Small Bowel Obstruction: Facilitating Diagnosis and Optimizing Resuscitation and Management
Quinton Campbell, MD; Ryan Bateman, MD; Alex Mercado, DO; James Cirone, DO; Robin Naples, MD
Thomas Jefferson University Hospital - Department of Emergency Medicine

Objective

- Standardize practice patterns and improve consistency in procedure documentation in ED management of Small Bowel Obstruction (SBO)
- Significant practice variability exists among ED providers for SBO management, specifically in regard to utilization of diagnostic imaging as well as rates of NG tube (NGT) placement and subsequent documentation
- Data review performed by our group demonstrated that of all NG tubes placed, only 61% were documented
- Wide range of practice patterns for diagnostic imaging (see graphics in Results)

Results

- SBO diagnosed by CT (60)
  - 18 also had Obstruction Series XR (OSR), 60% negative for SBO
  - 29.6% CTs ordered with PO and IV contrast
  - PO contrast shown to increase aspiration risk, decrease sensitivity
  - Average LOS was 46 minutes longer when PO contrast used

- Only 61% pre-intervention NGT placements were documented with procedure note

Discussion

Post intervention:
- Only 4/31 cases of SBO presenting to ED afterward had OSR ordered
  - 3 / 4 were positive for SBO
- Of patients who had CT performed, only 3 / 30 had PO contrast included in their study
  - Patients who had CT without PO contrast had average reduced time to admission of 14 minutes
- For NGT placed by providers who received intervention, 100% of procedures were documented.
  - 88% of NGT placed in data review were placed by providers who did not receive intervention, only 6/15 of those NGT placements were documented with procedure note

Limitations:
- Small sample size post-intervention
- COVID pandemic: changes to ED operations may have had impact on LOS, decision to place NGT, diagnostic imaging choice
- Social distancing limited non-ED providers from receiving intervention

Next Steps

- Continued data review
- Additional education intervention, consider including surgery residents
- Development of EPIC “Best Practices” advisory to promote documentation of NGT