




COVID-19 prediction models should adhere to methodological and reporting standards

Gary S. Collins ¹, Maarten van Smeden² and Richard D. Riley³

Affiliations: ¹Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, Oxford, UK. ²Julius Center for Health Science and Primary Care, University Medical Center Utrecht, University of Utrecht, Utrecht, The Netherlands. ³Centre for Prognosis Research, School of Primary, Community and Social Care, Keele University, Keele, UK.

Correspondence: Gary S. Collins, Centre for Statistics in Medicine, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, Oxford, UK. E-mail: gary.collins@csm.ox.ac.uk



@ERSpublications

COVID-19 prediction models should adhere to methodological and reporting standards

<https://bit.ly/3ebnook>

Cite this article as: Collins GS, van Smeden M, Riley RD. COVID-19 prediction models should adhere to methodological and reporting standards. *Eur Respir J* 2020; 56: 2002643 [<https://doi.org/10.1183/13993003.02643-2020>].

This single-page version can be shared freely online.

To the Editor:

The coronavirus disease 2019 (COVID-19) pandemic has led to a proliferation of clinical prediction models to aid diagnosis, disease severity assessment and prognosis. A systematic review has identified 66 COVID-19 prediction models: concluding that all, with no exception, are at high risk of bias due to concerns surrounding the data quality, statistical analysis and reporting, and none are recommended for use [1]. Therefore, we read with interest the recent paper by Wu *et al.* [2] describing the development of a model to identify COVID-19 patients with severe disease on admission to facilitate triage. However, our enthusiasm was dampened by a number of concerns surrounding the design, analysis and reporting of the study which deserve highlighting to readers.