



SHAREABLE PDF

# Technical standards for respiratory oscillometry: test loads for calibration and verification

Cindy Thamrin <sup>1</sup>, Raffaele L. Dellacà <sup>2</sup>, Graham L. Hall<sup>3</sup>, David W. Kaczka <sup>4</sup>, Geoffrey N. Maksym <sup>5</sup>, Ellie Oostveen<sup>6</sup>, Shannon J. Simpson<sup>3</sup> and Gregory G. King<sup>1,7</sup> on behalf of the authors of the ERS technical standards for respiratory oscillometry

**Affiliations:** <sup>1</sup>Airway Physiology and Imaging Group, The Woolcock Institute of Medical Research, The University of Sydney, Glebe, Australia. <sup>2</sup>Dipartimento di Elettronica, Informazione e Bioingegneria, Politecnico di Milano, Milan, Italy. <sup>3</sup>Children's Lung Health, Telethon Kids Institute, School of Physiotherapy and Exercise Science, Curtin University, Perth, Australia. <sup>4</sup>Depts of Anesthesia, Biomedical Engineering and Radiology, University of Iowa, Iowa City, IA, USA. <sup>5</sup>School of Biomedical Engineering, Dalhousie University, Halifax, NS, Canada. <sup>6</sup>Dept of Respiratory Medicine, Antwerp University Hospital and University of Antwerp, Edegem-Antwerp, Belgium. <sup>7</sup>Dept of Respiratory Medicine, Royal North Shore Hospital, St Leonards, Australia.

**Correspondence:** Cindy Thamrin, Airway Physiology and Imaging Group, Woolcock Institute of Medical Research, 431 Glebe Point Rd, Glebe NSW 2037, Australia. E-mail: cindy.thamrin@sydney.edu.au



@ERSpublications

User verification of device accuracy using test loads should encompass the expected range of  $Z_{rs}$  to be tested; this letter clarifies the definition of  $Z_{rs}$  ranges of the population being tested. Manufacturers should report accuracy of both  $R_{rs}$  and  $X_{rs}$ . <https://bit.ly/2ZrnOCD>

**Cite this article as:** Thamrin C, Dellacà RL, Hall GL, *et al.* Technical standards for respiratory oscillometry: test loads for calibration and verification. *Eur Respir J* 2020; 56: 2003369 [<https://doi.org/10.1183/13993003.03369-2020>].

This single-page version can be shared freely online.

## To the Editor:

It has been brought to our attention that there is ambiguity in the ERS technical standards for respiratory oscillometry [1], specifically regarding the use of test loads for calibration and verification.