

Prevalence and duration of reasons for enteral nutrition feeding interruption in a tertiary intensive care unit

ABSTRACT

Objectives: Intensive care unit (ICU) enteral nutrition (EN) can involve frequent feeding interruption (FI). The prevalence, causes, and duration of such interruption were investigated. **Methods:** Reasons for EN FI identified from extensive literature review were prospectively collected in adult mechanically ventilated critically ill patients. Results were reported by descriptive statistics. Baseline and nutritional characteristics between patients who died and those alive at day 60 were compared. **Results:** A total of 148 patients receiving ≥ 1 day of EN for the full 12-day observational period were included in the analysis. About 332 episodes of EN FI were recorded and contributed to 12.8% (4190 hours) of the total 1367 evaluable nutrition days. For each patient, FI occurred for a median of 3 days and the total duration of FI for the entire ICU stay was 24.5 hours. Median energy and protein deficits per patient due to FI for the entire ICU stay were -1780.23 kcal and -100.58 g, respectively. Duration of FI, days with FI, and the amount of energy and protein deficits due to FI were not different between patients who had died and those who were still alive at day 60 (all $P > 0.05$). About 72% of the total duration of EN FI was due to procedural-related and potentially avoidable causes (primarily human factors), while only about 20% was due to feeding intolerances. **Conclusions:** EN FI occurred primarily due to human factors, which may be minimized by adherence to an evidence-based feeding protocol as determined by a nutrition support team.

Keyword: Critical illness; Energy deficit; Enteral nutrition; Feeding interruption; Feeding practice; Protein deficit