Safety and Feasibility of Destination Care for Bariatric Surgery – A Single Institution Retrospective Study

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Introduction

Increasing emphasis on value-based healthcare has prompted both employers and healthcare organizations to develop innovative strategies to supply high quality care to patients.

Destination surgery is one such alternative that seeks to connect patients with high value surgery programs that may be located hundreds of miles away.

Our health system, the largest hospital system in the state of Delaware, designed a destination bariatric program that incorporates our entire multidisciplinary team, leverages virtual care, and partners directly with employers. We sought to investigate comparative outcomes for the first 100 patients who completed the destination bariatric program.

We hypothesized that there would be no difference in patient outcomes or complications between destination and local patient groups undergoing sleeve gastrectomy (SG) or Roux-en-Y gastric bypass (RYGB).

Methods

A retrospective cohort analysis of patients undergoing bariatric surgery at a MBSAQIP-accredited bariatric surgery center between May 2019 and October 2021 was conducted. Patients were divided into destination or local patient groups based on participation in the established destination surgery program.

Patient demographics, perioperative clinical outcomes, and complications were compared and statistically analyzed using Chi-square tests, Fisher's Exact tests, and univariate logistics regression.

Comparison of 30-Day Outcomes Between Destination vs Local Patients

Outcome	*Odds Ratio with 95% CI*	*p-value*
ED Admission	1.59 (0.65, 3.89)	0.3053
Hospital Readmission	0.92 (0.27, 3.16)	0.8927
Re-intervention Endoscopy	1.68 (0.10, 27.47)	0.7144
Re-intervention Related to Surgery	1.31 (0.16, 10.55)	0.8012
Re-intervention Surgery	0.95 (0.04, 23.07)	0.9741
Readmission to Hospital Related to Bariatric Surgery	1.51 (0.63, 3.64)	0.3584
Readmission to Hospital Unrelated to Bariatric Surgery	1.38 (0.36, 5.30)	0.6368
Unplanned Re-intervention Related to Bariatric Surgery	0.65 (0.16, 2.55)	0.5338
Unplanned Re-intervention Unrelated to Bariatric Surgery	4.51 (0.17, 118.82)	0.3671

Comparison of Complications Between Destination vs Local Patients

Complication	*Odds Ratio with 95% CI*	*p-value*
Abdominal Pain	0.25 (0.01, 4.94)	0.3607
Acute Renal Failure	0.36 (0.02, 7.93)	0.5203
Bleeding	0.49 (0.09, 2.77)	0.4213
Chest Pain/Shortness of Breath	0.59 (0.04, 8.46)	0.7002
Complications Related to Bariatric Surgery	1.36 (0.60, 3.06)	0.4635
Leak	3.71 (0.13, 107.34)	0.4455
Nausea/Vomiting, Dehydration, or Fluid, Electrolyte or Nutritional Depletion	3.30 (0.98, 11.13)	0.0542
Postoperative Infection	3.71 (0.13, 107.34)	0.4455
Urinary Tract infection	0.97 (0.04, 21.26)	0.9842

Results

This study identified 296 patients, which consisted of destination (n=110) and local (n=186) patient cohorts.

Patients in the destination group had higher rates of diabetes mellitus (29.1% vs 24.2%, p=0.029), but otherwise cohorts had similar basic demographics and comorbidities.

Outcomes revealed no significant difference in ED admission (p=0.3053), hospital readmission (p=0.8927), surgical reintervention (p=0.9741), endoscopic reintervention (p=0.7144), or patient complications between the destination and local patient groups in the postoperative period (30 days).

Conclusions

Participation in destination care programs for bariatric surgery was found to be both safe and feasible. These destination programs represent an opportunity to provide a broader patient population access to complex surgical care.

Acknowledgements

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