

Lack of evidence for a nutritional support team in a trauma intensive care unit?

Jae Hwa Cho

Division of Pulmonology, Department of Internal Medicine, Gangnam Severance Hospital, Yonsei University College of Medicine, Seoul, Korea

International clinical practice guidelines have been developed for nutritional therapy in critically ill patients. These recommendations are based on several levels of supporting evidence from various studies and on expert opinions.

Oh et al. [1] retrospectively studied use of a multidisciplinary nutritional support team (NST) in trauma patients in the intensive care unit (ICU). Nutritional support in the form of total calories or protein consumed relative to those recommended were higher in the NST group than in the controls. In addition, clinical outcomes of ICU stay, duration of hospitalization, and mortality were not different between the two groups. The groups were divided based on physician-requested NST consultation in the study period. Another small pre- and post-implementation retrospective study evaluated the effectiveness of NST in the same ICU [2]. Under guidance of an NST, patients showed more frequent achievement of nutritional goals (total calorie or proteins delivered as percentage of the recommended). Though not significant, the post-NST group showed downward trends of ICU stay, hospital duration, and mortality. Percentage of calories consumed/required was associated significantly with mortality rate (odds ratio, 0.997; 95% confidential interval [CI], 0.959 to 0.996; $P=0.016$). The study populations of these two studies were very different, and outcome results could not be compared due to the disparate designs of the pre- and post-implementation study and the observation study. Cochran Reviews show a lack of evidence indicating that nutritional support decreases mortality [3]. However, at long-term follow-up, serious adverse events were reduced in patients receiving nutritional support (relative risk, 0.91; 95% CI, 0.85 to 0.97; $P=0.004$).

Effects of nutrition support on muscle health, physical function, and sarcopenia have not been well evaluated, and long-term follow-up cohort studies are needed. I suggest that the Societies of Critical Care Medicine and Nutrition collaborate to perform such novel studies. High-quality studies on the effects of nutritional support should be performed and verified to determine the suitability of reimbursement of such programs by the health care insurance system.

CONFLICT OF INTEREST

Jae Hwa Cho has been the editor-in-chief of Acute and Critical Care since 2016 and an editorial board member since 2008. No other potential conflict of interest relevant to this article was reported.

Editorial

Received: August 24, 2020

Accepted: August 27, 2020

Corresponding author

Jae Hwa Cho

Division of Pulmonology, Department of Internal Medicine, Gangnam Severance Hospital, Yonsei University College of Medicine, 211 Eonju-ro, Gangnam-gu, Seoul 06273, Korea

Tel: +82-2-2019-3310

Fax: +82-2-3463-3883

E-mail: jhcho66@yuhs.ac

Copyright © 2020 The Korean Society of Critical Care Medicine

This is an Open Access article distributed under the terms of Creative Attributions Non-Commercial License (<https://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ORCID

Jae Hwa Cho <https://orcid.org/0000-0002-3432-3997>

REFERENCES

1. Oh E, Shim H, Yon HJ, Moon JS, Kang DR, Jang JY. Effectiveness of a multidisciplinary team for nutrition support in a trauma intensive care unit. *Acute Crit care* 2020;35:142-8.
2. Lee JS, Kang JE, Park SH, Jin HK, Jang SM, Kim SA, et al. Nutrition and clinical outcomes of nutrition support in multidisciplinary team for critically ill patients. *Nutr Clin Pract* 2018; 33:633-9.
3. Feinberg J, Nielsen EE, Korang SK, Halberg Engell K, Nielsen MS, Zhang K, et al. Nutrition support in hospitalised adults at nutritional risk. *Cochrane Database Syst Rev* 2017;5:CD011598.