

Category :**Nutritional support**

**A276 - Evaluating the parenteral nutrition team service at a major tertiary-teaching hospital**

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**Introduction:**

Patients that receive parenteral nutrition (PN) are at higher risk of infections, metabolic and liver derangement and having an effective interdisciplinary parenteral nutrition team (PNT) is crucial to optimal nutrition care for this vulnerable population group. This research was undertaken in a 430-bed university-affiliated metropolitan public hospital with 25,000 overnight (and 55,000 day-case) admissions per annum, and the Millenium™ electronic medical records system. This PNT consists of an Intensive Care Unit (ICU) nurse liaison, an intensivist and a surgical dietician.

**Methods:**

Patient data were interrogated from day one until day seven of PN therapy. Process measures included reasons for PN initiation, PN delivery data, and reasons for cessation or changes of PN.

**Results:**

During the one-month study period 20 records were audited and 19 patients met the indications for PN initiation. Mean age was 66± years and 55% were male and 89% had serious comorbidities. Median PN duration was 5 days and 86 total PN bed-days.

79% were receiving antibiotic treatment for acute infection on Day-1. Mild hepatic dysfunction was observed in 59% with GGT>71mmol/L; 46% with ALP>110mmol/L; 23% with ALT>40mmol/L.

Caloric requirements were estimated at 30- 35 kcal/kg/day and 90% met recommended daily energy requirements from PN alone.

Electrolyte disorders included hypokalaemia in 9%, 9% with hyponatremia 6.5% episodes of hypernatraemia. Outcome of fluid overload throughout the audit is lacking as fluid balance for 45% of participants were not measured.

**Conclusion:**

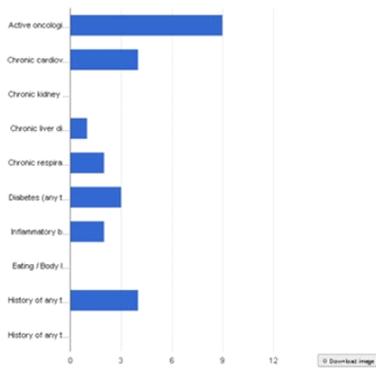
This audit highlights that blood glucose management, triglyceride checking and strict fluid balances are required for PN patients. The parenteral nutrition team displayed consistent commencement practices but strategies are needed to minimise metabolic complications arising from PN administration. The results of this study has been shared with PNT team with ongoing strategic plans to improve the PN service at this centre.

**Image :**

**Co-morbidities Present** (comorbidity) [Refresh Plot](#)

Total Count (N)	Missing*	Unique
17	2 (11.8%)	7

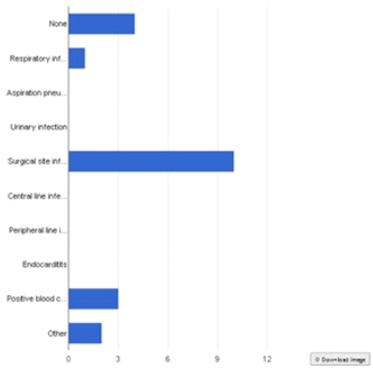
Counts/Frequency: Active oncological process (3, 52.9%), Chronic cardiovascular disease e.g. heart failure (4, 23.5%), Chronic kidney disease (0, 0.0%), Chronic liver disease e.g. cirrhosis (1, 5.9%), Chronic respiratory disease e.g. COPD (2, 11.8%), Diabetes (any type) (1, 17.6%), Inflammatory bowel disease (2, 11.8%), Eating / Body Image Disorder (0, 0.0%), History of any type of gastrointestinal surgery (4, 23.5%), History of any type of bariatric surgery (0, 0.0%)



**New hospital-acquired infection present?** (hosp\_acquired\_inpat\_0day1) [Refresh Plot](#)

Total Count (N)	Missing*	Unique
20	0 (0.0%)	5

Counts/Frequency: None (4, 20.0%), Respiratory infection (pneumonia) (1, 5.0%), Aspiration pneumonia (0, 0.0%), Urinary infection (0, 0.0%), Surgical site infection (10, 50.0%), Central line infection (0, 0.0%), Peripheral line infection (0, 0.0%), Endocarditis (0, 0.0%), Positive blood culture (3, 15.0%), Other (2, 10.0%)



**New hospital-acquired infection present?** (hosp\_acquired\_inpat\_0day1\_0) [Refresh Plot](#)

Total Count (N)	Missing*	Unique
12	8 (66.7%)	5

Counts/Frequency: None (3, 25.0%), Respiratory infection (pneumonia) (1, 8.3%), Aspiration pneumonia (0, 0.0%), Urinary infection (0, 0.0%), Surgical site infection (4, 33.3%), Central line infection (0, 0.0%), Peripheral line infection (0, 0.0%), Endocarditis (0, 0.0%), Positive blood culture (3, 25.0%), Other (1, 8.3%)

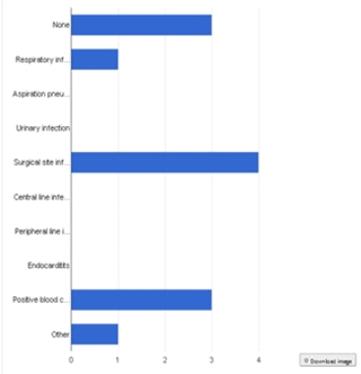


Figure 1