CORRESPONDENCE









COVID-19: Find the Right Questions to be Answered

To the Editor-We read with great interest the article by Montejano and colleagues, which aimed to assess how the inclusion criteria of ongoing phase 2 and 3 clinical trials for coronavirus disease 2019 (COVID-19) treatment fit with the actual population of hospitalized individuals with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection in a teaching hospital in Madrid, Spain [1]. The authors found that most of individuals admitted to their hospital do not meet the inclusion criteria for recent trials and concluded that this was mainly due to discrepancies between the ideal trial population and the actual characteristics of COVID-19 hospitalized individuals, which are rapidly evolving.

Although we do agree that the characteristics of the hospitalized population change over time and might have led to the discrepancies observed, we would like to underline some inconsistencies in the methodology applied by the authors that could have led to an under estimation of eligible participants: (1) first of all the BEST [2] and DEFACOVID [3] trials, aimed to evaluate potential treatment for acute respiratory distress syndrome (ARDS). Because the authors excluded the "critically ill patients at the time of admission" from their analysed sample it is not surprising that most of the participants were not eligible for these 2 trials; (2) the author stated that "the initiation of COVID-19-specific treatment in 61% of patients" were among the most prevalent exclusion criteria. This statement would have only been true if the investigated trials would have been actively enrolling at the site when the retrospective eligibility assessment was carried out and all the individual would have had the possibility to be screened at the time of SARS-CoV-2 diagnosis/ admission for the eligibility in these trials. Otherwise, considering that the observation of the authors was retrospective in nature, a prevalent user bias would have occurred and "potentially eligible individuals" at T0 (baseline) would have been wrongly identified as "non-eligible" because previously exposed to SARS-CoV-2 treatments [4].

Apart from these methodological concerns, we believe that the authors have raised an important issue. Although the COVID-19 pandemic is no longer considered a public health emergency of international concern by the World Health Organization (WHO) [5], it continues to challenge our everyday clinical practice; therefore, it remains crucial to identify residual unmet needs [6] in order to be able to pose the right causal questions [7]. In conclusion, because of the rapidly evolving clinical scenario, one important pitfall, not specifically mentioned by the authors, is that often, by the time the trial is completed, the original trial question is no longer relevant for clinical practice.

Note

Potential conflicts of interest. S. A. reports payment or honoraria for lectures, presentations, speakers' bureaus, manuscript writing or educational events from Pfizer, and support for attending meetings and/or travel from Pfizer and MSD. A. Gi. reports consulting fees from Mylan and Jansen; payment or honoraria for lectures, presentations, speakers' bureaus, manuscript writing, or educational events from Gilead and ViiV; payment for expert testimony from Jansen; support for attending meetings and/or travel from Gilead, ViiV, and MSD. A. Go. reports grants or contracts from ViiV, Bristol-Myers Squibb, and Gilead; consulting fees from ViiV Healthcare, Gilead, Janssen-Cilag, Merck Sharp & Dohme, Bristol-Myers Squibb, Pfizer, and Novartis; payment or honoraria for lectures, presentations, speakers bureaus, manuscript writing or educational events from ViiV Healthcare, Gilead, Janssen-Cilag, Merck Sharp & Dohme, Bristol-Myers Squibb, Pfizer and Novartis; support for attending meetings and/or travel from ViiVHealthcare, Gilead, Janssen-Cilag, Merck Sharp & Dohme, Bristol-Myers Squibb, Pfizer and Novartis. All other authors report no potential conflicts.

All authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

Andrea Giacomelli, 1,0 Spinello Antinori, 1,2 Andrea Gori,^{2,3,4} and Alessandro Cozzi-Lepri⁵

¹III Division of Infectious Diseases, ASST Fatebenefratelli Sacco, Luigi Sacco Hospital, Milan, Italy; ²Dipartimento di Scienze Biomediche e Cliniche Luigi Sacco, Università degli Studi di Milano, Milano, Italy; 3II Division of Infectious Diseases, ASST Fatebenefratelli Sacco, Luigi Sacco Hospital, Milan, Italy; 4Centre for Multidisciplinary Research in Health Science, University of Milan, Milan, Italy; and ⁵Centre for Clinical Research, Epidemiology, Modelling and Evaluation (CREME), Institute for Global Health, University College London, London, United Kingdom

References

- 1. Montejano R. Soler-Carracedo A. Borobia AM, et al. The current mismatch between COVID-19 clinical trial design and the evolving profile of hospitalized patients: a retrospective cohort analysis. Clin Infect Dis 2023. doi:10.1093/cid/ciad655.
- 2. Pilot study of single dose bevacizumab as treatment for acute respiratory distress syndrome (ARDS) in Covid-19 patients. ClinicalTrials.gov identifier: NCT04305106. Available at: https://clinicaltrials.gov/ ct2/show/NCT04305106. Accessed 13 December 2023.
- 3. Defibrotide therapy for SARS-CoV2 (COVID-19) acute respiratory distress syndrome (ARDS). ClinicalTrials.gov identifier: NCT04348383. Available at: https://clinicaltrials.gov/ct2/show/NCT04348383. Accessed 13 December 2023.
- 4. Danaei G, Tavakkoli M, Hernán MA. Bias in observational studies of prevalent users: lessons for comparative effectiveness research from a meta-analysis of statins. Am J Epidemiol 2012; 175:250-62.
- 5. With the international public health emergency ending, WHO/Europe launches its transition plan for COVID-19. Available at: https://www.who.int/ europe/news/item/12-06-2023-with-the-internationalpublic-health-emergency-ending-who-europe-launchesits-transition-plan-for-covid-19. Accessed 13 December
- 6. D'Abramo A, Vita S, Nicastri E. The unmet need for COVID-19 treatment in immunocompromised patients. BMC Infect Dis 2022; 22:930.
- 7. Hernàn MA, Robins JM. Causal inference: what if. Boca Raton: Chapman & Hall/CRC, 2020.

Correspondence: A. Giacomelli, III Infectious Diseases Unit L. Sacco Hospital, Via G.B. Grassi 74, 20157 Milan, Italy (andrea.giacomelli@unimi.it; andrea.giacomelli@asst-fbfsacco.it).

Clinical Infectious Diseases®

© The Author(s) 2024. Published by Oxford University Press on behalf of Infectious Diseases Society of America. All rights reserved. For commercial re-use, please contact reprints@oup.com for reprints and translation rights for reprints. All other permissions can be obtained through our RightsLink service via the Permissions link on the article page on our site-for further information please contact journals.permissions@oup.-

https://doi.org/10.1093/cid/ciae078