



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Letter to the Editor

Response to Letter to the Editor: Comment on “Body mass index and Mini Nutritional Assessment-Short Form as predictors of in-geriatric hospital mortality in older adults with COVID-19” (by Café Balci, MD, Hacettepe University Faculty of Medicine Department of Internal Medicine Division of Geriatric Medicine)

Keywords:
 COVID-19
 Mortality
 BMI
 MNA-SF
 Obesity
 Malnutrition

Dear Sir,

Thank you very much for the opportunity to respond to the Letter by MD Cafer BALCI on our article concerning the relationships between mortality and nutritional status and BMI in older patients hospitalized for COVID-19 [1].

Firstly, in the data set used in this analysis, detailed information about nutritional intake and nutritional therapy for each patient during the hospitalization was not available. In general, nutrition of all COVID-19 patients was assured using parenteral nutrition when food intake was limited or oral nutrition was not possible. The caloric norms were assured as far as possible according to clinical assessment. For patients with special needs, e.g. kidney disease, the provided food and nutritional support were individualized accordingly.

Secondly, we agree that delirium is an important mortality risk factor [2]. In our data, information on delirium was not available systemically for all patients, and we consider this as a limitation of the study.

Thus, we agree that there may be some residual confounding factors that we were unable to address in this analysis due to data availability. Issues that were not considered in this analysis, like the ones proposed by Cafer BALCI, warrant further research in other data sets.

Ethical statement

The study was approved by the Swedish Ethical Review Authority in Stockholm Dnr 2020–02146, 2020–03345 and 2021–00595.

DOI of original article: <https://doi.org/10.1016/j.clnu.2021.12.018>.

<https://doi.org/10.1016/j.clnu.2021.12.027>

0261-5614/© 2021 Elsevier Ltd and European Society for Clinical Nutrition and Metabolism. All rights reserved.

Author contribution

All authors participated in writing and reviewing of the response.

Sources of funding

This work was supported financially by the Swedish Research Council grants (2016-02317, 2018–02077, 2020-06101) and the regional agreement on medical training and clinical research between the Stockholm county council and the Karolinska Institutet (ALF), The Strategic Research Area in Epidemiology and Biostatistics grant, and the Academy of Finland through its funding to the Centre of Excellence in Research of Ageing and Care (CoEAgeCare, grant numbers 335870, 326567 and 336670).

The funders had no role in study design, data collection and interpretation, or the decision to submit the work for publication.

Conflict of interest

The authors declare no conflicts of interest.

References

- [1] Kananen L, Eriksdotter M, Boström AM, Kivipelto M, Annetorp M, Metzner C, et al. Body mass index and Mini Nutritional Assessment-Short Form as predictors of in-geriatric hospital mortality in older adults with COVID-19. *Clin Nutr* 2021 Jul 29. <https://doi.org/10.1016/j.clnu.2021.07.025>. S0261-5614(21)00360-00365.
- [2] Marengoni A, Zucchelli A, Grande G, Fratiglioni L, Rizzuto D. The impact of delirium on outcomes for older adults hospitalised with COVID-19. *Age Ageing* 2020;49(6):923–6.

Laura Kananen*

Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm, Sweden

Dorota Religa, Maria Eriksdotter
 Division Clinical Geriatrics, Department of Neurobiology, Care Sciences and Society, Karolinska Institutet, Stockholm, Sweden

Theme Inflammation and Aging, Karolinska University Hospital, Huddinge, Sweden

Sara Hägg, Juulia Julhävä
Department of Medical Epidemiology and Biostatistics, Karolinska
Institutet, Stockholm, Sweden

Tommy Cederholm
Division Clinical Geriatrics, Department of Neurobiology, Care
Sciences and Society, Karolinska Institutet, Stockholm, Sweden
Theme Inflammation and Aging, Karolinska University Hospital,
Huddinge, Sweden

Department of Public Health and Caring Sciences, Uppsala University,
Uppsala, Sweden

* Corresponding author.
E-mail address: laura.kananen@ki.se (L. Kananen).

14 December 2021