

Day of surgery cancellation (DOSC) of elective surgeries at a tertiary level paediatric institute of North India- A retrospective approach

Mukul Kumar Jain, Poonam Motiani and Dinesh Kumar Sahu

Post Graduate Institute of Child Health, India

Operating room (OR) is a critical hospital resource, requiring significant manpower and budget, making its efficient utilization essential. Case cancellations contribute to OR underutilization, wasting resources and impacting patient care quality and hospital management efficiency. Cancellation of elective operations is a parameter to evaluate the quality of patient care and the quality of the management system. To minimize day-of-surgery cancellations (DOSC), hospitals should implement regular audits, quality improvement initiatives, and a structured system, ensuring better resource management and patient care.

Introduction: Day-of-surgery cancellations (DOSC) are linked to higher healthcare costs, theatre inefficiency, and emotional distress for patients, with cancellation rates ranging from 1.96% to 36.4%. DOSC impact healthcare providers, causing stress for surgeons, anesthetists, nurses, and OR staff, while worsening patient suffering and increasing waiting list burdens.

Key causes of DOSC can be categorized as:

- Avoidable causes – inadequate pre-op evaluation, scheduling errors, equipment shortages.
- Unavoidable causes – patient no-shows, medical status changes, bed shortages, emergencies, financial issues, OR delays.

Further breakdown: Patient-related – no-show, refusal to consent, death.

Hospital-related – lack of OR time, inadequate preparation, bed shortages, emergency cases disrupting schedules, staff errors, equipment unavailability. Overambitious theatre lists, poor scheduling, and inefficiencies like late starts and delays between cases contribute to cancellations. A controlled scheduling system, planned with surgical and anesthesia teams, can prevent overbooking and improve efficiency. To minimize cancellations, hospitals must implement regular audits and strategic planning to optimize OR utilization and reduce resource wastage.

Methods: Retrospective, observational hospital-based study was conducted at our 350-bedded tertiary care pediatric center in Northern India. All patients undergo a pre-anesthetic checkup at their initial outpatient department (OPD) visit and again just before admission for surgery. Most cases are admitted to the ward a day before surgery, except in specific situations. A final preoperative evaluation is conducted in the pre-operative area on the day of surgery.

For this study, a surgical cancellation was defined, as the non-performance of a surgery that was scheduled for a particular date and time (vide an OT List generated at 2.30 PM the previous day), due to medical reasons, acute exacerbation of comorbidities, or any other specified reason.

The reasons for surgical cancellations were categorized into: Patient-related factors – non-adherence to instructions, refusal to consent, inability to afford the procedure, failure to attend, uncontrolled hypertension or diabetes, upper respiratory tract infections, and impaired cardiac or pulmonary function. Surgeon-related factors – patient deemed unsuitable for surgery, change in surgical plan, surgeon unavailability, and lack of OT time. Hospital/system-related factors – unavailability of drugs, equipment, or supplies, ICU bed shortages, last-minute emergencies, Bed availability. Anaesthesia-related factors – incomplete preoperative assessment leading to patient unpreparedness.

Conclusion: Clear preoperative instructions, given verbally and in written form, should be reinforced at multiple touchpoints, including pre-assessment clinics and by ward staff for inpatients. A well-structured surgical schedule, planned collaboratively with surgical and anesthesia teams, helps prevent overbooking and reduces cancellations. To further minimize cancellations, preoperative visits for all patients and admission a day before surgery are recommended.

Results: A total of 3,570 surgical cases were scheduled across various departments during the study period (2022–2024). Of these, 207 cases were canceled, resulting in a surgical cancellation rate of 5.8%.

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Biography

Mukul Kumar Jain is affiliated to Post Graduate Institute of Child Health, Noida, India. He is a recipient of many awards and grants for his valuable contributions and discoveries in major area of health research. His international experience includes various programs, contributions and participation in different countries for diverse fields of study. His research interests reflect in his wide range of publications in various national and international journals.

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