

Iatrogenic Underfeeding in the Neuroscience ICU: A QI Study

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Introduction

Iatrogenic underfeeding during a patients' ICU stay has been studied and well-documented[2][3].

Evidence supports starting enteral nutrition (EN) within 24-48 hours[1][2].

The objective of this quality improvement study was to review current nutrition practices of patients started on enteral nutrition in the Neuroscience ICU (NSICU).

We aimed to determine if our enteral feeding practice met current guidelines in the NSICU.

Methods

We completed a retrospective review of all patient's admitted to the NSICU from February-April 2018 who were appropriate for enteral nutrition. Patients were included if they received enteral nutrition for > 4 days. Patients excluded were those who tolerated by mouth by day 4, and any patient with abdominal pathology requiring NPO status. Data collection included demographic, medical diagnosis, caloric density, EN product and daily calorie goal recommended by dietician. Primary endpoint was defined as starting enteral nutrition within 24-48 hrs per society recommendations. Secondary outcomes 1) describe daily caloric intake as a percent of calorie goal and 2) describe the relationship between met feeding goals, patients demographics, and diagnoses.

Results

A total of 47 patients were included in our analysis.

Collectively, no patients were fed on hospital day one and 2(4%) patients received nutrition on day two.

Most patients were fed by hospital day 4(68%).

22 patients (47%) received > 65% of recommended calorie goal by hospital day 5.

Female patients and those receiving higher calorie feeds were most likely to reach caloric goal by day 4.

Figure 1: Total number of patients fed per day between February and April 2018

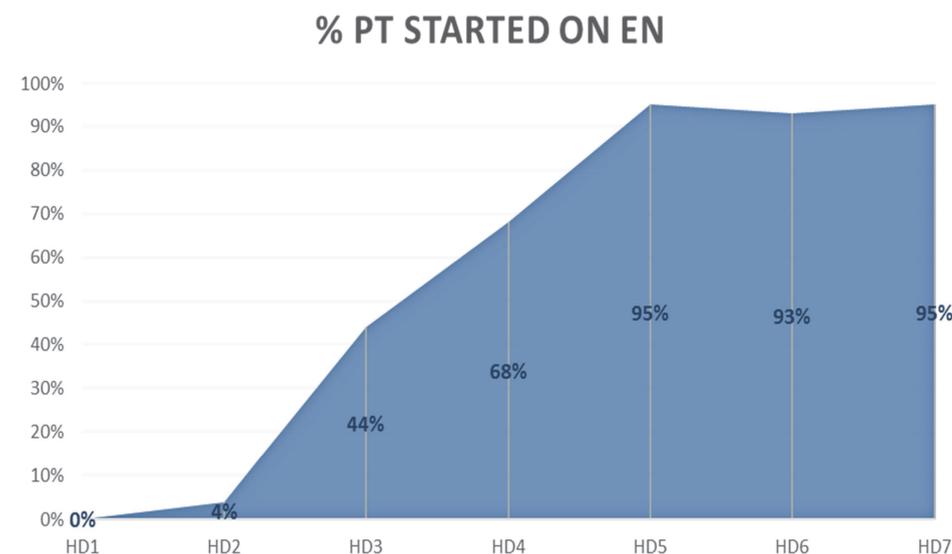
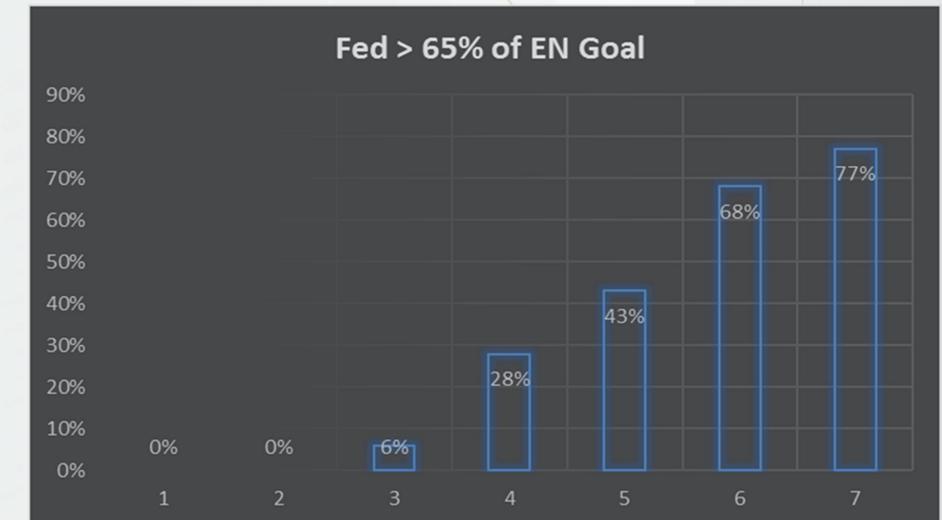


Figure 2: Total number of patients fed > 65% of recommended allowance per day between February and April 2018



Conclusions

Based on listed findings, most patients remain NPO status until hospital day 4, and less than half reach calorie goal by hospital day 5. The gap between guidelines and current practice, as well as future work will aim to identify hurdles for appropriate nutritional delivery.

Selected References

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