Instrument	Cornell Assessment of Pediatric Delirium
Acronym	CAPD
Core Domain	Screening
Area assessed (Number of questions)	8 items total addressing DSM-IV domains of delirium: Consciousness, Cognition, Orientation, Psychomotor activity, Affect/Distress
Description	The Cornell Assessment of Pediatric Delirium (CAPD) is an adaptation of the Pediatric Anesthesia Emergence Delirium Scale (PAED)†, that is specifically designed to detect hypoactive and mixed-type delirium in addition to hyperactive delirium. The CAPD is an observational tool reflecting the patient's status over the course of a nursing shift; it can be rated quickly and administered multiple times daily.
Versions	2 (revised)
Scoring information	All items scored as occurring never, rarely, sometimes, often, or always. Individual item scores are added for a sum total score. For children under 2 years old, developmentally appropriate anchor points for behavioral observations have been delineated.
Cognitive testing	None required
Estimated time to rate	<2 minutes; based on interactions with patient over the course of nursing shift
Require trained rater	Yes, validated for use by nurses and physicians with pediatric experience
Administer to	Neonates, infants and children up to age 21 years Includes children with developmental delay
Special resources required	None
How to obtain	Available at http://www.icudelirium.org/pediatric.html
Licensing Fee*	None
Languages available	Chinese, Danish, English, Finnish, French, German, Hebrew, Italian, Japanese, Korean, Persian, Portuguese (Brazilian), Spanish
Highest COSMIN** rating	In progress
Test Performance Characteristics	**Traube 2014 (n=111 ranging from age 0 to 21 years, in PICU; reference standard: diagnosis of delirium by child psychiatrist using DSM-IV criteria)** •Inter-rater reliability of nurses' CAPD ratings: k=0.94 at CAPD cutpoint of 9 •Sensitivity: 94.1% [95% CI 83.8-98.8%] •Specificity: 79.2% [95% CI 73.5-84.9%] •Concordance between CAPD and reference standard: 82.3% agreement [r=0.62]

* 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: Traube C, Silver G, Kearney J, Patel A, Atkinson TM, Yoon MJ, et al. (2014). Cornell Assessment of Pediatric Delirium: A Valid, Rapid, Observational Tool for Screening Delirium in the PICU. *Crit Care Med,* 42(3):656-663.

†*(Pediatric Anesthesia Emergence Delirium Scale):* Sikich N, Lerman J (2004). Development and Psychometric Evaluation of the Pediatric Anesthesia Emergence Delirium Scale. *Anesthesiology*, 100(5):1138-1145.

Reviews:

Daoud A, Duff JP, Joffe AR, Alberta Sepsis Network (2014). Diagnostic accuracy of delirium diagnosis in pediatric intensive care: a systematic review. *Crit Care*, 18(5):489. doi:10.1186/s13054-014-0489-x

Harris J, Ramelet A-S, van Dijk M, Pokorna P, Wielenga J, Tume L, Tibboel D, Ista E (2016). Clinical recommendations for pain, sedation, withdrawal and delirium assessment in critically ill infants and children: an ESPNIC position statement for healthcare professionals. *Intensive Care Med,* 42:972-986. doi:10.1007/s00134-016-4344-1

Schieveld JNM, van Zwieten JJ (2016). From pediatrics to geriatrics: toward a unified standardized screening tool for delirium: a thought experiment. *Crit Care Med*, 44(9):1778-1780. doi:10.1097/CCM.0000000000001485

Subgroup analyses of sensitivity/specificity:

Sensitivity:

- Without developmental delay: 92.0% (95% CI 85.7-98.3%)
- Patients <2 years old: 100%
- Age 2-5 years: 100%
- Age 6-12 years: 86.7% (95% CI 65.6-100%)
- Age 13-21 years: 50% (95% CI 0.2-100%)
- With developmental delay: 96.2% (95% CI 86.5-100%)
- On respiratory support: 93.6% (95% CI 87.2-100%)

Specificity

- Without developmental delay: 86.5% (95% CI 75.4-97.6%)
- Patients <2 years old: 67.7% (95% CI 45.9-89.6%)
- Age 2-5 years: 69.0% (95% CI 36.7-100%)
- Age 6-12 years: 76.8% (95% CI 55.3-98.3%)
- Age 13-21 years: 98.1% (95% CI 94.3-100%)
- With developmental delay: 51.2% (95% CI 24.7-77.8%)
- On respiratory support: 71.6% (95% CI 54.9-88.2)