

LETTER TO THE EDITOR

Open Access



Reply to: intensive care unit-to-unit capacity transfers are associated with increased mortality—no hasty conclusions in the event of a crisis

Fredric Parenmark^{1,2,3*}  and Sten M. Walther^{3,4} 

We thank Painvin and co-writers for their kind and relevant comment regarding our study, in which we compared three types of ICU-to-ICU transfers in regards to 30 day mortality [1].

As pointed out in their comment, there could be several factors contributing to the results. They particularly mentioned night-time transfers and lack of ICU-beds. While discharge from ICU at night increases risk of death, it is worth noting that in our analysis, the increased risk associated with transfer remained also after adjusting for night-time transfer. This indicates that other explanations, in addition to transfer at night, must be sought.

We examined 3 years preceding the pandemic and agree that our results cannot be extrapolated to circumstances during the pandemic. In fact, roughly one quarter of patients admitted with COVID-19 to Swedish ICUs underwent at least one ICU-to-ICU transfer during 2020–2021. Very few of these were for intensive treatment at a higher care level. While the effect on ultimate outcome of this high transfer rate remains to be determined, a sudden increase of local ICU-bed availability to handle surges in patient flow may not be the best solution [2].

The increased risk associated with capacity transfer compared to repatriation or clinical transfer is of great concern. In addition, as mentioned by Painvin et al., there could be ways to reduce this by increasing the number of beds and trained staff in the ICU as well as promote structured handovers and avoid ad hoc transport methods. What the best solutions really are is yet to be seen and we agree that further studies on the different aspects of critical care transfers are needed. Particularly, whether and in what way capacity transfer affects outcome, which, as also stated in the letter, involves identifying the appropriate control patient for comparisons of outcome.

Fredric Parenmark, Sten M Walther.

Acknowledgements

None.

Author contributions

FP and SW jointly wrote the letter and approved the final version. Both authors read and approved the final manuscript.

Funding

This study did not receive any funding.

Availability of data and materials

Not applicable.

Declarations

Ethical approval and consent to participate

Not applicable.

Consent for publication

Both authors consent.

This reply refers to the comment available online at <https://doi.org/10.1186/s13613-022-01031-7>.

*Correspondence: fredric.parenmark@criticalcare.se

¹ Centre for Research and Development, Uppsala University, Region Gävleborg, Gävle, Sweden

Full list of author information is available at the end of the article



© The Author(s) 2022. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

Competing interests

The authors declare that they have no competing interests.

Author details

¹Centre for Research and Development, Uppsala University, Region Gävleborg, Gävle, Sweden. ²Department of Anaesthesia and Intensive Care, Gävle Hospital, Gävle, Sweden. ³Department of Medical and Health Sciences, Faculty of Health Sciences, Linköping University, Linköping, Sweden. ⁴Present Address: Department of Cardiothoracic Anaesthesia and Intensive Care, Linköping University Hospital, Linköping, Sweden.

Received: 20 May 2022 Accepted: 20 May 2022

Published online: 09 July 2022

References

1. Parenmark F, Walther SM. Intensive care unit to unit capacity transfers are associated with increased mortality: an observational cohort study on patient transfers in the Swedish Intensive Care Register. *Ann Intensive Care*. 2022;12(1):31.
2. Taccone FS, Van Goethem N, De Pauw R, et al. The role of organizational characteristics on the outcome of COVID-19 patients admitted to the ICU in Belgium. *Lancet Reg Health Eur*. 2021;2: 100019.

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Submit your manuscript to a SpringerOpen[®] journal and benefit from:

- ▶ Convenient online submission
- ▶ Rigorous peer review
- ▶ Open access: articles freely available online
- ▶ High visibility within the field
- ▶ Retaining the copyright to your article

Submit your next manuscript at ▶ [springeropen.com](https://www.springeropen.com)
