Clinical effectiveness and cost-effectiveness of elemental nutrition for the maintenance of remission in Crohn's disease: a systematic review and meta-analysis

Alexander Tsertsvadze, Tara Gurung, Rachel Court, Aileen Clarke and Paul Sutcliffe*

Warwick Evidence, Division of Health Sciences, Warwick Medical School, University of Warwick, Coventry, UK

*Corresponding author

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Plain English summary

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Plain English summary

The objectives of this systematic review were to evaluate, appraise and summarise clinical benefits and cost-effectiveness of elemental nutrition for the maintenance of remission in patients with Crohn's disease (CD). CD is a condition that causes chronic inflammation of the digestive tract and frequent symptoms including malnutrition, abdominal pain, diarrhoea and weight loss. The aim of treatment of CD is to reduce inflammation/clinical symptoms, maintain remission (i.e. disease-free, reduced clinical symptoms, limited disease state) and prevent complications. One of the treatment options used for the management of CD is elemental nutrition, a form of liquid diet consisting of food components, amino acids (as broken-down proteins), sugars, fat, vitamins and minerals.

Relevant studies for this review were searched in major databases, websites of relevant organisations and references of included studies. This review included eight short-term comparative studies. According to results of five small studies, elemental nutrition was more beneficial than an unrestricted diet for the maintenance of disease-free or limited disease state in the short term. Results regarding the benefits of elemental nutrition compared with standard immunosuppressive and anti-inflammatory drugs (mercaptopurine, infliximab, prednisolone) or polymeric nutrition (another type of liquid diet which contains whole proteins) were uncertain and, therefore, inconclusive. There was insufficient information on adverse events and complications.

This review identified limitations of individual studies (small samples, short follow-up, bias) and gaps in evidence (no economic evaluation studies, no studies in children with remission). Future large and long-term well-designed and conducted studies are warranted to draw more definitive conclusions regarding the effects of elemental nutrition in maintaining remission in CD.

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Editorial contact: nihredit@southampton.ac.uk

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