

THIRTY-DAY READMISSION RATE FOR SEPTUGENARIANS AND OCTAGENARIANS UNDERGOING LAPAROSCOPIC FOREGUT SURGERY

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Background

Thirty day all cause readmission rates are the metric most commonly used to quantify readmissions. Administrative databases and clinical reviews have rarely agreed upon readmission rates for most disease processes. More importantly, few database studies have accurately defined the cause for readmission in a manner that allows for predictive modeling and preventative measures for readmissions. Here we retrospectively review septugenarians and octagenarians who have undergone laparoscopic foregut surgery to determine a 30-day readmission rate as well as obtain data on patients readmitted with hopes of developing future predictive models for readmission and strategies to prevent readmissions.

Methods

This is a retrospective single institution review of elderly patients (70-89) who underwent laparoscopic foregut surgery between 2012-2018 and were readmitted within 30 days of discharge from surgery. Endpoints include age, sex, preoperative comorbidities, procedure, performed, length of operation, in-patient complications, length of stay, reason for readmission, and death within 30 days of discharge.

References

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Results

- One-hundred and nineteen patients 70-89 who underwent laparoscopic foregut surgery
- Eleven were readmitted within 30 days of discharge (9.2%)
- Average age of readmitted patients was 76.6 ± 2.9 years
- Six readmitted patients were female, 5 were male
- All 11 readmissions endorsed poor po intake, and nausea. 5/11 endorsed vomiting. 3/11 endorsed dysphagia. 3/11 endorsed abdominal pain. Other less common complaints included subjective fevers/chills (2) abdominal distension (1), diarrhea (1), and dysuria (1)
- Average operative time was 162.5 ± 65.2 minutes
- Average postoperative length of stay was 3.8 ± 1.2 days
- Time from discharge to readmission was 8.0 ± 5.3 days
- Average length of stay following readmission was 9 ± 12.8 days
- Eight of the 11 patients had a readmission LOS ≤ 3 days; others were 42 (pneumonia), 28 (esophageal perforation), 11 (UTI) days
- There were no deaths within 30 days of discharge

Table 1

Age	Procedure	Comorbidities	Length of Surgery (min.)	Length of Stay (days)	Time to Readmission (days)	Reason for readmission
73	Lap PEHR, Toupet	COPD, Pulmonary fibrosis	150	4	3	Abdominal Distension, Nausea, po intolerance
73	Lap PEHR, Toupet	COPD, CAD	210	7	13	Diarrhea, Nausea, po intolerance
75	Lap PEHR (Redo), Dor	CAD, HTN, HLD, Diabetes	180	4	6	Abdominal pain, Nausea, Fatigue, po intolerance
72	Lap PEHR, Nissen	HTN	105	2	13	Nausea, po intolerance
79	Lap PEHR, Toupet	CAD, HTN	120	2	17	Abdominal Pain, Nausea, Constipation, po intolerance
79	Lap PEHR (Redo), Toupet	Arthritis, Anemia	240	5	13	po intolerance, Nausea
79	Lap PEHR, Nissen	HTN, depression, anxiety	90	2	2	Dysphagia, Nausea, po intolerance
78	Lap PEHR, Nissen	CAD, HTN, BPH	120	4	8	Fatigue, Nausea, po intolerance
81	Lap PEHR, Nissen	A-fib, HTN, Diabetes	110	4	1	Dysphagia, Nausea, po intolerance
75	Lap PEHR, Toupet	HTN	300	2	9	Abdominal pain, Nausea, po intolerance, Fatigue
79	Lap PEHR, Toupet	COPD, Pulm fibrosis, HTN	130	3	3	Urinary tract infection, Nausea, po intolerance

Lap=Laparoscopic, PEHR=paraesophageal hernia repair, CAD=coronary artery disease, HTN=hypertension, HLD=Hyperlipidemia, BPH=benign prostate hypertrophy, A-fib=atrial fibrillation

Discussion

- Large scale database studies have demonstrated higher rates of morbidity and mortality in elderly patients undergoing surgery⁽¹⁻³⁾
- Currently there is a paucity of information regarding 30-day readmission rates for laparoscopic forget surgery in the elderly.
- Previous large-scale database studies have demonstrated increased morbidity⁽⁴⁻⁵⁾ and mortality⁽⁶⁾ with regards to elderly patients undergoing benign foregut surgery compared to non-elderly.
- Reported 30-day readmission rates for abdominal laparoscopic procedures very is widely.
- Going forward, we hope to compare many of the aforementioned endpoints (age, LOS, comorbidities, etc...) in patients who were not readmitted with those who were readmitted within 30 days of discharge. We believe this may provide insight as to modifiable and non-modifiable risk factors for early readmission in the elderly.