

## **Cancellation of Elective Procedures on the Day of Surgery**

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**Objective:** To evaluate the rate and causes of cancellation of elective procedures.

**Design:** A Retrospective Study.

**Setting:** Salmaniya Medical Complex, Bahrain.

**Method:** Data were collected for four months from the operation theatre register and were analyzed.

**Result:** Day of surgery (DOS) cancellation rate in our study was found to be 7.3%. The causes of cancellation were lack of time, high blood pressure, cardiology consultation, chest infection and upper respiratory tract infection. Most cancellations in the OT were because of high blood pressure. These causes can be avoided if proper preoperative assessment and control were applied.

**Conclusion:** DOS cancellation is a universal problem. Several common factors that play a role in increasing cancellation rate and these should be considered individually for a better outcome. A general understanding and cooperation between the caring firm, anesthesia department, nursing team and other medical departments is paramount in reducing the incidence to a minimum and to increase the efficacy of the hospital.

The study was performed from 15 March 2016 to 15 July 2016. All patients who were booked in advance and were in the operating theatre register were included in the study. The documented data included the patients' names, CPR number, surgeons' names/caring team, procedure, operating theatre number, estimated time of surgery and type of anesthesia.

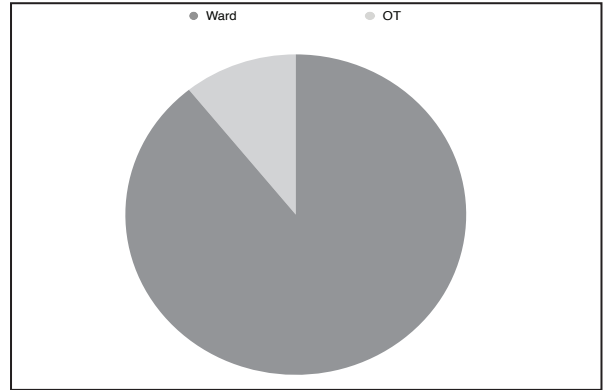
Data were collected on the following variables: the different surgical specialties, the number of canceled elective surgeries, the responsible individual for the order of cancellation, the place of cancellation and the reasons for cancellations.

The cancellation reasons were confirmed by the operating theatre staff nurse who added additional clarification if needed into the registry.

## RESULT

Four hundred twenty-one elective procedures were canceled from the routine list. The number of total elective cases booked was 5,760, a rate of 7.3%.

The number of cancelled cases by each specialty were as follows: 109 (25.9%) general surgery, 19 (4.5%) thoracic and vascular, 24 (5.7%) plastic, 75 (17.8%) urology, 41 (9.7%) orthopedic, 39 (9.3%) gynecology, 20 (4.8%) pediatric surgery, 5 (1.2%) gastrology, 30 (7.1%) ENT, 10 (2.4%) maxillofacial, 34 (8.1%) ophthalmology, 15 (3.5%) neurosurgery, see figure 1.



**Figure 2: Cancellation by Area**

Cancellation by ordering source revealed that 223 (53%) cases were cancelled by orders of the firm; the anesthetist was responsible for ordering the cancellation in 148 (35%), the patient was responsible for cancelling in 30 (7%), joint decision between the firm and anesthetist in 17 (4%), two (0.5%) cases were cancelled due to relatives and one (0.2%) case was cancelled from the nephrology team, see figure 3.



We recommend evaluation of the different factors that contribute to having “long list” as a cause for cancellation in the future, focusing on the actual time of start, time of break between surgeries, anesthesia set-up and the availability of experienced surgeons that would perform the surgery in a shorter time compared to trainee doctors<sup>23,24</sup>.

High blood pressure was the second most common cause for cancellation in our study, 9.3%; it was also the most common reason for cancellation by the anesthetist. The range of readings was between 220/140 and 140/90. High blood pressure was also the most common cause of cancellation in the OT, 4.3%.

We believe that identification of the problem would save operating time for further procedures and that focusing on preoperative assessment and controlling of patients' blood pressure would help in reducing the incidence of canceled cases. Also, we recommend in-depth evaluation of the blood pressure range that might require postponing the surgery. Looking into the possible causes for reading errors is recommended<sup>24</sup>.

Cardiology consultation was the third common cause of cancellation, 38 (9%). We believe that the rate of cancellation could be reduced if a preoperative assessment by the anesthesia and cardiology specialists are performed simultaneously. General surgery, urology, and orthopedics also had high cancellation rates. This may be related to the high turnover of cases in these specialties.

**Ethical Approval:** Approved by the Research Committee for Secondary Care, Ministry of Health, Bahrain.

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