatrics1030022

Last updated on **May 14, 2018**. If you are aware of any updates required for this document, please notify us via nidus@hsl.harvard.edu



This work was created by the NIDUS Measurement and Harmonization Core (Leaders Richard N. Jones, ScD and Dale M. Needham, MD, PhD), funded by NIA R24AG054259, and is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/4.0/>. Requested citation: NIDUS-Network for Investigation of Delirium: Unifying Scientists, <https://deliriumnetwork.org/>

