Reducing Hospitalization, Emergency Room Visits for Gastrostomy Tube Patients through Resident and Patient Education

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Background

- Surgical Gastrostomy and PEG tubes are frequently placed in patients with a variety of disease processes throughout the Ochsner LSU Health System, a hybrid academic-privatized hospital
- In our hospital, between 1/1/23 and 12/31/24, 837 hospital and emergency room visits were identified for gastrostomy tube complications, many of which were minor complications such as gastrostomy site bleeding, gastrostomy leaking, surgical site infection, or dislodgement.
- Complications and hospital stays secondary to PEG and Surgical Gastrostomy tubes cost $913-1200 per emergency room visit, and upwards of $130 million annually due to complications

Objective

- Emergency Medicine, Internal Medicine, and Family Medicine providers are often who first triage gastrostomy tube problems
- Due to lack of knowledge and discomfort in providing proper G-tube care, our team created a presentation to educate members of our hospital community about gastrostomy tube care as well as provided resources for physicians and patients. These resources were used to screen patients for G-tube problems in the clinic setting and at home.
- By increasing education to primary care providers, the goal is to increase how comfortable providers are in caring for patients with gastrostomy tubes and provide early interventions for G-tube patients before they require an emergency room visit or hospitalization

Sources

Rosenberger LH, Newhook T, Schirmer B, Sawyer RG. Late accidental dislodgement of a percutaneous endoscopic gastrostomy tube: anunderestimated burden on patients and the health care system. Surg Endosc. 2011 Oct;25(10):3307-11. doi: 10.1007/s00464-011-1709-y.Epub 2011 May 2. PMID: 21533968; PMCID: PMC3281762.

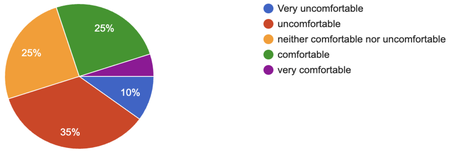
Sealock, R.J, Munot, K. Common Gastrostomy Feeding Tube Complications and Troubleshooting, Clinical Gastroenterology andHepatology Dec 2018, Volume 16, Issue 12, 1864 - 1869

Methods

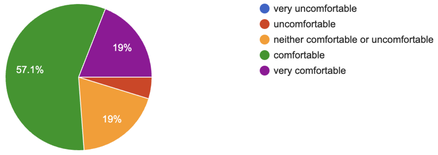
- ICD10 codes identified from 1/1/23 to 12/31/24 for hospital and Emergency room visits
- Presentation given to non-surgical departments during resident/faculty education time on how to:
  - Manage simple complications
  - Determine when a patient requires outpatient vs emergent surgical evaluation
- Brief pre- and post-test surveys were provided to residents and faculty in Family Medicine, Emergency medicine, EM/FM, Internal Medicine, among other physician groups
- Physicians were provided a gastrostomy tube checklist to give patients with gastrostomy tubes for home care
- ICD10 codes were then taken from 9/1/25 to 2/15/26 to compare annualize rate of visits after presentation and educational information provided to residents/faculty

Results

Pre- and Post- Test Survey of Residents



How comfortable do you feel evaluating a patient with a gastrostomy tube and creating an appropriate plan of care for them?



Results Continued

ICD 10 Codes	Total for 1/1/23 to 12/31/24	Annual Average 1/1/23 to 1/31/24	Annualized Data 9/1/25 to 2/15/26
K31.6 - Fistula of stomach and duodenum	35	18	14
K94.20 - Gastrostomy complication unspecified	20	10	12
K94.21 - Gastrostomy hemorrhage	10	5	8
K94.22 - Gastrostomy infection	16	8	18
K94.23 - Gastrostomy malfunction	286	143	112
K94.29 - Other complications of gastrostomy	35	18	8
K94.22 and L03.319 Cellulitis of trunk	47	24	20
K94.22 and L08.9 Local infection skin and soft tissue	1,173	587	520
T85.528A - Displacement of other gastrointestinal prosthetic devices implants and grafts initial encounter	52	26	30
Total	**1,674**	**837**	**742**

Conclusions

- Comparing recent annualized data and prior annual averages for complications, many have a decrease in number of complications, including in gastrostomy tube malfunction which was reduced by 21%
- Many residents felt significantly more comfortable after receiving this presentation, and requested other surgical topics be discussed
- Although this data is over a brief period of time, it shows promising results that continued education about gastrostomies will help reduce complications in our hospital system

Future Aims

- Continued annual gastrostomy tube lectures to Hospital Medicine, Family Medicine, Emergency Medicine colleagues
- Expand Gastrostomy tube education to Pediatrics department
- Create a standardized pre-op, intra-op, and post-op plan of care guideline for the Departments of Surgery, Critical Care, and Gastroenterology for Gastrostomy tube placement