90 Day Readmissions and Emergency Room Visits Following Bariatric Surgery

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Background

- Hospital readmissions following bariatric surgery are well-recognized sources of morbidity and cost.
- Previous literature largely focuses on readmissions rather than Emergency Department visits (EDV). Furthermore, existing data primarily examines 30-day outcomes, rather than long-term outcomes.
- To overcome these deficiencies, we aimed to analyze all healthcare encounters (readmissions and EDV) following bariatric surgery patients up to the 90-day mark.

Study Population & Methods

- Adult patients undergoing bariatric surgery were identified using the Maryland State Inpatient and State Ambulatory Surgery and Services Databases between 2016-2017.
- Encounters were grouped by post-operative days (POD; <2 days, 3-7 days, 8-30 days, and 31-90 days).
- Primary (admitting) diagnosis for each patient were collected and a regression model was used to determine predictors of EDV/readmissions.

Results

- Out of 7454 patients who underwent bariatric surgery, 503 (5.3%) presented to the ED and 304 (3.2%) were re-admitted within 90 days.

Figure 1. Etiology of ED visits between 0-90 days

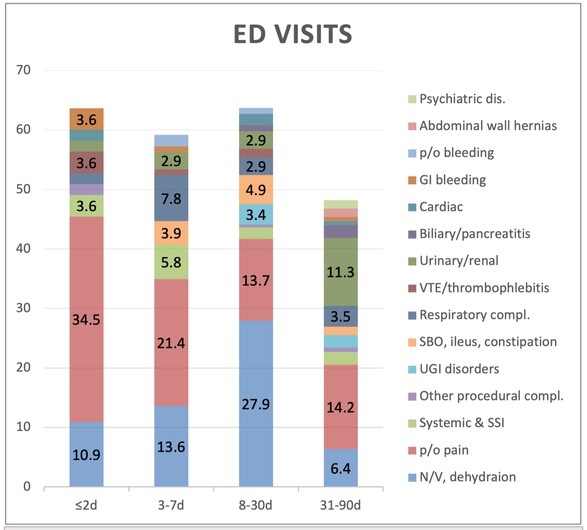
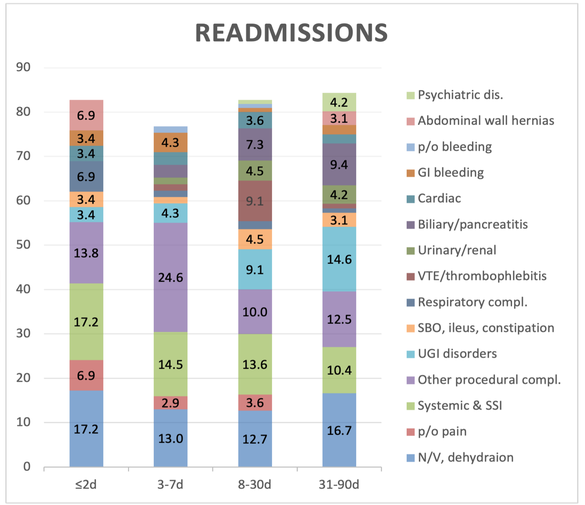


Figure 2: Etiology of Readmissions between 0-90 days



Results

- The most frequent reason for EDV during POD 0-2, 3-7, and 31-90 was post-operative pain (34.5%, 21.4%,14.2% respectively).
- During POD 8-30, PO intolerance and dehydration was the most common reason for EDV (27.9%).

- Most frequent reasons for re-admissions were PO intolerance and dehydration (17.2%, 13%, 12.7% and 16.7% on POD 0–2, 3–7, 8–30, and 31-90 respectively), followed by systemic and surgical site infections (17.2%, 14.5%, 13.6%, and 0% on POD 0–2, 3–7, 8–30, and 31-90 respectively.)
- Procedural complications (24.6%) were the most frequent cause of readmissions during POD 3-7.

- Patients with 90-day EDV/readmissions were less likely to be white (54.9% vs 48.5%), have private insurance (77.4% vs 63.1%), and be married (50.6% vs 46.1%; all $p<0.05$).

Conclusions

- A substantial fraction of bariatric patients have unplanned post-operative healthcare encounters.
- Potentially preventable causes, such as pain or poor oral intake, constitute a large proportion of such encounters. Socioeconomic and racial disparities likely pay important role and could be addressed by patient education, setting realistic expectations, and easier access to healthcare facilities.
- Multimodal pain regimens and closes nutritional monitoring may be helpful in decreasing unplanned encounters.