

Most patients were malnourished at the start of PN. Energy and protein provided from PN were less than requirements, and the goals were reached with delay. Mortality was high, possibly as a result of complex diseases” Adjemian et al (2018).

Abstract:

BACKGROUND: Parenteral nutrition (PN) prescription can be challenging in patients with complex conditions and has potential complications.

OBJECTIVE: To assess PN prescription, monitoring, and PN-related complications in a Canadian acute care setting.

METHODS: This was a prospective cohort study in which patients receiving PN were assessed by an auditor for nutritional status, PN-related prescription, monitoring, and complications. In addition, length of stay and mortality were recorded.

RESULTS: 147 patients (mean \pm SD 56.1 \pm 16.4 y) with complex diseases (Charlson comorbidity index, median 2 [1-4]) were enrolled. Before starting PN, 18.6%, 63.9%, and 17.5% of patients were classified as subjective global assessment A, B, and C, respectively. Body mass index remained unchanged during the period on PN. On average, 89% and 73% of patients received $<$ 90% of their energy and protein requirements, respectively, but 65% received oral or enteral nutrition at some point during PN. The average daily energy provided by PN increased and stabilized on day 10, reaching $87.2 \pm 20.1\%$ of the requirements. Line sepsis (6.8% of patients) and hyperglycemia (6.9%) were the most common complications. The overall mortality was 15.6%. For those alive, length of stay was 30 (range: 4-268) d. PN was discontinued because of transitioning to an oral diet (56.6%), enteral nutrition (17.6%), home PN (14.7%), palliative care (5.1%), death (4.4%), or other (1.5%).

CONCLUSION: Most patients were malnourished at the start of PN. Energy and protein provided from PN were less than requirements, and the goals were reached with delay. Mortality was high, possibly as a result of complex diseases.



Reference:

Adjemian, D., Arendt, B.M. and Allard, J.P. (2018) Assessment of parenteral nutrition prescription in Canadian acute care settings. *Nutrition*. 49, p.7-12.

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