

Analysis of the Financial Implications of Patient Outcomes Following Robotic Distal Pancreatectomy and Splenectomy

Vincent Butano, M.D.; Sharona B. Ross, M.D.; Iswanto Sucandy, M.D.; Amy Doan; Kaitlyn L. Crespo, B.S.; Cameron C. Syblis, B.S.; Alexander S. Rosemurgy, M.D.

Introduction and Methods

- Readmission following distal pancreatectomy and splenectomy is a risk to long term outcomes
- There is a lack of literature addressing the financial implications of readmissions following robotic pancreatectomy and splenectomy
- This study was undertaken to address the concerns of readmissions and the monetary implications of robotic distal pancreatectomy and splenectomy procedures
- We prospectively followed all patients undergoing robotic distal pancreatectomy and splenectomy at our institution, from 2013 until 2022.

Preoperative Variables	Readmitted	Not Readmitted	p-value
Number of Patients	20	117	137
Age (years)	67 (66±10.3)	67 (62±14.7)	p=0.25
Sex (M/W)	9W/11M	61W/56M	p=0.63
BMI (kg/m ²)	30 (30±7.0)	28 (28±5.7)	p=0.16
Previous Abdominal Operations (n)	9 (45%)	37 (32%)	p=0.31
ASA	3 (3±0.5)	3 (3±0.6)	p=1.00
Cost	Readmitted	Not Readmitted	p-value
Total Cost (\$)	29,095 (33,280±20,227.38)	24,663 (25,136±10,786.45)	p=0.008
Variable Cost (\$)	16,343 (19,418±12,592.36)	15,018 (15,124±6,229.70)	p=0.02
Fixed Direct Cost (\$)	2,527 (2,772±1468.94)	2,040 (2,289±1,138.53)	p=0.10
Fixed Indirect Cost (\$)	8,049 (10,134±6,429.32)	7,223 (7,662±4,192.43)	p=0.03

Conclusions

- Causes of readmission included lack of patient education, biliary or pancreatic leak, infection, pneumonia, fistula, return to the operating room, and other reasons not related to the index operation
- Across all financial variables analyzed, the cost for patients who were readmitted was significantly higher than the cost for patients who were not readmitted following robotic distal pancreatectomy and splenectomy
- The key to reducing readmissions, based on our analysis, is to implement effective proactive practices such as careful consideration before patient readmittance and increased patient education initiatives for patients undergoing a robotic distal pancreatectomy and splenectomy

