

Reasons for cancellation of elective surgical procedures at Chandka Medical College Hospital, Larkana, Pakistan

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Objective: To determine the causes for cancellation of elective surgeries at Chandka Medical College hospital, Larkana, Pakistan.

Methodology: This descriptive study conducted at Chandka Medical College Hospital Larkana from Jan 2012 to December 2012 and included 3024 sample size. All elective operations put on operation theater (OT) list were included in study, while minor cases, done under local anesthesia and emergency cases were excluded. Bio data and reasons for cancellation were noted. Reasons of cancellation were broadly classified in to, patient-related factors (including medical e.g hypertension, diabetes, anemia and respiratory tract infection and non-medical e.g no-show of patient, no arrangement of blood, non-fasting and financial issue), surgeon-related factors (including no show of surgeon, change in decision and shortage of time), administrative-factors (including electricity break down, sudden strike of paramedical staff and instrument failure) and

shortage of anesthetists. Data were analyzed by using SPSS version 15.

Result: During 1 year study period, total of 3024 cases were put on OT list; among them 484 (16%) were cancelled on operative day. Patient-related factors in 58% patients were most common cause of cancellation followed by administrative factors in 20%, surgeon related factor in 18% and shortage of anesthetists in 5% case was observed.

Conclusion: Most of the causes of cancellations are avoidable. Proper pre-operative optimization and counseling can reduce cancellation rate. OT list should be prepared judiciously. Patients' selection, time factor, required instruments, alternate source of electricity and selection of surgeon during distribution of cases, could minimize the cancellation rate of elective cases. (Rawal Med J 2014;39: 61-64).

Keywords: Elective surgery cancellation, medically unfit, shortage of time, no proper counseling.

INTRODUCTION

Elective surgery is an important part of a hospital's work load.¹ Whenever a case is put on list, it involves interaction of a number of people and in the same way its postponement affects the parties concerned with far-reaching consequences. The surgical procedures are not only of time consuming but also requiring heavy cost.²⁻⁵ One of the criteria for evaluating the efficiency of a surgical service is the low rate for cancellation of operations, which compels the hospital management to demonstrate the good performance.⁶ Cancellation of elective surgical operation is recognized as a major cause of psychogenic trauma to patient and parents.⁷ It also leads to wastage of operating room resources.^{8,9} 8% of scheduled elective operations are cancelled throughout country within 24 hours of surgery.¹⁰

Operation theater is the heart of a hospital requiring considerable human resources and expenditure from hospital budget.^{2,11} All the efforts are being taken to prepare patient for surgery e.g., proper examination, investigations, diagnosis, fitness, preparation of OT list and preparatory instructions. Cancellation results in loss of the efforts and resources, which is not in the benefit of patients and hospital management. The objectives of this study was to determine the causes of cancellation for elective cases to be put on OT list.

METHODOLOGY

This descriptive study was conducted at Chandka Medical College Hospital Larkana, Pakistan from January 2012 to December 2012 and included 3024 patients, who were put on OT list for elective

operations. Minor cases, done under local anesthesia and emergency cases were excluded from the study.

Data were collected from all general surgical wards for all patients kept on OT List. Biodata and reasons for cancellation were noted. Reasons for cancellation were broadly classified into, patient related factors, which further divided into medical and non-medical causes. Medical causes were hypertension, diabetes mellitus, anemia and respiratory tract infection. Non-medical were no-show of patient, non-arrangement of blood, non-fasting and financial issue. Surgeon related factors included no-show of surgeon, change of decision and shortage of time. Administrative factors were electricity break down, sudden strike of staff and instrumental failure and shortage of anesthetists. Data were analyzed by using SPSS version 16.

RESULTS

During a period of one year study, total of 3024 patients were placed on OT list. Among them, 484 (16%) were cancelled on operation day. Patient-related factors in 58% were most common cause of cancellation, followed by administrative factors in 20%, surgeon-related factor in 18% and shortage of anesthetists in 5% cases.

Table 1. Cancellation causes related to patient (n=484).

Medical Causes	Number	Percentage
Hypertension	68	9.50%
Anemic	18	2.68%
Uncontrolled diabetes	46	6.61%
Anemic	18	2.68%
Respiratory tract infection	14	2.27%
Non Medical Causes		
No-show of patient	50	10.33%
Non blood arrangement	42	8.67%
Non fasting	26	6.6%
Financial issue	16	3.3%

Patient-related Medical and non-Medical reasons for cancellation are shown in Table 1.

Administration-related factors are shown in Table 2.

Table 2. Cancellation causes related with administration (n=484).

Factors	Number	Percentage
Sudden strike	52	10.74%
Electricity breakdown	40	8.26%
Instrumental failure	4	0.826%

Table 3. Cancellation causes related to surgeon (n=484).

Cause	Number	Percentage
Shortage of time	44	9.09%
Change in decision	28	5.78%
No- Show of Surgeon	16	3.3%

Surgeon-related causes were shortage of time (Table 3). Anesthesia-related causes were seen in 24(5%) patients due to no-show of anesthetists.

DISCUSSION

Cancellation of elective operations is a parameter for assessing the quality of patient-care and management system. Anticipation of surgery is very stressful for patients and parents in a society where illiteracy rate is high, cancellation imposes further stress and anxiety. Lack of preoperative assessment for anesthesia and high illiteracy rate of population impact rate of cancellation.¹² To make performance ideal, one should take in account all the reasons for cancellation e.g., inadequate preparation of patient, lack of surgeons, anesthetists, instruments and time. The acceptable cancellation rate for elective surgical procedures is variable and from ranges 10%-40%.¹³⁻¹⁶

In our study, the number of cancellation of cases was 484, which stands 16% and therefore is comparable with other studies with rate around 19.91%.^{17,18} A study from Pakistan had 25% of its scheduled surgeries postponed.² Cancellation rate of operations in some other studies is 7.47%,¹ 14%,¹⁰ 17.6,²⁰ 31.5%⁷ and 40.8%.²¹

Patient related factors of cancellation in our study were 280 which constituted 57.84% of total cancelled strength, is in agreement with Tauseef.¹¹ Out of them, 146(30.16%) were rejected on medical grounds, such as hypertension, uncontrolled diabetes mellitus, anemia and respiratory tract infection. A study at Ayoub Teaching Hospital is

either in agreement or near to agreement with our study,^{2,19} while other studies differed.^{1,20}

In our study, 27.68% were rejected on non-medical grounds. Guillen JM has described 4% cases cancelled due to non-appearance of patient is in near agreement with our study.²¹ Another study shows 4.76% rejection which is supporting to our study.²² Bathla et al reported 4.2% as the rate of cancelled cases due to non availability of blood.²² Other studies had different results.^{23,24}

Administrative reasons of cancellation constituted 20% in our study. Some studies are in agreement or near to agreement with our study,^{23,24} while others differed.^{1,7,11,20,21}

In this study, 18% were found as surgeon related. The shortages of time is based on certain common reasons e.g., unnecessary long list of O.T cases, late start of theatre and prolong time for surgery. Other factors were prolonged time to recover from anesthesia, preparation, cleaning operation theatres and delayed transportation. In this study 44 cases i.e 9.9% and 16 case i.e 33% were cancelled from operative list, due to shortage of time and no-show of a surgeon respectively. Chalya et al⁷ reported 8.4% cancellation rate related to surgeon which is in agreement to our study, while several other studies reported varying results.^{7,11,20,23,24}

There is acute shortage of anesthetists throughout Pakistan, especially in country side areas. This cause of cancellation can be avoided by appointing more anesthetists, nseparate for elective and emergency cases. Anesthetist related causes of cancellation was seen in 24 cases in our study and constituted 5%, which is near to agreement with some studies.^{2,25} While study of Ahmed T is for making in disagreement with our study.¹¹

CONCLUSION

Most of the causes of cancellations are avoidable. Proper pre-operative optimization and counseling can reduce cancellation rate. OT list should be prepared judiciously. Patients' selection, time factor, required instruments, alternate source of electricity and surgeons' selection in distribution of cases, could minimize the cancellation of elective cases.

Author contributions

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