



Canadian
Malnutrition
Task Force™

le Groupe de
travail canadien
sur la malnutrition^{MC}

A Précis of the publication: *Lower handgrip strength at discharge from acute care hospitals is associated with 30-day readmission: A prospective cohort study*

J.P. Allard, H. Keller, A. Teterina, K. Jeejeebhoy, M. Laporte, D. Duerksen, L. Gramlich, H. Payette, P. Bernier, B. Davidson, W. Lou. *Clin Nutr*, published online April 2016.
<http://dx.doi.org/10.1016/j.clnu.2016.04.008>

The comprehensive Nutrition Care in Canadian Hospitals (NCCH) study had 413 patients with a length of stay of ≥ 7 days. Assessment of nutrition status at discharge is rarely performed and in a previous study conducted by CMTF, it is known that patients' nutritional status can deteriorate during hospitalization. This sample of patients had their nutritional status assessed at discharge by subjective global assessment (SGA), body mass index (BMI), albumin, nutritional risk index (NRI) and handgrip strength (HGS). This study examined the association between 30-day readmission and nutritional parameters at discharge.

Key Findings:

Eighty-six (20.8%) of the cohort were re-admitted within 30 days. Of all of the nutritional parameters that were measured at discharge, only handgrip strength was significantly and independently associated with 30-day readmission. The mean handgrip strength for the re-admitted group was 18.5 kg and for the group not re-admitted, 21.8 kg (p-value 0.02). For SGA, the proportion of re-admitted patients was slightly higher for SGA B and C (moderately and severely malnourished, respectively) than in SGA A (well-nourished), but the difference was not statistically significant.

The data were tested in logistic regression models and it was found that there was a significant association between handgrip strength and SGA.

Clinical relevance:

Lower hand grip strength at discharge was associated with 30-day readmission. Identifying patients who have lower hand grip strength for their age and gender may be useful in detecting patients at risk for readmission. This nutritional parameter may be useful for the dietitian in planning an individualized nutrition discharge plan.

For grip strength reference values, by sex and age, go to:

<http://www.statcan.gc.ca/pub/82-003-x/2016010/article/14665/tbl/tbl03-eng.htm> (from the Canadian Health Measures Survey 2007 to 2013)

This resource is made possible by unrestricted educational grants received in 2017 from our Visionary partner - Abbott Nutrition and Supporter partner- Nestlé Health Science.