Which palliative care patients are most likely to benefit from parenteral nutrition? A retrospective service evaluation

Authors: Michael Shaw, Jeremy Woodward and Sarah Galbraith

Aims
Patients with incurable progressive disease are increasingly offered parenteral nutrition (PN), an area of clinical debate, particularly as the UK has lower frequency of prescribing PN than other European countries and the USA; we aimed to identify characteristics of palliative care patients who survived beyond 21 days from commencement of PN.

Methods
Medical records of patients commencing PN at an intestinal failure centre (IFC) over 1 year (2013–14) were reviewed and data extracted for patients with progressive incurable disease who died within 1 year of commencing PN. Data items were: age, gender, diagnosis, number of days patient received PN, days between starting PN and death, reason for stopping PN, days before death PN stopped.

Results
783 patients commenced PN at the IFC; data were collected for 54 patients meeting the described criteria – 27 female, 27 male. Median age was 69 years (22–93 years).

Diagnoses: 44 (81%) malignant disease (commonly ovarian, gastro-oesophageal, hepatobiliary), 10 (19%) non-malignant disease.

Median number of days patients received PN = 14.5 days (1–114). 35 patients received PN for 1–21 days, 13 for 22–60 days, 2 for >3 months. Four patients were missing data.

13 patients survived less than 21 days after commencing PN, 17 survived 21–60 days, 19 survived 61–312 days. Five patients were missing data.

Reasons for stopping PN: died = 41 patients, stent placement = 3, enteral tube feeding = 5, resumed eating = 5.

11 patients stopped PN on day of death, 7 stopped 1–7 days before death, 5 stopped 8–14 days before death, and 7 stopped 15–30 days before death. 19 patients stopped PN >30 days before death, 12 of whom did not have alternative artificial nutrition. Five patients were missing data.

Conclusions
36 (66%) patients survived >21 days after commencing PN, suggesting that this may be an effective treatment for selected palliative patients. However, patient numbers were too small to identify characteristics of patients surviving >21 days with PN. There were no links between age, gender, diagnosis and length of survival on PN; also, there may already be bias in the selection of patients commencing PN as there is minimal guidance for patient selection. For 13 (24%) patients, PN was a bridge to alternative provision of nutrition. However, 18 (33%) patients stopped PN only at, or within 7 days of, death – suggesting that more careful assessment of prognosis, potentially including consultation with palliative care specialists, may be needed, which could facilitate more timely withdrawal of a costly burdensome treatment.