An experience of home total parenteral nutrition (HPN) at the Freeman Hospital over a 21-year period

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HPN is used for patients with severe intestinal failure. Our service at the Freeman Hospital, Newcastle upon Tyne covers Northumberland, North Cumbria, Durham, Gateshead, North Yorkshire, Tyneside, Wearside and Teesside.

Methods:
We used the database kept by the HPN service and the Trust document portal to gather data retrospectively regarding 221 patients started on HPN from 1996 till 2016. 25 individual data sets were collated about each patient. Line sepsis rates were obtained from the trust central venous catheter surveillance data. (this includes data for patient episodes at other hospitals).

Results
The gender split of the cohort was 101 males and 120 females, with a mean age 52.7 years.

The mean 1 year and 5 year survival for the overall cohort was 94% and 79.4% respectively.

73 deaths were noted in the study group, 8 patients had stopped HPN prior to death. 29 of these patients had been on HPN as a result of malignancy. Only 4 deaths were clearly as a complication of parenteral nutrition.

8 patients had neuroendocrine tumours; their average time on HPN was significantly greater at 25.6 months compared to 5.6 months for patients with other tumour types.

27 patients had significant liver or biliary complications while being on HPN as shown below

The mean rate of catheter-related bloodstream infection was 0.27 per 1000 catheter days over the period covering years 2011 till 2017. The mean rate prior to 2011 was 0.8 per 1000 catheter days.

6 patients underwent successful small bowel transplantation

Conclusion:

The HPN service for northern England at the Freeman has noted a rapid growth in patient numbers, with survival rates comparable to or better than that reported in the literature. Mortality was linked to disease process rather than HPN complications and line infection rate was low.