

# Ruxolitinib withdrawal due to the COVID-19

---

Lucijanić, Marko; Kušec, Rajko

Source / Izvornik: **Leukemia, 2021, 35, 1218 - 1218**

Journal article, Published version

Rad u časopisu, Objavljena verzija rada (izdavačev PDF)

<https://doi.org/10.1038/s41375-021-01214-4>

Permanent link / Trajna poveznica: <https://um.nsk.hr/um:nbn:hr:105:466215>

Rights / Prava: [In copyright](#)/[Zaštićeno autorskim pravom.](#)

Download date / Datum preuzimanja: **2025-03-03**



Repository / Repozitorij:

[Dr Med - University of Zagreb School of Medicine  
Digital Repository](#)





Chronic Myeloproliferative Neoplasms

# Ruxolitinib withdrawal due to the COVID-19

Marko Lucijanic<sup>1,2</sup> · Rajko Kusec<sup>1,2,3</sup>

Received: 18 January 2021 / Revised: 19 February 2021 / Accepted: 1 March 2021 / Published online: 17 March 2021  
© The Author(s), under exclusive licence to Springer Nature Limited 2021

## To the Editor:

We have read the paper by Barbui et al. [1] reporting high mortality in myeloproliferative neoplasms (MPN) patients with COVID-19 who discontinue ruxolitinib due to the acute illness with great interest. Uncertainty about the risks of COVID-19 in MPN patients and lack of robust information prompt the need for such studies which are of immense value for everyday clinical practice. However, there are several things clinicians should bear in mind while interpreting data from the current study.

Although ruxolitinib treatment was shown to be safe among COVID-19 patients with severe systemic hyperinflammation [2], it failed to demonstrate significant reduction in the proportion of COVID-19 patients who experienced death, respiratory failure requiring mechanical ventilation, or admission to the intensive care unit in the Phase III trial (<https://www.novartis.com/news/media-releases/novartis-provides-update-ruxcovid-study-ruxolitinib-hospitalized-patients-covid-19>). Effects of ruxolitinib discontinuation can be judged only among patients that are exposed to the drug (45 out of 175 [25.7%] in the current study [1]). Logistic regression model that includes ruxolitinib discontinuation as a variable is automatically limited to the subgroup of patients with available data. Thus, reported multivariate analysis seems to be performed in 45 patients or less who received the drug (mostly high risk myelofibrosis patients) and is not representative for the whole MPN cohort. Decision to

discontinue ruxolitinib (and other immunosuppressive drugs) upon hospitalization is not random and can be guided by the presence of objective clinical reasons for the discontinuation like worsening clinical condition, inability to take peroral medication or contraindications for ruxolitinib treatment (thrombocytopenia, anemia, bleeding, and bacterial sepsis), all of whom might be negative prognostic factors per se. We do not know was this the case in the current study or these parameters were similarly distributed among ruxolitinib discontinuing and continuing group at study baseline.

We would like to congratulate the authors on the presented work as it offers unique insights into the biology of MPN in the context of COVID-19 disease. In our opinion, understanding of presented data can be improved by stratifying patients' clinical characteristics by ruxolitinib discontinuation status to better understand potential confounders. Also, the logistic regression model for the whole MPN cohort would be of high value, especially to appreciate the association of ruxolitinib treatment with survival in the context of chronic cardiovascular comorbidities that are known to be detrimental in COVID-19 patients.

## Compliance with ethical standards

**Conflict of interest** The authors declare no competing interests.

**Publisher's note** Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

✉ Marko Lucijanic  
markolucijanic@yahoo.com

<sup>1</sup> Hematology Department, University Hospital Dubrava, Zagreb, Croatia

<sup>2</sup> University of Zagreb School of Medicine, Zagreb, Croatia

<sup>3</sup> Division of Molecular Diagnosis and Genetics, Clinical Department of Laboratory Diagnostics, University Hospital Dubrava, Zagreb, Croatia

## References

1. Barbui T, Vannucchi AM, Alvarez-Larran A, Iurlo A, Masciulli A, Carobbio A, et al. High mortality rate in COVID-19 patients with myeloproliferative neoplasms after abrupt withdrawal of ruxolitinib. *Leukemia*. 2021;35:485–93.
2. La Rosée F, Bremer HC, Gehrke I, Kehr A, Hochhaus A, Birndt S, et al. The Janus kinase 1/2 inhibitor ruxolitinib in COVID-19 with severe systemic hyperinflammation. *Leukemia*. 2020;34:1805–15.