

## December Nutrition Research Review

### Malnutrition Quality Improvement Initiative Data Support Continued Opportunities in Malnutrition Care

**Publication:** Journal of the Academy of Nutrition and Dietetics

**Authors:** Michelle Bruno, Kirk Kerr, Christina Badaracco, Taylor Musser, Karl M Kilgore

**Publish Date:** October 2022

**Abstract:** In August 2022, the Centers for Medicare and Medicaid Services (CMS) included the Global Malnutrition Composite Score (GMCS) in the CMS Inpatient Prospective Payment Systems Final Rule for acute care and long-term care hospitals for FY2023. CMS adopted the GMCS eQIM as part of the Hospital Inpatient Quality Reporting Program measure set for which hospitals can self-select, beginning with CY2024 reporting period/ FY2026 payment determination and for subsequent years. This article highlights the most recent data available on the GMCS and its component measures from two hospital systems participating in the MQii Learning Collaborative, along with clinician insights from these systems on their experiences addressing malnutrition care.

[https://www.jandonline.org/article/S2212-2672\(22\)00386-0/fulltext](https://www.jandonline.org/article/S2212-2672(22)00386-0/fulltext)

### Demystifying Malnutrition to Improve Nutrition Screening and Assessment in Oncology

**Publication:** Seminars in Oncology Nursing

**Authors:** Jade Corriveau, Dorsa Alavifard, Chelsia Gillis

**Publish Date:** October 2022

**Abstract:** This narrative review aimed to define malnutrition, address common malnutrition misconceptions, and summarize nutrition recommendations for patients with cancer. This review utilized research from PubMed and international clinical practice guidelines. The conclusions of this review include that malnutrition is not always physically obvious, and albumin is not a reliable marker of nutritional status; therefore, systematically screening all patients with a validated nutrition risk screening tool at time of cancer diagnosis, and periodically throughout treatment, is necessary to provide optimal, equitable care. Furthermore, the authors state that nutrition risk screening takes less than 1 minute to complete and can be completed by any health care professional, and that patients that screen positive for nutrition risk should be referred to a registered nutritionist or dietitian for comprehensive nutritional assessment, diagnosis, and treatment.

<https://pubmed.ncbi.nlm.nih.gov/35995630/>

## A Digital Smartphone-Based Self-administered Tool (R+ Dietitian) for Nutritional Risk Screening and Dietary Assessment in Hospitalized Patients With Cancer: Evaluation and Diagnostic Accuracy Study

**Publication:** JMIR Formative Research

**Authors:** Zhiwen Long, Shan Huang, Jie Zhang, Deng Zhang, Jun Yin, Chengyuan He, Qinqiu Zhang, Huilin Xu, Huimin He, Ho Ching Sun, Ke Xie

**Publish Date:** October 2022

**Abstract:** This study examined a digital smartphone-based self-administered mini program (R+ Dietitian) for nutritional risk screening and dietary assessment for hospitalized patients with cancer. The study included 244 hospitalized patients with cancer to evaluate the validity of R+ Dietitian. The NRS-2002 and PG-SGA-SF tools in R+ Dietitian showed high accuracy, sensitivity, and specificity (77.5%, 81.0%, and 76.7% and 69.3%, 84.5%, and 64.5%, respectively), and fair agreement ( $\kappa=0.42$  and  $0.37$ , respectively; CC  $0.62$  and  $0.56$ , respectively) with the NRS-2002 and PG-SGA-SF tools administered by dietitians. The estimated intakes of dietary energy and protein were significantly higher ( $P<.001$  for both) in R+ Dietitian (mean difference of energy intake:  $144.2$  kcal, SD  $454.8$ ; median difference of protein intake:  $10.7$  g, IQR  $9.5$ - $39.8$ ), and showed fair agreement (CC  $0.59$  and  $0.47$ , respectively), compared with 3d-24HRs performed by dietitians.

<https://pubmed.ncbi.nlm.nih.gov/36287601/>

## Efficacy of Vitamin D Supplementation on Child and Adolescent Overweight/Obesity: A Systemic Review and Meta-Analysis of Randomized Controlled Trials

**Publication:** European Journal of Pediatrics

**Authors:** Hao Gou, Ya Wang, Yan Liu, Cai Peng, Weijia He & Xiangjuan Sun

**Publish Date:** October 2022

**Abstract:** Child and adolescent overweight/obesity has been demonstrated to be partially associated with vitamin D deficiency. This systematic review and meta-analysis aims to assess the efficacy of vitamin D supplementation on child and adolescent overweight/obesity. 10 eligible studies were included, with a total of 595 participants. Meta-analysis showed no differences in LDL, TC, TG, BMI, ALP, Ca, and PTH between vitamin-D (Vit-D) group and placebo, while Vit-D group resulted in improved HOMA-IR [WMD =  $-0.348$ , 95%CI ( $-0.477$ ,  $-0.219$ ),  $p = 0.26$ ]. Subgroup-analysis showed no significant difference in the increase of 25-(OH)-D between subgroups ( $p = 0.39$ ), whereas the serum 25-(OH)-D level was increased under different Vit-D doses [WMD =  $6.973$ , 95%CI ( $3.072$ ,  $10.873$ )]. High daily dose ( $\geq 4000$  IU/d) of Vit-D might decrease CRP and increase HDL levels.

<https://pubmed.ncbi.nlm.nih.gov/36305951/>

## Intermittent Versus Continuous Enteral Nutrition in Critically Ill Children: A Pre-Planned Secondary Analysis of an International Prospective Cohort Study

**Publication:** Clinical Nutrition

**Authors:** Enid Martinez, Lori Bechard, Ann-Marie Brown, Sapna Kudchadkar, Theresa Mikhailov, Vijay Srinivasan, Steven Staffa, (Sascha) C.A.T. Verbruggen, David Zurakowski, Nilesh Mehta

**Publish Date:** December 2022

**Abstract:** This multicenter, observational study compared nutrition and infection outcomes in critically ill children receiving intermittent or continuous EN in mechanically ventilated children, 1 month to 18 years of age. Results included 1375 eligible patients from 66 PICUs. Patients receiving continuous EN (N = 1093) had a higher prevalence of respiratory illness and obesity, and lower prevalence of neurologic illness and underweight status on admission, compared to those on intermittent EN (N = 282). Percent energy or protein adequacy, proportion of patients who achieved 60% of energy or protein adequacy in the first 7 days of admission, and rates of acquired infection were not different between the 2 groups in adjusted-multivariable and propensity score matching analyses ( $P > 0.05$ ). The authors concluded intermittent versus continuous EN strategy is not associated with differences in energy or protein adequacy, or acquired infections, in mechanically ventilated, critically ill children. Until further evidence is available, an individualized feeding strategy rather than a universal approach may be appropriate.

<https://pubmed.ncbi.nlm.nih.gov/36306567/>