Proceedings of the Nutrition Society

cambridge.org/pns

Nutrition Society Winter Conference 2025, 21-22 January 2025

Evidence-based guidelines for the dietary management of chronic constipation in adults: systematic reviews of randomised controlled trials, GRADE approach and Delphi expert consensus

E. Dimidi[1], A. van der Schoot[1], K. Barrett[2], A.D. Farmer[3], M.C. Lomer[1,4], S.M. Scott[5] and K. Whelan[1]

[1]Department of Nutritional Sciences, King's College London, London, UK; [2]New Road Surgery, Rickmansworth, UK; [3]Department of Gastroenterology and Hepatology, St Louis University, St Louis, USA; [4]Department of Nutrition and Dietetics, Guy's and St Thomas' NHS Foundation Trust, London, UK and [5]Wingate Institute, Queen Mary University of London, London, UK

Cite this article: Dimidi E, van der Schoot A, Barrett K, Farmer AD, Lomer MC, Scott SM, and Whelan K (2025). Evidence-based guidelines for the dietary management of chronic constipation in adults: systematic reviews of randomised controlled trials, GRADE approach and Delphi expert consensus. *Proceedings of the Nutrition Society* **84**(OCE3): E201. doi: 10.1017/S0029665125100700

Abstract

Chronic constipation is a prevalent disorder representing a significant public health problem. The management of chronic constipation remains challenging, with people reporting dissatisfaction with available treatment options [(1)]. Current clinical guidelines offer limited dietary recommendations only, and there is a lack of comprehensive evidence-based guidelines for the dietary management of chronic constipation. The aim of this project was to develop the first comprehensive evidence-based dietary guidelines for the management of chronic constipation in adults via a systematic literature review and a Delphi consensus process among an expert steering committee.

The scope of the guidelines included dietary supplements, foods and drinks, and whole diets in adults with chronic constipation. Four systematic reviews and meta-analyses were performed to identify eligible randomised controlled trials (RCTs)[(2-5)]. The findings generated from the meta-analysis of RCTs were then used to develop guideline statements using the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) approach and a Delphi consensus survey among a multi-disciplinary expert steering committee. Recommendation statements were produced for treatment response, stool output, gut symptoms, adverse events, and quality of life. Statements were generated based on the findings only where ≥2 RCTs contributed to the meta-analysis [(2-5)]. The "strength of recommendation" was assessed using the GRADE approach. Once statements were generated, they underwent consensus voting amongst the expert steering committee using a modified Delphi survey approach. Recommendation statements with ≥85% agreement were accepted.

The four systematic reviews included a total of 75 RCTs [(2-5)]. Based upon these, 59 dietary recommendation statements were generated and accepted through the Delphi survey. In terms of dietary supplements, 15 recommendation statements related to fibre supplements (overall and specific types), 20 related to probiotics (overall and specific species or strains), 2 to synbiotics (overall), 5 to magnesium oxide, 2 to senna, and 3 to kiwifruit supplements. In terms of foods, 3 recommendation statements related to kiwifruits, 2 to prunes, and 2 to rye bread. In terms of drinks, 5 recommendation statements related to high mineral-containing water. No recommendations were made for whole diet approaches due to lack of evidence. Ten statements had a very low level of evidence, 41 had low level of evidence, and 8 had moderate evidence. Twenty-seven statements were strong recommendations and 32 were qualified recommendations.

These are the first ever comprehensive evidence-based dietary guidelines for the management of constipation. Recommendations were made for several dietary supplements, foods and drinks that have never been previously included in clinical guidelines. These guidelines offer new evidence-based dietary recommendations that can be rapidly implemented into clinical practice, thereby improving clinical care and patient outcomes.

Acknowledgments: Funding for this project was provided by the General and Education Trust Fund, British Dietetic Association. Funders had no role in the design, conduct or publishing of this project.

References

1. Johanson JF & Kralstein J (2007) Aliment Pharmacol Ther. 25, 599-608
2. van der Schoot A, Katsirma Z, Whelan K et al. (2024) Aliment Pharmacol Ther. 59(2), 157-174
3. van der Schoot A, Creedon A, Whelan K et al. (2022) Neurogastroenterol Motil. 35(11), e14613
4. van der Schoot A, Helander C, Whelan K et al. (2022) Clin Nutr. 41(12), 2759-2777
5. van der Schoot A, Drysdale C, Whelan K et al. (2022) Am J Clin Nutr. 116(4), 953-969

© The Author(s), 2025. Published by Cambridge University Press on behalf of The Nutrition Society.