

## **Nutrition and Hydration**

# **Current Awareness Bulletin**

### February 2025

Our Current Awareness Bulletins provide details of recently published articles in a given subject. They are a quick and easy way to keep up to date.

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- Bitesize searching databases for evidence: a quick guide to help you develop your literature searching skills
  45 minutes. Learn how to transform a question into a search strategy, and how to find the best evidence in a database.
  Next sessions: 18<sup>th</sup> March @ 11am, 10<sup>th</sup> April @ 12 noon & 9<sup>th</sup> May @ 2pm
- Simple and painless evidence into practice (BMJ Best Practice and the LKS Hub) 30 minutes. Learn about quick and hassle-free ways to seamlessly incorporate evidence into your daily work.

Next sessions: 13th March @ 10am, 11th April @ 11am & 12th May @ 12 noon

Quickfire health literacy – getting your message across
 30 minutes. Learn about the communication barriers patients may encounter, and ways to
 ensure they get the most from their care.

 Next sessions: 4<sup>th</sup> March @ 12 noon, 2<sup>nd</sup> April @ 1pm & 15<sup>th</sup> May @ 2pm

The Broken Plate 2025: the state of the nation's food system

Author: The Food Foundation

Publication Date: 2025.

[This report looks at the trends impacting the UK's food system and the actions needed from policy-makers in order to ensure that everyone can afford healthy and sustainable food. It highlights that too many people in the UK lack the financial means to access decent food, and that much of the food readily available and marketed to us is damaging our health and the planet.]

1. Critical care nutrition: a Bayesian re-analysis of trial data

Authors: Angeloni, Natalia Alejandra; Angriman, Federico and Adhikari, Neill K. J.

Publication Date: 2025

Journal: Current Opinion in Clinical Nutrition and Metabolic Care

**Abstract:** Purpose of Review: Nutritional support and optimal glucose control are key components of care during critical illness, yet evidence surrounding their use remains conflicting, making translation into clinical practice challenging. This review explores Bayesian methods to enhance the interpretation of frequentist critical care trials, particularly for interventions with inconclusive outcomes.; Recent Findings: Bayesian re-analysis frameworks may clarify conflicting evidence in critical care, thus enhancing interpretability and supporting clinical decision-making. This review focuses on the Bayesian re-analysis of three recent trials with indeterminate results for mortality - NUTRIREA-3, EFFORT Protein, and TGC-Fast - that examined the effects of enteral nutrition and glucose control strategies.; Summary: We re-analyzed the mortality outcomes of these trials within a Bayesian framework, contrasting our findings with the original trial results to illustrate how Bayesian methods can enhance the

clinical applicability of trial outcomes. Although Bayesian and frequentist analyses generally agree on the direction and magnitude of effect, Bayesian methods offer the advantage of providing posterior probabilities of benefit and harm, thus identifying promising and potentially harmful interventions. This review underscores the value of Bayesian analysis in re-evaluating clinical trial data and guiding clinical practice. (Copyright © 2024 Wolters Kluwer Health, Inc. All rights reserved.)

### 2. Meta-Analysis: Exclusive Enteral Nutrition in Adults With Ulcerative Colitis

**Authors:** Chu, Matthew K. W.;Day, Alice S.;Broad, Lani;Costello, Samuel P.;Edwards, Suzanne and Bryant, Robert V.

### Publication Date: 2025

Journal: Alimentary Pharmacology & Therapeutics

Abstract: Background: Exclusive enteral nutrition (EEN) is an established dietary therapy for Crohn's disease but its role in ulcerative colitis remains unclear.; Aims: To investigate the efficacy of EEN in adults with active ulcerative colitis and compare variations in treatment protocols, safety, tolerability and adherence.; Methods: We conducted a systematic search of MEDLINE, Embase, Cochrane CENTRAL, Emcare, CINAHL, Web of Science and trial registries for articles published from inception until July 21, 2024. We included all experimental and observational studies that described the use of EEN in adults with active ulcerative colitis. This review was registered on PROSPERO (CRD42022319584).; Results: Of 3273 articles screened, we included 10 studies (334 adults). Overall, there was no difference between EEN and comparator for ulcerative colitis remission induction (median follow-up 14 days, risk ratio (RR) 1.15, 95% confidence interval (CI) 0.71-1.85; 2 studies). In acute severe ulcerative colitis, there was no difference between EEN and comparator for corticosteroid failure (RR 0.76, 95% CI 0.48-1.20; 2 studies) or risk of colectomy (RR 0.88, 95% CI 0.51-1.51, n = 2 studies) during index admission. The pooled discontinuation rate was 3% (95% CI 0-10; 9 studies). There was heterogeneity in trial design, methodology and assessment of outcomes.; Conclusion: EEN was well tolerated with low therapy discontinuation in adults with active ulcerative colitis. However, there is insufficient evidence to support the use of EEN as an adjunctive therapy to standard of care. Further, well-designed studies with reproducible methodology and endpoints are necessary to evaluate its effectiveness.; Registry Number for Systematic Review: PROSPERO 2022 CRD42022319584. (© 2025 The Author(s). Alimentary Pharmacology & Therapeutics published by John Wiley & Sons Ltd.)

### 3. Patient Malnutrition Risk or Number of Initial Nutrition Intervention Categories Can Be Used to Develop Registered Dietitian Nutritionist Staffing Models in the Inpatient Adult and Pediatric Hospital Setting: A Cohort Study

Authors: Hand, Rosa K.;Lamers-Johnson, Erin;Jimenez, Elizabeth Yakes and Steiber, Alison L.

Publication Date: 2025

Journal: Journal of the Academy of Nutrition & Dietetics

Abstract: More data are needed to guide evidence-based, inpatient registered dietitian nutritionist (RDN) staffing models. Identify relationships between: 1) patient malnutrition risk or intervention categories and estimated total RDN care time ("care time"); and 2) care time and emergency department (ED) visits. This study was a prospective cohort study with data collection via RDN surveys, patient interviews, and medical record review. Adult (n = 550) and pediatric (n = 345) patients enrolled at 32 adult and 27 pediatric US hospitals from August 2019 to January 2023. Care time and ED visits within 90 days of hospital discharge were measured. Multilevel, generalized linear, and negative binomial regression models were used to evaluate relationships between patient characteristics and Box-Cox-transformed care time and the relationship between Box-Cox-transformed care time and total ED visits. After adjusting for patient characteristics, adult patients classified as at malnutrition risk vs not at risk required a mean of 8% (95% CI 5% to 11%) more care time. Pediatric patients at medium or high compared with low malnutrition risk needed a mean of 21% (95% CI 4% to 40%) and 31% (95% CI 12% to 54%) more care time, respectively. Number of initial RDN interventions categories per patient (0 to 1 vs 2 to 3 or 4+) was associated with a mean of 10% (95% CI 7% to 14%) or 8% (95% CI 2% to 15%) more care time for adults and 17% (95% CI 5% to 32%) and 39% (95% CI 21% to 61%) more care time for children, respectively. More estimated total RDN care time was associated with significantly higher incidence rate ratios of ED visits (adults: incidence rate ratio 2.8; 95% CI 1.1 to 7.2; children: incidence rate ratio 1.7; 95% CI 1.02 to 2.8). Patient malnutrition risk or breadth of nutrition interventions required can inform nutrition department staffing. Intervention studies may better define relationships between care time and medical outcomes.

### 4. ICU nutrition research: did the evidence get better? Remaining sources of bias

Authors: Koretz, Ronald L.

Publication Date: 2025

Journal: Current Opinion in Clinical Nutrition and Metabolic Care

**Abstract:** Purpose of Review: To assess the quality of recently published (18months from date of article request) randomized trials/systematic reviews of such trials that addressed the use of nutritional support in critically ill patients.; Recent Findings: Eligible papers were published between October 1, 2022 and April 7, 2024, only enrolled adults, described a comparison of a nutritional intervention to something else, and reported a clinically relevant outcome. Thirteen randomized trials and four systematic reviews of randomized trials were identified. Quality was assessed by determining the risks of bias of each trial. Two of these

trials were at low risk of bias, six were rated as having some concern(s) about bias, and five were at high risk of bias. The four systematic reviews included 55 randomized trials; four were at low risk, 31 had some concerns, and 20 were at high risk. No randomized trial comparing nutritional support to a true control (no nutritional support) was identified in this search; seven older trials, all small and containing risks of bias, failed to demonstrate any consistent differences in clinical outcomes.; Summary: The quality of the trials underlying the use of nutritional support in the intensive care unit is not very high. (Copyright © 2024 Wolters Kluwer Health, Inc. All rights reserved.)

### 5. Current Medical Nutrition Therapy Recommendations for the Person with Diabetes

Authors: Levesque, Celia Ann

### Publication Date: 2025

Journal: Critical Care Nursing Clinics of North America

**Abstract:** This article will discuss the current medical nutrition therapy (MNT) recommendations for non-hospitalized people with diabetes based on published standards, general principles for healthy meal planning, common dietary methods used with people with diabetes, and matching the prandial insulin dose to food(s) consumed. This article will also discuss MNT for hospitalized patients with diabetes including assessing for malnutrition and identifying contributing factors for the development of malnutrition. Common dietary methods used in the hospital setting will be discussed, as well as the current recommendations for managing diabetes in patients on clear liquid diets, enteral nutrition, and parenteral nutrition.; Competing Interests: Disclosure The author does not have any conflicts of interest to disclose. (Copyright © 2024 Elsevier Inc. All rights reserved.)

### 6. What influences the implementation of clinical guidelines related to enteral nutrition in the intensive care unit: A mixed-methods systematic review

Authors: Li, Jia Qi;Sun, Ting;Zuo, Jun Tao;Xu, Yao;Cai, Li Na;Zheng, Heng Yu and Ye, Xiang Hong

Publication Date: 2025

### Journal: Journal of Advanced Nursing

**Abstract:** Aims: To systematically evaluate and analyse literature concerning the factors influencing the implementation of clinical practice guidelines related to enteral nutrition in the adult intensive care unit.; Background: Guidelines serve as crucial tools for guiding clinical practice. However, a significant gap persists between current clinical practice and guidelines pertaining to enteral nutrition. It is essential to identify the reasons behind this disparity to foster clinical transformation.; Methods: A mixed-methods systematic review.; Data Sources: A systematic search was conducted across PubMed, Embase, Medline, Cochrane, PsycINFO and CNKI databases to identify impediments and facilitators to the implementation of ICU clinical practice guidelines related to enteral nutrition. The types of studies included

guantitative, gualitative and mixed-methods studies. The search spanned from January 2003 to January 2024 and was updated in May 2024. The quality assessment of the included literature was conducted using the Mixed-Methods Study Evaluation Tool (MMAT). Data analysis was performed using a data-based convergent integration approach. The protocol for this study was prospectively registered (PROSPERO2023, CRD42023483287).; Results: Twenty papers were finally included, and 65 findings were extracted, integrating a total of three categories, Category 1: healthcare provider factors, including three sub-themes: knowledge of guideline-related knowledge and awareness of guideline application; social/professional roles and identity domains; beliefs, attitudes and self-efficacy; collaboration, Category 2: practice environments, including two sub-themes: environmental factors and resource areas; systems and behavioural norms, Category 3: patient values and nutritional support preferences including two sub-themes: patient disease status and value orientation.; Conclusion: Healthcare professionals should analyse obstacles and facilitators to guideline implementation from multiple perspectives, strengthen healthcare collaboration, improve education and training systems, correct misperceptions and increase awareness of evidence-based practice. (© 2024 John Wiley & Sons Ltd.)

### 7. Telemedicine in home enteral nutrition: a structured survey exploring acceptability, preferences and experiences among patients

Authors: Ma, Ya;Li, Xuemei;You, Qian;Hu, Wen;Rao, Zhiyong;Deng, Yanru;Zhang, Yiyao and Shi, Lei

#### Publication Date: 2025

### Journal: BMC Health Services Research

### 8. Engaging family members in nutrition care during recovery from critical illness

Authors: Marshall, Andrea P.;Ridley, Emma J. and Chapple, Lee-Anne S.

#### Publication Date: 2025

### Journal: Current Opinion in Clinical Nutrition and Metabolic Care

**Abstract:** Purpose of Review: The delivery of high-quality personalized nutrition care both during ICU and throughout post-ICU recovery is limited by multifactorial barriers. As families are often a present and consistent resource, family engagement may help to optimize nutrition support during hospitalization and after recovery from critical illness. In this review, we summarize the evidence base for family engagement in nutrition care and hypothesize future roles families may play, throughout the critical illness recovery trajectory.; Recent Findings: Family members may be best placed to convey patients' personal nutritional preferences, and premorbid nutrition intake and status, as well as promote and minimize barriers to nutrition intake. The engagement of families in nutrition care is an emerging concept, and as such, few studies have explored the role of family engagement and feasibility but have not yet translated

to improved clinical and patient-related outcomes.; Summary: Further research should identify how and where families may best engage to support, or advocate for, improved nutrition care. (Copyright © 2024 Wolters Kluwer Health, Inc. All rights reserved.)

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#### Sources Used:

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

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