

935 Identification and Management of Electrolyte Abnormalities in Surgical Patients Requiring Total Parenteral Nutrition: An Audit of Current Practice at A University Hospital

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Aim: Electrolyte abnormalities are a common and serious consequence of nutritional deficiencies when patients are nil-by-mouth. Timely intervention with a multidisciplinary approach is known to improve outcome. This audit aimed to assess adequacy of initial electrolyte management and timing of dietetics referral in acute surgical patients requiring total parenteral nutrition in a university hospital.

Method: A retrospective audit of all general surgery patients referred to dietetics for total parenteral nutrition between January-December 2019 was performed. The following audit standards (from the time following admission) were applied: monitoring of electrolytes every 48-hours; treatment of electrolyte abnormalities within 24-hours of discovery; and referral to the dietetics service within 48-hours of nil-by-mouth being commenced.

Results: Data from 52 patients (27 females, median age 66) were analysed. Fifty-one (98%) had electrolytes measured every 48-hours, however magnesium, phosphate and/or calcium were not measured prior to dietetics input in 9 (17%). Forty electrolyte abnormalities requiring treatment were found in 28 patients (54%), though only 18 (64%) commenced treatment within 24-hours. The most common electrolyte abnormalities not corrected within 24-hours were phosphate and calcium (50%). 46% of patients were referred to dietetics after 48-hours of nil-by-mouth status.

Conclusions: In our unit, we found that basic electrolytes were frequently monitored in patients placed nil-by-mouth, however calcium, phosphate and magnesium were often omitted prior to dietetics input, and correction of abnormalities was sometimes delayed. Introduction of a local protocol-based approach for electrolyte monitoring with streamlined dietetics referrals is likely to improve adherence to best practice.