

# ASPEN Recommendations for Enteral Nutrition in PICU Patients vs. Current Practices at a 315-Bed Children's Hospital

Ava Scarpato, Dietetic Intern<sup>1</sup>, Sharon Strohm, RD, LDN<sup>2</sup>, Cindy Miller, RD, LDN<sup>2</sup>, Britney Beatrice, MS, RDN, LDN<sup>3</sup>

## BACKGROUND

- Research shows that early initiation of enteral nutrition (EN) in pediatric patients may lead to improved clinical outcomes
- Maximizing positive nutrition support outcomes requires a standardized, systematic plan of care that is population-specific
- The American Society for Parenteral and Enteral Nutrition (ASPEN) recommends delivery of at least  $\frac{2}{3}$  of patient's prescribed daily energy requirements by the their seventh day in the Pediatric Intensive Care Unit (PICU)<sup>1-6</sup>

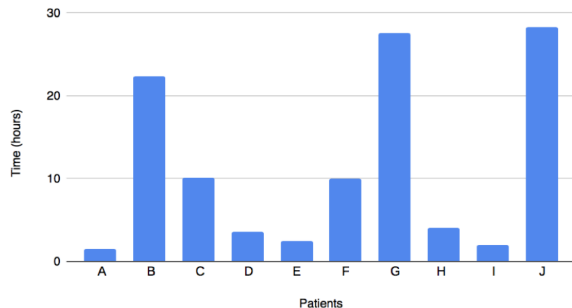
## METHODS & DESIGN

- Data on PICU patients receiving EN (N=10) were collected over three weeks
  - Screened as eligible for Quality Improvement (QI) Project
- Data collected from the electronic medical record and verbal interviews were compared to ASPEN recommendations for initiating EN in the PICU
  - Adherence to ASPEN guidelines was indicated using percentile scores
- No intervention was provided

Contact Information of Author: [Avascarpato@gmail.com](mailto:Avascarpato@gmail.com)

## RESULTS

Time it Took to Achieve 2/3 of Energy Needs



- 100% of patients were administered at least 67% of their needs via EN within the recommended time set by ASPEN
- 80% of patients were administered at least 100% of their protein and calorie needs within the recommended time set by ASPEN
  - 60% of patients were administered greater than 100% of their protein needs within the recommended time set by ASPEN
  - 40% of patients were administered greater than 100% of their calorie needs within the recommended time set by ASPEN
- On average, it took 11.2 hours to provide 67% of nutrient needs

## OBJECTIVES

- To identify whether current practices in the PICU at a 315-bed children's hospital met ASPEN recommendations

## DISCUSSION

- The clinical setting poses unexpected complications that may inhibit the adherence to standard guidelines
  - While ASPEN recommendations were met at this hospital, these results cannot be generalized to all PICU settings
- While this QI study focused on meeting caloric needs, it is important to also evaluate whether protein and fluid needs are being met, as well
- This QI Project provided clarity on the feasibility of achieving ASPEN guidelines for EN

## CONCLUSION

- Achieving  $\frac{2}{3}$  of estimated needs has shown improved outcomes in PICU patients.
- Guidelines set for the initiation and administration of EN promotes safe and effective feeding
- Future research should aim to determine other facilities' adherence to ASPEN protocols for EN in the PICU.

### Affiliations

- 1.
- 2.
- 3.

Dietitian Nutritionist Program, School of Health and Rehabilitation Science  
University of Pittsburgh Children's Hospital of Pittsburgh  
School of Health and Rehabilitation Sciences, University of Pittsburgh