Yale University School of Medicine

INFLUENCE OF BARRETT'S ESOPHAGUS ON METABOLIC AND BARIATRIC SURGERY SELECTION AND OUTCOMES

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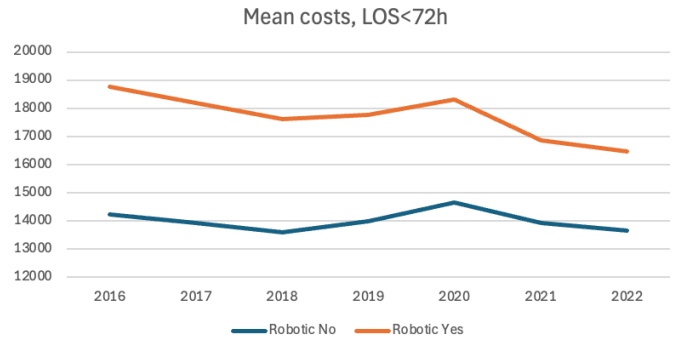
Background

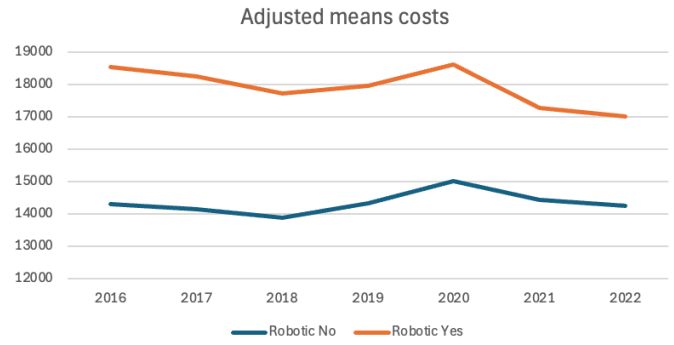
- Metabolic and bariatric surgery (MBS) is the most effective long-term treatment for obesity.
- Robotic-assisted MBS has gained popularity due to its reported advantages in visualization, precision, and surgeon ergonomics.
- However, its higher costs remain a barrier to widespread adoption.
- This study aimed to quantify the cost differences between robotic-assisted and conventional laparoscopic bariatric surgery.

Methods

- Patients with a primary diagnosis of obesity undergoing sleeve gastrectomy (SG) or Roux-en-Y gastric bypass (RYGB) were identified using the Nationwide Inpatient Sample from 2016 to 2022.
- Robotic-assisted and laparoscopic cases were extracted, and trends in utilization and hospitalization costs were analyzed over time.

Figures





Discussion

- Robotic-assisted surgery is associated with consistently higher costs compared with laparoscopy despite declining expenditures across both approaches.
- The increasing adoption of robotic platform highlights the need to balance financial impact with potential, but as yet unproven, clinical benefits.
- Notably, there was no significant difference in length of stay between the two approaches.

Conclusion

- While hospitalization costs for both laparoscopic and robotic-assisted MBS decreased over time, robotic-assisted procedures remained substantially more expensive without differences in length of stay.
- Further studies are needed to evaluate whether the added costs are justified by long-term clinical or operational advantages.