GROWTH OF ROBOTICS IN ACUTE CARE SURGERY AT AN ACADEMIC LEVEL 1 CENTER

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Background

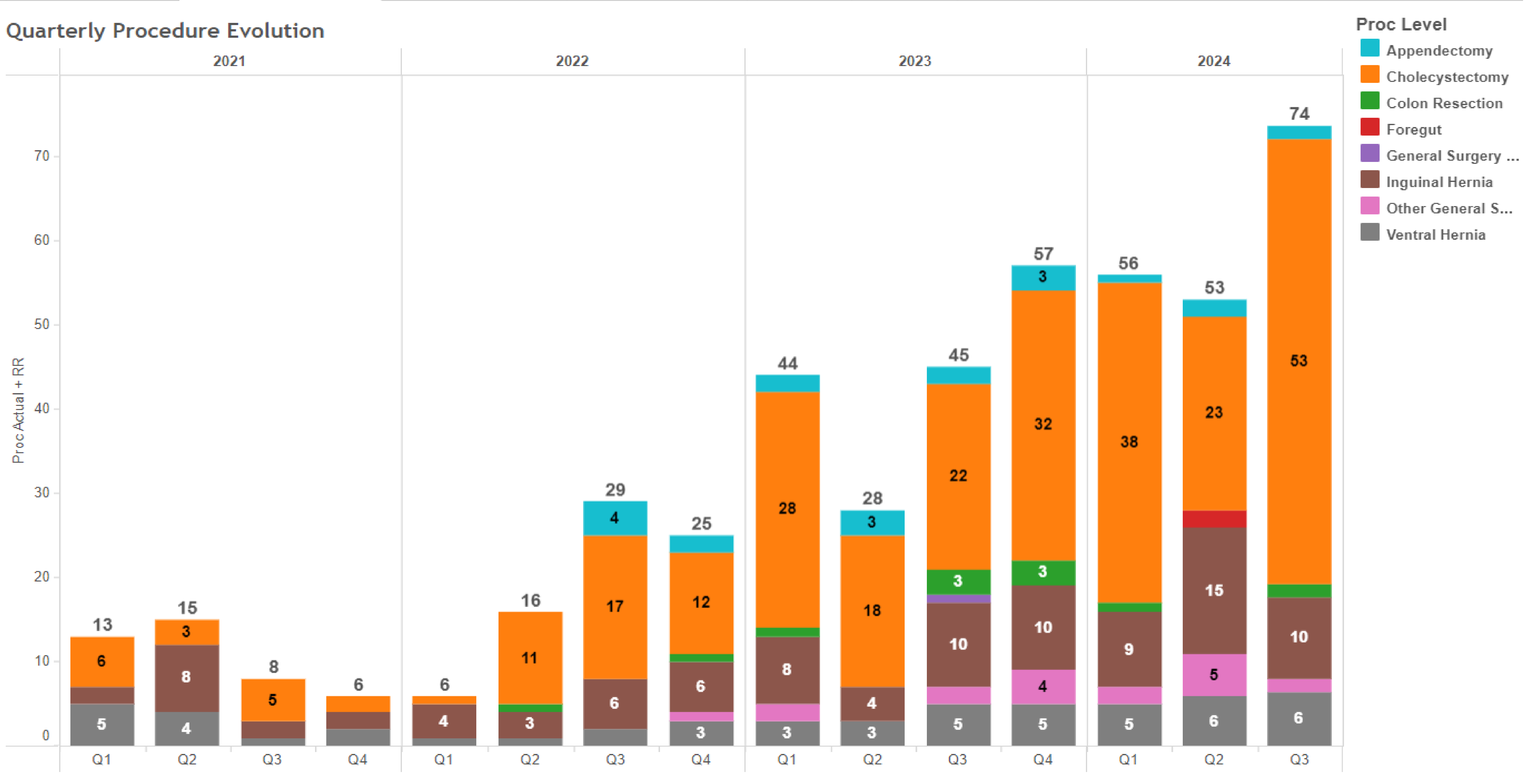
- Robotic surgery is well established in the elective setting and is gaining popularity in acute care surgery
- There are no established guidelines on which patients should undergo robotic surgery in the emergent setting

Methods

Single-institution retrospective study of all Robotic surgery cases was performed. All robotic cases performed by an acute care surgeon were included over a 30 month period – January 2022 to July 2024.

Results

- There was a consistent increase in the utilization of robotic surgery in the emergent setting.
- A total of 359 cases were completed.
- The most frequently performed operation was robotic cholecystectomy (n= 207)
- followed by robotic inguinal hernia repair (n = 75).



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Discussion

At our institution, availability of the robot and trained staff have remained the greatest barrier to utilization of robotic surgery. The implementation of our institution's 24/7 robotic program has been followed by an increase in utilization. The increased robot availability, and staff comfort in the emergent setting as well as off peak hours are the likely reason for this increase.

Robotic cholecystectomy is most common procedure performed in the emergent setting at our institution. This is likely multifactorial. High incidence of biliary pathology and surgeon comfort with robotic procedure may contribute to the predominance of robotic cholecystectomy. A better understanding of robotics outcomes may help develop better national recommendations for robot utilization in the emergent setting.

Conclusion

Robotic surgery is a tool that should be used by acute care surgeons in the emergent setting. More work is needed to determine it's benefit in specific situations. As robotic utilization in acute care surgery continues to grow, outcomes data and experience should steer future guidelines and applications in this area. Availability of the robot and trained staff remain a barrier to utilization of the robot.

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