

Sociodemographic Bias in Pediatric Adenotonsillectomy Patients by Surgery Location

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INTRODUCTION

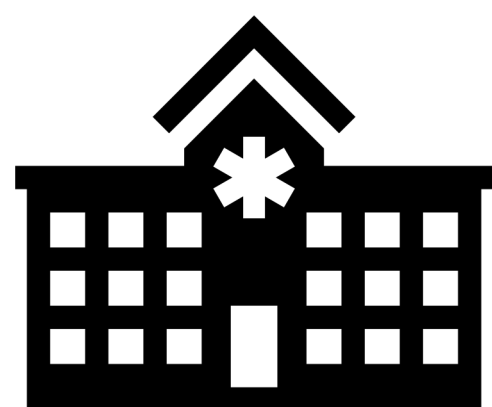
- Adenotonsillectomies (T&As) are increasingly being performed in the outpatient setting, including both hospital-based facilities (HBFs) and ambulatory surgery centers (ASCs).¹
- The safety and efficiency of T&As in the outpatient setting has been proven, however comparison between HBFs and ASCs is limited.²⁻⁶
- Another knowledge gap is whether disparities exist in the baseline characteristics of pediatric T&A patients cared for in ASCs vs HBFs.⁷⁻¹⁰

Aim: To evaluate the safety, efficiency, and equity of pediatric T&As completed at ASCs versus a HBF for pediatric patients.

HYPOTHESIS

- **Primary hypothesis:** For pediatric T&As, ASCs are safer and more efficient than a HBF as measured by complication rates, length of procedure, anesthesia time, and time in the OR.
- **Secondary hypothesis:** For pediatric T&As, patients treated at ASCs reside in wealthier neighborhoods than those treated at HBFs as measured by median household income.

METHODS



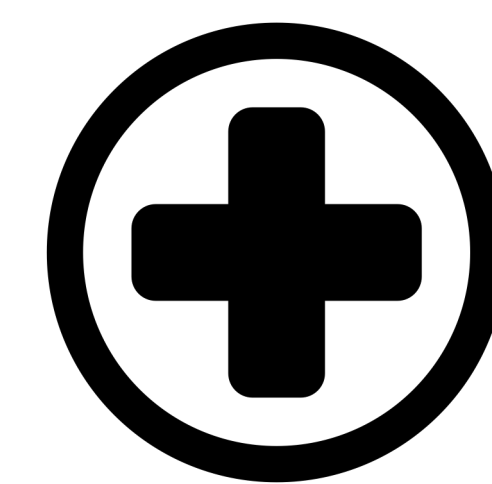
POPULATION:

- Pediatric patients (<18 years of age)
- Undergoing outpatient T&As at a hospital-based facility and 2 ambulatory surgery centers
- January – July 2020



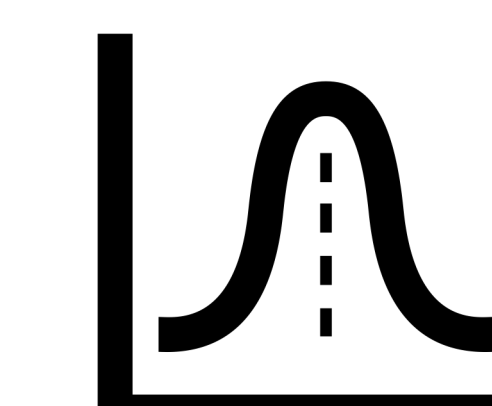
EXPOSURE:

- Location of surgery:
- Hospital-based facility (HBF)
 - Ambulatory Surgery Center (ASC)



OUTCOMES:

- Safety and efficiency:
- Complication rates
 - Length of procedure
 - Anesthesia time
 - Time in the OR
- Sociodemographic measures:
- Median household income
 - Race
 - Ethnicity



STATISTICAL ANALYSIS:

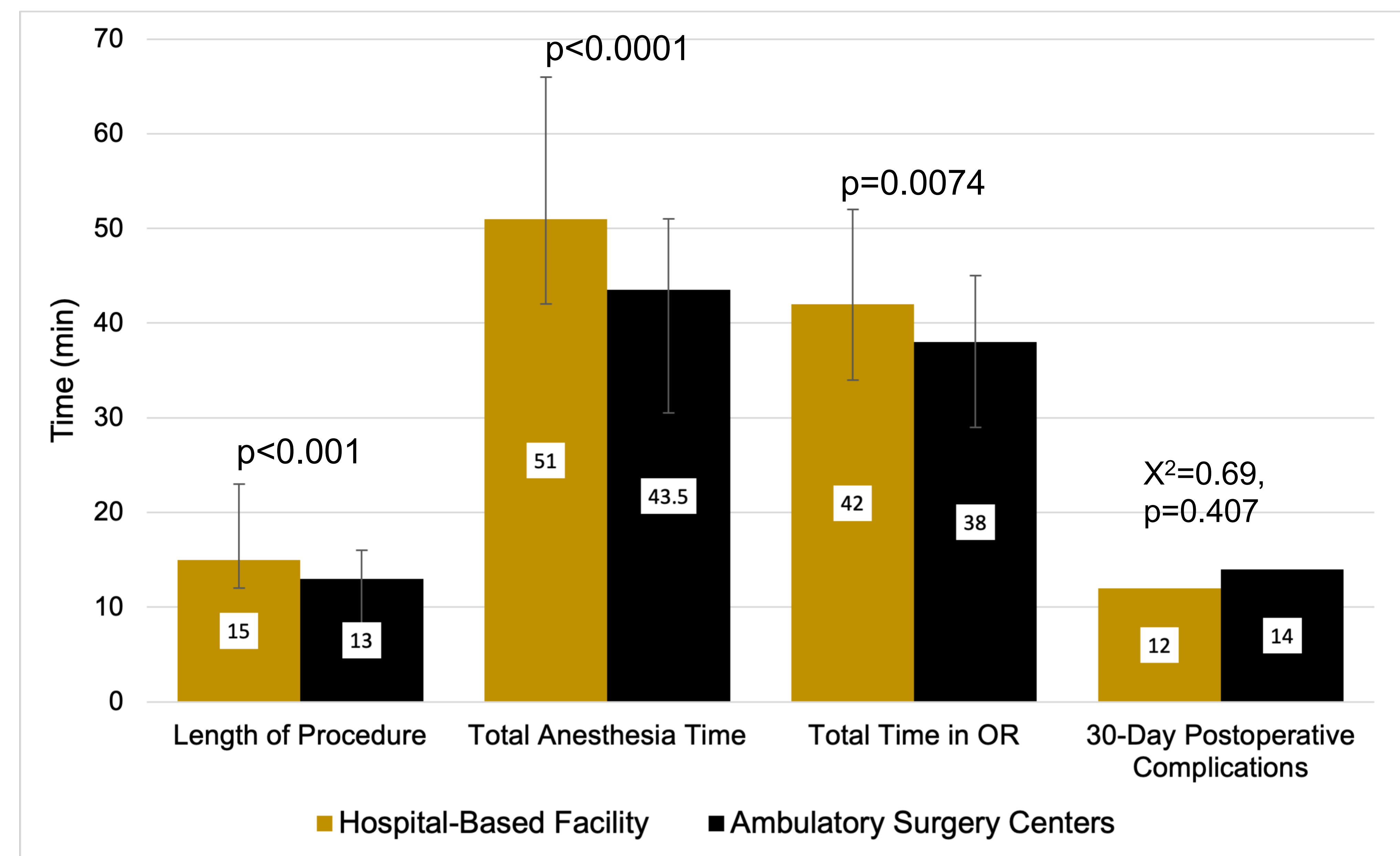
- Descriptive Statistics (Pearson Chi-Squared, Wilcoxon Rank-Sum)
- Multivariate analysis (logistic regression model controlling for location, age, and sex)

RESULTS

Table 1: Patient Demographics

Characteristic	Hospital (N=159)	ASC (N=136)	Test Statistic
Sex N(%)			
Female	85 (53%)	74 (54%)	X ² =0.03, p=0.87
Male	74 (47%)	62 (46%)	
Race N(%)			
Caucasian	133 (84%)	97 (71%)	X ² =21.6, p<0.001
Black	21 (13%)	12 (9%)	
Asian	0 (0%)	1 (1%)	
Not Reported	5 (3%)	26 (19%)	
Ethnicity N(%)			
Hispanic	19 (12%)	11 (8%)	X ² =12.4, p=0.002
Non-Hispanic	139 (87%)	113 (83%)	
Not Reported	1 (1%)	12 (9%)	
Age (Median) [IQR]	6.42 [5.31,19.54]	6.78 [5.37,9.37]	F=2.23, p=0.136
BMI (Median) [IQR]	16.59 [15.24,19.54]	16.27 [14.77,19.73]	F=0.28, p=0.599
Median Household Income (Median) [IQR]	59745 [49805,59828]	53604 [43610,62003]	F=4.78, p=0.03

Figure 1: Comparison of Clinical Characteristics



CONCLUSION

- Procedures completed at ASCs are as safe and more efficient than those completed at an HBF.
- Distributions of race and ethnicity differed based on location.
- There was a difference in median household income with a median of \$59,745 at the HBF and \$53,604 at the ASCs.
- **Limitations:** Single-center, retrospective study with a highly specific population; Missing data at one ASC due to lack of electronic medical record; Decreased total number of patients due to lower volume during COVID-19.
- **Future Directions:** Further assessment of cost structures at ASCs for T&As; Use of more granular measures of socioeconomic status; Patient reported experiences at ASCs vs HBFs.

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REFERENCES

