

# EUR Research Information Portal

## Brazilian Portuguese Translation and Cross-Cultural Adaptation of the Sophia Observation Withdrawal Symptoms Pediatric Delirium Tool for the Diagnosis of Withdrawal Syndrome and Delirium in Children

### Published in:

Pediatric critical care medicine : a journal of the Society of Critical Care Medicine and the World Federation of Pediatric Intensive and Critical Care Societies

### Publication status and date:

Published: 01/02/2024

### DOI (link to publisher):

[10.1097/PCC.0000000000003364](https://doi.org/10.1097/PCC.0000000000003364)

### Document Version

Publisher's PDF, also known as Version of record

### Document License/Available under:

Article 25fa Dutch Copyright Act

### Citation for the published version (APA):

Castro, R. E. V. D., de Almeida, J. P. C., Monteiro Medeiros, D. N., Cheniaux, E., Colleti Júnior, J., de Magalhães-Barbosa, M. C., Prata-Barbosa, A., & Ista, E. (2024). Brazilian Portuguese Translation and Cross-Cultural Adaptation of the Sophia Observation Withdrawal Symptoms Pediatric Delirium Tool for the Diagnosis of Withdrawal Syndrome and Delirium in Children. *Pediatric critical care medicine : a journal of the Society of Critical Care Medicine and the World Federation of Pediatric Intensive and Critical Care Societies*, 25(2), e103-e104. <https://doi.org/10.1097/PCC.0000000000003364>

[Link to publication on the EUR Research Information Portal](#)

### Terms and Conditions of Use

Except as permitted by the applicable copyright law, you may not reproduce or make this material available to any third party without the prior written permission from the copyright holder(s). Copyright law allows the following uses of this material without prior permission:

- you may download, save and print a copy of this material for your personal use only;
- you may share the EUR portal link to this material.

In case the material is published with an open access license (e.g. a Creative Commons (CC) license), other uses may be allowed. Please check the terms and conditions of the specific license.

### Take-down policy

If you believe that this material infringes your copyright and/or any other intellectual property rights, you may request its removal by contacting us at the following email address: [openaccess.library@eur.nl](mailto:openaccess.library@eur.nl). Please provide us with all the relevant information, including the reasons why you believe any of your rights have been infringed. In case of a legitimate complaint, we will make the material inaccessible and/or remove it from the website.

# Brazilian Portuguese Translation and Cross-Cultural Adaptation of the Sophia Observation Withdrawal Symptoms Pediatric Delirium Tool for the Diagnosis of Withdrawal Syndrome and Delirium in Children

In 2023, the Dutch Multidisciplinary Pediatric Delirium Guideline Group identified in a meta-analysis of pediatric critical care reports, including over 10,000 admissions, an overall 28% prevalence of pediatric delirium (PD), and seven factors associated with greater odds of delirium during critical illness (1). The accompanying editorial put forward the argument for PD being the next vital sign to follow in the PICU (2). It follows, therefore, that tools such as the Sophia Observation Withdrawal Symptoms Pediatric Delirium scale (SOS-PD scale) should be routinely used—as recommended in the 2022 Society of Critical Care Medicine Clinical Practice Guideline on Prevention and Management of Pain, Agitation, Neuromuscular Blockade, and Delirium in critically ill patients with consideration of the ICU Environment and Early Mobility (SCCM-pediatric-PANDEM) (3). Prevention and Management of Pain, Agitation, Neuromuscular Blockade, and Delirium in critically ill patients with consideration of the ICU Environment and Early Mobility

Our group in Brazil has collaborated with the original author of the SOS-PD scale (4) with the purpose of making available a Brazilian Portuguese (BP-SOS-PD) translation that complied with guidance on international translation (5). This is necessary because the Portuguese spoken in Brazil has many cultural variations that make it slightly different from the Portuguese spoken in other Portuguese-speaking countries. We used three translators (Brazilian pediatric intensive care physicians with more than 10 years of medical graduation and fluent in English—R.E.V.C., J.P.C.A., and C.C.S.) who independently produced three versions of the tool and its instructions page. Subsequently, they met for the reconciliation process, in which differences in the interpretation of the concepts were resolved by consensus, resulting in “version 1.” Then, for quality control, “version 1” was retranslated into English by an independent, highly qualified, and native English-speaking translator. The new version obtained in English was then evaluated by the scale originator (E.I.) to guarantee the conceptual equivalence of the clinical instrument. The originator approved the version, which was then submitted to an expert consensus for language harmonization and cognitive debriefing. Eight health professionals, including six pediatricians with intensive care experience (A.P.B., D.H.S.G., D.G.L., F.L.S., M.C.M.B., and L.M.R.), a psychologist (J.R.R.), and a nurse (M.S.S.) met three times to identify and correct expressions that had been translated literally but needed adapting to contemporary terminologies used in Brazilian PICUs.

Roberta Esteves Vieira de Castro,  
MD, PhD<sup>1,2</sup>

Juliana Patrícia Chaves de  
Almeida, MD<sup>3,4</sup>

Daniela Nasu Monteiro Medeiros,  
MD, PhD<sup>5</sup>

Elie Cheniaux, MD, PhD<sup>6,7</sup>

José Colleti Júnior, MD, PhD<sup>5</sup>

Maria Clara de Magalhães-  
Barbosa, MD, PhD<sup>2</sup>

Arnaldo Prata-Barbosa, MD, PhD<sup>2</sup>

Erwin Ista, RN, PhD<sup>8</sup>

Copyright © 2023 by the Society of  
Critical Care Medicine and the World  
Federation of Pediatric Intensive and  
Critical Care Societies

DOI: 10.1097/PCC.0000000000003364

“Version 2” was revised (R.E.V.C., J.P.C.A., D.N.M.M., M.C.B.A., and A.P.B.) and then sent to the originator, who approved this version.

The changes to the SOS-PD scale that were made included the following five points:

- 1) In step 1a, we removed the expression “electronic patient data management system” because many Brazilian PICUs continue to use paper medical records.
- 2) In step 2, we modified the body temperature value from 38.4°C to 37.8°C, which is the value used in Brazil to determine the presence of fever, since the axillary site is most frequently used for temperature measurement.
- 3) Also in step 2, we excluded the word “fumbling,” because when translating it, we observed redundancy.
- 4) In the place where the punctuation is registered, we replaced the symbol “\*” with the word “hallucinations.”
- 5) At the end of the instructions for applying the SOS component, we modified the order of “step 2,” which was at the end, to the beginning of the explanation about the calculation of the basal heart rate.

Last, we highlight the fact that the Latin word “delirare” (meaning deviate, be deranged) is often confused with the Portuguese term “delírio,” which—differently—means “delusion.” Therefore, to avoid confusion, we support using the nomenclature agreed by 10 European and North American critical care societies in 2020 (6), and used in the 2022 SCCM-pediatric-PANDEM (1), which is “delirium.” The BP-SOS-PD is available online (<https://comfortassessment.nl/web/index.php/instruments/sos-pediatric-delirium-sos-pd/>) and we hope to carry out validity and reliability studies.

## ACKNOWLEDGMENTS

We thank Dr. Carolina Cunha Sousa for participating as the third translator of the first Portuguese version, and Alexander Farr, for the back-translation. We also thank Drs. Daniel Hilário Santos Genu, Diogo Gomes Luque, Fernanda Lima-Setta, Jaqueline Rodrigues Robaina, Letícia Massaud-Ribeiro, and Mrs. Margarida dos Santos Salú for participating in the expert consensus panel.

- 1 *Pediatric Intensive Care Unit (PICU), Department of Pediatrics, Pedro Ernesto University Hospital, Rio de Janeiro State University (UERJ), Rio de Janeiro, Brazil.*
- 2 *Department of Pediatrics, D'Or Institute for Research and Education (IDOR), Rio de Janeiro, Brazil.*
- 3 *Department of Pediatrics, Souza Marques School of Medicine, Rio de Janeiro, Brazil.*
- 4 *PICU, Department of Pediatrics, Federal Hospital of Lagoa, Rio de Janeiro, Brazil.*
- 5 *PICU, Hospital Israelita Albert Einstein, São Paulo, Brazil.*
- 6 *Department of Psychiatry, Rio de Janeiro State University (UERJ), Rio de Janeiro, Brazil.*
- 7 *Department of Psychiatry, Institute of Psychiatry of Federal University of Rio de Janeiro, Rio de Janeiro, Brazil.*
- 8 *PICU, Department of Pediatric Surgery, Erasmus MC–Sophia Children's Hospital, University Medical Center Rotterdam, Rotterdam, The Netherlands.*

*The Rio de Janeiro State University is responsible for sending the article.*

*The authors have disclosed that they do not have any potential conflicts of interest.*

## REFERENCES

1. Ista E, Traube C, de Neef M, et al; Dutch Multidisciplinary Pediatric Delirium Guideline Group: Factors associated with delirium in children: A systematic review and meta-analysis. *Pediatr Crit Care Med* 2023; 24:372–381
2. Lim JKB, Marimuttu VJ, Lee JH: Delirium: The next vital sign in the PICU? *Pediatr Crit Care Med* 2023; 24:422–425
3. Smith HAB, Besunder JB, Betters KA, et al: 2022 Society of Critical Care Medicine Clinical Practice Guidelines on Prevention and Management of Pain, Agitation, Neuromuscular Blockade, and Delirium in Critically Ill Pediatric Patients With Consideration of the ICU Environment and Early Mobility. *Pediatr Crit Care Med* 2022; 23:e74–e110
4. Ista E, de Hoog M, Tibboel D, et al: Psychometric evaluation of the Sophia Observation Withdrawal Symptoms Scale in critically ill children. *Pediatr Crit Care Med* 2013; 14:761–769
5. Wild D, Grove A, Martin M, et al; ISPOR Task Force for Translation and Cultural Adaptation: Principles of good practice for the translation and cultural adaptation process for Patient-Reported Outcomes (PRO) measures: Report of the ISPOR task force for translation and cultural adaptation. *Value Health* 2005; 8:94–104
6. Slooter AJC, Otte WM, Devlin JW, et al: Updated nomenclature of delirium and acute encephalopathy: Statement of ten Societies. *Intensive Care Med* 2020; 46:1020–1022