

Reasons Of Cancellation Of Elective Surgery In A Teaching Hospital

A El-Dawlatly, A Turkistani, A Aldohayan, A Zubaidi, A Ahmed

Citation

A El-Dawlatly, A Turkistani, A Aldohayan, A Zubaidi, A Ahmed. *Reasons Of Cancellation Of Elective Surgery In A Teaching Hospital*. The Internet Journal of Anesthesiology. 2007 Volume 15 Number 2.

Abstract

Cancellations of surgical procedures are common in hospital settings. Many reports have showed the negative impact of cancellations on loss of operating room times and additional costs for the hospitals besides patient's inconvenience. In that regard we conducted the present audit to identify the reasons of cancellations in our setting and to promote recommendations to minimize the negative impacts of this phenomenon.

Methods All patients scheduled for elective surgeries over a period of 3 months from 1st September to 1st December 2007 were enrolled in the study and included in the data collection. Anesthetists were asked to fill up the form indicating reason of cancellation with any additional comments. Data were entered and analyzed using SPSS version 15 software.

Results A total of 2480 cases were scheduled to undergo elective surgical procedures. Of those 189 cases were cancelled (7.6%). The highest number of cancellation occurred in the general surgical service (28%) and the least (3.1%) occurred in neurosurgery. There were many reasons recorded for cancellation of surgeries, the most common was the no show up reason (35%). The second most common cause of cancellations was miscellaneous (20.9%). The least cause of cancellations was due to improper scheduling (0.5%).

Conclusions This audit highlights the most common reasons of cancellations in a teaching hospital. It has demonstrated that no show up of patients was the leading cause of cancellations in elective surgery. It is obvious from this audit that there is problem in communication with patients scheduled for surgery beside scheduling problem. Therefore improving the scheduling and admission procedure is required for better use of hospital resources.

INTRODUCTION

Cancellation presents a major problem in most hospitals. The reported incidence of cancellation in different hospitals ranged from 10-40% (1,2,3). There are many reasons of cancellation of elective surgical cases, however it differs from hospital to another. It was reported in one study that the most common factor which has led to cancellation was lack of theatre time (4). In UK the Audit Commission has estimated that in 5% of hospitals, the majority of operating lists were consistently over-running (5). There are conflicting reports on the commonest reasons of cancellation of elective surgical procedures. In one report non-availability of recovery room beds was the leading reasons of cancellation followed by patients not showing up (6). Most of the previous studies were retrospective, therefore we conducted the present prospective study as an attempt to identify the commonest reasons of cancellation of elective surgical cases

in our setting and to find the appropriate solutions for better patient management.

METHODS

All patients who were scheduled to undergo elective surgical procedures were enrolled in the

study. The study period was from 1st September to 1st December 2007 at King Khalid

University Hospital (650 beds and 12 operating theatres). As this study was considered as audit

under quality assurance project, it didn't require approval of the hospital ethics committee. A

form including cancellation reasons was distributed to all

operating theatres and attending

anesthesiologists were asked to fill it up (Table 1). Cancellation reasons were entered into the

database as coded variables. Statistical analysis was performed using SPSS version 15 software.

RESULTS

A total of 2480 cases were scheduled to undergo elective surgical procedures. Of those 189 cases

were cancelled (7.6%). The highest number of cancellation occurred in the general surgical

service (28%) and the least (3.1%) occurred in neurosurgery. There were many reasons recorded

for cancellation of surgeries, the most common was the no show up reason (32.5%). The second

most common cause of cancellations was miscellaneous (19.5%). Examples of miscellaneous

reasons were: discharge of the patient, non fasting, anaphylactic shock, patient refused surgery,

patients with prolonged coagulation profile etc. The least cause of cancellations were due to

improper scheduling and acute illness (0.5%) (Figure 1). The highest cancellation among

different surgery subspecialties was for general surgery (28%), followed by orthopedic surgery

(14.8%), plastic surgery (13.7%), pediatric surgery (13%), gynecology surgery (10.5%), urology

surgery (10%). The least cancellations was found among vascular surgery and neurosurgery

sections (3.7% and 3.1% consequently) (Figure 2).

Figure 1

Table 1: Cancellation form

| Reasons of cancellation | Yes (describe) | Or | No |
|--|----------------|----|----|
| Improper preoperative preparation | | | |
| Improper scheduling | | | |
| Uncontrolled medical illness | | | |
| Change of medication of chronic illness (red flag) | | | |
| Needs further investigations | | | |
| No show up | | | |
| Late arrival to OR | | | |
| Acute illness | | | |
| Unavailability of anesthetists | | | |
| Unavailability of nurses | | | |
| Unavailability of surgeons | | | |
| Unavailability of surgical instruments | | | |
| Equipment failure | | | |
| Insufficient OR time | | | |
| Surgeon decision to postpone | | | |
| Other emergency surgery | | | |
| Unavailability of ICU or HDU bed | | | |
| Miscellaneous | | | |
| No recorded reasons | | | |

Figure 2

Figure 1: Reasons of cancellations in %: A. Improper preparation, B. Improper scheduling, C. Uncontrolled medical illness D. Further investigations, E. No show up, F. Acute illness, G. Insufficient OR time, H. Surgeon decision to postpone, I. Other emergency surgery, J. Unavailability of ICU or HDU bed, K. No recorded reasons, L. Miscellaneous.

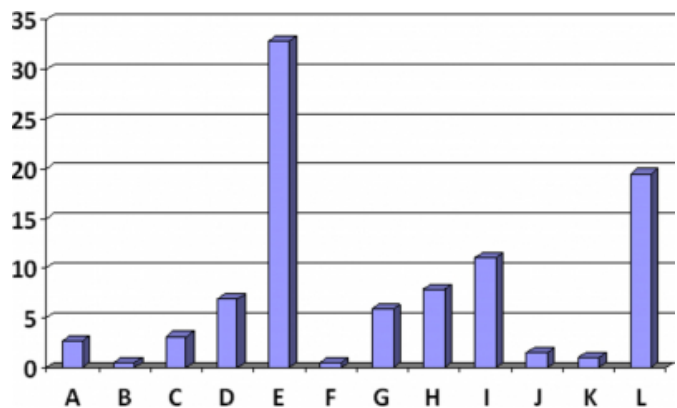
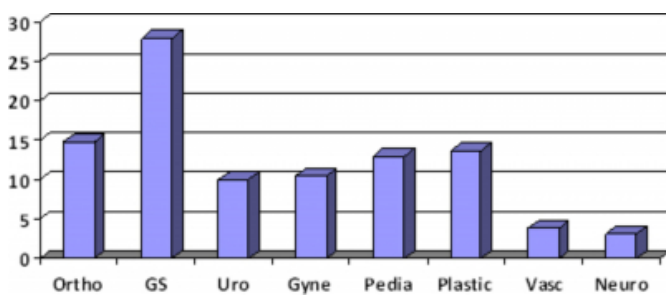


Figure 3

Figure 2: Cancellations referred to surgical specialty %.



DISCUSSION

A recent study has reported the increased morbidity in patients who wait longer duration for elective laparoscopic cholecystectomy (7). In one study the overall incidence of cancellation including emergency cases was 24% (6). The reported incidence of cancellation in our study was 7.6% which was less than other studies due to exclusion of emergency cases. In our study the most common reasons of cancellation was no show up of patients and miscellaneous reasons like, discharge of the patient, non fasting, anaphylactic shock, patient refused surgery, patients with prolonged coagulation profile etc. While in another studies it was due to lack of theatre time, lack of postoperative bed, patient cancellation, and incomplete investigations (2). Our results revealed that we might be able to reduce the rate of cancellations with improving the booking process and improving the function of pre-anesthesia clinic. As in other studies we don't have problem with theatre time. In other studies lack of theatre time was dominant caused by surgeons underestimating the time needed for the operation (2). In our study we found that most cancellations were in the general surgery section followed by orthopedic, plastic, pediatric surgery and the least cancellation was in the neurosurgery section. General surgical patients presents in our hospital the main bulk of patients who will undergo surgery. During working days we have daily two theatres reserved for general surgery. Also orthopedic section presents a major part of cancellations due to large number of patients, besides two theatres/working day reserved for orthopedic procedures. Neurosurgery presents the least number of cancellations due to less number of neurosurgical patients besides three theatres/week reserved for neurosurgery section. In contrary to our results three reports have indicated higher cancellation rate among the urology, orthopedics and gynecology than in general surgery (1,6,8).

In conclusion, this audit highlights the most common

reasons of cancellations in a teaching

hospital. It has demonstrated that no show up of patients was the leading cause of cancellations

in elective surgery. It is obvious from this audit that there is problem in communication with

patients scheduled for surgery beside scheduling problem. Therefore improving the scheduling

and admission procedure is required for better use of hospital resources. Also we believe that

the issue of no show up of patients can be minimized by improving communication between

surgeon and anesthetist beside improving the function of the pre-anesthetic clinic.

ACKNOWLEDGEMENT

The authors would like to thank all members of department of anesthesia at King Khalid University Hospital for taking part in this audit and filling up the cancellation forms. Also we would like to thank nursing staff in the recovery room for collecting and filing of the cancellation forms.

CORRESPONDENCE TO

A. El-Dawlatly Riyadh 11461 P.O.Box 2925
dawlatly@ksu.edu.sa <http://faculty.ksu.edu.sa/dawlatly>
<http://www.saudija.org>

References

1. Lacqua MJ, Evans JT. Cancelled elective surgery: an evaluation. *American Surgeon* 1994;60:809-11.
2. Rai M, Pandit JJ. Day of surgery cancellation after nurse-led preassessment in an elective surgical centre: the first 2 years. *Anaesthesia* 2003;58:692-9.
3. Schofield WN, Rubin G, Piza M, et al. Cancellation of operations on the day of intended surgery at a major Australian referred hospital. *Medical J Australia* 2005;182:612-5.
4. Pandit JJ and Carey A. Estimating the duration of common elective operations: implications for operating list management. *Anesthesia* 2006;61:768-776.
5. Audit Commission. *Operating Theatres. Review of National Findings.* London: HMSO, 2003.
6. Jonnalagadda R, Walrond ER, Hariharan S, et al. Evaluation of the reasons for cancellations

Reasons Of Cancellation Of Elective Surgery In A Teaching Hospital

and delays of surgical procedures in a developing country. Int Clin Pract 2005;59:716-720.
7. Lawrentschuk N, Hewitt PM, Pritchard MG. Elective laparoscopic cholecystectomy:

implications of prolonged waiting times for surgery. ANZ J Surg 2003;73:890-3.
8. Venkartaraman S, Seriam K. Cancelled elective surgery: study in an Indian Corporate

Hospital. Indian Surg 1997;59:372-6.

Author Information

Abdelazeem A. El-Dawlatly, MD

Professor of Anesthesia, College of Medicine, King Saud University

Ahmed Turkistani, FCCP

Associate Professor& Chairman, Department of Anesthesia, College of Medicine, King Saud University

Abdullah Aldohayan, FRCS

Professor and Chairman of Surgery, College of Medicine, King Saud University

Ahmed Zubaidi, FRCSC

Assistant Professor of Surgery, College of Medicine, King Saud University

Abdulaziz Ahmed, M.B.B.S.

Resident in Anesthesia, King Khalid University Hospital