Predicting Malnutrition: Nutrition Indicators (NIs)

Study Title
Nutritional assessment: Comparison of clinical assessment and objective variables for the prediction of length of hospital stay and readmission

The Study
733 admitted patients in 18 hospitals spanning 8 Canadian provinces were assessed with various Nutrition Indicators (NIs) to identify malnutrition. The length of hospital stay was recorded as well as whether the person we readmitted within 30 days after their original stay. The goal was to compare how well each of the NIs predicted these two outcomes. Both length of stay and 30 day readmission have been linked to malnutrition in prior research.

Nutrition Indicators (NIs) that were used during admission:
- Subjective Global Assessment (SGA): A comprehensive standardized assessment to diagnose malnutrition
- Nutrition Risk Screening: A scored questionnaire with questions about nutrition
- Body weight
- Mid-arm and calf circumference
- Serum albumin: Crucial protein found in the blood
- Handgrip strength (HGS)
- Food intake during the first week of hospitalization

What Was Found
Other factors such as age, sex, and diagnosis were considered and accounted for. The following factors were significant:

Predictors of 30 day readmission
- Handgrip strength (HGS)
- Subjective Global Assessment (SGA)
- Food intake in first week

Predictors of length of hospital stay

Action to Take
SGA should be used as the single best assessment of malnutrition at admission. HGS may add important information and can be readily done at admission, however food intake during hospitalization can only be used to predict outcomes during the course of hospitalization.

Where to Find the Full Article
http://ajcn.nutrition.org/content/101/5/956

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