The purpose of this continuous quality improvement project was to explore the extent to which such disruptions compromised delivery of nutrition formula, and therefore, adequate calories and nutrients.

METHODS

- Charts of patients being enterally fed on the medical intensive care unit of a major university hospital from the end of February through March 2012 were considered for review.
- Convenience sample, n=20; 5 charts were excluded as patient on unit or tube fed < 1 day

RESULTS

- Data collected an average of 5.1 days per patient, range of 2 to 7 days
- Admitting diagnoses varied widely, i.e. pneumonia, sepsis, acute renal failure, and esophageal cancer
- Types of tubes: NG tubes (n=9); OG tubes (n=5); unknown (n=1)
- Formulas delivered: Osmolite (n=1); Jevity 1.2 (n=2); Glucerna 1.2 (n=3); Vital 1.5 (n=4); and Nepro 1.8 (n=5)
- Residuals
  - Average times residuals checked per day = 3.4 ± 1.6
  - Daily average residual volume by patients =14 ± 17 ml (median = 7 ml); highest daily average for a patient of 92.5 ml + 55 ml
  - Average times feedings held per day = 1.2 ± 1 time; with average duration of a hold = 5.2 ± 3.0 hours
  - Reasons for holding feedings: pressure support trials (n= 7 times); tests (n=7 times); high residuals (n=3 times); vomiting (n=1 time); extubation (n=1 time); unknown reason (n=1 time)
- Difference between calories ordered and calories delivered (- day one) averaged 561 kcal/day ± 353.2, 40.8% fewer calories delivered

CONCLUSION

The following practical applications should be considered when implementing enteral feedings:
1) writing enteral feeding orders to be delivered over 18 to 20 hour cycles;
2) including directions for catch-up feeding to ensure volume of feeding ordered is delivered each day, with maximum infusion rate specified; and
3) consider feeding through pressure support trials.

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