Equal Access for Acute Care Surgery:

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Introduction:

The acute care surgery (ACS) population reflects a unique group of patients with remarkably increased surgical risk. Despite enormous growth in robotic technology, integration into ACS lags considerably. Limited robotic access is a common challenge for ACS surgeons looking to utilize this technology. This study highlights our experiences with a structured ACS service before and after dedicated robot access was obtained.

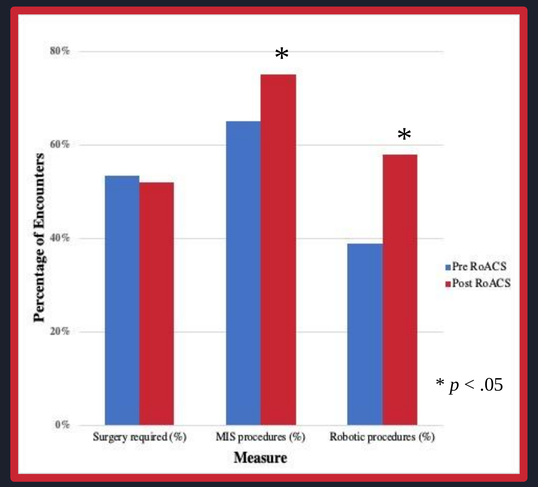
Methods:

Our hospital, a 406-bed, not-for-profit rural institution, recently experienced exponential growth leading to development of a structured ACS service in early 2023. Efforts to ensure equal access resulted in acquisition of a dedicated ACS robot in January 2024. Data from April-November 2023 (Pre RoACS: 8 months prior to dedicated robotic access) was compared to data from January-August 2024 (Post RoACS: 8 months following dedicated robotic access). Comparisons were made using a chi-square test and illustrated in the figure and table.

Results:

Data pre and post dedicated robotic access reflect similar consulting patterns. Of the surgical consults, 53% required surgical intervention before dedicated robotic access, versus 52% after, and the most commonly performed procedures remained cholecystectomy and appendectomy. Of the consults requiring surgical intervention, 38.8% were completed using robotic technology before dedicated access was established compared to 58.0% of patients after access was obtained. The overall use of a minimally invasive approach increased from 64.9% to 75.0%.

ACS procedures before and after dedicated robot:



Measure	Pre	Post
Surgery consults	1260	1584
Consults requiring surgical intervention	673 (53.4%)	823 (52.0%)
Procedures via MIS technique	437 (64.9%)	617 (75.0%)
Procedures via robotic technology	261 (38.8%)	477 (58.0%)
Appendectomies	95 (14.1%)	157 (19.1%)
Cholecystectomies	182 (27.0%)	294 (35.7%)

Conclusions:

Acute care surgeons treat some of the highest acuity patients with unpredictable timing. Limited access to robotic technology has restricted its use among this high-risk patient population. At our institution, acquiring dedicated robotic technology for the ACS team has expanded our ability to provide minimally invasive interventions. After obtaining the ACS technology, over 200 more robotic cases were performed on patients with acute surgical complaints. This patient population deserves a dedicated robotic option to ensure equal access to optimal treatment.

