

## 1522246 - Feeding Outcomes Associated With Initial Gastric Versus Small-Bowel Enteral Access in Critically Ill Surgery Patients

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**Background:** The importance of early enteral nutrition (EN) in critical illness is well recognized. The superiority of gastric or small bowel enteral access in the surgical intensive care unit (SICU) remains controversial. The objective of this quality improvement study is to review the feeding outcomes of gastric and small bowel enteral access to determine adherence to nationally accepted standards of practice.

**Methods:** The registered dietitian completed early enteral access surveys for all mechanically ventilated patients admitted to the SICU from July 2011 - June 2012 who were appropriate for early EN and did not require parenteral nutrition support. A retrospective analysis of the following data was completed for a 12 month period: time in which enteral access was obtained, type of enteral access, and time until caloric goal was achieved after feeding initiation.

**Results:** 128 patients were included in the analysis. Appropriate enteral access was achieved within 48 hours of admission to the SICU for 125 of 128 (97%) patients surveyed. Of the 128 patients surveyed, 97 (76%) patients received initial feeding tube placement in the stomach, and 31 (24%) patients received initial feeding tube placement in the small bowel. Of the 128 patients surveyed, 78 (61%) initial feeding tubes were placed blindly at bedside, 45 (35%) initial feeding tubes were placed in the operating room, and 5 (4%) initial feeding tubes were placed in interventional radiology. 37 (29%) initial feeding tubes were nasogastric (NG)/orogastric (OG) tubes, and 84 (66%) initial feeding tubes were small-bore nasoenteric feeding tubes. 7 (5%) patients were fed via initial long-term feeding tubes. Of the 97 tubes initially placed in the

stomach, 11 (11%) required repositioning into the small bowel. 9 of the 11 (82%) tubes requiring repositioning were successfully advanced at bedside. 2 of 11 (18%) tubes requiring repositioning were advanced in interventional radiology. Overall, 123 of 128 (96%) patients met caloric goal within 72 hours of feeding initiation. Of the 97 patients initially fed into the stomach, 92 (95%) achieved caloric goal within 72 hours of feeding initiation. Of the 31 patients initially fed into the small bowel, 31 (100%) achieved caloric goal within 72 hours of feeding initiation.

**Conclusion:** Both gastric and small bowel enteral access facilitate early EN in critically ill surgery patients. Patients fed via small-bowel feeding tubes may advance to caloric goal faster than patients with gastric feeding access. More research is needed to determine the relationship between initial feeding access, caloric delivery, and nutrition-related outcomes in critically ill patients.