Parenteral nutrition use in adult inpatients at a large academic medical center

Background: Parenteral nutrition (PN) is a therapy for patients who cannot tolerate adequate oral or enteral intake. The purpose of this quality assurance project was to describe PN use in hospitalized adult patients.

Methods: Patients who received PN from 11/2022-12/2022 were screened for inclusion. Patients under 18 years of age were excluded. Medical records were reviewed and sex, age, BMI, primary service, number of days NPO, failed PO, or inadequate EN delivery prior to PN start, PN indication, and PN duration were collected. PN indication, timing, and duration were compared to published best practices. Data were summarized as medians (interquartile ranges) and counts (frequencies).

Results: A total of 44 patients (47.7% male) were included for analysis, median age was 62.5 (48.5-71) years and BMI 26.3 (19.4-31.2) kg/m2. The most common indication for PN was an Ileus/obstruction (36.4%), followed by PO/EN intolerance (25%), short gut/malabsorption/ECF (13.6%), GI surgery preventing EN (11.4%), inability to obtain GI access (6.8%), and other (6.8%). Three patients were admitted with chronic PN dependence. Duration of NPO prior to PN initiation in 27 patients was 3 (1-4) days and duration of inadequate EN was 4 (2-5) days in seven patients. For the remaining seven patients, PN was initiated after 6 (0-14) days of inability to tolerate PO. The median duration of PN therapy was 7 (5-13.75) days, excluding three patients who discharged on PN.

Conclusion: PN utilization at this facility is consistent with published best practices for timing of therapeutic initiation, indication, and duration of therapy.