

## Coronavirus disease 19 (Covid-19) and non-steroidal anti-inflammatory drugs (NSAID)

We have read with interest the report by Monti *et al*<sup>1</sup> concerning the clinical course of coronavirus disease (Covid-19) in patients with chronic inflammatory arthritis. However, we could not find data about the use of non-steroidal anti-inflammatory drugs (NSAID) among their patients.

Whether concomitant NSAID treatment may be harmful or safe in patients with Covid-19 is unknown. However, anti-inflammatory therapies might prevent fatal cytokine storm of Covid-19. Ibuprofen, a commonly prescribed NSAID, was found to reduce interleukin-6 (IL-6) in human tissues,<sup>2</sup> and in sputum.<sup>3</sup> Accordingly, several clinical trials of anti-IL-6 therapies for the treatment of severe Covid-19 are actively recruiting.

NSAIDs are still broadly used for the treatment of chronic inflammatory arthritides such as rheumatoid arthritis and spondyloarthritis. The European League Against Rheumatism recommends NSAIDs as effective symptomatic therapies in early arthritis, under the condition to be used at the minimum effective dose for the shortest time possible, and after evaluation of gastrointestinal, renal and cardiovascular risks.<sup>4</sup> Importantly, it is established that uncontrolled inflammation due to active arthritis is associated with an increased risk of infection.<sup>5</sup>

We believe it is important to report the use of NSAIDs in clinical studies of Covid-19 as there have been inappropriate warnings against the use of these drugs, and consequent confusion in the general audience and medical community. The WHO declared to press that there is no evidence of an increased risk of death with the use of NSAIDs in Covid-19. Until more evidence is available, we are recommending our patients with chronic inflammatory arthritis not to discontinue the NSAIDs they are already taking as a regular prescription.

**Alessandro Giollo** , **Giovanni Adami** , **Davide Gatti**, **Luca Idolazzi**, **Maurizio Rossini** 

Rheumatology Unit, Department of Medicine, University of Verona, Verona, Italy

**Correspondence to** Dr Alessandro Giollo, Rheumatology Unit, Department of Medicine, Università degli Studi di Verona, Verona 37129, Italy; [alessandrogiollo@gmail.com](mailto:alessandrogiollo@gmail.com)

**Contributors** AG provided the conception of the study and drafted the article. AG, GA, LI, MR and DG revised the article critically for important intellectual content and gave final approval of the version to be submitted.

**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, or conduct, or 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 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 use, 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)) 2021. No commercial re-use. See rights and permissions. Published by BMJ.



**To cite** Giollo A, Adami G, Gatti D, *et al*. *Ann Rheum Dis* 2021;**80**:e12.

Received 13 April 2020

Accepted 15 April 2020

Published Online First 22 April 2020



► <http://dx.doi.org/10.1136/annrheumdis-2020-217638>

*Ann Rheum Dis* 2021;**80**:e12. doi:10.1136/annrheumdis-2020-217598

### ORCID iDs

Alessandro Giollo <http://orcid.org/0000-0001-9355-7673>

Giovanni Adami <http://orcid.org/0000-0002-8915-0755>

Maurizio Rossini <http://orcid.org/0000-0001-9692-2293>

### REFERENCES

- 1 Monti S, Balduzzi S, Delvino P, *et al*. Clinical course of COVID-19 in a series of patients with chronic arthritis treated with immunosuppressive targeted therapies. *Ann Rheum Dis* 2020;79:667–8.
- 2 Gallelli L, Galasso O, Falcone D, *et al*. The effects of nonsteroidal anti-inflammatory drugs on clinical outcomes, synovial fluid cytokine concentration and signal transduction pathways in knee osteoarthritis. A randomized open label trial. *Osteoarthritis Cartilage* 2013;21:1400–8.
- 3 Chmiel JF, Konstan MW, Accurso FJ, *et al*. Use of ibuprofen to assess inflammatory biomarkers in induced sputum: implications for clinical trials in cystic fibrosis. *J Cyst Fibros* 2015;14:720–6.
- 4 Combe B, Landewe R, Daien CI, *et al*. 2016 update of the EULAR recommendations for the management of early arthritis. *Ann Rheum Dis* 2017;76:948–59.
- 5 Au K, Reed G, Curtis JR, *et al*. High disease activity is associated with an increased risk of infection in patients with rheumatoid arthritis. *Ann Rheum Dis* 2011;70:785–91.