

Delphi Consensus for Core Outcome Set for Measuring Patient Outcomes After ICU

Instrument	Montreal Cognitive Assessment-FULL (version 7.1, 7.2, 7.3, 8.1, 8.2, 8.3)
Acronym	MoCA-FULL
Core Domain	Cognitive Sub-domain: Cognitive Screening
Area assessed (Number of questions)	Total questions: 19 Visuospatial/Executive: 3 Naming: 3 Memory: 3 Attention: 4 Language: 3 Abstraction: 2 Orientation: 1
Description	A screening tool designed to detect mild cognitive dysfunction.
Versions	There are four versions of MoCA: MoCA-Full, MoCA-Blind, and MoCA-Basic. MoCA-Full is the original MoCA. There are three versions of the MoCA-Full to decrease possible learning effects when the MoCA is administered repetitively. MoCA-Blind is available for use with the visually-impaired or for administration via telephone. MoCA-Basic is available for use with individuals who are illiterate or with less than 5 years of formal education.
Recall Period	N/A
Scoring information	Subscores for each of the 7 sections are calculated. The total score is summed from the subscores, with a maximum score of 30. Score ranges include: >26: Normal Cognition 18-26: Mild cognitive impairment 10-17: Moderate cognitive impairment <10: severe cognitive impairment
Estimated time to complete	10 minutes
Administer to	Patient
Require trained administrator	Yes [†]
Mode of administration	In-person; also via phone using a modified version of test called MoCA-Blind
Order from	http://www.mocatest.org/
Licensing Fee <i>Fees and licensing information is effective as of September 2019, but is subject to change over time</i>	No fee for licensing [†] To access the MoCA form/manual, training certification is required from www.mocatest.org . Certification costs \$125 and is valid for 2 years; recertification is optional but recommended, at 50% of the initial certification cost. Permission is required if MoCA is used for research purposes, but not for clinical or educational purposes, and can be requested via www.mocatest.org/permission .
Equipment required	Survey form, pen, and stopwatch.
Number of published Critical Care publications using instrument (1970 – 2013)*	0
Highest COSMIN** rating (from a systematic review up to March 2015***)	No evaluation completed

Last updated on **October 8, 2019**. If you are aware of any updates required for this document, please notify us via ImproveLTO@jhmi.edu.



This work, created by Dale M. Needham, MD, PhD and the Johns Hopkins University Outcomes After Critical Illness & Surgery (OACIS) Group, was funded by NHLBI R24HL111895, 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/>.



Additional comments	<p>[†]MoCA may be administered by anyone who understands and follows the instructions, but only a health professional with expertise in the cognitive field may interpret the results. Training in how to administer the MoCA is offered at: http://www.mocatest.org/</p>
---------------------	---

*Turnbull, A.E. et al. Outcome Measurement in ICU Survivorship Research from 1970-2013: A Scoping Review of 425 Publications. *Critical Care Medicine*. 2016; 44; 1267-77.

** 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. You must consider both the COSMIN rating and the results of studies provided when forming your opinion about that test. **If more than one paper evaluated the same measurement property for a given test/survey, we present data from the paper with a better COSMIN score.** COSMIN ratings were only performed for studies evaluating instruments used in ICU survivors after ICU discharge.

***Robinson, K.A. et al. A systematic review finds limited data on measurement properties of instruments measuring outcomes in adult intensive care unit survivors.. *Journal of Clinical Epidemiology*. 2017; 82; 37-46.

Last updated on **October 8, 2019**. If you are aware of any updates required for this document, please notify us via ImproveLTO@jhmi.edu.



This work, created by Dale M. Needham, MD, PhD and the Johns Hopkins University Outcomes After Critical Illness & Surgery (OACIS) Group, was funded by NHLBI R24HL111895, 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/>.

