



Delirium Severity Assessment Instruments: A Systematic Review

Adapted from “Systematic Review of Delirium Severity Measurement” by Heidi Lindroth, PhD, RN
<https://deliriumnetwork.org/systematic-review-of-delirium-severity-measurement/>

The measurement of delirium severity, defined as the intensity of an episode of delirium, is growing in importance. As the number of studies measuring delirium severity grows, and clinical care considers the use of a delirium severity instrument, it is imperative that the chosen instrument(s) accurately capture delirium symptom severity. NIDUS is pleased to highlight a systematic review of delirium severity measurement tools, recently published in JAMA Internal Medicine (Jones et al. JAMA Intern Med. 2019;179:231–239. [PMID: 30556827](https://pubmed.ncbi.nlm.nih.gov/30556827/)).¹

Forty-two instruments were identified from 228 included studies that focused on rating delirium and/or delirium severity. Eleven instruments were multi-domain and therefore further examined for their methodological quality in measuring delirium severity using the Consensus-based Standards for the Selection of Health Measurement Instruments (COSMIN). Each instrument was scored on a scale from 0-6 points, with a score of 6 indicating high accuracy and consistency in measurement. Six out of eleven instruments scored greater than 5 points, with the Delirium Observation Scale (DOS) receiving the highest score of 6. Six instruments were endorsed in a modified Delphi process by an expert interprofessional panel of seven content experts who considered the following features: 1) instrument was used in two or more of the included studies; 2) ≥ 3.5 COSMIN score; 3) original validation study reports strong content and/or predictive ability; and 4) ≥ 9 delirium symptom domains covered.

The six instruments selected by the expert panel include CAM-S², Confusional State Examination³, Delirium-O-Meter⁴, DOS⁵, DRS-R-98⁶, and MDAS⁷. These instruments may enable accurate measurement of delirium severity. Overall, the CAM and CAM-S, DRS-R-98, and the MDAS were most commonly used. Each of the selected instruments have properties that make them more or less suitable to specific research or clinical uses. While this systematic review provides a guide in selecting and evaluating delirium severity measurements, it does not provide a head-to-head comparative study. This leads to an important recommendation for future research from this rigorous review: head-to-head comparisons of these six tools in an effort to further evaluate their performance is greatly needed.^{1,8}

For clinical practice and healthcare systems, this review provides an avenue to start thoughtful discussions on how to best measure, and implement, delirium severity assessment into clinical practice. The potential to capture the burden of delirium holds important implications for clinical care. Information provided can inform the needs of the patient and family during and following hospitalization, can provide data on staff burden and safe staffing levels, and may inform delirium management strategies on which interventions are effective in reducing delirium and its severity.^{1,9}

References

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Additional Delirium Measurement Resources

Delirium Instrument Information Cards: 1-page summaries of validated delirium measurement tools, with key validation and instrument use information, including each of the 6 delirium severity instruments identified above and in the systematic review.

<https://deliriumnetwork.org/measurement/adult-delirium-info-cards/>

Delirium Severity Measure Crosswalk Tool: Online conversion tool for delirium severity scores as measured by the Memorial Delirium Assessment Scale (MDAS), the Delirium Rating Scale-Revised-98 (DRS-R-98), and the Confusion Assessment Method-Severity (CAM-S).

<https://deliriumnetwork.org/measurement/delirium-severity-crosswalk-tool/>

Delirium Severity Instrument Summary Table: Summary information on 14 delirium severity assessment tools, including number of items, approximate time to administer, and notes on the background and development of each tool.

<https://deliriumnetwork.org/delirium-severity-measures-summary-table/>



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