



A STUDY ON ASSESSMENT OF LAST-MINUTE SURGICAL OPERATION CANCELLATIONS: FREQUENCY AND REASONS

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ABSTRACT

This study aimed to assess the frequency and reasons for last-minute cancellations of surgical operations. Variables included operational plans, number of cancellations, patient age and gender, and reasons for cancellation. Descriptive statistics were applied using SPSS16 to analyze data from 8256 planned operations, of which 165 were cancelled. Notably, 30.8% of cancellations lacked documented reasons. The primary reasons for cancellations were high-risk underlying diseases (24.7%), patient non-compliance with medical advice (12.8%), clinical changes (9.11%), prolonged previous operations (9%), patient dissatisfaction (7.1%), and incomplete Nil Per Os (NPO) time (7.7%). Lack of patient cooperation emerged as a significant factor contributing to cancellations. Efforts to address these issues are crucial for reducing inefficiencies and resource waste in surgical operations.

Keywords: Surgical Operations, Patient Complaints, Surgical Procedures, Frequency, Financial Status.

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INTRODUCTION

Health care expenditures have increased so dramatically that about 50% of government spending is currently devoted to hospitals [1] due to the increasing costs of these services. Hospital financial capacity can be increased by maximizing the operating room's performance while improving quality. Operational efficiency is the main factor that determines hospital costs. In order to manage operating rooms efficiently and attract surgeons and operating room staff, large hospitals use considerable resources. Last-minute cancellations of operations are a common cause of hospital inefficiency and resource waste. Studies carried out in those countries found that four to 16.6 per cent of operations were cancelled in Hong Kong Spain Pakistan India and Australia. As a result of the prolongation of previous surgeries, patients were unable to find operating rooms in these hospitals they did not show up for surgery they were unprepared, the intensive care unit (ICU) beds were

insufficient, and the patient's clinical status changed. There are also (10.9 to 18.6) percent of operations that are cancelled in the hospitals studied by Iran Uremia [2], Tehran These hospitals cancelled most of their operations due to high-risk underlying conditions changes in surgical plans, and patient problems. Also, appointments were not made during work hours (mornings) When taking a closer look at the consequences of the postponement of operations, it becomes clear that there will be a number of problems that will arise. [3] On the one hand, this increases costs for patients, health systems, and insurance companies, and on the other hand, inefficient occupancy of hospital beds harms patients in need of hospital services. [4] Patients may suffer from emotional and mental problems as a result of operations postponement. A long period of fasting while waiting for surgery is also not recommended for infants and elderly patients.

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The cancellation of an operation may result in disorganized operating rooms, a loss of time, increased operational costs, and increased hospital-acquired infections. [5]

MATERIALS AND METHODS

166 cases (4%) were cancelled out of 8256 operations. Patients' files were analysed to extract all cancelled operations data. We investigated relevant studies around the world and performed primary categorization before designing the checklists. We then studied 25 profiles in order to develop the primary checklist. [6] At the beginning of the operation, 15 reasons for cancelling were listed in the checklist, and after the final merge, 6 reasons remained (Table 1). Five experts with relevant qualifications and at least one published paper on the subject were used to assess the validity of the questionnaire, as well as three professors

of hospital administration, four members of the clinical governance hospital committee, and two staff members of the vice-rector of health at state universities. By independently entering 30 operations into the checklist simultaneously, two researchers tested reliability. The SPSS version 11.5, a statistical package, was used to extract and analyze the data (frequency, percent). A significance level of 0.05 was used for all tests. [7]

RESULTS

According to our study of patient files, the reason for cancellation hadn't been mentioned in 30.8% of cases.

Patient ages ranged from one month to 102 years for those whose operations were cancelled, with the average being 50.6. 67 patients were women (44%) and 96 were men (60%).

Table 1: Reason and percentage of cancellations of operations

Reasons of operations cancellation	Percent
High-risk underlying disease	24.7%
Patient's non-attendance	12.8%
Change in clinical status	9.11%
Lack of Operation Theater time	9%
Patient's dissatisfaction	7.1%
Patients' incomplete NPO time	7.7%

Table 2: Distribution of age and sex

Sex Age	Male		Female		Total
	Frequency	Percent	Frequency	Percent	
Under 20	34	63.55	22	40.48	56
21-50	60	58.33	47	45.70	105
51-80	63	59	48	45	111
Above 80	42	65.51	25	38.52	67
Total	199		142		339

DISCUSSION

High-risk underlying diseases accounted for 24.7% of all operations that were cancelled. Anesthesia-related reasons have been attributed to high-risk diseases in 68.9% of patients [8]. In addition to underlying diseases with a high level of risk, there are many reasons for canceling operations. If the physician schedules an operation without taking into account the patient's underlying illness or if the patient's condition prohibits the operation (13), this type of error will occur. [9] It is recommended that all patients whose surgery is recommended be evaluated for high-risk underlying conditions in order to resolve this issue and minimize the frequency of cancelled operations. In addition to patient absence (10.6%), non-attendance is the second most frequent cause of cancellations. An estimated 24.7% of all cancelled operations were caused by high-risk

underlying diseases. Sixty-eight percent of patients (12) had anesthesia-related reasons due to high-risk diseases. Many reasons can lead to a cancellation of an operation, in addition to underlying diseases that carry a high level of risk. Several types of errors can occur, including scheduling an operation without considering the patient's underlying illness or a condition that prevents the operation [10]. This may explain the difference. Nurses should explain to patients all the complications that may arise from the cancellation of an operation. Studies conducted in Spain, Australia, (1, 4, 10), have found that the change of clinical status is a major factor in cancellations. The third most frequent reason (7.9%) in our study was this inevitable issue. Operation theater time is the fourth most common reason for cancellations (7%). [11] There have been similar findings reported in Yazd, Tehran, China, Spain, Australia and India (1, 4, 7,

10-12). All conducted studies consider the above-mentioned reason as one of the major causes of cancellation. When a surgeon's skill, speed, or type of surgery causes a high number of surgeries to be listed on the operating room waiting list, it may be caused by the type of surgery, the number of surgeries on the waiting list and the number of surgeries on the operating room waiting list. Teaching hospitals are often involved in operations as well as training assistants, which results in the operation being prolonged. [12] There is no precise way to predict the duration of operations. During operations, the surgical team may face problems due to the unpredictable nature of certain operations or the unpredictable nature of certain operations. Calculating the average duration of each operation allows us to avoid time shortages for other operations waiting in line. [13] A relatively high frequency (5.8%) of surgery cancellation was caused by patient dissatisfaction in the present study. It is important to note that this factor has not been discussed in other studies, possibly because it merges with similar factors such as non-attendance by patients. Nurses can reduce cancellation frequency by providing complete information about the operation, its conditions, and necessity, and informing the patient of the right to accept or reject the operation. [14] Unpreparedness among patients and incomplete Nil Per Os (NPO) time

are other important causes of cancellations (5.5%). There are no other studies that mention this reason. As the present study investigated only one hospital specialty, this difference may be due to this. It will be possible to drastically reduce the number of cancellations of operations if the doctors pay attention to and remind their patients to do so. [15] Other than the above reasons for cancellation of operations, technical faults and equipment failures also account for 4.6%. In order to prevent these problems, the hospital's departments and paraclinical units need to be coordinated, the hospital and surgeons need to work together, and a list of the necessary documents for patients need to be provided and checked.

CONCLUSIONS

The findings of the current research suggest that a significant portion of cancellations can be avoided. By ensuring the availability of necessary equipment, minimizing technical issues, timely maintenance and calibration of medical equipment, enhancing collaboration between Para-clinical units and operating rooms, improving communication among physicians, patients, and nurses, and accurately documenting the reasons for cancellations by operating room staff, it is possible to decrease the number of cancellations and enhance the effectiveness of hospital operating rooms.

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