Unnecessary Surgery: Rates of PEG Use at Discharge

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INTRODUCTION

Background

- Percutaneous endoscopic gastrostomy tube is a frequently performed operation
- Estimated up to 40% all complication rate ranging from superficial SSI to dislodgement and peritonitis
- Wide range of pathologies necessitate need for durable feeding access
- We hypothesized many patients were not using their PEG tube at discharge and there would be a difference in this rate by service team

Knowledge Gap

- PEG tubes are a commonly performed procedure with frequent and sometimes devastating complications; there are no studies evaluating their use at discharge based on service team.

METHODS

- Retrospective cohort study at tertiary care center
- 971 included patients all with Pull technique PEG tube placement
- Primary outcome was PEG use at discharge
- Patient characteristics including service team, days from admission to discharge, days from PEG placement to discharge
- Univariate analysis and Classification and Regression Tree analysis used to assess factors associated with PEG disuse

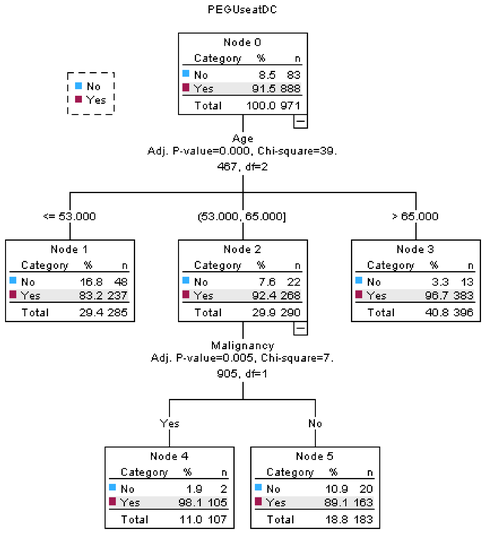
RESULTS

- Average age was 59.6 +/- 16 years
- Service teams included: ENT (24%), Trauma Surgery (10%), Neurosurgery (26%), Neurology (31%), and Other (9%)
- Cohort comorbidities: malignancy (28%), AMS (67%), Diabetes mellitus (28%), and current smoker (21%)
- Median time to PEG placement was 10 (IQR 4-16) days
- Median time to Discharge from PEG placement: 11(IQR 5-21) days
- PEG tubes were being used in 91% of patients at discharge
- Significant difference noticed in number of PEGs not used at discharge by service team: ENT: 3.6%, Trauma: 28.9%, Neurosurgery: 28.9%, Neurology: 24.1%, and other: 14.5% (p<0.001)
- 17 patients had tube dislodgement that were not using their PEG at discharge. 47% of them required operative revision.

Days from PEG to Discharge by Service

	Not Using PEG at D/C	Using PEG at D/C	p-Value
ENT	6 (5-6)	10 (5 -16)	0.969
Trauma	35 (13 – 60)	15 (6 – 33)	0.004
Neurosurgery	25 (17 – 35)	14 (7 – 22)	<0.001
Neurology	18 (7 – 28)	8 (4 – 15)	<0.001
Other	21 (10 – 33)	12 (5 – 19)	0.018

CART Analysis: Factors Associated with PEG Use at Discharge



DISCUSSION

- PEG placement is not a benign procedure as it has a high complication rate ranging from SSI to dislodgement and tube feed peritonitis.
- Evaluating which patients may progress without need for PEG tube at discharge can reduce unnecessary placement and complications.
- The Trauma, Neurosurgery, and other (IM, ortho, FM) services had the highest rates of non-use at discharge.
- Patients with longer hospitalizations following PEG tube placement were more likely to not need it at discharge
- Utilizing nasogastric tube for durable access and continued SLP evaluation prior to discharge can reduce rates of unnecessary procedures.

CONCLUSION

- High rate of PEG non-use at discharge suggests that a more considerate selection process be undertaken to mitigate risks of post-operative complications
- Further multicenter studies should be performed to see if these results are reproducible across multiple institutions