Body Mass Index Criteria and Procedural Selection for Abdominal Wall Surgery: Survey of Surgeon Preferences.

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Introduction

- Higher BMI is a known risk factor for morbidity following repair of abdominal wall hernias[1, 2]
- Variation exists among surgeons with respect to BMI restrictions for elective procedures
- Given the limited efficacy of non-surgical weight loss interventions and lack of standardized BMI cut-offs for ventral/incisional hernia repair, it is critical to understand which factors are being used in practice for patient selection

Aim

Our aim was to evaluate surgeons' preferences regarding BMI cut-offs and other patient factors utilized as patient selection criteria for elective hernia repair.

Methods

- An anonymous, electronic survey of practicing general surgeons (n=282) was administered via Qualtrics
- Surgeons responded to 20 multiple-choice items concerning respondent demographics, practice environment, patient selection criteria for abdominal wall surgery, and operative approach preferences
- The primary outcome was BMI restriction by procedure
- Secondary outcomes included use of component separation, mesh placement, and operative approach by hernia size
- Stata v17 was used to perform descriptive analysis

Results

Table 1. Respondent Demographics and Practice Environment (n=282)	
Completed fellowship training	205 (72.70%)
Time in practice	
- 0-3 years	39 (14.83%)
- 4-6 years	43 (15.97%)
- 7-10 years	44 (16.73%)
- > 10 years	138 (52.47%)
Sex	
- Male	230 (81.56%)
- Female	52 (18.44%)
Practice setting	
- Academic practice	96 (36.50%)
- Health system (employed)	86 (32.70%)
- Private Practice	81 (28.7%)

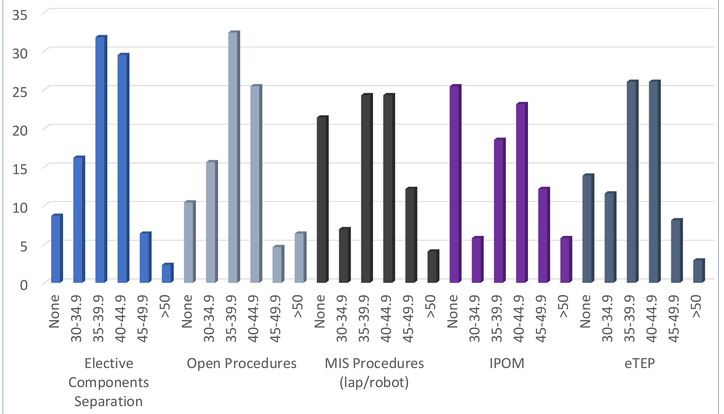


Figure 1. Contraindications to Abdominal Wall Surgery (Percent of Surgeons Reporting BMI Cut-Off by Procedure Type)

Note: IPOM = Intra-peritoneal underlay mesh repair; eTEP = laparoscopic extended total extraperitoneal repairs

Results

Table 2. Operative Approach by Hernia Size		
Preferred Approach	Defect size 5-10 cm	Defect size over 10 cm
Open	**15.61%**	**49.13%**
Lap IPOM	5.78%	3.47%
Lap IPOM Plus	16.76%	2.89%
Laparoscopic (Total)	**21.4%**	**6.36%**
Robotic IPOM	2.89%	0.58%
Robotic IPOM Plus	7.51%	2.31%
Robotic TAPP	13.87%	0%
Robotic TAR	4.62%	24.86%
Robotic eTEP +/- TAR	32.95%	16.76%
Robotic (Total)	**61.85%**	**44.51%**

- Uncontrolled diabetes (31.27%), Smoking (28.29%), and Steroids (9.36%) were also named as common contraindications to performing components separation
- 28.3% of surgeons report robotic repairs comprise a majority of their practice
- 66% routinely perform component separation; 93.6% use synthetic mesh

Conclusions

- A majority of surgeons implement a BMI restriction as part of patient selection for elective repairs of abdominal wall hernias
- In practice, substantial variation exists with respect to BMI cut-offs
- Open surgery continues to have high utilization for large defect sizes

References

1. Giordano SA, Garvey PB, Baumann DP, Liu J, Butler CE. The Impact of Body Mass Index on Abdominal Wall Reconstruction Outcomes: A Comparative Study. Plast Reconstr Surg. 2017 May;139(5):1234-1244. doi: 10.1097/PRS.0000000000003264. PMID: 28445378; PMCID: PMC5407296.
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