

MP19-11: The role of BMI on Hospital Readmission after Minimally-invasive Radical Prostatectomy

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BMI and Readmission

- Objective

- Utilizing the National Surgical Quality Improvement Program Database (NSQIP), we sought to determine the relationship of BMI and readmission after Robot-assisted Laparoscopic Prostatectomy (RALP).

- Methods

- Center for Disease Control (CDC) classified obesity in a three-tiered manner based on Body Mass Index (BMI): I (30-34.9), II (34-39.9) and III (>40).
- Data for surgery years 2007-2017 were downloaded from the NSQIP website and all records with Current Procedural Terminology (CPT) code 55866 (laparoscopic prostatectomy) were selected for inclusion.
- Association between BMI class and year of surgery was assessed using chi-square tests. Association between BMI (as a continuous measure) and readmission within 30 days was examined using logistic regression.

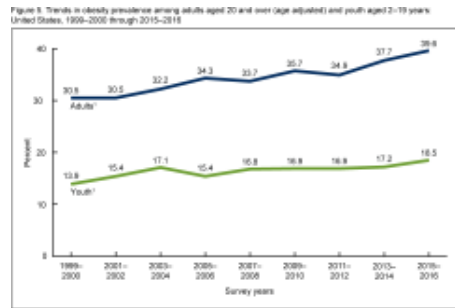
- Results

- A total of 49,238 patients over 10 years (2007-2017) were included in the final analysis.
- Mean BMI for all years ranged from 28.5 to 29.2.
- From 2007 to 2017 the proportion of patients with BMI ≥ 30 kg/m² who underwent RALP increased from 32% in 2007 to 38% (P <0.0001).
- Risk of hospital readmission also increased as BMI increased (OR 1.16 per standard deviation increase in BMI; 95% CI 1.11 - 1.21; P<0.0001).
- Increasing severity of BMI (Class I, II and III) corresponded to an increase in the odds ratio for readmission (Table).

- Conclusion

- Over a span of 10 years, an increasing number of patients undergoing RALP have a BMI > 30.
- Increasing number of patients with a greater degree of obesity (Class II and III) was found.
- Patients who are obese have a higher risk of hospital readmission and urologists are increasingly operating on more obese patients.

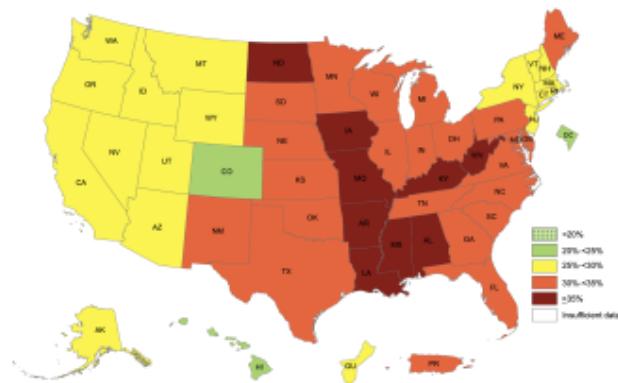
Results



Trends in obesity amongst adults and youth.

Effect	Estimate	95% Confidence Limits	
Class I vs. BMI <30	1.112	1.045	1.184
Class II vs. BMI <30	1.257	1.142	1.384
Class III vs. BMI <30	1.731	1.486	2.015

Odds ratios for readmission based on CDC obesity class.



Percentage of obesity by state.