
Abstract:

BACKGROUND: People with advanced ovarian or gastrointestinal cancer may develop malignant bowel obstruction (MBO). They are able to tolerate limited, if any, oral or enteral (via a tube directly into the gut) nutrition. Parenteral nutrition (PN) is the provision of macronutrients, micronutrients, electrolytes and fluid infused as an intravenous solution and provides a method for these people to receive nutrients. There are clinical and ethical arguments for and against the administration of PN to people receiving palliative care.

OBJECTIVES: To assess the effectiveness of home parenteral nutrition (HPN) in improving survival and quality of life in people with inoperable MBO.

SEARCH METHODS: We searched the following electronic databases: Cochrane Central Register of Controlled Trials (CENTRAL; 2018, Issue 1), MEDLINE (Ovid), Embase (Ovid), BNI, CINAHL, Web of Science and NHS Economic Evaluation and Health Technology Assessment up to January 2018, ClinicalTrials.gov (http://clinicaltrials.gov/) and in the World Health Organization (WHO) International Clinical Trials Registry Platform (ICTRP) search portal (http://apps.who.int/trialsearch/). In addition, we handsearched included studies and used the ‘Similar articles’ feature on PubMed for included articles.
SELECTION CRITERIA: We included any studies with more than five participants investigating HPN in people over 16 years of age with inoperable MBO.

DATA COLLECTION AND ANALYSIS: We extracted the data and assessed risk of bias for each study. We entered data into Review Manager 5 and used GRADEpro to assess the quality of the evidence.

MAIN RESULTS: We included 13 studies with a total of 721 participants in the review. The studies were observational, 12 studies had only one relevant treatment arm and no control and for the one study with a control arm, very few details were given. The risk of bias was high and the certainty of evidence was graded as very low for all outcomes. Due to heterogeneity of data, meta-analysis was not performed and therefore the data were synthesised via a narrative summary. The evidence for benefit derived from PN was very low for survival and quality of life. All the studies measured overall survival and 636 (88%) of participants were deceased at the end of the study. However, there were varying definitions of overall survival that yielded median survival intervals between 15 to 155 days (range three to 1278 days). Three studies used validated measures of quality of life. The results from assessment of quality of life were equivocal; one study reported improvements up until three months and two studies reported approximately similar numbers of participants with improvements and deterioration. Different quality of life scales were used in each of the studies and quality of life was measured at different time points. Due to the very low certainty of the evidence, we are very uncertain about the adverse events related to PN use. Adverse events were measured by nine studies and data for individual participants could be extracted from eight studies. This revealed that 32 of 260 (12%) patients developed a central venous catheter infection or were hospitalised because of complications related to PN.

AUTHORS’ CONCLUSIONS: We are very uncertain whether HPN improves survival or quality of life in people with MBO as the certainty of evidence was very low for both outcomes. As the evidence base is limited and at high risk of bias, further higher-quality prospective studies are required.
Reference:
