RATES AND FACTORS ASSOCIATED WITH PREVENTABLE EMERGENCY DEPARTMENT UTILIZATION FOLLOWING PRIMARY ELECTIVE BARIATRIC SURGERY: AN MBSAQIP ANALYSIS

V. Mocanu MD PhD[1], J. Barajas-Gamboa MD[2], M. Wills MD[1], T. Shin MD PhD[3] , A. Strong MD[1], S. Navarrete MD[1], M. Allemang MD, R. Corcelles MD PhD[1], J. Rodriguez MD[2], M. Kroh MD[1], J. Dang MD PhD[1]

[1]Cleveland Clinic Lerner College of Medicine of Case Western Reserve University, OH [2]Cleveland Clinic Abu Dhabi, Abu Dhabi, UAE, [3]University of Virginia, Charlottesville, VA

BACKGROUND AND OBJECTIVES

- **Preventable emergency department (PED)** visits following elective bariatric surgery are defined as emergency room presentations which are not a result of major complications and do not require readmission, reoperation or reintervention.
- We aimed to characterize the prevalence and underlying predictors of PEDs in primary bariatric surgery patients using the MBSAQIP database.

METHODS

- **Inclusion:** The MBSAQIP registry identified all patients who underwent elective primary sleeve gastrectomy and Roux-en-Y gastric bypass from 2020 to 2022.
- **Variables:** PED utilization was captured using the *ed_vstnm* variable and defined a priori by ED visits due to modifiable factors including abdominal pain, nausea or emesis, dehydration, and musculoskeletal pain. Major complications were **excluded**.
- **Primary outcomes** were to identify rates and characteristics of PED. **Secondary outcomes** included identifying independent predictors of PED.

RESULTS

- A total of 491,493 patients were identified of which 18,078 (3.7%) experienced PED presentations due to pain (58%) and nausea/vomiting (42%) **(Table 1)**
- PED rates increased from 26.0% in 2020 to 39.6% in 2022.
- Patients with a PED visit were younger, had increased body mass index, more likely to be female and to receive RYGB and had a lower metabolic disease burden.
- **Independent predictors** of PED presentations included female sex (OR 2.0, 95% CI 1.79 – 2.24; p< 0.0001), RYGB (OR 1.79; 95% CI 1.65-1.93; p<0.0001), and black racial status (OR 1.50; 95% CI 1.39 – 1.62; p <0.0001)

COHORT SUMMARY

Table I. Baseline demographics and procedural data of PED and non-PED cohorts

	PED N = 18,078	Non-PED N = 473,415	*P*-Value
Age (years)	40.0 ± 11.1	43.2 ± 11.7	<0.0001
Female sex (%)	90.2	81.7	<0.0001
BMI (kg/m^2)	45.7±7.7	45.0 ± 7.6	<0.0001
RYGB (%)	25.7	37.3	<0.0001
Comorbidities			
Insulin-dependent DM (%)	22.4	30.1	<0.0001
Hypertension (%)	41.4	44.4	<0.0001
Dyslipidemia (%)	18.8	22.2	<0.0001

CONCLUSIONS

- PED utilization following primary bariatric surgery occurs in almost 5% of all patients and has increased by 50% over the last three years due to pain and poor tolerance of oral intake.
- Independent predictors of PED included female sex, black racial status and RYGB procedures while albumin and increasing age were found to be protective.
- Strategies to address these factors to prevent unnecessary emergency department utilization and improve bariatric delivery costs should be implemented.

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