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How useful is TPN of short duration?

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The National Institute of Clinical Excellence (NICE) recommends that there should be no minimum duration of TPN, but data regarding its value over the short term are sparse. Risk of refeeding means that the time taken to achieve full requirements may reduce the value of the nutritional support. This study examines those patients who received TPN for 5 days or fewer and assesses how much nutritional support was achieved in these circumstances.

Details of all patients who received TPN at a tertiary referral hospital were recorded on a prospective database. Data were reviewed for all patients who received TPN over a 12-month period between 1 June 2008 and 31 May 2009. Actual percentage achieved of total calorific requirements was determined for the duration of TPN. Duration of TPN and reason for cessation were analysed.

During this 12-month period, 21 patients received TPN for 5 days or fewer. There were 17 males. Median age was 73 (IQR 65–73) years. The median duration of TPN was 4 (IQR 2–5) days. The median calorific requirement achieved was 71% (IQR 57–82%). Eight patients (31%) were at risk of refeeding. There was no difference in achieved requirement for those at risk of refeeding (median 69%, IQR 53–76%) versus those not at risk (median 71%, IQR 60–86%) Reasons for cessation were: return to normal diet 14 (66.5%), change to enteral feed 5 (24%) and death 2 (9.5%).

Provision of TPN is expensive and potentially hazardous. We achieved a high proportion of targeted requirements in patients who received TPN of short duration. However, data to show the clinical benefit of this approach would be useful.