



Canadian  
Malnutrition  
Task Force™

le Groupe de  
travail canadien  
sur la malnutrition<sup>MC</sup>

**Advancing Nutrition Care in Canada /Améliorer les soins nutritionnels au Canada**

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*A Précis of the publication: Nutritional assessment: comparison of clinical assessment and objective variables for the prediction of length of hospital stay and readmission*

*American Journal of Clinical Nutrition* 2015;101-956-65. Authors: K. Jeejeebhoy, H. Keller, L. Gramlich, J. Allard, M. Laporte, D. Duerksen, H. Payette, P. Bernier, E. Vesnaver, B. Davidson, A. Teterina and W. Lou

The objective of this study was to determine and compare if different nutrition indicators (NIs) can predict the outcomes of length of stay (LOS) and readmission in acute care hospitals. Malnutrition assessment needs to be efficient and this analysis determined if single NI or a combination of NIs had the best predictive ability for these malnutrition-related outcomes.

The comprehensive Nutrition Care in Canadian Hospitals (NCCH) study had 733 (72%) patients with a complete data for all NIs assessed, as well as the outcomes of interest. NIs included subjective global assessment (SGA) ratings, food intake (<50% and >50%), Nutrition Risk Screening (NRS-2002), body weight, mid-arm and calf circumference, serum albumin and handgrip strength. Logistic regression determined the independent effect of combinations of NIs on the outcomes of LOS and 30-day readmission rates.

**Key Findings:**

SGA, HGS and food intake were independent predictors of the outcomes for malnutrition. Because food intake in the NCCH study was evaluated days after admission, it would not be an efficient NI for use at admission. HGS has a wide range of normal values and thus it is preliminary at this point to identify values for various age and sex groups that indicate increased risk. SGA was the single best predictor of LOS and readmission rates and should be advocated as the primary measure for diagnosis of malnutrition.

**Clinical relevance:**

To be clinically useful, assessment of nutritional status in an acute care setting needs to be efficient and predict relevant adverse outcomes such as longer LOS and increased propensity to be readmitted, which are known to be influenced by nutritional status. SGA encompasses several interacting factors including history of food intake, weight change, gastrointestinal symptoms, as well as the effect of disease on nutrient requirements, body composition changes and the trajectory and extent of these changes. Due to its comprehensive nature it is not surprising that it predicted nutrition-related outcomes rather than single measurements like mid-arm circumference, on admission and during hospitalization. Measuring food intake and monitoring HGS during a long LOS can be useful

NIs to monitor a patient's nutritional status.

To read the full paper, please go to:

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For more detailed information about the research refer to the full article found online or upon request via the web site <http://nutritioncareincanada.ca/malnutrition/>

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