

N079 An update: National survey of canadian nutrition support practices. M. K. Jain, MD, FACS, FRCSC; D. K. Heyland, MD, MSc, FACPC; A. Day, MSc; R. Dhaliwal, BSc; J. Drover, MD, FRCSC, FACS; Queen's University, Kingston, ON, Canada.

Background: Nutrition support influences morbidity and mortality in critically ill patients. There is however, variability in how nutrition support is practiced. The purpose of this project was to provide an update on nutrition support practices in the critical care setting at sites across Canada. This would provide a comparison to the evidence-based Canadian Clinical Practice Guidelines, illuminating deficiencies and highlighting areas that are congruent.

Method: We conducted a prospective, observational study in 59 ICU's in Canada. In May of 2003, each ICU's nutrition support practice was recorded on a consecutive cohort of mechanically ventilated patients in their ICU that stayed for a minimum of 72 hours. The sites enrolled an average of 10.8 (range 4-18) patients for a total of 638 patients and 6819 patient days. The median age was 65 (15-94), and the most common admission diagnosis was medical (52%). The median length of stay in ICU was 15.4 days. Adequacy of EN was defined as the percent of prescribed calories that patients actually received.

Results: Of 638 patients, 68.3% received EN only, 10.0% received parenteral nutrition only, 15.4% received both and 6.3% received no form of nutrition support. Of those receiving EN, on average, sites administered 43.0% (range 1.8% to 76.6%) of total calories prescribed of all days on enteral feeds. Forty-one out of 59 sites reported (69.5%) the use of a feeding protocol. The location of the feeding tube was reported to be gastric in 86.2% of patients and post-pyloric in 13.8% of patients. Motility agents were used 37.8% of the time. Of the 24.9 % of patients who had high gastric residual volumes and hence had feeds interrupted, 77% were on motility agents, 16% had small bowel feeding tubes, and 14% had both. Average head of bed elevation was 30.6 degrees. The median time to initiation of EN was 1.6 days and the median time to initiation of PN was 2.3 days. The mortality rate was 25.4%.

Conclusions: A significant number of critically ill patients did not receive any form of nutrition support for the study period. Those that did receive nutrition support did not meet their prescribed energy needs. Significant opportunities to improve nutrition support practices with critically ill patient exist, when compared to the clinical practice guidelines.