

Nutrition & Hydration

Current Awareness Bulletin

October 2025

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1. In the words of the residents: A scoping review of residents' experiences of food, eating and mealtime environments in aged care settings

Authors: Alycia, Chelsea;Collins, Jorja and Dart, Janeane

Publication Date: 2025

Journal: Nutrition & Dietetics : The Journal of the Dietitians Association of Australia

Abstract: Aim: To capture published research describing aged care residents' experiences with food, eating and mealtime environments.; Methods: A scoping review involved a comprehensive search of six electronic databases: Medline, EMBASE, Scopus, CINAHL, Ageline and PsychInfo. No date and language limits were applied. Original research papers using qualitative methods and residents as participants to explore food, eating and/or the mealtime environment were included. Study selection involved screening and then full-text review completed in duplicate. Data from the included studies was extracted and charted and then thematic analysis and interpretive synthesis were applied.; Results: From 3421 studies identified in the database search, 11 studies were included. They explored aged care residents' experiences with food, eating and/or the mealtime environment through interviews, focus groups or observations. Five themes were identified: (1) respecting autonomy; (2) connection and community with others; (3) provision of quality, diverse and culturally appropriate foods; (4) mealtimes and the dining/eating environment; and (5) relationships, availability and skills of staff.; Conclusions: Mealtimes, food and dining experiences have a direct impact on residents' intake. Positive mealtime experiences, quality and varied food choices will maintain and improve outcomes for aged care residents. This review captures how residents experience mealtimes, what food means to them, and the barriers and enablers to resident-centred care. Understanding these may support aged care homes to align with

2. Medical Nutrition Therapy and Nutritional Rehabilitation in Hospitalised Patients Affected by Eating Disorders

Authors: Antonella, Lezo;Annalisa, Mascheroni;Ersilia, Troiano;Paolo, Gandullia;Walter, Milano;Monica, Turchetto;Stefania, Demontis;Emanuele, Cereda;Sara, Borodani and Ettore, Corradi

Publication Date: 2025

Journal: European Eating Disorders Review : The Journal of the Eating Disorders Association

Abstract: Objective: Hospitalised patients with eating disorders (EDs) often present with severe malnutrition, electrolyte imbalances, and metabolic complications that require specialised nutritional approaches. This consensus aimed to develop evidence-informed, expert-driven recommendations for the nutritional management of hospitalised patients with EDs, addressing risk stratification, caloric progression, refeeding protocols, formulation selection, supplementation and long-term monitoring.; Methods: An eight-expert panel conducted a modified Delphi process in two online rating rounds. One hundred six statements were formulated across 12 thematic sections and evaluated on a 5-point Likert scale ($\geq 85\%$ accepted, 80%-84.9% revised, $< 80\%$ rejected). Revised statements were re-evaluated in Round 2 and, if necessary, finalised at an online meeting.; Results: Of the 106 original statements, 89 (84.0%) reached immediate consensus, 14 (13.2%) required revision, and three (2.8%) were eliminated. Ten revised statements exceeded the $\geq 85\%$ threshold in Round 2, one was rejected, and three 'pending' statements were approved in a conclusive online meeting. The final statements span key domains of inpatient care of EDs, including comprehensive nutritional assessment, stepwise refeeding regimens, careful electrolyte and biochemical monitoring, personalised approaches for those at high risk of refeeding syndrome and tailored considerations for paediatric and perinatal populations.; Discussion: The final consensus statements provide a structured framework for the nutritional rehabilitation of hospitalised patients with EDs, emphasising balanced yet flexible refeeding protocols, vigilant metabolic monitoring, ethical considerations in limited-capacity cases, and continuity of care through discharge and relapse prevention. By aligning clinical practice with specialist insight and existing guidelines, these recommendations aim to standardise and enhance inpatient ED management. (© 2025 Eating Disorders Association and John Wiley & Sons Ltd.)

3. Appetite as a Neglected Determinant of Swallowing Rehabilitation Outcomes in Older Adults

Authors: Chen, Songhe;Xu, Min and Bao, Pingbo

Publication Date: 2025

Journal: Geriatrics & Gerontology International

4. GPT-4o in Nutrition for Inpatients Undergoing Post-Stroke Rehabilitation: Identifying Dietary Errors, Exploring Expert-AI Rationale Differences, and Structuring AI-Expert Collaboration

Authors: García-Rudolph, Alejandro;Hernandez-Pena, Elena;Del Cacho, Nuria;Teixidó-Font, Claudia;Wright, Mark Andrew and Opisso, Eloy

Publication Date: 2025

Journal: Journal of the American Nutrition Association

Abstract: Objective: Inpatients undergoing stroke rehabilitation experience high malnutrition rates, requiring strict dietary management. However, manual and time-pressured dietary provision can cause errors in diet composition, highlighting the need for innovation. Therefore, we aimed to evaluate whether GPT-4o can accurately identify dietary errors in hospital-based stroke rehabilitation menus, analyze differences in AI vs. expert rationale for decisions, and explore AI's potential role in clinical workflows through a structured collaboration framework.; Methods: A TRIPOD-compliant validation study analyzing 264 hospital-based menus designed for stroke rehabilitation inpatients requiring specialized diets (e.g., dysphagia, diabetes). GPT-4o's dietary compliance classifications were assessed using a structured 0-error, 1-error, and 2+ error framework, with expert dietitians as ground-truth in a rehabilitation hospital nutrition department, where expert dietitians selected menus from existing clinical practices for inpatients on specialized diets. AI-expert agreement, overall accuracy, sensitivity, and specificity in dietary error classification were assessed. AI vs. expert justifications were analyzed thematically to identify differences in decision rationale. Cohen's Kappa (95% CI) measured inter-rater reliability. Overall accuracy, sensitivity, and specificity were calculated using a 3 × 3 confusion matrix, comparing AI classifications (0-error, 1-error, 2+ error) to the expert-labeled ground truth. Thematic analysis categorized AI vs. expert justifications for flagged dietary errors.; Results: Out of 264 menus (1,000+ food items), 26 (9.8%) had discrepancies. Among these, 57.7% (15 cases) were PAS-based dysphagia diets, followed by diabetic (19.2%, 5 cases) and allergen-related (15.4%, 4 cases) diets. The remaining two cases involved low-sodium and low-fat diets. Cohen's Kappa: 0.892 (95% CI: 0.845-0.939, $p < 0.001$). 0-errors: Sensitivity 94.3%, specificity 100%; 1-error: Sensitivity 86.2%, specificity 96.6%; 2+-errors: Sensitivity 97.8%, specificity 92.6%. Thematic analysis revealed GPT-4o followed strict rule-based interpretations, whereas dietitians incorporated patient tolerance and food preparation considerations.; Conclusion: GPT-4o demonstrated high accuracy but over-flagged violations, supporting its role as a prescreening tool with expert collaboration.

5. Medicine on the menu: When illness informs appetite

Authors: Han, Ji Heon and Ja, William W.

Publication Date: 2025

Journal: Proceedings of the National Academy of Sciences of the United States of America

Abstract: Competing Interests: Competing interests statement: The authors declare no competing interest.

6. Nutrition Screening and Assessment Tools for Adult Patients with Cancer and Survivors of Cancer: A Systematic Review

Authors: Kring, Sara Klöczl;Beck, Anne Marie;Wessel, Irene;Ustrup, Kim Skov;Dieperink, Karin B.;Zwisler, Ann-Dorthe and Kristensen, Marianne Boll

Publication Date: 2025

Journal: Nutrition and Cancer

Abstract: Malnutrition and nutrition impact symptoms are common during and after anticancer treatment. This systematic review aimed to identify nutrition screening and assessment tools validated in patients with cancer and/or survivors, and to provide an overview. Comprehensive searches were conducted. Covidence was used for reference screening, data extraction, and quality assessment by two reviewers independently. Studies were included if they tested concurrent validity of a tool reporting: sensitivity, specificity, area under the curve (AUC), Pearson's/Spearman's correlation coefficient, or kappa. Data were summarized in tables and described narratively. Of 6,332 screened records, 486 were full-text reviewed, and 98 articles covering 161 validation studies of 47 tools were included. Most articles included mixed cancer diagnoses, followed by head and neck and gastrointestinal cancer; few included survivors. The most frequently validated tools were Nutritional Risk Screening 2002 (NRS 2002), Malnutrition Screening Tool (MST), Malnutrition Universal Screening Tool (MUST), and the Scored Patient-Generated Subjective Global Assessment (PG-SGA). Several reference standards were used. Sensitivity ranged from 6% to 100%, specificity from 11% to 100%, and validity from 'Poor' to 'Good'. The absence of a universal gold standard complicates identification of a superior tool. Nonetheless, rather than ranking tools, this review provides an overview of their validity across different reference standards, offering guidance for clinicians.

7. Current Status and Factors Influencing Nutrition Literacy in Stroke Patients: A Cross-Sectional Study

Authors: Liu, Weibin;Jiang, Nan;Li, Yuan and Cheng, Shuhua

Publication Date: 2025

Journal: Journal of Clinical Nursing

Abstract: Aims: This study investigated the current status of nutrition literacy and related influencing factors in stroke patients, with a view to providing a reference for the development of targeted interventions.; Design: Cross-sectional study.; Methods: A convenience sampling method was used to select 342 stroke patients from June to November 2024 as the study population, and a cross-sectional survey was conducted using the General Information Questionnaire, Nutrition Literacy Scale, Herth Hope Scale, Chronic Disease Self-Efficacy Scale and Social Support Rating Scale. Descriptive analysis, independent samples t-test, one-way ANOVA, Pearson's correlation analysis and multiple linear regression analysis were used for data analysis.; Results: The results showed that the nutrition literacy score of stroke patients was 122.24 ± 16.66 , and gender, age, education level, monthly per capita family income, nutrition education, hope level, self-efficacy and social support were the factors affecting the nutrition literacy of stroke patients (all $p < 0.05$).; Conclusion: According to the study, stroke patients' nutrition literacy has to be raised, and medical practitioners should

create focused intervention plans to raise patients' nutrition literacy levels.; Relevance to Clinical Practice: Healthcare professionals should assess the level of nutritional literacy in order to provide targeted interventions. The establishment of a multidisciplinary care team and implementation of long-term nutritional management after stroke are essential to reduce stroke recurrence and mortality.; Reporting Method: The study adhered to the STROBE checklist.; Patient or Public Contribution: No patient or public contribution. (© 2025 John Wiley & Sons Ltd.)

8. The effects of a dietitian-supported multidisciplinary nutrition intervention on optimizing nutrition care in older patients with hip fracture and at nutrition risk-A quality improvement study

Authors: Munk, Tina;Beck, Anne Marie;Møller, Cecilie,M.;Pudselykke, Frederikke E.;Mikkelsen, Guro Ø H.;Filténborg, Heidrun T.;Pedersen, Trine S.;Alva-Jørgensen, Jens Peter and Knudsen, Anne W.

Publication Date: 2025

Journal: Nutrition in Clinical Practice : Official Publication of the American Society for Parenteral and Enteral Nutrition

Abstract: Introduction: A 1-day cross-sectional study at our hospital found that only 22% of patients with hip fractures at nutrition risk met their energy and protein requirements during hospitalization. This study aimed to test whether closer collaboration between a clinical dietitian and ward staff, guided by the Model for Improvement, could optimize nutrition care for hospitalized older patients with hip fractures at nutrition risk.; Method: A dietitian was embedded to facilitate staff-led enhancements in nutrition care at an orthopedic ward in from September to December 2024. Two Plan-Do-Study-Act cycles were implemented. Cycle 1 focused on nutrition documentation. Cycle 2 targeted nutrition intake. The primary outcome was the proportion of patients meeting individual energy and protein requirements ($\geq 80\%$). Secondary process indicators were (1) $\geq 80\%$ of patients screened using Nutrition Risk Screening 2002, and (2) $\geq 80\%$ of at-risk patients with intake documented in the medical record. Preintervention data served as the baseline.; Results: The primary outcome was achieved, with 80% (8 of 10) of patients meeting both energy and protein requirements, a significant improvement from 22% (2 of 9) at baseline ($P < 0.05$). Documentation of nutrition risk increased from 10% (1 of 10) to 80% (8 of 10) ($P < 0.01$), and intake documentation improved from 30% (3 of 10) to 100% (10 of 10) ($P < 0.01$).; Conclusion: This quality improvement study demonstrates that applying the Model for Improvement to integrate a clinical dietitian into ward practice strengthened interdisciplinary nutrition care and led to measurable gains in screening, documentation, and nutrition intake among older patients with hip fractures at nutrition risk. (© 2025 The Author(s). Nutrition in Clinical Practice published by Wiley Periodicals LLC on behalf of American Society for Parenteral and Enteral Nutrition.)

9. Effects of early versus late enteral nutrition on the nutritional status of surgical intensive care unit patients: A retrospective observational study

Authors: Pei-Chun Chao;Cheau-Feng Lin, Frank;Hsien-Hua Liao;Lu-Huan Chou and Chun-Fen Lee

Publication Date: 2025

Journal: Asia Pacific Journal of Clinical Nutrition

10. Delphi Consensus of the Nutrition Area of the SEEN (NutriSEEN) on the use of enteral tube nutrition in people with advanced dementia

Authors: Pita Gutiérrez, Francisco;Breton Lesmes, Irene;Álvarez Hernández, Julia;Ballesteros-Pomar, Mar;Campos Del Portillo, Rocío;Hernández Moreno, Ana and Botella Romero, Francisco

Publication Date: 2025

Journal: Endocrinología, Diabetes Y Nutrición

Abstract: Competing Interests: Declaration of competing interest None declared.; Introduction: Despite the available scientific evidence, the use of enteral tube feeding in people with advanced dementia is currently controversial. Given this situation, and following the position paper promoted by the SEEN (Spanish Society of Endocrinology and Nutrition), a consensus is sought to contribute to improving the management of this condition.; Material and Methods: A Delphi consultation was conducted, a formal and systematic method for obtaining consensus. The project was developed in the following stages: (1) questionnaire development by the Scientific Committee; (2) first round of Delphi consultation; (3) second round of Delphi consultation, and; (4) a meeting to present the results.; Results: A total of 340 expert members of the SEEN Nutrition Department were invited to participate through the society itself. Of these, 128 panellists completed the questionnaire in the first round (response rate of 38%) and 53 in the second round (response rate of 41%, compared to the first round). Of the 24 statements initially proposed, 14 (58%) reached consensus. Of these, 13 achieved this goal in the first round and one in the second.; Conclusions: Advanced dementia represents a significant challenge for both healthcare professionals and patients' families, raising ethical and practical dilemmas regarding appropriate treatment and management to improve the quality of life of those affected. This paper draws several key conclusions that can guide the care and attention of these patients. (Copyright © 2025 SEEN and SED. Published by Elsevier España, S.L.U. All rights reserved.)

11. Experiences with nutritional follow-up and barriers and opportunities of implementing digital seamless nutrition care in the head and neck cancer treatment course: a qualitative study from patient, family caregiver, and healthcare professional perspectives

Authors: Severinsen, Frida;Varsi, Cecilie;Andersen, Lene Frost;Henriksen, Christine and Paulsen, Mari Mohn

Publication Date: 2025

Journal: BMC Health Services Research

Abstract: Competing Interests: Declarations. Ethics approval and consent to participate: The study was performed in accordance with the Declaration of Helsinki. The data protection authority at the hospital and the Regional Committees for Medical and Health Research Ethics (REK) approved the research protocol (2023/569956), and the study was registered in the Norwegian Agency for Shared Services in Education and Research (SIKT), reference identification: 923757. All participants signed a written informed consent prior to participating in the interviews. Consent for publication: Not applicable. Competing interests: Mari Mohn Paulsen reports financial support was provided by Dam Foundation. Lene Frost Andersen reports a relationship with FoodCapture AS that includes: equity or stocks. Other authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Introduction: Patients with head and neck cancer (HNC) are often malnourished. Despite evidence of beneficial effects of digital health interventions, challenges with implementation into clinical practice have been reported.; Objective: To investigate the implementation of a seamless nutrition care intervention into the HNC treatment course, this study aimed to (1) explore the experiences with current nutritional follow-up; and (2) identify potential barriers and opportunities associated with future implementation of the Nutrition Throughout the Treatment Course (NUTREAT) intervention.; Methods: This qualitative study involved semi-structured interviews with patients with HNC, family caregivers, and healthcare professionals (HCPs). The Consolidated Framework for Implementation Research (CFIR) guided the development of the interview guide and analysis. Inductive-deductive analyses were conducted.; Results: Interviews were conducted with patients (n = 7), family caregivers (n = 4), registered nurses (n = 5), and physicians (n = 2). Themes created to cover experiences with the current nutritional follow-up were: (1) Nutritional challenges; (2) Family caregiver support; and (3) Experience with current nutritional follow-up. Barriers and opportunities for implementing the NUTREAT intervention were analyzed within 20 constructs of CFIR. Patients were satisfied with nutritional follow-up, and spouses served as key emotional support, yet a need for closer monitoring post-treatment was identified. Exhaustion, advanced age, and dementia were potential barriers for implementing NUTREAT. Increased awareness of nutritional requirements for patients, and increased accessibility of dietary recordings for HCPs compared to current practices were opportunities.; Conclusion: Overall, patients and spouses were satisfied with the nutritional follow-up, though challenges were identified. The identified barriers and opportunities will inform the development of an implementation plan for an effectiveness- and implementation study.; Trial Registration: The study is registered in the National Institutes of Health Clinical Trials (identifier: NCT05997329|| 2023-06-26). (© 2025. The Author(s).)

12. Optimizing parenteral nutrition practices: Impact of a pharmacist-led quality improvement program on prescription patterns and work efficiency

Authors: Shan, Haili;Hu, Wei;Hong, Yulu;Ge, Yangting;Jiang, Huifang;He, Yi;He, Wei;Lyv, Na and Dai, Haibin

Publication Date: 2025

Journal: Nutrition (Burbank, Los Angeles County, Calif.)

Abstract: Competing Interests: Declaration of competing interest The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Haili Shan reports financial support was provided by Zhejiang Pharmaceutical Association. If there are other authors, they declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.; Background: Parenteral nutrition is a crucial clinical therapy, yet its inappropriate use is widespread. Pharmacists play an irreplaceable role in the rational application of drugs. This study assessed the impact of a pharmacist-led improvement project on optimizing the rational use of parenteral nutrition drugs.; Method: A pharmacist-led improvement program for parenteral nutrition orders was implemented from 2022 to 2023. It included baseline assessment, root cause analysis, and implementation of intervention measures such as staff training, process standardization, and information technology enhancement. 400 cases (200 cases both before and after the intervention) were obtained from the electronic medical records (EMRs) for analysis. Rationality was assessed via administration and nutrient composition. Work efficiency was evaluated by comparing the time spent by physicians and pharmacists on designing, saving, and reviewing the parenteral nutrition orders.; Results: The proportion of total nutrient admixture (TNA) orders increased fourfold, from 18.5% to 73.5%, while multibottle systems (MBSs) decreased from 73.0% to 1.5% ($P < 0.001$). The utilization rate of multichamber bags (MCBs) increased from 7.5% to 23.5%, whereas the rate of incorrect use decreased from 53.3% to 0% ($P < 0.001$). The dose of amino acids increased from 36.56 g to 45.81 g per prescription, while the daily dose increased from 0.64 to 0.79 g/kg/d ($P < 0.001$); The fat energy to non-nitrogen energy decreased from 0.79 to 0.58 ($P < 0.001$). Physicians' time to design and save a customized prescription decreased by 2.8 minutes, and pharmacists' time to review it decreased by 0.76 minutes, both reductions being statistically significant ($P < 0.05$).; Conclusion: The pharmacist-led multidisciplinary approach can significantly enhance the appropriate use of parenteral nutrition drugs and improve the work efficiency of medical staff. (Copyright © 2025 Elsevier Inc. All rights reserved.)

13. Association Between Nutritional Status, Food Form, Appetite and Oral Health at the Time of Admission to a Convalescent Hospital: A Cross-Sectional Study

Authors: Suzuki, Hiroyuki;Todayama, Naoki;Someya, Mika;Okada, Haruka;Watanabe, Masataka;Yamane, Kunihiro;Mukai, Tomoko;Osawa, Tokiko;Kuwazawa, Miki;Okamatsu, Yoshimasa;Kawate, Nobuyuki and Furuya, Junichi

Publication Date: 2025

Journal: Journal of Oral Rehabilitation

Abstract: Background: Malnutrition negatively impacts the recovery of physical functions such as activities of daily living (ADL) through rehabilitation. However, older patients requiring rehabilitation are at high risk of malnutrition, making appropriate nutritional management essential for effective and efficient outcomes. Factors associated with the nutritional status of patients admitted to convalescent hospitals have been reported; however, only a few studies have comprehensively examined them.; Objective: To assess the comprehensive relationship between nutritional status and food form, appetite, swallowing function, and oral health status in patients admitted to a convalescent hospital.; Methods: In this cross-sectional study, we included 319 patients (155 male and 164 female; mean age, 74.9 ± 12.2 years) admitted to a convalescent hospital between January and December 2021. ADL, nutritional status (Mini Nutritional Assessment-Short Form), food form (Functional Oral Intake Scale), appetite (Simplified Nutritional Appetite Questionnaire for the Japanese Elderly), swallowing function (Dysphagia Severity Scale), and oral health status (Oral Health Assessment Tool) at admission were retrospectively extracted from medical records. Factors associated with nutritional status were examined through multiple regression analysis.; Results: Over 70% of the participants had nutritional deficiencies, with 58.0% at risk of malnutrition and 18.5% being malnourished. Multiple regression analysis results revealed that ADL, food form, appetite and oral health status were significantly associated with nutritional status at admission.; Conclusion: The findings suggest that good food form, appetite and oral health status on admission to a convalescent hospital may be crucial to realising good nutritional status. (© 2025 John Wiley & Sons Ltd.)

14. Impact of nutrition and health interventions on undernutrition: an overview of systematic reviews

Authors: Vilar-Compte, Mireya;Rovelo-Velázquez, Natalia;Nguyen, Hoa Thi Mai and Mehta, Michelle Ashwin

Publication Date: 2025

Journal: International Journal for Equity in Health

Abstract: Competing Interests: Declarations. Ethics approval and consent to participate: Not applicable. Consent for publication: Not applicable. Competing interests: The authors declare no competing interests.; Nearly two decades after adopting SDG 2 to end malnutrition by 2030, significant challenges persist, including high anemia rates and stalled progress in reducing stunting and low birth weight. This paper provides an overview of the latest systematic reviews and meta-analyses on nutrition and health interventions assessing their effects on undernutrition and breastfeeding indicators. A systematic review was conducted

following PRISMA guidelines, searching PubMed for relevant systematic reviews and meta-analyses published between 2018-2023. The search yielded 881 reports, with 46 systematic reviews and meta-analyses included after screening. These reviews spanned multiple regions and assessed various nutrition interventions. The findings underscore robust evidence for effective nutrition interventions but highlight that a large proportion of this evidence emerges from trials, posing significant challenges for translating this evidence into actual scale up, implementation, and sustainability. (© 2025. The Author(s).)

15. Effect of adequate calories and amino acids supplementation delivered via parenteral nutrition on muscle mass maintenance in patients with type I or II intestinal failure: a retrospective study

Authors: Yang, Jianbo;Wu, Qishuan;Tian, Feng and Wang, Xinying

Publication Date: 2025

Journal: Annals of Medicine

Abstract: Background: Muscle mass depletion caused by hypercatabolism and inappropriate nutritional support in patients with intestinal failure (IF) is associated with poor clinical outcomes and reduced quality of life. This retrospective study evaluated the correlation between nutritional support factors (type and composition) and muscle mass.; Methods: In this cohort study, two hundreds and twenty-three eligible patients with type I or II IF were included at a clinical nutrition center between September 2013 and September 2017. Muscle mass was measured via Bioelectrical Impedance Analysis. Statistical analyses included paired-samples T test, Pearson's or Spearman's rank correlation, univariate and multivariate regressions.; Results: The mean age was 46.1 ± 18.6 years, the mean nutritional risk screening -2002 score was 3.5 ± 0.8 , and the median hospitalization duration was 19.5 days. Multivariate linear regression analysis revealed that Δ soft lean mass (Δ SLM) and Δ skeletal muscle mass (Δ SMM) were significantly correlated with calories delivered via parenteral nutrition (PN) ($\beta = 0.051$, 95%CI 0.014, 0.008], $p < 0.05$ and $\beta = 0.041$, 95%CI 0.010, 0.072], $p < 0.05$). Among the PN composition variables, daily glucose intake via PN showed a significant correlation with Δ SLM ($\beta = 0.350$, 95%CI 0.091, 0.609], $p < 0.01$) and Δ SMM ($\beta = 0.254$, 95%CI 0.027, 0.481], $p < 0.01$). Subgroup analysis revealed that daily glucose intake via PN was associated with Δ SMM, especially at ≥ 1.2 g/kg/day of amino acid intake ($r = 0.328$, $p < 0.01$).; Conclusions: Adequate calories and amino acids supplementation delivered via parenteral nutrition play an important role in promoting muscle mass maintenance in patients with type I or II intestinal failure, who were under metabolically unstable or enteral nutrition intolerance condition.

16. Development of a Machine Learning-Based Nutrition-Related Surgical Risk Assessment Model for Older Patients with Gastrointestinal Malignancies

Authors: Yin, Shishu;Liu, Xu;Cao, Xianglong;Cui, Jian;Shi, Jinxin;Ma, Fuhai;Ma, Tianming;An, Qi;Yu, Tao;Li, Zijian and Zhao, Gang

Publication Date: 2025

Journal: Nutrition & Cancer

Abstract: Older patients with gastrointestinal cancer are at a high risk of postoperative complications; however, no accurate preoperative assessment is available. This study developed a prognostic model that leveraged machine learning and multidimensional clinical data to predict postoperative complications in older patients. This study assessed 365 older patients with gastrointestinal cancer who underwent radical surgery at Beijing Hospital. Patients were randomly allocated to training and test sets (7:3 ratio). Multiplex machine learning was used for feature selection and model development. The efficacies of the models were assessed using receiver operating characteristic curves. An imbalance rfsrc + ranger model (IRM) was created using the "shiny" R package. All statistical analyses were performed using R software. The overall rate of postoperative complications was 19.2%. IRM was the most accurate among the 361 models developed using 19 machine learning algorithms and 19 sets of clinical features. Body mass index was the most important variable for predicting postoperative complications in these patients, followed by hemoglobin level, albumin level, and surgical approach. This study developed a nutrition-related surgical risk assessment model that includes malnutrition, comorbidities, and surgical approaches to improve the outcome of older patients with gastrointestinal malignancies, aiding in managing preoperative risk factors and improving surgical safety.

17. Food service in cancer hospitals: A co-creation approach to increase liking and to reduce food waste

Authors: Lippi, Angelica; Spinelli, Sara; Ghelfi, Chiara; Dinnella,

Publication Date: 2025

Journal: Food Research International

The prevalence of food waste and meal dissatisfaction, poses challenges for cancer hospitals, prompting a need for effective solutions. Actively involving patients and chefs through a co-creation process in the development of new recipes may enhance the acceptability of hospital meals in cancer care, reducing food waste. This study aimed to replace current not well-liked recipes (based on target ingredients of the Mediterranean Diet) in an oncological hospital food service with co-created dishes tailored specifically to cancer patients. First, the co-creation process involved sixteen cancer patients and three chefs engaged separately in focus groups, using three complementary techniques (Jobs-To-Be-Done, free-association tasks and the SCAMPER). This phase led to forty-eight innovative concepts. Second, sixty-nine patients expressed their expected liking for the concepts' descriptions, leading to detailed briefs, based on the most appreciated concepts. Third, cooking sessions led to the development of ten final recipes of which seven were deemed technically feasible to replace current versions on the hospital lunch menu. Finally, liking scores and food waste data on the conventional and co-

created dishes were collected in total on 242 hospitalized cancer patients in a field study using a quasi-experimental design (between subjects). Co-created dishes were liked more ($p = 0.004$) and tended to be less wasted ($p = 0.083$) than the conventional dishes in the field study. Mean liking scores increased by up to 35.88 % compared to conventional recipes, while food waste was reduced by as much as 67.44 % for some recipes. Overall, these findings suggest co-creation as a promising strategy to innovate hospital food service. They also underscore the importance of incorporating affective tests in field studies, as part of an iterative feedback loop informing and shaping process development.

18. Making Plant-Based Meals the Default: For A Healthier, More Sustainable NHS - Plants First Healthcare Report

Authors: Isabelle Sadler and Dr Shireen Kassam

Publication Date: 2025

Plant Based Health Professionals UK

Unhealthy diets are now the leading cause of chronic ill health and premature death globally. In addition, the food system is a major driver of climate change and biodiversity loss. The National Health Service (NHS) in the UK was the first healthcare system in the world to declare a climate emergency and has committed to achieving net-zero emissions by 2045 (Husain et al. 2021). The current global food system is responsible for more than a third of greenhouse gas emissions with animal agriculture contributing more than half of these emissions (Crippa et al. 2021; Poore et al. 2018). In the UK, 70% of our total food-related emissions come from red meat and dairy production alone (Evans et al. 2023).

19. Navigating Person-Centred Nutrition and Mealtime Care in Rehabilitation: A Conceptual Model

Author: Olufson HT.

Publication Date: 2025

Journal: Journal of Human Nutrition and Dietetics

The Person-Centred Nutrition and Mealtime Care in Rehabilitation model conceptualises person-centred nutrition and mealtime care through the steps of Nutrition Assessment, Priorities, Intervention, and Monitoring and Evaluation. These steps highlight consumer, team, and organisational factors influencing person-centred nutrition and mealtime care. The representation and communication of these factors within the model were refined with staff and consumers.

Sources Used:

The following databases are used in the creation of this bulletin: Amed, British Nursing Index, Cinahl & Medline.

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