

Instrument		Delirium-Severity Score	
NOTE: This card is populated with information from the instrument's original validation study only.			
Acronym	DEL-S		
Primary Use	Delirium severity assessment		
Area assessed (Number of questions)	Short Form: 6 items, scored 0-13, with higher scores indicating more severe delirium	Long-form: 17 items, scored 0-21, considered continuously and grouped into 5 categories	
Description	An instrument developed following a multistep process: (1) systematic review of the medical literature on delirium severity and evaluation of the quality of existing tools; (2) psychometric synthesis and harmonization of the 3 most commonly used delirium severity instruments using advanced psychometric methods to generate an item bank of delirium severity measures; (3) in-depth qualitative interviews with patients, caregivers, and nurses to ensure comprehensive inclusion of key domains of delirium severity; (4) a modified Delphi process involving an interdisciplinary panel of delirium experts to define domains and subdomains of delirium severity that do not overweight hyperactive symptoms; and (5) a prospective study to evaluate new delirium severity items using advanced measurement methods including item response theory. DEL-S instrument includes cognitive test items, patient self-report, and observer-rated items.		
Versions	2: Short form (6 items) and Long form (17 items)		
Scoring information	The delirium severity score SF score is based on 6 observer-rated items (range, 0-13 points, with higher scores denoting worse delirium), and the delirium severity score LF is based on 17 observer-rated items (range, 0-21 points, with higher scores denoting worse delirium).		
Cognitive testing	Delirium can be determined with cognitive testing and the Confusion Assessment Method (CAM) supplemented by a validated medical record review method.		
Estimated time to rate	Not reported	Not reported	
Require trained rater	Yes – trained lay raters or clinicians		
Administer to	Patient, in-person		
How to obtain	Detailed free instructions (registration required) at https://deliriumnetwork.org/		
Licensing Fee*	None for non-profit or educational uses		
Languages available	English		
Highest COSMIN** rating	5/6		
Test Performance Characteristics	Internal consistency reliability (coefficient omega) 0.89 (short form) and 0.94 (long form); inter-rater agreement (kappa coefficient) 0.72 (short form) and 0.74 (long form). DEL-S scores correlated with hospital length of stay, hospital costs, deaths within 1 year. The DEL-S was not validated for identification of delirium and therefore sensitivity, specificity, etc. not reported.		

** 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: Sarinnapha M. Vasunilashorn, PhD; Tamara G. Fong, MD, PhD; Benjamin K. I. Helfand, MSc; Tammy T. Hsieh, MD, MPH; Edward R. Marcantonio, MD, SM; Eran D. Metzger, MD; Eva M. Schmitt, PhD; Patricia A. Tabloski, PhD; Thomas G. Trivison, PhD; Yun Gou, MA; Richard N. Jones, ScD; Sharon K. Inouye, MD, MPH; for the BASIL Study Team *Psychometric Properties of a Delirium Severity Score for Older Adults and Association With Hospital and Posthospital Outcomes* JAMA Network Open. 2022;5(3):e226129. doi:10.1001/jamanetworkopen.2022.6129

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