

A Proactive Feeding Regimen on Meeting Caloric Goals with Continuous Enteral Nutrition Support: A Quality Improvement Project

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Significance Statement

Iatrogenic underfeeding associated with disruptions to enteral nutrition support (EN) is a risk factor for malnutrition, impaired wound healing, weakened immune response, and increased risk of infections. Patients with burn injuries can rapidly accumulate calorie deficits due to heightened metabolic demands. The purpose of this QI project is to improve the provision of calories via continuous EN by using a proactive feeding regimen with rates calculated based on 23 hours per day.

Conclusion

Proactively calculating continuous enteral nutrition (EN) support rates based on 23 hours per day yielded improved provision of calories compared to rates based on 24 hours per day.

Data Source and Results

- 134 admissions to the burn PICU were included in the analysis through retrospective chart review.
- Inclusion criteria: continuous EN for >3 days
- Exclusion criteria: periods on parenteral nutrition, periods EN was prescribed in a non-continuous fashion
- QI Goal: To meet at least 85% of calorie estimation with continuous EN.
- Pre-protocol: 52% of admissions met the goal.
- Post-protocol: 75% of admissions met the goal.

Lessons Learned

- This conservative and easy to implement method could effectively guide clinicians on how to reduce calorie deficits preemptively with continuous EN.
- Additional studies are needed to assess whether a proactive feeding regimen is associated with improved clinical outcomes.

Disclosures

The author of this presentation has nothing to disclose.

Demographics

Pre-Protocol Post-Protocol

Jan 2017-Nov 2017 Sept 2019-July 2019

	Pre-Protocol	Post-Protocol
Number of Admissions	73	59
Burn Size (% TBSA), mean	40.9 (SD 18.8)	49.4 (SD 19.8)
Age (years), mean	8.6 (SD 5.9)	7.9 (SD 5.4)
Hours of EN per day, mean	20 (SD 2.2)	21 (SD 2.7)
Days of EN, mean	23.1 (SD 23.9)	23.1 (SD 22.1)

Percentage of Admissions that Met Goal of 85% Calorie Estimation

