Listing practices for Morbidly Obese Patients at Liver Transplant Centers in the United States

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INTRODUCTION

- Obesity affects more than one third of Americans.
- Morbid obesity (body mass index (BMI) >35 kg/m2) has been associated with multiple co-morbidities and perioperative complications.
- The effect of morbid obesity on liver transplant outcomes has yielded mixed results.

AIM

To determine listing practices for morbidly obese patients at United States (U.S.) liver transplant centers.

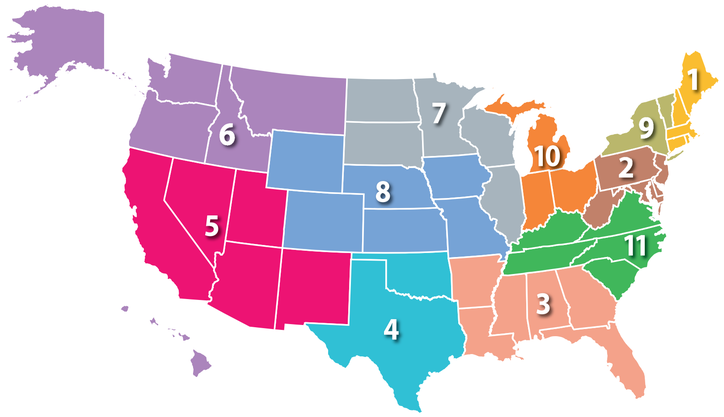
METHODS

A 19 item survey was created to assess liver transplant evaluation and listing practices for morbidly obese patients. All U.S. adult liver transplant medical and surgical directors were contacted by email with a cover letter describing the study and an internet link to the SurveyMonkey® website. A few questions had a free-text section which allowed for comment. Five follow-up emails were sent to encourage participation.

RESULTS

- A total of 187 surveys were emailed with responses received from 46 physicians (24.7% response rate).
- The responding cohort consisted of 29 (63%) medical directors and 17 (37%) surgical directors, including respondents from all United Network Organ Sharing (UNOS) regions, though regions 4 and 6 had the fewest respondents (n=2). (Table 1 and Figure 1)
- A policy on evaluation and listing of obese patients was present at 70.5% of institutions with the majority (54.5%) reporting their BMI cut off for transplant was 40 but a range of 35 to unlimited was noted. (Figure 2)
- The majority (61.4%) of respondents agreed that there has been an increase in the number of obese patients they have listed for liver transplant
- 75% of respondents' reported that patients with high BMI were less likely to be evaluated for transplantation.
- 65.9% of respondents reported experiencing an increased complication rate, with the most frequently cited complications being poor wound healing and increased infection rates. (Figure 3)
- 34.1% reported they had experienced worse survival rates with obese patients.

Figure 1: Regional Map with Number of Respondents from each Region



Transplant Center Location	Number of Respondents (% of total)
Region 1	4 (8.7%)
Region 2	6 (13.0%)
Region 3	5 (10.9%)
Region 4	1 (2.2%)
Region 5	5 (10.9%)
Region 6	1 (2.2%)
Region 7	4 (8.7%)
Region 8	5 (10.9%)
Region 9	4 (8.7%)
Region 10	6 (13.0%)
Region 11	5 (10.9%)

Table 1: Characteristics of Respondents from U.S. Liver Transplant Programs

Responders Characteristics	% of Responses
Gender	
Men	87%
Academic Role	
Medical Transplant Director	63%
Surgical Transplant Director	37%
Type of Transplant Program	
University-Affiliated Medical Center	78.2%
Number of Transplant Performed Yearly	
<25	17.3%
25-50	21.7%
50-75	15.2%
75-100	19.5%
>100	26.0%

Figure 2: What is the upper limit of BMI allowed for liver transplant listing at your institution?

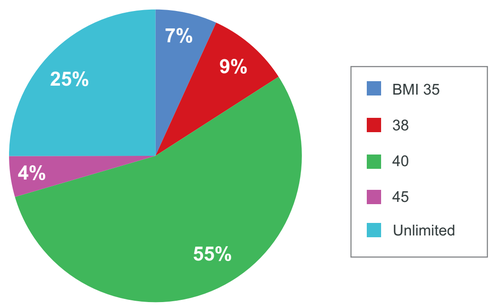
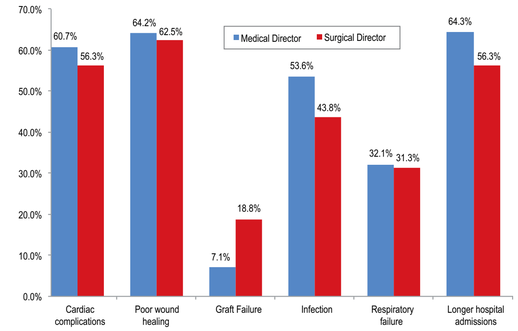


Figure 3: For what reason do you exclude obese patients for liver transplant listing?



CONCLUSIONS

The majority of medical and surgical liver transplant directors have a strong appreciation of the possible morbidity risks associated with morbidly obese patients post-transplant and have policies in effect to minimize these risks. This is of specific concern due to the need to provide more high quality and cost effective transplant care in the current healthcare climate. More data examining morbidly obese cirrhotic patient outcomes perioperatively, stratified by other co-morbidities, is needed.

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None of the authors have any relevant disclosures to report