

ELECTIVE SURGERIES: CANCELLATIONS AND CAUSES

Cirurgias eletivas: cancelamentos e causas

Cirugías electivas: cancelaciones y causas

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ABSTRACT: Objective: To investigate the number of cancelled elective surgeries and to identify its causes. **Methods:** A descriptive, exploratory, prospective and quantitative study was conducted in a university hospital using data from scheduled and cancelled elective surgeries in the period from April to June 2014, which were extracted from TASY System and the Statistical and Medial File Service. **Results:** 1,699 elective surgeries were scheduled during three months, of which 466 (27.4%) were cancelled. 336 (72.1%) cancellations occurred in the morning; and patients of the Brazilian Unified Health System had 384 (29.2%) surgeries cancelled of the 1,314 scheduled ones. The Proctology sector had 22 cancelled surgeries (43.1%) of 51 scheduled, and Orthopedics had 133 (38.3%) of 347. The main reason for cancellation was “surgeon’s criterion”, seen in 264 cases (56.7%). **Conclusion:** The number of cancellations was high, and the detailed causes were not identified because the records do not specifically report the reason for cancellation.

Keywords: Perioperative nursing. Perioperative care. Quality indicators, health care. Hospital administration. Hospitals, teaching.

RESUMO: Objetivo: Investigar o número de cirurgias eletivas que são canceladas e identificar as suas causas. **Métodos:** Estudo descritivo, exploratório, prospectivo e quantitativo, realizado em um hospital universitário utilizando os dados de cirurgias eletivas agendadas e canceladas no período de abril a junho de 2014, extraídos do Sistema TASY e do Serviço de Arquivo Médico e Estatística. **Resultados:** Durante três meses, foram agendadas 1.699 cirurgias eletivas, das quais 466 (27,4%) foram canceladas. O turno matutino foi responsável por 336 (72,1%) não realizações, e os pacientes do Sistema Único de Saúde tiveram 384 (29,2%) cirurgias canceladas dentre 1.314 agendadas. O setor de Proctologia teve 22 canceladas (43,1%), dentre 51 agendadas, enquanto a Ortopedia teve 133 (38,3%), dentre 347. O principal motivo dos cancelamentos foi “a critério do cirurgião”, observado em 264 casos (56,7%). **Conclusão:** O número de suspensões foi alto e as causas detalhadas não foram identificadas, pois os registros não informam de forma específica o motivo do cancelamento.

Palavras-chave: Enfermagem perioperatória. Assistência perioperatória. Indicadores de qualidade em assistência à saúde. Administração hospitalar. Hospitais de ensino.

RESUMEN: Objetivo: Investigar el número de cirugías electivas que se cancelan e identificar las suyas causas. **Métodos:** Estudio descriptivo, exploratorio, prospectivo y cuantitativo, realizado en un hospital universitario utilizando los datos de cirugías electivas programadas y canceladas en el período entre abril hasta junio del 2014, extraídos de lo sistema TASY y del Servicio de Archivo Médico y Estadística. **Resultados:** Por tres meses, se programaron 1.699 cirugías electivas, de las cuales 466 (27,4%) fueron canceladas. El turno de la mañana representó 336 (72,1%) cancelaciones, y los pacientes del Sistema Único de Salud de Brasil tenían 384 (29,2%) cirugías canceladas entre 1.314 programadas. El sector de Proctología tuvo 22 (43,1%) de sus 51 procedimientos cancelados y el Ortopedia tuvo 133 (38,3%) de los 347. El principal motivo de la cancelación fue el “criterio del cirujano”, observado en 264 casos (56,7%). **Conclusión:** El número de cancelaciones fue alto y las suyas causas detalladas no fueron identificadas porque los registros no informan específicamente el motivo de cancelación.

Palabras clave: Enfermería perioperatoria. Atención perioperativa. Indicadores de calidad de la atención de salud. Administración hospitalaria. Hospitales escuela.

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INTRODUCTION

The word surgery can be defined as the field of Medicine that aims at studying and developing activities in order to care for and treat internal and external changes, to keep the quality of life of the patient^{1,2}.

Surgeries can be classified as to the level of contamination, the time, the size and the medical specialty. Those considered to be less aggressive to the patient and not deep are minor. Those conducted frequently, lasting for a few hours, are medium; and the major surgeries require special equipment or more than one team, and usually last long hours^{1,2}.

In the process of organizing surgical planning, the nurse is the professional skilled to manage the preoperative needs, while preparing the patient. This person should identify the infections before the elective surgeries and communicate the doctor when finding a focus of infection³.

The structure of the surgery program to be carried out is conducted by a nurse one day before the surgery. The team in charge should issue a previous surgery note. The information in this note is inserted in a data base and is used in the preparation of these surgeries by the teams of anesthesia, nurses, surgeons, laboratories, centers of material, sterilization and blood. The cancellation may occur if surgeons, anesthesiologists, nurses or patients request it⁴.

Among the possibilities of structural organization, it is possible to find both the coordinator and the assistant nurse. The former has several jobs, and is in charge of keeping the administrative, technical, operational and ethical controls in the activities of the Surgery Center; of providing the human and material resources to perform the surgeries; of conducting the strategic planning of the Nursing department; of scheduling in a specific map and guiding the setup of the rooms. The latter should check the surgery schedules previously, supervise the work of the professionals of the Nursing team and make the shifts of the daily activities of the employees. The schedule of the surgeries is organized by the administrative assistant³.

When a patient who will be submitted to an anesthetic-surgical procedure is admitted to the institution, a process of nursing assistance begins, and that does not depend on the characteristics involving the admission or the intervention: emergency or urgent surgeries, elective operations, emergency care or hospital admission².

The role of the nurse in terms of planning and managing the routine of the Surgery Center is mentioned by authors who defend technological improvements in surgery schedules and the need for all suspended surgeries to be rescheduled for the same day or week⁴.

It is also important to know the method used to schedule surgeries in the analyzed hospital, so that it is possible to find errors coming from such a procedure⁵.

There are many consequences when surgeries are cancelled. There are changes in the routine of the patient and the family, because after they are informed of the need to go through surgery, everyone needs to rethink their activities to adjust to this new event. Besides, there are changes regarding hospital administration, which provides time and material resources to conduct both the cancellation and the new schedule, when necessary⁵. The costs of these events are also considerable, so, the concern with this matter is justified⁶.

It is important to observe the reasons to cancel the procedures, especially in the specialties in which this event is more frequent. For that, nurses should study these data and present them to the board in order to reduce such rates⁷.

Among the reasons to cancel surgeries, the absence of patients on the scheduled day is analyzed by some authors⁸. Suspensions caused by errors in schedule are also discussed, and can be prevented by better planning. The same authors point out to the need for an infrastructure that supports the collection of reliable data, which can be used by the Nursing department for better planning⁸.

Some of the changes proposed to minimize the suspension of surgeries are: confirmation of the schedule prior to the surgery; control and investigation of the reasons for suspension, besides periodical meetings to discuss and plan future surgeries⁹.

Some researchers recommend other actions to minimize the number of cancellations¹⁰. Some of them are: pre-op visit, besides the improved communication between institution and users; confirmation of the date of surgery on the days close to the procedure; visit to the hospital before the anesthesia; control of indicators to manage problems; creation of study groups to provide better and more humanized care¹⁰.

In the university hospital of this study, it was possible to observe frequent cancellations of surgeries, and these were not analyzed statistically to identify the specialties and the reasons for cancellation. Knowing the consequences of this phenomenon, it was chosen to conduct a study to verify,

quantitatively, the occurrences of these events, and specially their causes.

OBJECTIVES

To investigate the number of scheduled elective surgeries that are cancelled and identify the causes.

METHODS

This is a descriptive, exploratory and prospective study with a quantitative approach. It was conducted in a university hospital with the TASY System and *Serviço de Arquivo Médico e Estatística* (SAME), in the south of Minas Gerais. The unity of the Surgery Center is comprised of seven operation rooms, and there minor, medium and major surgeries are conducted in several specialties, every month. This institution cares for hospitalized patients or those admitted at outpatient surgery. The surgery schedule is established from 7 a.m. to 7 p.m., every day, from Monday to Friday, and on Saturdays in the morning. Night, weekends and holidays are used in cases of urgency and emergency.

The University Hospital is classified by the Ministry of Education (MEC) and by the Ministry of Health (MS) as a General Teaching Hospital, according to ordinance 450, from March 23, 2005, including secondary and tertiary levels of complexity. There are 264 hospital beds in the following specialties: Medical Clinic, General Surgery, Cardiology, Endocrinology, Gastroenterology, Gynecology, Obstetrics, Nephrology, Urology, Neurology, Neurosurgery, Ophthalmology, Orthopedics/Traumatology, Otorhinolaryngology, Plastic, Thoracic surgeries, Intensive Care Units (ICU), Pediatrics and Adult, out of which 231 are destined to the Unified Health System (SUS)¹¹. The organization is highly resolute in procedures of medium and high complexity, being considered as a secondary and tertiary reference in the macro-region of the South of Minas Gerais for more than 53 cities, with an estimated population of 1,000,000 inhabitants, according to the last census. The number of SUS patients is always increasing. The hospital is the only one with a general emergency room in the region that is part of the reference system in urgency, emergency and elective services, for pregnant women with high risk (level III); high complexity (Neurosurgery, level II), Traumatology/Ortopedics; complexity in cornea and kidney

transplant; Adult, Neonatal and Pediatric ICU (type II) and cardiac surgeries¹¹.

The sample was comprised of information from the System TASY, including patients who had elective surgeries scheduled and canceled from April to June, 2014, accounting for 1,699 scheduled operations and 466 canceled ones.

The inclusion criteria were scheduled and cancelled elective surgeries registered in the TASY system, and non-inclusion criteria contemplated urgency and emergency surgeries, as well as C-sections and deliveries.

This study was conducted in accordance with resolution 466/12, which guides investigations with human beings and keeps their anonymity. It was approved in report 642,997, from April 30, 2014, by the Research Ethics Committee of the university. The data recorded in TASY were collected, with the evaluation of the surgical procedures conducted on a daily basis. This information was stored in a specific form that had two parts: the first included sociodemographic data, and the second, information regarding the surgical procedure.

The data were analyzed by descriptive statistics, with absolute and relative numbers, using statistical tools. The results were organized in tables and graphs, which were inserted in Excel – Microsoft Office® 2013.

RESULTS

The hospital had 1,699 elective surgeries scheduled in the three months, from April to June, 2014, of which 466 (27.4%) were canceled. The analysis of data regarding the scheduled and canceled procedures was made per month, and the results are presented in Table 1.

In the total period of the study, out of 808 surgeries scheduled for male patients, 223 (27.6%) were cancelled; and of 888 for female patients, the total of suspensions was 240 (27.0%). Some surgeries in the records of cancellation had blank or incorrect information about the patient. These data were classified in the sex category as “Unidentified”.

The surgeries scheduled for 1 p.m. and later were in the afternoon shift. There were 1,154 surgeries in the morning, and out of these, 336 (29.1%) were cancelled; among the 545 surgeries scheduled for the afternoon, 130 (23.9%) were cancelled.

After analyzing the day chosen for each surgery in the total period, the following was observed: on Monday, 343

Table 1. Scheduled and cancelled surgeries according to sex, shift, week day, health insurance and clinical specialty in April, May and June, 2014.

Categories	April			May			June			Total		
	Sc	Can	%	Sc	Can	%	Sc	Can	%	Sc	Can	%
Surgeries	581	150	25.8	579	154	26.6	539	162	30.1	1699	466	27.4
Sex												
Male	293	71	24.2	250	66	26.4	265	86	32.5	808	223	27.6
Female	288	79	27.4	327	86	26.3	273	75	27.5	888	240	27.0
Unidentified	0	0	-	2	2	100	1	1	100	3	3	100
Shift												
Morning	383	101	26.4	377	105	27.9	394	130	33.0	1154	336	29.1
Afternoon	198	49	24.7	202	49	24.3	145	32	22.1	545	130	23.9
Week day												
Monday	96	29	30.2	125	30	24.0	122	29	23.8	343	88	25.7
Tuesday	151	37	24.5	117	30	25.6	124	42	33.9	392	109	27.8
Wednesday	132	32	24.2	120	25	20.8	102	27	26.5	354	84	23.7
Thursday	128	42	32.8	130	45	34.6	96	33	34.4	354	120	33.9
Friday	74	10	13.5	87	24	27.6	95	31	32.6	256	65	25.4
Health insurance plan												
Unified Health System	460	130	28.3	455	130	28.6	399	124	31.1	1314	384	29.2
Insurance	85	14	16.5	80	9	11.3	78	13	16.7	243	36	14.8
Private	25	2	8.0	24	3	12.5	19	3	15.8	68	8	11.8
Unidentified	11	4	36.4	20	12	60.0	43	22	51.2	74	38	51.4
Clinical specialty												
Proctology	21	7	33.3	14	6	42.9	16	9	56.3	51	22	43.1
Orthopedics	127	49	38.6	107	41	38.3	113	43	38.1	347	133	38.3
Urology	30	9	30.0	29	12	41.4	34	13	38.2	93	34	36.6
General Surgery	76	19	25.0	59	21	35.6	51	18	35.3	186	58	31.2
Odontology	8	4	50.0	14	3	21.4	9	2	22.2	31	9	29.0
Otorhinolaryngology	13	3	23.1	15	3	20.0	26	9	34.6	54	15	27.8
Neurology	88	19	21.6	56	19	33.9	69	21	30.4	213	59	27.7
Plastic surgery	60	16	26.7	81	22	27.2	59	13	22.0	200	51	25.5
Gynecology	41	11	26.8	58	5	8.6	28	7	25.0	127	23	18.1
Cardiology	34	4	11.8	32	5	15.6	35	9	25.7	101	18	17.8
Pediatrics	16	3	18.8	18	3	16.7	14	2	14.3	48	8	16.7
Vascular	32	2	6.3	65	11	16.9	45	10	22.2	142	23	16.2
Ophthalmology	14	1	7.1	15	3	20.0	15	3	20.0	44	7	15.9
Oncology	21	3	14.3	16	0	0	25	3	12.0	62	6	9.7

Sc: scheduled; Can: cancelled.

scheduled operations and 88 (25.7%) cancellations; on Tuesday, 392 scheduled surgeries and 109 (27.8%) cancellations; on Wednesday, of the 354 scheduled operations, 84 (23.7%) were suspended; on Thursday, from 354 surgeries, 120 (33.9%) were cancelled; and of the 256 on Friday, 65 (25.4%) were cancelled.

Among the 1,314 surgeries scheduled for SUS patients, 384 (29.2%) were cancelled, whereas those who were admitted by the private system had 68 surgeries scheduled, out of which 8 (11.8%) were cancelled. People who were hospitalized by some kind of medical insurance had higher rates than the latter: of 243 scheduled surgeries, 36 (14.8%) were cancelled.

Regarding specialties, there was a major variation both in the number of surgeries and in the percentage of cancellations. Proctology and Orthopedics had the highest rates of cancellation in the period, with 51 scheduled procedures

and 22 cancelled ones (43.1%), and 347 scheduled surgeries and 133 (38.3%) cancellations, respectively; for Urology, out of 93 scheduled operations, 34 (36.6%) procedures were suspended. Oncology had the lowest rate, scheduling 62 procedures and cancelling 6 (9.7%).

The 466 surgeries that were cancelled were analyzed as to the reason of cancellation and divided in the same categories observed previously. The result is in Table 2.

The number of cancellations in April, May and June was of 150 (32.2%), 154 (33.0%) and 162 (34.8%), respectively. In the analysis by sex, 233 (47.9%) cancellations involved male patients, whereas 240 (51.5%) were of female patients. The other three (0.6%) were of patients who were not identified as to sex. The morning shift was in charge of 336 (72.1%) cancellations. Regarding the day of the week, Friday corresponds to a total of 65 (13.9%) suspensions, whereas Thursday represents 120 (25.8%) cancellations. SUS was in charge of 384

Table 2. Distribution of scheduled and cancelled surgeries in April, May and June, 2014.

Categories	April		May		June		Total	
	n	%	n	%	n	%	n	%
Cancelled surgeries	150	32.2	154	33.0	162	34.8	466	100
Sex								
Male	71	47.3	66	42.9	86	53.1	223	47.9
Female	79	52.7	86	55.8	75	46.3	240	51.5
Unidentified	0	0	2	1.3	1	0.6	3	0.6
Shift								
Morning	101	67.3	105	68.2	130	80.2	336	72.1
Afternoon	49	32.7	49	31.8	32	19.8	130	27.9
Week day								
Monday	29	19.3	30	19.5	29	17.9	88	18.9
Tuesday	37	24.7	30	19.5	42	25.9	109	23.4
Wednesday	32	21.3	25	16.2	27	16.7	84	18.0
Thursday	42	28.0	45	29.2	33	20.4	120	25.8
Friday	10	6.7	24	15.6	31	19.1	65	13.9
Health insurance plan								
Unified Health System	130	86.7	130	84.4	124	76.5	384	82.4
Insurance	14	9.3	9	5.8	13	8.0	36	7.7
Private	2	1.3	3	1.9	3	1.9	8	1.7
Unidentified	4	2.7	12	7.8	22	13.6	38	8.2

Continue...

Tabela 2. Continuation.

Categories	April		May		June		Total	
	n	%	n	%	n	%	n	%
Clinical specialty								
Proctology	49	32.7	41	26.6	43	26.5	133	28.5
Orthopedics	19	12.7	19	12.3	21	13.0	59	12.7
Urology	19	12.7	21	13.6	18	11.1	58	12.4
General Surgery	16	10.7	22	14.3	13	8.0	51	10.9
Odontology	9	6.0	12	7.8	13	8.0	34	7.3
Otorhinolaryngology	11	7.3	5	3.2	7	4.3	23	4.9
Neurology	2	1.3	11	7.1	10	6.2	23	4.9
Plastic surgery	7	4.7	6	3.9	9	5.6	22	4.7
Gynecology	4	2.7	5	3.2	9	5.6	18	3.9
Cardiology	3	2.0	3	1.9	9	5.6	15	3.2
Pediatrics	4	2.7	3	1.9	2	1.2	9	1.9
Vascular	3	2.0	3	1.9	2	1.2	8	1.7
Ophthalmology	1	0.7	3	1.9	3	1.9	7	1.5
Oncology	3	2.0	0	0.0	3	1.9	6	1.3
Reason for cancellation								
Surgeon's criterion	84	56.0	95	61.7	85	52.5	264	56.7
Lack of hospital beds	23	15.3	21	13.6	23	14.2	67	14.4
Non-attendance	19	12.7	18	11.7	29	17.9	66	14.2
Lack of bed in Intensive Care Unit	3	2.0	5	3.2	8	4.9	16	3.4
Surgery has already been performed	4	2.7	4	2.6	3	1.9	11	2.4
Unfavorable clinical condition	3	2.0	5	3.2	2	1.2	10	2.1
Error in schedule	3	2.0	2	1.3	5	3.1	10	2.1
Surgery rescheduled	3	2.0	0	0.0	4	2.5	7	1.5
Procedure suspended	2	1.3	1	0.6	1	0.6	4	0.9
Not specified	1	0.7	1	0.6	1	0.6	3	0.6
Lack of fasting	1	0.7	1	0.6	0	0.0	2	0.4
Patient died	0	0.0	1	0.6	1	0.6	2	0.4
Refusal to perform surgery	1	0.7	0	0.0	0	0.0	1	0.2
Lack of material	1	0.7	0	0.0	0	0.0	1	0.2
Anesthetist's criterion	1	0.7	0	0.0	0	0.0	1	0.2
Not authorized by insurance	1	0.7	0	0.0	0	0.0	1	0.2

(82.4%) of cancellations, and private surgeries represented 8 (1.7%) of the total in the period. Surgeries from insurance companies accounted for 36 (7.7%) and those without health insurance in the records were 38 (8.2%).

A total of 14 clinical specialties was analyzed. Orthopedics had a total of 133 (28.5%) cancelled procedures in the period, followed by Neurology, with 59 (12.7%). Oncology had fewer cancellations, 6 (1.3%).

The most frequent reason for cancellation was “the surgeon’s criterion”, being 264 (56.7%) in the period, followed by “lack of hospital beds”, with 67 (14.4%) and “non-attendance”, with 66 (14.2%).

DISCUSSION

The 27.4% rate of cancellations found in the analyzed period is high. Similar studies indicated values between 5.1⁶ and 39.3%¹². In this last investigation, a system was implemented to reduce this high rate, and, after a second analysis, the percentage was 15.9. Other investigations also found rates of 11.4¹³, 16⁵, 17⁷ and 17.3%⁴.

In the collection period, the three months had similar numbers of scheduled surgeries. However, June had a higher rate of cancellation in relation to the other months: 30.1% of the surgeries were cancelled.

Regarding sex, the cancellation rates were close for both genders. Even though there were differences between the months alone, in the final analysis they were compensated and the values were close. This result is compatible with other studies that did not find big differences in this distribution, when cancellations among men were 45 and 58.7%¹⁴. However, there is a difference in relation to another study, in which female people presented 83.3% of cancellations¹⁵.

The cancellation rate of the morning shift (72.1%) was higher than the afternoon. Because of that, the number of surgeries scheduled for the morning (1,154) was almost twice as high in relation to those scheduled for the afternoon (545). Similar data were found, reporting that cancellations in the morning were also more frequent, accounting for 76.3%⁸, whereas, in another study, 77.8% of cancellations took place in the afternoon¹⁵. This difference between values can be attributed to the different ways each institution manages its surgeries per clinical specialties in the analyzed periods.

In the analysis per weekday, Thursdays had higher cancellation rates in every month of evaluation. The lowest rate was found on Fridays, Wednesdays and Mondays, in April, May and June, respectively. In the distribution of cancellations, Thursdays were responsible for the highest value (25.8%), whereas Friday had the lowest one (13.9%). This is owed to the fact that the number of surgeries scheduled for that day was lower in two of the three analyzed months. In a study with a sample of 18 cancelled surgeries, 82.2% of them had been suspended on a Thursday¹⁵, whereas in another one, Wednesdays had more cancellations, 24.1%, and the lowest number, except for Saturday, was on Tuesday (15.2%)⁸. As in the analysis per shifts, these results may have been influenced by the variation in the distribution of specialties on weekdays in different institutions.

SUS had the highest rates of cancellation (29.2%), in comparison to surgeries performed by insurance companies (14.8%). With high rates of cancellation and high number of surgeries performed by this system, it represents 82.4% of all cancellations. This result is also found in studies showing that 82.7, 73.1 and 61.67% of cancellations were attributed to patients from SUS^{6,8,9}.

The highest rate of cancellation was found in surgeries of Proctology (43.1%), followed by Orthopedics, with the second highest rate of cancellation (38.3%). This result is similar to that found in analyses in which Orthopedics also had the second highest rate, with 36.4 and 26.2%^{7,14}, and another one in which this specialty presented 27.8% of the cancelled procedures¹⁶. Urology, which, in this study, had the third highest rate, was higher in another study, with 39.1% of surgeries suspended¹⁴. In the distribution of cancellations, Orthopedics appears with the highest absolute value, 133 (28.5%), as well as in a study in which it represents 18.4% of total cancellations⁴. In three other investigations, the highest number of cancellations belongs to General Surgery; however, in this study, such a specialty presented the third highest frequency^{6,9,13}.

The most frequent reason for cancelling surgeries was the “surgeon’s criterion”. In the study by Nascimento et al.⁷, a similar reason appears as the most frequent one, called “Clinic’s request”, and the authors state that “this reason, in fact, hides the real motivation for suspension”. This justification for cancellation corroborates the results in this study, which was also the most used one for all clinical specialties. Then there were the reasons “Lack of hospital beds” and “Non-attendance”. The former appears in other studies¹¹ as a

reason for cancellation, and the latter is very common^{4,6,8,13,16}. One of the main reasons for cancellation observed in other analyses is the unfavorable clinical condition, which, in this study, represented only 2.1% of the cases. It is possible that other cases, when patients were not clinically prepared for the surgical procedure, are included in those cancellations requested by the surgeon.

The results showed high cancellation rates, and the reasons could not be identified in detail, because more than half of those observed in the period was requested by the surgeon, without specificities, so there could be different reasons. With this difficulty, it was chosen to elaborate a protocol to register cancellations and their causes in detail, including more information and a list of justifications for this procedure, according to Appendix 1.

FINAL CONSIDERATIONS

The number of cancellations of scheduled surgical procedures found in this study was high, especially among SUS patients, mostly female. The specialties that cancelled more frequently in the period were Orthopedics and Proctology. The causes could not be identified in detail, because the most common justification was “surgeon’s criterion”, thus not describing clearly the exact reason leading that procedure to be cancelled.

These cancellations cause several biopsychosocial consequences to the patient, changes in the family and health professionals in the several sectors of the hospital. Material resources are wasted from both sides, generating costs that could be prevented by not cancelling the procedures. Efficient interventions can be implemented, however, the decision over which are most adequate for the context depends on an evaluation regarding the situation of the institution.

The perspective of this study encourages the use of the protocol presented in Appendix 1, with the record of specific data regarding surgeries and the reasons for cancellation. This protocol was built to include new information, so that it is possible to make more comparisons with the results obtained in other studies.

Literature presents several interventions that can be performed to reduce the incidence of each reason for cancellation, so a new registration system for the suspensions may favor an analysis that will lead to a better diagnosis of this problem. After some interventions, it may be possible to observe a reduction in the rates of cancellation of this institution. Therefore, the highest level of satisfaction of employees and patients involved may be achieved with the improved quality of care in the institution. So, the service can be more effective, contributing to the increasing quality in the care provided by the institution.

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Appendix 1. Form to register the cancellation of surgeries.

Nome: _____ Idade: _____ Sexo: () M () F
 Data: ____ / ____ / ____

Nome da cirurgia: _____

Especialidade: () Odontologia () Pediatria
 () Cardiologia () Oftalmologia () Plástica
 () Ginecologia () Oncologia () Proctologia
 () Geral () Ortopedia () Urologia
 () Neurologia () Otorrinolaringologia () Vascular

Turno: () Manhã () Tarde () Noite

Dia da semana: () Segunda () Terça () Quarta () Quinta () Sexta

Agendamento: () Eletiva () Comunicação Interna () Emergência

Plano de Saúde: () SUS () Convênio () Particular

Porte: () Pequeno () Médio () Grande () Não identificado

Momento da suspensão: () Antes do preparo da SO () Depois do preparo da SO
 () Durante o procedimento anestésico-cirúrgico

Causas:

Paciente	() Não comparecimento	() Recusa à realização de cirurgia
	() Condição clínica desfavorável	() Intubação difícil
	() Falta de jejum	() Paciente foi a óbito
Org. da Unidade	() Falta de vaga	() Erro na programação cirúrgica
	() Prioridade para urgência	() Transferência para outro hospital
	() Falta de exames	
Recursos Humanos	() Falta de hemoderivados	() Falta de instrumentador
	() Tempo cirúrgico excedido	() Preparo pré-operatório sem êxito
	() Falta de anestesiológista	() Não liberado pela anestesista
	() Falta de cirurgião	() Mudança de conduta médica
	() Falta de equipe de enfermagem	
Recursos Materiais	() Falta de material	() Falta de equipamentos
	() Outros	() Não especificado