



Why Total Shoulder Arthroplasty Patients Cancel on the Day of Surgery

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Introduction

Cancellation of elective total shoulder arthroplasty (TSA) is an expected occurrence. The typical cost of canceled elective surgeries is estimated to be \$3000 per patient¹ and can lead to hospitals losing nearly \$1 million per year². The purpose of this study is to identify the frequency and causes of same-day cancellations in total shoulder arthroplasty and determine which treatment path those patients take following their cancellation.

Methods

A consecutive series of 1,189 patients undergoing TSA (anatomic or reverse) at a single institution from 2010 to 2020 was reviewed. All patients who scheduled and subsequently canceled on day of surgery (DOS) or prior to DOS were identified. The etiology of cancellation, time to rescheduling, and subsequent work-up were recorded. Descriptive statistics of the canceled patient cohorts were analyzed. Univariate analysis, chi-square test, and analysis of variance were used to compare each patient cohort.

Results

Of the 1,189 patients, 964 underwent TSA for glenohumeral osteoarthritis. 98 (10.2%) primary TSA experienced cancellations, of which 48 (49.0%) were on the DOS. The most common causes of same-day cancellations were medical reasons (45.8%) and anesthesia-related complication (27.1%). Infection (40.9%) was the most frequently encountered medical reason for cancellation. When compared with patient-requested cancellations, those canceled for medical reasons canceled closer to the scheduled surgery date (0.86 vs. 4.33 days). Ten of the 13 cancellations performed for anesthesia-related reasons were due to cardiopulmonary concerns, and 70% of those patients underwent additional intervention after cancellation.

Discussion and Conclusion

Elective primary TSA were most frequently canceled for medical reasons. Prior literature has suggested that many Medicare patients undergo unnecessary testing prior to non-cardiac surgeries⁶, and only a minority of patients cancelled for medical reasons undergo further interventions⁵. The results of this study deviate from that of previous studies. Our results suggest that despite preoperative optimization, day-of-surgery cancellations still occur, and certain patient risk factors and conditions need further workup prior to surgery. In our cohort infection was found to be the most common medical reason for cancellation of a TSA on the day of surgery.

Previous studies have attributed medical-related cancellations to inadequate medical clearance^{4,5}. All patients who were canceled for anesthesia-related reasons were medically cleared by their primary care provider prior to surgery. The majority of those patients required additional pre-operative intervention. In conclusion, same-day total shoulder arthroplasty cancellations are unavoidable, but there are modifiable factors that can minimize the risk of cancellation.

References

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