

Correspondence on 'Interleukin-6 receptor blockade with subcutaneous tocilizumab in severe COVID-19 pneumonia and hyperinflammation: a case-control study' by Potere *et al*

I read with interest the recent case-control study by Potere *et al*, which describes the potential efficacy and safety of tocilizumab in patients with severe COVID-19 pneumonia and hyperinflammation.¹ Since publication of this analysis, new information on anti-inflammatory therapies in COVID-19 has become available. The RECOVERY trial randomised 2104 patients with COVID-19 to receive dexamethasone 6 mg daily or usual care for up to 10 days.² In the overall cohort, dexamethasone significantly reduced the incidence of 28-day mortality from 26% to 23%. The benefits of dexamethasone on mortality were greatest in those patients undergoing mechanical ventilation (41% vs 29%) or receiving supplemental oxygen without mechanical ventilation (26% vs 23%) at baseline. A clinical trial of sarilumab, another interleukin-6 receptor blocker, failed to meet its primary and key secondary endpoints.³ The lack of efficacy in the sarilumab clinical trial contrasts with the reported efficacy in the Potere *et al* study. It would be of great interest to analyse the results of the analysis by Potere *et al* in the context of these findings. In particular, an analysis according to concurrent use of systemic corticosteroids would allow for estimation of whether the benefits in this observational analysis may be attributable to background corticosteroid use.

Leo Buckley

Department of Pharmacy Services, Brigham and Women's Hospital, Boston, MA, USA

Correspondence to Dr Leo Buckley, Brigham and Women's Hospital, Boston, MA 02115-6195, USA; lfbuckley@bwh.harvard.edu

Contributors LB is the sole author of this work.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, conduct, reporting or dissemination plans of this research.

Patient consent for publication Not required.

Provenance and peer review Not commissioned; internally peer reviewed.

This article is made freely available for personal use in accordance with BMJ's website terms and conditions for the duration of the covid-19 pandemic or until otherwise determined by BMJ. You may download and print the article for any lawful, non-commercial purpose (including text and data mining) provided that all copyright notices and trade marks are retained.

© Author(s) (or their employer(s)) 2022. No commercial re-use. See rights and permissions. Published by BMJ.



To cite Buckley L. *Ann Rheum Dis* 2022;**81**:e194.

Received 24 July 2020

Accepted 26 July 2020

Published Online First 1 September 2020



► <http://dx.doi.org/10.1136/annrheumdis-2020-218715>

Ann Rheum Dis 2022;**81**:e194. doi:10.1136/annrheumdis-2020-218693

ORCID iD

Leo Buckley <http://orcid.org/0000-0003-1570-1486>

REFERENCES

- Potere N, Di Nisio M, Cibelli D, *et al*. Interleukin-6 receptor blockade with subcutaneous tocilizumab in severe COVID-19 pneumonia and hyperinflammation: a case-control study. *Ann Rheum Dis* 2021;80:1–2.
- The RECOVERY Collaborative Group. Dexamethasone in hospitalized patients with Covid-19 — preliminary report. *New England Journal of Medicine* 2020. [Epub ahead of print: 17 July, 2020]. doi:10.1056/NEJMoa2021436.
- Sanofi and Regeneron provide update on Kevzara® (sarilumab) phase 3 U.S. trial in COVID-19 patients, 2020. Available: <https://www.sanofi.com/en/media-room/press-releases/2020/2020-07-02-22-30-00> [Accessed 24 Jul 2020].