

Nutrition and Hydration

Current Awareness Bulletin

June 2025

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1. In-hospital Outcomes Between Total Parenteral Nutrition and Enteral Feeding in Esophageal and Gastric Cancer: A Nationwide Analysis.

Authors: Baskar S.;Schoeneich R. and Grewal, U. S.

Publication Date: 2025

Journal: Anticancer Research 45(6), pp. 2453–2457

Abstract: BACKGROUND/AIM: Patients with gastric and esophageal cancer (GEC) often experience significant dysphagia, leading to malnutrition and weight loss. Nutritional support strategies, such as total parenteral nutrition (TPN) and gastrostomy or jejunostomy (G/J) tube placement, are commonly used in managing these patients. However, their impact on in-hospital outcomes remains uncertain. The aim of this study was to compare in-hospital outcomes between patients with GEC receiving TPN and those undergoing G/J tube placement.

PATIENTS AND METHODS: This retrospective cohort study utilized the National Inpatient Sample (NIS) from 2016 to 2020. It included all hospitalizations of adult patients with GEC who received either TPN or G/J tube placement. A total of 65,575 hospitalizations were analyzed, with 12,535 (19.1%) receiving TPN and 53,040 (80.9%) undergoing G/J tube placement. Logistic regression analysis was used to assess the odds of various in-hospital outcomes.

RESULT(S): Patients who underwent G/J tube placement had significantly lower odds of mortality [adjusted odds ratio (aOR)=0.47, 95% confidence interval (CI)=0.44-0.51], deep vein thrombosis (DVT) (aOR=0.54, 95%CI=0.48-0.61), pulmonary embolism (PE) (aOR=0.51, 95%CI=0.46-0.57), acute liver failure (aOR=0.66, 95%CI=0.51-0.84), acute kidney injury (aOR=0.64, 95%CI=0.60-0.67), and sepsis (aOR=0.46, 95%CI=0.43-0.49) compared to those

who received TPN.

CONCLUSION(S): Enteral feeding through G/J tube placement is associated with more favorable in-hospital outcomes, including lower odds of mortality and other complications, compared to TPN in patients with GEC.

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2. Water intake, hydration, and weight management: the glass is half-full!

Authors: Davy, Brenda M.;Davy, Kevin P.;Savla, J. T.;Katz, Benjamin;Howard, Kristen;Howes, Erica;Marinik, Elaina;Laskaridou, Eleni;Parker, Molly and Knight, Aubrey

Publication Date: 2025

Journal: Physiology & Behavior 297, pp. 114953

Abstract: The lack of practical and effective strategies to manage hunger and adhere to a weight management intervention represents a critical barrier to the weight management field. In proof-of-concept studies, we demonstrated that premeal water consumption (500 ml) acutely reduced perceived hunger and meal energy intake among middle-aged and older adults, and that premeal water consumption (500 ml, 3 times per day) increased the amount of weight lost after 12 weeks among middle-aged and older adults with overweight or obesity. However, water consumption may be important for weight management regardless of when it is consumed. This presentation summary addresses what is currently known about water intake, hydration status, and weight control. Findings from three recent systematic reviews focused on water intake and weight control are described. Potential mechanisms by which water consumption could impact appetite and hypocaloric diet adherence are discussed, and ongoing research on this topic is described. (Copyright © 2025. Published by Elsevier Inc.)

3. Registered Dietitian Nutritionist Consultation is associated with improvement in nutrition status in chronically ill children: A retrospective, cohort study.

Authors: Feuling M.B.;Hilbrands J.;Hettich K.;Kopesky J.;Martin N.;McCarthy R.;Osinski K.;Pipkorn R.;Smith A.;Sparapani R.A.;Teng B.Q. and Goday, P. S.

Publication Date: 2025

Journal: Journal of the Academy of Nutrition and Dietetics (pagination), pp. Date of Publication: 28 May 2025

Abstract: BACKGROUND: The impact of care provided by a Registered Dietitian Nutritionist (RDN) to malnourished children is not well described.

OBJECTIVE(S): To compare nutrition outcomes of malnourished, chronically ill children with and without Registered Dietitian Nutritionist (RDN) involvement in outpatient care. DESIGN: Retrospective cohort study of malnourished children who had ≥ 1 complex chronic condition (CCC) with a follow-up period of at least 2 years during which improvement in BMI-for-age z score [BMIz] and clinical outcomes were assessed. PARTICIPANTS: Chronically ill children initially aged 2-5 years with malnutrition were divided into those seen (RDN group) or not seen

(non-RDN group) by an RDN in the outpatient setting +/- 60 days from the nadir BMIz. Of 841 patients, 240 (28.5%) were in the RDN group versus 601 patients (71.5%) in the non-RDN group. MAIN OUTCOME MEASURES: Changes in BMIz at 6 months and 2 years and clinical outcomes (number of hospitalizations, total hospital days, and total procedure days) between 6 months and 2 years. STATISTICAL ANALYSES PERFORMED: Group differences were tested using Wilcoxon's rank-sum test and Pearson's Chi-square test. A regression mixed model analysis of the BMIz outcome estimating the RDN group effect while adjusting for confounders was performed.

RESULT(S): Patients in the RDN group had worse median BMIz at baseline (-2.08) versus the non-RDN group (-1.80) (p-value = 0.0002) and more chronic illnesses throughout the study period. BMIz progressed in both groups, though improvements in BMIz were better in the RDN group (all p-values <0.05). The clinical outcomes were all worse in the RDN group (p<0.0001). The regression mixed model found a 0.14 BMIz improvement for the RDN group (p=0.0057).

CONCLUSION(S): Despite being more malnourished and sicker overall, an RDN visit for chronically ill, malnourished children was associated with an improvement in BMIz but not with other clinical outcomes.

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4. Enteral Nutrition in Hospitalized Adults.

Authors: Gramlich L. and Guenter, P.

Publication Date: 2025

Journal: New England Journal of Medicine 392(15), pp. 1518–1530

Abstract: Key Points Enteral Nutrition in Hospitalized Adults Malnutrition is prevalent among hospitalized patients, many of whom may be able to meet nutritional needs through oral intake. Standardized nutrition care pathways aid in the detection of malnutrition and the identification of patients who may benefit from enteral nutrition. Patients with inadequate caloric intake may need enteral nutrition. Recent evidence suggests that underfeeding (providing 70% of energy and protein requirements) is not harmful during the acute phase of critical illness in patients in the intensive care unit. An area requiring further investigation in enteral nutrition is the dosing of nutrition during recovery and rehabilitation. Enteral Nutrition in Hospitalized Adults This review considers enteral nutrition in the context of disease-related malnutrition, provides evidence for the use of enteral nutrition in hospitalized patients, and discusses practice considerations.

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5. Effects of a nurse-led individualized mHealth nutrition intervention for post-discharged gastric cancer patients following gastrectomy: A randomized controlled trial

Authors: Jiang, Xiao-Han;Yuan, Xiu-Hong;Chen, Jia-Min;Yu, Hong;Chen, Xi-Jie;Chen, Yong-He;Li, Si-Jia;Wen, Yue-E and Peng, Jun-Sheng

Publication Date: 2025

Journal: International Journal of Nursing Studies 168, pp. 105092

Abstract: Competing Interests: Declaration of competing interest The authors declare no conflict of interest.; Objective: To evaluate the effects of a nurse-led individualized mHealth nutrition intervention on nutritional status, nutritional intake, cognitive beliefs related to nutritional behavior, weight loss, blood parameters, gastrointestinal symptoms, and quality of life in post-discharged gastric cancer patients following gastrectomy.; Design: This was an assessor-blinded parallel-arm randomized controlled trial with a repeated-measures design.; Setting(s): The participants were recruited from inpatient gastric surgery units of two tertiary hospitals in Guangzhou, China.; Participants: A total of 108 patients with gastric cancer who underwent gastrectomy and were scheduled to be discharged to their homes were included.; Method: Participants were randomly allocated to either the intervention or the control group (n = 54 per group). The intervention group received the nurse-led individualized mHealth nutrition intervention in addition to the usual care, whereas the control group received only usual care. The intervention included face-to-face education before discharge, the use of an applet and phone consultations. Baseline data were collected on the day of discharge from the hospital (T0). The patients' nutritional status, cognitive beliefs related to nutritional behavior, nutritional intake, weight loss, blood parameters, gastrointestinal symptoms and quality of life were repeatedly measured at 4-week (T1) and 12-week (T2) after discharge.; Results: Compared with the control group, the intervention group showed significant improvement in nutritional status (β_4 weeks = -1.08, 95 % CI -2.12 to 0.04, $p = 0.042$; β_{12} weeks = -1.52, 95 % CI -2.57 to -0.47, $p = 0.005$). Improvements were also observed in energy and protein intake, weight loss, and cognitive beliefs related to nutritional behavior, including risk perception, outcome expectancy, self-efficacy, intention, and action plan ($p < 0.05$).; Conclusions: The nurse-led individualized mHealth nutrition intervention was effective for improving the cognitive beliefs related to nutritional behavior, energy and protein intake, and nutritional status, as well as reducing weight loss among post-discharged gastric cancer patients following gastrectomy.; Registration Number: ChiCTR2200064808. (Copyright © 2025 Elsevier Ltd. All rights reserved.)

6. The uncertainties of monitoring progress towards achieving global nutrition targets

Authors: Kurpad, Anura V. and Sachdev, Harshpal Singh

Publication Date: 2025

Journal: Lancet (London, England) 404(10471), pp. 2488–2489

Abstract: Competing Interests: We declare no competing interests. AVK and HSS are recipients of the Wellcome Trust/Department of Biotechnology India Alliance Clinical/Public Health Research Centre Grant # IA/CRC/19/1/610006. We thank Prof Tinku Thomas for providing statistical advice.

7. Exploring Patient Mealtime Experience in an Acute Care Setting Using the Modified Austin Health Patient Mealtime Experience Tool.

Authors: Lam L.;Ussher H.;Trakman G.;Daglas A.;Hamilton E.;Ballantyne L.;Fox V. and Furness, K.

Publication Date: 2025

Journal: Journal of Human Nutrition and Dietetics : The Official Journal of the British Dietetic Association 38(3), pp. e70068

Abstract: AIMS: Malnutrition is prevalent in Australian hospitals, affecting 30%-40% of inpatients. Enhancing patient mealtime experience is a recognised strategy to support improved dietary intake and clinical outcomes. Yet, there is little published data on mealtime experience in acute hospital settings in Australia. This study aims to capture patient mealtime experience in an acute care setting at a regional Australian hospital, using a modified version of the Austin Health Patient Mealtime Experience Tool.

METHOD(S): A cross-sectional study was undertaken across six acute care wards at Bendigo Health between July and September 2024. Patient mealtime experience was explored through interviewer-administered surveys, including 32 Likert scaling items and 6 open-ended responses. Descriptive statistics were used to analyse quantitative data, whilst deductive thematic analysis was applied to qualitative data to describe mealtime experience.

RESULT(S): Eighty-one patients participated in the study. Patients were most dissatisfied with food quality, particularly sensory characteristics and variety, in both the quantitative and qualitative results. Patients were most frequently satisfied with staff interactions (90% 'always' or 'often' positive), although the qualitative results highlighted insufficient mealtime care. The physical environment was generally highly rated, with a majority of patients (> 70%) reporting that noise, visitors, room surroundings and smells and odours 'rarely' or 'never' impacted food intake. The food ordering system was rated favourably, with 89% of participants rating meal timing as 'always' or 'often' positive and 73% rating meal accuracy as 'always' or 'often' satisfactory. However, qualitative results revealed usability issues related to the electronic meal ordering system. Finally, qualitative responses identified nutrition impact symptoms as a barrier to mealtime experience and intake.

CONCLUSION(S): Food quality, sufficient mealtime care, management of nutrition impact symptoms and improving usability of electronic ordering systems are areas highlighted for improvement in mealtime experience. Addressing these factors through targeted quality improvement initiatives can enhance mealtime satisfaction and support nutritional intake. Integrating patient perspectives into service planning is essential for fostering patient-centred hospital foodservices and improving patient outcomes.

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8. Poor Appetite and Survival in Patients Admitted to an Acute Palliative Care Unit for Comprehensive Palliative Care.

Authors: Mercadante S.;Napolitano D.;Lo Cascio A.;Mancin S. and Casuccio, A.

Publication Date: 2025

Journal: Nutrients 17(11) (pagination), pp. Article Number: 1882. Date of Publication: 01 Jun 2025

Abstract: Background/Objectives: Loss of appetite is a common symptom in patients with advanced cancer, and may contribute to patient deterioration. There is a lack of information

about this issue, particularly in patients with advanced cancer admitted to an acute palliative care unit. The aims of this study were to assess appetite loss in patients admitted to an APCU and to investigate whether changes following comprehensive palliative care treatment are associated with survival.

Material(s) and Method(s): A consecutive sample of 520 patients admitted to the APCU was assessed. Patient characteristics and Edmonton Symptom Assessment Scale (ESAS) were measured at admission (T0) and after one week of comprehensive palliative care treatment (T7).

Result(s): Of 381 patients screened, 208 (54.6%) had a poor appetite rating ($\geq 4/10$). Following comprehensive palliative care (T7), the number of patients with poor appetite significantly decreased to 116 (30%) ($p < 0.0005$). A multivariate regression analysis revealed that nausea ($p = 0.002$), weakness ($p = 0.006$), poor well-being ($p = 0.017$), and total ESAS score were correlated with poor appetite at T0. At T7, pain ($p = 0.018$), anxiety ($p = 0.001$), depression ($p = 0.014$), poor sleep ($p = 0.047$), drowsiness ($p = 0.035$), nausea ($p = 0.018$), weakness ($p < 0.0005$), poor well-being ($p < 0.0005$), and total ESAS score ($p < 0.0005$) were correlated with poor appetite. Survival was associated with a low Karnofsky (OR = 3.217(1.310-5.124), $p = 0.001$) and the presence of poor appetite at T7 (OR = -7.772(-14.662--882), $p = 0.027$).

Conclusion(s): A large proportion of patients admitted to an APCU present moderate-to-severe poor appetite. Clinical improvement of poor appetite is associated with improved survival.

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9. Increasing nutrition knowledge and culinary skills in interprofessional healthcare students: an active learning pilot study.

Authors: Noerper T.;Lowery A.;Wright G. and Burka, A.

Publication Date: 2025

Journal: BMC Medical Education 25(1), pp. 777

Abstract: BACKGROUND: Hands-on culinary training can equip healthcare students to educate patients on a healthy diet. Research suggests there is improved self-confidence in patient counseling interactions along with a deeper understanding on the role of an interprofessional healthcare team during hands-on culinary medicine courses. There is a paucity of evidence describing the outcomes that culinary training offers for interprofessional healthcare students in educating individuals who are vulnerable to poverty. The researchers suggested that an active learning, educational program would boost participants' culinary skills, increase nutrition knowledge, and improve attitudes and confidence in counseling patients with limited means on a healthy diet.

METHOD(S): The study included a 4-week active learning, educational pilot where nutrition faculty and graduate-level dietetic interns taught nutrition and culinary skills to nursing, physician assistant, and pharmacy students. Each of the four, 2-hour educational sessions focused on cooking skills integrated within nutrition education on topics such as general nutrition, obesity, diabetes, and cardiovascular disease. Recipe selections were based on ingredient cost of \$5.00 per person or less, readily accessible ingredients, and basic food preparation skills. Pre-, post-, and 2-month post-intervention survey data were collected and analyzed. Paired sample t-tests were computed to assess for changes between each of the

study periods ($p \leq 0.05$).

RESULT(S): Data analysis indicated that participants ($N = 14$) had a high level of basic culinary skill knowledge at baseline with a mean score of 8.07 ($SD = 0.78$) out of 10 when compared to nutrition knowledge ($M = 7.00$, $SD = 1.04$). Statistically significant improvements ($p \leq 0.05$) were found in pre- to post-assessment participant attitudes toward their counseling abilities in culinary knowledge [95% CI, 1.27 to 4.73; $p = 0.002$] and culinary techniques/skills [95% CI, 1.25 to 4.75; $p = 0.002$]. Post- to 2-month post-intervention analysis showed no statistically significant increased mean scores in attitudes, behaviors or counseling characteristics.

CONCLUSION(S): Interprofessional healthcare students may benefit from education that supports improving nutrition knowledge as well as attitudes surrounding their counseling abilities and confidence on a healthy diet, especially with clients who have lower incomes. Future research of hands-on culinary education should aim to balance culinary skills education with improving the nutrition knowledge of interprofessional healthcare students.

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10. Does A Dietitian-Led Celiac Disease Clinic (DLCC) Facilitate Timely Diagnosis and Nutrition Care for Patients With Celiac Disease?.

Authors: Palmer M.;MacDermott P.;Patel B.;McIvor C. and Purcell, L.

Publication Date: 2025

Journal: Journal of Gastroenterology and Hepatology (Australia) (pagination), pp. Date of Publication: 2025

Abstract: Background and Aim: Given lengthy diagnosis and treatment delays existed for adult outpatients with newly diagnosed celiac disease (CD), a dietitian-led celiac disease clinic (DLCC) was implemented in 2020. Under DLCC, the dietitian removed eligible patients from the gastroenterology waitlist and ordered pathology and endoscopy for CD diagnosis, and those with CD were given timely, regular dietetic education. This pretest/posttest study aimed to compare time to CD diagnosis and treatment, and the proportion of patients were offered gastroenterologist appointments between the previous (pre-DLCC) and the DLCC expanded scope (post-DLCC) clinics.

Method(s): Eligible patients were adults, referred to the gastroenterology dietitian between 2018 and 2021, with newly diagnosed CD. Demographic, medical, and appointment data were sourced from medical records. A satisfaction survey was administered to post-DLCC patients. Chi-squared and t-tests were used to compare groups.

Result(s): Fifty-four patients were eligible (69%F, 43 +/- 15 years, 86% had anti-TTG > 20 U/mL, $n = 33$ post-DLCC). Time from gastroenterologist referral triage to treatment commencement was improved by 404 days from pre- to post-DLCC ($p < 0.01$) in those whose CD diagnosis was not led by nursing staff, with reductions observed in both time from referral triage to CD diagnosis and CD diagnosis to treatment ($p < 0.05$). These improvements were conservative given COVID-19 delayed services for most ($n = 29/33$) post-DLCC patients. Thirty-six percent fewer post-DLCC patients were offered gastroenterologist appointments ($p < 0.01$). All (100%) post-DLCC respondents reported satisfaction with the clinic.

Conclusion(s): A DLCC expanded scope clinic may provide more timely diagnosis and treatment access for adult patients with newly diagnosed CD, with fewer requiring

11. The impact of a tailored nutrition intervention delivered for the duration of hospitalisation on daily energy delivery for patients with critical illness (INTENT): a phase II randomised controlled trial

Authors: Ridley, Emma J.;Bailey, Michael;Chapman, Marianne J.;Chapple, Lee-anne S.;Deane, Adam M.;Gojanovic, Marlene;Higgins, Alisa M.;Hodgson, Carol L.;King, Victoria L.;Marshall, Andrea P.;Miller, Eliza G.;McGuinness, Shay P.;Parke, Rachael L.;Paul, Eldho;Udy, Andrew A.;Ali, Farisha;Baskett, Rebecca;Butler, Magdalena;Cowdrey, Keri-Anne and Gilder, Eileen

Publication Date: 2025

Journal: Critical Care 29(1), pp. 1–13

12. Registered Dietitians' Experiences and Perceptions in Providing Prenatal Nutrition Care in Canada: A Cross-sectional Study

Authors: WILDING, SARAH;FRANCIS, JOELLE;SEABROOK, JAMIE A. and TWYNSTRA, JASNA

Publication Date: 2025

Journal: Canadian Journal of Dietetic Practice & Research 86(2), pp. 57–66

Abstract: Purpose: To explore Canadian Registered Dietitians' (RDs) roles and experiences in prenatal care. Methods: This cross-sectional study utilized an online, anonymous, original survey. Eligible RDs, who are members of Dietitians of Canada (DC) and provide care for pregnancy, were invited to participate through their publicly available online profiles on the DC website. Results: Of the 71 RDs who completed the survey, 97.1% provided nutrition care when requested by the client, 68.8% in times of complications, and 60.0% through referrals. RDs most frequently discussed topics on foods to avoid, supplementation, and healthy eating. Only 4.3% of RDs felt that other prenatal healthcare providers (HCPs) are providing adequate nutritional care, while all (100.0%) RDs believed that they should be the ones providing nutrition care for pregnancy, and most (88.6%) thought they should start providing nutrition counselling during preconception. Most (92.9%) respondents acknowledged that barriers exist in accessing RDs for nutrition advice. Recommendations for improving RD accessibility included increased government funding, involvement in standard care and referrals, awareness, and remote access. Conclusions: Canadian RDs would like to play a larger role in prenatal care through a more integrated approach with other prenatal HCPs and improved access to dietetic services for all pregnant people.; Objectif. Explorer les rôles et expériences des diététistes canadiens en soins prénatals. Méthodes. Cette étude transversale a été basée sur un sondage original et anonyme diffusé en ligne. Des diététistes admissibles membres des Diététistes du Canada (DC) offrant des soins associés à la grossesse ont été invités à participer par l'entremise de leur profil en ligne accessible au public sur le site Web des DC.

Résultats. Sur les 71 diététistes ayant répondu au sondage, 97,1 % offraient des soins nutritionnels à la demande de la cliente, 68,8 % en contexte de complications et 60,0 % à des clientes à qui ils avaient été recommandés. Les diététistes abordaient le plus souvent des sujets tels que les aliments à éviter, la supplémentation et la saine alimentation. Seuls 4,3 % des diététistes estimaient que les autres professionnels de la santé (PS) travaillant en contexte prénatal fournissent des soins nutritionnels adéquats, 100,0 % croyaient que ce sont eux qui devraient fournir des soins nutritionnels liés à la grossesse et la plupart (88,6 %) pensaient qu'ils devraient commencer à offrir du counseling en nutrition avant la conception. La plupart (92,9 %) des répondants ont reconnu qu'il existe des obstacles à l'accès à des conseils sur la nutrition offerts par des diététistes. Les recommandations visant à améliorer l'accessibilité aux diététistes étaient une hausse du financement public, la participation aux soins standards, de même que les recommandations, la sensibilisation et l'accès à distance. Conclusions. Les diététistes canadiens aimeraient jouer un plus grand rôle dans les soins prénatals grâce à une approche plus intégrée avec les autres PS travaillant en contexte prénatal et à un meilleur accès aux services des diététistes pour toutes les personnes enceintes.

Sources Used:

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

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