The purpose of this project was to analyze same day cancellations of outpatient and same day admission surgical procedures performed by the Otolaryngology Division at Yale New Haven Health and its affiliated surgery sites during a three year time period from August 1, 2016 to July 31, 2019. The reason for cancellation was recorded, as well as the date when the procedure was ultimately performed if it was rescheduled.

Cancelling surgeries is inefficient and costly to medical systems, and delays in necessary care. Previous studies have identified same day cancellation rates of <1% to over 25% in the United States. Estimates of lost revenue range between $2430 to 1700 for each cancelled case in US hospitals.

There have been previous studies demonstrating that a majority of case cancellations are potentially preventable with a study from the Hospital of the University of Pennsylvania demonstrating a 6.6% cancellation rate, with 59% being preventable, 12% potentially preventable, and 29% non-preventable. Another study from Cincinnati Children’s Hospital demonstrated that actions driven factors included patients deciding against surgical intervention (3.56%), medical issues were limited to acute illnesses. Patient coordination issues, preventable medical, nonpreventable medical, insurance authorization, transportation difficulties, lab abnormalities, and socioeconomic or insurance status, and patients living in closer proximity to surgical sites. Overall, there was a statistically significant lower cancellation rate among patients residing closer to a Veterans’ Administration Hospital.

This quality improvement project investigated same day cancellations of outpatient and same day admission surgical procedures performed by the Otolaryngology Division at Yale New Haven Health and its affiliated surgery sites during a three year time period from August 1, 2016 to July 31, 2019. The reason for cancellation was recorded, as well as the date when the procedure was ultimately performed if it was rescheduled.

Cancelling surgeries is inefficient and costly to medical systems, and delays in necessary care. Previous studies have identified same day cancellation rates of <1% to over 25% in the United States. Estimates of lost revenue range between $2430 to 1700 for each cancelled case in US hospitals.

Patient driven, nonpreventable medical, major reason was patient driven, and no longer medically indicated. Coordination issues included paperwork, insurance authorization, transportation difficulties, lack of post-operative bed, underutilization of OR time, lack of appropriate operative supplies, and violation of nil-per-os (NPO) status. Preventable medical issues included failure to adjust medication regimens pre-operatively, lab abnormalities, and failed optimization of chronic medical illnesses or documentation of medical clearance. Nonpreventable medical issues were limited to acute illnesses. Patient driven factors included patients deciding against surgical intervention and failure to present to surgery without a specific reason identified. No longer medically indicated included cases that were no longer medically indicated as decided by the surgeon during a pre-operative evaluation on the day of surgery.

A total of 13,783 cases were completed by the Otolaryngology Division during this three year time period. There were 414 same day cancellations, for an overall cancellation rate of 3.0%, an outpatient cancellation rate of 3.6%, and a same day admission cancellation rate of 1.1%.

The cancellation rate in pediatrics was 5.1% (228/4,479 cases) and the cancellation rate in adults was 2.1% (192/9,294 cases). The three most common specific cancellation reasons among pediatric patients were acute illness (46.5%), NPO status (18%), and no show (13.2%). The three most common specific cancellation reasons among adult patients were no show (18.8%), failure to obtain medical clearance (9.9%), and acute illness (12%).

69.5% of cases (292 cases) were ultimately completed, with an average delay time of 67 days (range 1 to 1,093).

There was a statistically significant different cancellation rate amongst private practice otolaryngologists (2.45%) versus academic Yale faculty otolaryngologists (3.56%).

53 patients had multiple same day cancellations for the same procedure.

Overall reasons for cancellation among our otolaryngology patients were similar to reasons for cancellation identified in other institution wide studies. Interestingly, there was a statistically significant lower cancellation rate among private practice otolaryngologists which may be due to a number of different factors, including different office practices or support staff, patients of different socioeconomic or insurance status, and patients living in closer proximity to VAMH and affiliated surgical sites.

Various strategies to reduce cancellation rates have been suggested in the literature, including increased nurse-patient calls for education and for medical screening, pre anesthesia clinics, more thorough preoperative patient-surgeon discussions. One strategy to mitigate the effect of cancellations would be to schedule patients with a history of cancellations or suspicion for cancellations at the end of the daily operating room schedule.

Conclusions

Cancelling surgical cases is inefficient and costly to medical systems, patients and providers. Our same day cancellation rate over a 3 year period was 3%, which is in line with other medical systems across the country. The most common reason for pediatric cancellations was due to acute illness. The vast majority of adult cancellations were potentially foreseeable and preventable, suggesting that there is room for improvement in our pre-operative workflow.

References