What are the Incisional hernia trends? Real World Data Over 9 years from the ACHQC Database

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No Disclosures
Incisional hernias

22792

Incisional hernia pts

01/2014 to April 2023

ACHQC pts
• Open (O) – 13654
• Lap (L) – 2982
• Robotic (R) – 5798
Demographics

- F = M slightly female predominance
- Most of them are 60 years or older
- Smoking rate 10%
- Class II and III BMI cases – 30%
- Common co-morbidities – HTN, DM, COPD
- Recurrent hernia repairs 40%
Hernia Characteristics

• Common hernia location M2, M3 and M4
• Hernia length (median cm) - O (15) > R (8) > L (5)
• Hernia width (median cm) – O (10) > R (5) > L (4)
• Hernia grade
  – 1 – no difference
  – 2 – R > L > O
  – 3 – O > R > L
Operative characteristics

- OR time O > R > L
- Myofascial release
Mesh Position

- Onlay
- Inlay
- Retromuscular
- Preperitoneal
- Intraperitoneal

Mesh position
- Common - Sublay
- Lap – IPUM
- Open and Robotic – retromuscular
Mesh Characteristics

Mesh Type

- Biologic
- Resorbable Synthetic
- Permanent Synthetic

2013-2015

2016-2018

2019-2022
• Fascial closure technique
  – Absorbable suture and Running

• Decreasing trend of Mesh fixation
  – Adhesives ↑
  – Tacks ↓

• Drain usage 50%
Outcomes

• LOS (days): R (1) = L (1) < O (4)

• Bowel Injury
  – Open 3.7%
  – Lap 1%
  – Robotic 0.7%

• Concomitant procedures
  – Hernia R>L>O
  – GI tract O>R>L
  – Plastics O>R>L

Length of stay

Montefiore
Outcomes

Surgery Year
Number of CompSep

approach
Open
Lap
Robotic

Surgery Year
2013 Q1
2013 Q3
2014 Q1
2014 Q3
2015 Q1
2015 Q3
2016 Q1
2016 Q3
2017 Q1
2017 Q3
2018 Q1
2018 Q3
2019 Q1
2019 Q3
2020 Q1
2020 Q3
2021 Q1
2021 Q3
2022 Q1
2022 Q3

Montefiore
Albert Einstein College of Medicine
SSI rate over time for different procedures:

- **Lap:** Laparoscopic procedures
- **Open:** Open procedures
- **Robotic:** Robotic procedures

The graph shows the SSI rate from 2014 Q1 to 2022 Q1, with a decline in SSI rates over time for all procedures.
SSO and SSOPI

key  Lap  Open  Robotic

Year (Qtr)  

SSO rate

SSOPI rate

Montefiore
Recurrence and Readmission rate

![Recurrence rate graph](image1.png)

![Readmission rate graph](image2.png)
Conclusions

• Open repair is still the go-to approach
• Robotics are here to stay
• Fascial closures 👍🏼
• Preferred mesh - Permanent synthetic
• Common approach – Retromuscular and IPUM
• Decreased complications with MIS approach
  – SSI
  – SSQPI
  – Readmission
• Length of Stay ↓
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