May 2022 Nutrition Research Review

Roles of Nutrition in Muscle Health of Community-Dwelling Older Adults: Evidence-Based Expert Consensus from Asian Working Group for Sarcopenia

Abstract: The Asian Working Group for Sarcopenia established a special interest group (SIG) to develop an evidence-based expert consensus. Several key topics were identified: (1) nutritional status: malnutrition and screening; (2) diet and dietary factors; (3) nutritional supplementation; (4) lifestyle interventions plus nutrition; and (5) outcomes and assessment. Clinical questions were developed around these topics, leading to 14 consensus statements. The consensus addressed the impacts of COVID-19 on nutrition, muscle health, and sarcopenia in Asia. These statements encompass clinical expertise and knowledge and are aligned with the current literature, to provide a practical framework for addressing muscle health in the community, with the overall aim to encourage and facilitate broader access to equitable care for this target population.

Energy Requirements for Critically Ill Patients with COVID-19

Abstract: The purpose of this narrative review was to summarize and synthesize evidence comparing measured resting energy expenditure via indirect calorimetry (IC) with predicted resting energy expenditure determined via commonly used predictive equations in adult critically ill patients with COVID-19. Five articles met the inclusion criteria for this review. Their results suggest that many critically ill patients with COVID-19 are in a hypermetabolic state, which is underestimated by commonly used predictive equations in the intensive care unit (ICU) setting. In nonobese patients, energy expenditure appears to progressively increase over the course of ICU admission, peaking at week 3. The metabolic response pattern in patients with obesity is unclear because of conflicting findings. Based on limited evidence published thus far, the most accurate predictive equations appear to be the Penn State equations; however, they still had poor individual accuracy overall, which increases the risk of underfeeding or overfeeding and, as such, renders the equations an unsuitable alternative to IC.

Malnutrition and Pressure Injury Risk in Vulnerable Populations: Application of the 2019 International Clinical Practice Guideline

Abstract: This article reviews the latest nutrition care recommendations for the prevention and treatment of pressure injuries (PIs), including those recommendations tailored to special populations and translates nutrition recommendations into actionable steps for the healthcare professional. The 2019 Prevention and Treatment of Pressure Ulcers/Injuries: Clinical Practice Guideline (CPG) affirms that meeting nutrient requirements is essential for growth, development, maintenance, and repair of body tissues. Many macronutrients and micronutrients work synergistically to heal PIs. Registered dietitian nutritionists play an important role in helping patients identify the most nutrient dense foods, protein supplements, and oral nutrition supplements to meet their unique requirements.

A Practical Approach to Identifying Pediatric Disease-Associated Undernutrition: A Position Statement from the ESPGHAN Special Interest group on Clinical Malnutrition

Abstract: Disease-associated undernutrition (DAU) is still common in hospitalized children and is generally accepted to be associated with adverse effects on disease outcomes; hence making proper identification and assessment essential in the management of the sick child. There are however several barriers to routine screening, assessment, and treatment of sick children with poor nutritional status or DAU, including limited resources, lack of nutritional awareness, and lack of agreed nutrition policies. We recommend all pediatric facilities to (1) implement procedures for identification of children with (risk of) DAU, including nutritional screening, criteria for further assessment to establish diagnosis of DAU, and follow-up, (2) assess weight and height in all children as a minimum, and 3) have the opportunity for children at risk to be assessed by a hospital dietitian. An updated descriptive definition of pediatric DAU is proposed as "Undernutrition is a condition resulting from imbalanced nutrition or abnormal utilization of nutrients which causes clinically meaningful adverse effects on tissue function and/or body size/composition with subsequent impact on health outcomes." To facilitate comparison of undernutrition data, it is advised that in addition to commonly used criteria for undernutrition such as z-score < -2 for weight-for-age, weight-for-length, or BMI < -2, an unintentional decline of ≥ 1 in these z-scores over time should be considered as an indicator requiring further assessment to establish DAU diagnosis. Since the etiology of DAU is multifactorial, clinical evaluation and anthropometry should ideally be complemented by measurements of body composition, assessment of nutritional intake, requirements, and losses, and considering disease specific factors.

https://pubmed.ncbi.nlm.nih.gov/35258497/

Malnutrition and Nutritional Deficiencies in Children with Cerebral Palsy: A Systematic Review and Meta-Analysis

Abstract: This systematic review study and meta-analysis sought to estimate the prevalence of malnutrition and nutritional deficiencies in children with cerebral palsy (CP). The authors found a high rate of malnutrition in the population in this review, moreover, they suggest that some nutritional deficiencies are associated with food deficit and that the socio-economic and age factors of these children may relate with the poor nutritional outcome. This makes monitoring and personalized nutritional management necessary, in accordance with the characteristics and particularities of children with CP.

https://pubmed.ncbi.nlm.nih.gov/35339939/