CHAPTER - 07

EXPLORATORY STUDY ON TRENDS AND COMMENCEMENT STATUS OF SURGERY IN OT OF MAX HOSPITAL, GURUGRAM

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Ch.Id:- IIHMR/NSP/EB/TSLHSTIOE/2025/Ch-07
DOI: https://doi.org/10.52458/9789349381452.nsp.2025.eb.ch-7

INTRODUCTION

The operating theatre (OT) stands out as one of the most critical and revenue-affecting resources within a hospital, given that a significant portion of hospital admissions are for surgical procedures. Maintaining a sterile environment in the OT is paramount to prevent nosocomial infections, making it a complex area of the hospital. The OT carries a substantial budget compared to other departments, making it a vital organ of the hospital, requiring both manpower and financial resources. While developed countries may face challenges in their OR processes due to factors beyond their control, such as heavy investments, developing nations have more flexibility in addressing and preventing OR variations. These variations can include delays in surgery start times, early starts, cancellations, or postponements, all of which can lead to increased costs, workloads, patient dissatisfaction, and questions about the

hospital's reputation. Effective management of the OT is crucial to increase surgical turnover, reduce return visits due to infections, and maintain overall hospital efficiency [3].

Analysing OT utilization is key to measuring OR efficiency and revenue generation. OT utilization refers to the proportion of hours the OT is used during elective resource hours compared to the total available elective resource hours. By analysing utilization rates, hospitals can implement measures to maintain aseptic conditions, allocate planned time for emergency operations, and improve decision-making processes. Well-utilized ORs demonstrate accuracy in starting surgeries on time, efficient case times, adherence to quality measures, and proper scheduling. Signs of inefficient OR utilization include a high number of cancelled or delayed surgeries and a higher proportion of unplanned surgeries compared to planned ones. Studies have shown that a significant percentage of delays in scheduled cases are avoidable, highlighting the inefficiency of operating room operations [1,2].

RESEARCH OBJECTIVES

1. To determine the duration of pre-operative waiting time for scheduled surgeries in the Operation Theatre.
2. To evaluate the occurrence of rescheduling and cancellations for planned surgeries, along with the departments involved.
3. To assess the occurrence of unplanned surgeries and the departments involved, particularly in emergency cases.

RESEARCH METHODOLOGY

After conducting a literature review and defining the aims and objectives, the methodology for the study was determined. The primary aim was to analyse the surgical trends observed by examining data retrieved from the Max Hospital Information System (HIS) with the goal of enhancing the efficiency of the Max Operating Room (OR). The research design involved obtaining retrospective records from the Hospital Management Information System (HMIS) of Max Hospital, Gurugram unit, and conducting an exploratory study. The study was conducted within the OR complex of the 70+ bedded Max Hospital in Gurugram, Haryana, to understand process flow gaps and plan Standard Operating Procedures (SOPs) for the future. The OR complex comprised four operating theatres, including three major ORs and one sepsis OR for unknown or suspected patients. Typically, three ORs, including one septic OR, were utilized for planned cases, while the fourth one remained prepared for emergencies. The study population included surgical intervention patients who visited the hospital in the months of February and March 2021, as well as OT staff, with inclusion criteria based on the availability of complete data in the HIS.

RESULTS & DISCUSSION

Upon analyzing all 699 cases, it was found that only 5% of surgeries occurred on schedule. In contrast, 50% of surgeries experienced delays beyond their scheduled time, approximately 24% of surgeries commenced earlier than planned, 15% of surgeries were ultimately cancelled, and 4% were rescheduled for another day. A survey conducted among operating theatre (OT) staff, including anaesthetists, aimed to identify the reasons

behind these surgical delays. The analysis revealed that 84% of the surveyed staff commonly encountered delays in commencing surgeries in the operating room (OR). According to their responses, the primary reasons for these delays were attributed to lack of effective communication (60%), issues with patients (50%), and challenges related to surgeons (44%). Delays due to interdepartmental communication breakdowns, particularly in obtaining clearance from clinical departments regarding patient fitness for surgery, were identified as significant contributors to surgical delays. Additionally, 40% of respondents indicated that delays in obtaining financial clearance for patients were a common cause of surgical delays, while 28% cited patients' late hospital admissions as a factor contributing to delays in the OR process.

CONCLUSION

This study investigates different surgical trends and factors contributing to delayed surgery starts in the operating theatre. It delves into the reasons behind cancellations, unplanned surgeries (including emergencies), delayed starts of surgeries, and the departments associated with these occurrences. The study reveals that many of the reasons causing delays are preventable. Establishing a multidisciplinary team dedicated to every aspect of the operating room (OR) process, maintaining effective communication among team members, and promptly addressing any issues that arise can prove beneficial in mitigating these delays.

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