



**PROFILE OF SURGICAL PATIENTS TREATED IN A PUBLIC HOSPITAL**  
**PERFIL DE PACIENTES CIRÚRGICOS ATENDIDOS EM UM HOSPITAL PÚBLICO**  
**PERFIL DE PACIENTES QUIRÚRGICOS ATENDIDOS EN UN HOSPITAL PÚBLICO**

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**ABSTRACT**

**Objective:** to characterize the socio-demographic and clinical profile of surgical patients. **Method:** descriptive cross-sectional and documentary study using quantitative approach. Data were collected from medical records in order to obtain the profile of surgical patients undergoing surgery in the first half of 2013, in a state general hospital in Londrina/PR. The research project was approved by the Ethics Research Committee, protocol no. 459.623/2013. **Results:** patient care in the perioperative period should be planned according to his individuality and his needs, and the nurse is responsible for the planning and development of care actions. It is important the training of nurses working in surgical units for the development of educational activities. **Conclusion:** knowledge of socio-demographic characteristics and clinical conditions of the surgical patient enables the planning of perioperative nursing care, ensures postoperative recovery and the extent of rehabilitation. **Descriptors:** Perioperative Care; Nursing; Hospitalization.

**RESUMO**

**Objetivo:** caracterizar o perfil sociodemográfico e clínico de pacientes cirúrgicos. **Método:** estudo descritivo, transversal e documental com abordagem quantitativa. Os dados foram coletados a partir de prontuários a fim de se obter o perfil dos pacientes cirúrgicos submetidos a cirurgias no primeiro semestre de 2013, em um hospital geral estadual de Londrina/PR. O projeto de pesquisa foi aprovado pelo Comitê de Ética em Pesquisa, Protocolo n. 459.623/2013. **Resultados:** a assistência prestada ao paciente no perioperatório deve ser planejada de acordo com a sua individualidade e suas necessidades, sendo o enfermeiro o responsável pelo planejamento e desenvolvimento das ações de cuidado. É importante a capacitação dos profissionais de enfermagem que atuam em unidades cirúrgicas para o desenvolvimento de ações educativas. **Conclusão:** o conhecimento de características sociodemográficas e condições clínicas do paciente cirúrgico possibilitam o planejamento da assistência de enfermagem perioperatória, assegura a recuperação pós-operatória e o alcance da reabilitação. **Descritores:** Assistência perioperatória; Enfermagem; Hospitalização.

**RESUMEN**

**Objetivo:** caracterizar el perfil sociodemográfico y clínico de pacientes quirúrgicos. **Método:** estudio descriptivo, transversal y documental con abordaje cuantitativo. Los datos fueron recogidos a partir de prontuarios con el fin de obtener el perfil de los pacientes quirúrgicos sometidos a cirugías en el primer semestre de 2013 en un hospital general estatal de Londrina/PR. El proyecto de la investigación fue aprobado por el Comité de Ética en Investigación, Protocolo n. 459.623/2013. **Resultados:** la asistencia prestada al paciente en el peri operatorio debe ser planificada de acuerdo con su individualidad y sus necesidades, siendo el enfermero el responsable por la planificación y el desarrollo de las acciones de cuidado. Es importante la capacitación de los profesionales de enfermería que actúan en unidades quirúrgicas para el desarrollo de acciones educativas. **Conclusión:** el conocimiento de características socio demográficas y condiciones clínicas del paciente quirúrgico hacen posible la planificación de la asistencia de enfermería peri operatoria, asegura la recuperación pos operatorio y el alcance de la rehabilitación. **Descriptores:** Asistencia Peri operatoria; Enfermería; Hospitalización.

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## INTRODUCTION

Nursing is a key staff present in practices related to Surgical Center (CC), instrumenting surgeries, taking care to promote wellness for patients and biologically safe environment to perform the surgery. However, until the 1960s, the activities of assistance to surgical patients of Nursing summarized in instrumenting surgeries, fulfill requests from medical staff and develop preventive and promotion actions in the perioperative period to the anesthetic-surgical procedure was safe and without trauma. Over the years, nurses and staff took on other responsibilities, resulting in a higher valuation, expanding the class and its pursuit of scientific expertise in the area, for its own improvement.<sup>1</sup>

Briefly, the perioperative care process is divided into three periods: preoperative, intraoperative, and postoperative. Each phase starts and ends at a particular moment in the sequence of events of surgical experience, which requires specific activities to be planned by the nurse with the Nursing Process (NP) and best scientific evidence into clinical practice.<sup>2-3</sup>

In the preoperative phase, the preoperative visit is crucial, because nurse performs the emotional and physical examination of the patient focusing on the history of anesthesia and allergies. On the day of surgery, as well as ensuring the clinical condition of the patient for referral of the patient with his documentation, the nurse makes sure of the patient's identity and that all pre-operative care have been conducted. During surgery, the nurse should ensure the start of anesthesia and surgery with monitoring of vital parameters and forecast and provision of patient's safety during the procedure.<sup>2-3</sup>

Nursing can provide emotional support during anesthesia induction; act as surgical technologist or circulating and aid in positioning the patient on the operating table. Postoperatively, the focus will be evaluating the anesthetic effects with monitoring of vital functions, provision of comfort and pain relief and prevention of postoperative complications, systemic changes and the stress of the patient, which may alter the physiological recovery, especially with regard to the healing of the surgical wound and hemodynamic stabilization in the immediate postoperative period for the prevention of postoperative complications.<sup>4</sup> Nursing promotes educational activities on specific care and patient, especially in outpatient surgeries, which favor the recovery and

successful rehabilitation after hospital care. For hospitalized patients, efforts must ensure discharge for patient to the ward and the continuity of care by professional staff of the inpatient unit.<sup>2-3</sup>

In Brazil, the Care System for Perioperative Nursing (SAEP) has been used in surgical units to improve the quality of perioperative care, in line with the Nursing Care System (SAE) as clinically appropriate systematization of human needs, established by Federal Board of Nursing (COFEN Resolution 272/2002).<sup>2,5</sup>

The perioperative nursing care requires active participation of nurses seeking to promote comprehensive, continuing, participatory, individualized, documented care, and with evaluation of results achieved. This nursing care must promote continuity of care with family's participation to perform the home care and promote patient recovery.<sup>1-2</sup>

The nurse in perioperative care performs administrative and managerial activities such as supervision, training of human resources, forecast and provision of supplies that provide the quality of care, though often unable to provide direct care to family.<sup>1,6</sup>

In hospitals, the Surgical Center (SC) is a sector that is distinguished from others by its results, the complexity of procedures and high costs. The reduced number of nurses contributes to engage primarily in financial decisions and budget planning of these institutions, managing scarce human, financial and material resources, in a constant challenge to find the balance between quality, quantity and cost.<sup>7</sup>

The perioperative nursing care must take place in an organized manner, with documentation direct its steps and ensure its continuity. In the preoperative evaluation, the nurse conducts the interview of the patient and family, taking into account the records in the chart made by nursing and medical staff, in addition to preoperative exams and information provided by the nurse at the inpatient unit. At this stage, the professional identifies the need for care during surgery. They will guide the planning of nursing care of the patient in the SC, with determining priorities, actions and results to be achieved.<sup>2</sup>

The need to undergo a surgery causes stress in patients, especially with the proximity of the intervention, which can generate individual behaviors, influenced by multiple factors, involving emotional, physical, family and social aspects, which affects the physiology and may have direct relationship with the lack of information

about surgery and anesthesia, nursing care and the process of post-operative recovery.<sup>4,8</sup>

During the preoperative visit, the nurse is able to know the emotional state of the patient, the anatomical and physiological conditions, perform the clinical evaluation that assists action planning for the psychosocial and physical preparation of the patient in the intraoperative. However, the preoperative visit is still a practice little adopted by public and private hospitals in Brazil. Thus, symptoms such as anxiety and depression patients are often underreported. Furthermore, in an attempt to reduce costs and due to lack of beds, it is common for patients to be admitted the day before surgery or on the same day.<sup>2,5</sup>

Concurrently, health professionals are not always able to provide information that gives the professional support needed to surgical patients. Cultural behavior of many patients and their ignorance of the right to receive information during hospitalization and have adequate postoperative recovery reinforce and maintain the attitude of these professionals.<sup>9</sup>

Interventions performed by nurses in order to relieve stress in the perioperative period, symptoms of anxiety, feelings of insecurity and fear, to enable an understanding of the surgical procedure, its consequences and the physiological process of recovery and rehabilitation constitute the teaching-learning process, of which the nurse should be the protagonist. Study notes that the increased pain, nausea, vomiting and anxiety in the postoperative are changes that are closely related to the anxiety of the patient in preoperative. Thus, nurses can minimize the anxiety and depression of patients by supplying information with easily understood language for the patient and family, respecting their culture and knowledges.<sup>1,5</sup>

Commonly, information is restricted only to clarify any doubts expressed by patients and/or family, and educational activities are not potentiated.<sup>10-1</sup> Educational activities of the surgical nurse must take into account the physical and psychosocial needs of patients and their families, their individual characteristics and their social context. Thus, education must meet the needs of patients for self-care and postoperative recovery. For patients, the attributes for a quality of care refers to interpersonal relationships, the provision of information and respect their needs.<sup>11</sup>

Humanized nursing assistance in perioperative period includes good relationship with the patient and family,

which implies a professional practice guided by the observation of singularities and respecting the moments of anxiety of the patient. Fear and anxiety are noted by several authors to cause disorders such as hypertensive episodes that trigger severe bleeding during surgery, and the reduction of immune resistance. Offering emotional support, developing skills to promote education and providing information on surgical procedures, anesthesia, recovery, among other information, requires that nurses and their staff have adequate training. Nurses can and have the opportunity to individualize care in their daily activities performing techniques, guidance and information to surgical patients and families.<sup>5,9,11-12</sup>

Given the above, we believe that knowledge of the socio-demographic and clinical characteristics of patients allows nurses to plan a more welcoming and safe nursing care in the perioperative, including preparing the patient for discharge, seeking their postoperative recovery with resumption of their of daily living activities and reintegration in the family and in society.

OBJECTIVE

- To characterize the socio-demographic and clinical profile of surgical patients.

METHOD

Study of quantitative, descriptive and retrospective approach about the profile of surgical patients at a state general hospital located in the city of Londrina/PR. The study was conducted at Dr. Figueiredo Anísio Hospital in Londrina/PR, the medical file service (SAME), and approved by the Research Ethics Committee at the University of Northern Parana (CEP/UNOPAR-Opinion No. 459.623/2013).

Inclusion criteria were: medical records of adults undergoing surgery in the first half of 2013. It was elaborated a list with 1158 records of patients seen in the considered period, and given the size of the random sample of 120 medical records through Bioestat software, version 5.3, by statistics of the research group.

Although the definition of a random sample of 120 records of patients, there was a loss of data from 10 records, so the final sample was 110 medical records of patients seen in the first half of 2013. The tool used to collect socio-demographic and clinical data included sex, age, surgery, anesthesia, clinic, period, duration of the surgery (in minutes), the use of prophylactic antibiotics,

potential risk of contamination, presence or absence of professionals in the room during surgery and comorbidities. Data were coded and double entered into Excel spreadsheets, exported and analyzed using the Statistical Package for Social Science (SPSS)® program, version 19.0. Descriptive analysis of the

results, with total and percentage of frequencies was also performed.

RESULTS AND DISCUSSION

Next, data presented in Tables 1 and 2 relate to patients who underwent surgery in the first half of 2013.

Table 1. Socio-demographic and clinical profile of 110 surgical patients treated at the study hospital, in the first half of 2013. Londrina, 2014.

| Characterization data of patients |                              | No. of patients | %   |
|-----------------------------------|------------------------------|-----------------|-----|
| Sex                               | Female                       | 61              | 55  |
|                                   | Male                         | 49              | 40  |
|                                   | Total                        | 110             | 100 |
| Age                               | Under 20 years old           | 36              | 33  |
|                                   | From 20 to 40                | 22              | 20  |
|                                   | From 41 to 60                | 36              | 33  |
|                                   | Over 60 years old            | 16              | 15  |
|                                   | Total                        | 110             | 100 |
| Comorbidity                       | No                           | 80              | 73  |
|                                   | Diabetes                     | 2               | 2   |
|                                   | Hypertension                 | 16              | 15  |
|                                   | Diabetes and Hypertension    | 4               | 4   |
|                                   | Hypertension and Cholesterol | 1               | 1   |
|                                   | Other                        | 7               | 6   |
| Antibiotic Prophylaxis            | Total                        | 110             | 100 |
|                                   | Yes                          | 80              | 73  |
|                                   | No                           | 30              | 27  |
| Surgery                           | Total                        | 110             | 100 |
|                                   | Elective                     | 76              | 69  |
|                                   | Emergency                    | 34              | 31  |
| Period                            | Total                        | 110             | 100 |
|                                   | January                      | 20              | 18  |
|                                   | February                     | 14              | 13  |
|                                   | March                        | 13              | 12  |
|                                   | April                        | 24              | 22  |
|                                   | May                          | 24              | 22  |
| Total                             | June                         | 15              | 14  |
|                                   | Total                        | 110             | 100 |

Of the 110 patients who underwent surgery on a period of six months, the majority (61-55%) were female; with the highest number of surgeries (36/33%) in patients under 20 years old and 41-60 years old, respectively. In a study conducted with 30 patients in a large hospital, on hypothermia in the perioperative period, in terms of socio-demographic aspects, 21 (70.0%) patients were female, the age ranging between 18 and 64 years old, mean age of 35.3 years old and more frequently in the range between 28 and 38 years old - 10 (33.3%).<sup>13</sup> And in another study with 100 surgical patients at a university hospital, female (81%) were predominant, with a mean age of 42.2 years old.<sup>5</sup>

80 (73%) patients showed no comorbidities, followed by 16 (15%) isolate records of hypertension and 5 associated with diabetes mellitus and elevated cholesterol levels. A research of Brazilian Institute of Geography and Statistics (IBGE) on hypertension points to prevalence in Brazil of 35% of the population

over 40 years old. This is, in absolute numbers, a total of 17 million people with the disease, mainly due to the sedentary lifestyle and food with high sodium content, as in the case of processed and canned foods.<sup>14</sup>

The care of elderly surgical patients should be different from the care of patients in other age groups, taking into account the changes resulting from the aging process itself and the presence of associated diseases that can compromise the functional balance with increased vulnerability to post-operative complications. The preoperative visit performed by the nurse aims to evaluate the risk factors that may negatively influence the intraoperative period.<sup>15</sup> Therefore, the role of nurses during the interview and clinical assessment of the patient in the preoperative visit is crucial and allows them to identify problems for planning the perioperative care.<sup>2</sup>

Antibiotic prophylaxis was used in 80 (73%) patients; elective surgery (76-69%) exceeded the emergency (34-31%) and in the months of

April and May 24 (22%) surgery procedures were performed, respectively.

The occurrence of emergency surgical procedures jeopardizes the achievement of a pre-operative preparation and, consequently, contributes to the increased risk of postoperative infectious complications. The skin preparation with antiseptic and appropriate administration of prophylactic

antimicrobials are highly effective measures to prevent surgical site infections.<sup>16-17</sup>

Regarding clinic, 78 (72%) surgical interventions resulting from the sum of 27 (25%) orthopedic surgery, 26 (24%) general surgery and 25 (23%) vascular surgery were performed, numerically surpassing other interventions for other specialties.

Table 2. Characteristics of the surgeries for 110 patients treated at the study hospital, in the first half of 2013. Londrina, 2014.

| Characterization data of patients |                               | No. of patients | %   |
|-----------------------------------|-------------------------------|-----------------|-----|
| Clinic                            | General surgery               | 26              | 24  |
|                                   | Gynecology                    | 4               | 4   |
|                                   | Vascular                      | 25              | 23  |
|                                   | Orthopedics                   | 27              | 25  |
|                                   | Otorhinolaringology           | 20              | 18  |
|                                   | Children's surgery            | 8               | 7   |
| Total                             |                               | 110             | 100 |
| Surgical Procedure                | Varicose veins/Saphenous      | 25              | 23  |
|                                   | A + A/Turbine (ctomia/plasty) | 20              | 18  |
|                                   | Herniorrhaphy                 | 16              | 15  |
|                                   | Correction                    | 20              | 18  |
|                                   | fracture/osteosynthesis       | 4               | 4   |
|                                   | Removal of synthesis          | 6               | 5   |
|                                   | Cholecystectomy               | 19              | 17  |
|                                   | Other                         | 19              | 17  |
| Total                             |                               | 110             | 100 |
| Anesthesia                        | General                       | 1               | 1   |
|                                   | Spinal                        | 36              | 33  |
|                                   | Epidural                      | 63              | 57  |
|                                   | Sedation                      | 4               | 4   |
|                                   | Plexus                        | 3               | 3   |
|                                   | Local                         | 3               | 3   |
| Total                             |                               | 110             | 100 |
| Duration (minutes)                | Under 30                      | 30              | 27  |
|                                   | 30 - 60                       | 48              | 44  |
|                                   | 61 - 90                       | 14              | 13  |
|                                   | 91 -120                       | 14              | 13  |
|                                   | 121 - 150                     | 3               | 3   |
|                                   | Over 150                      | 1               | 1   |
| Total                             |                               | 110             | 100 |
| Potential risk for contamination  | Clean                         | 60              | 54  |
|                                   | Potentially contaminated      | 26              | 24  |
|                                   | Contaminated                  | 23              | 21  |
|                                   | Infected                      | 1               | 1   |
| Total                             |                               | 110             | 100 |
| Professionals in the room         | 1                             | 1               | 1   |
|                                   | 2                             | 15              | 14  |
|                                   | 3                             | 64              | 58  |
|                                   | 4                             | 30              | 27  |
| Total                             |                               | 110             | 100 |

Regarding the surgical procedure, there was a higher incidence (25-23%) of varicose veins/saphenous surgery, followed by A + A/Turbine and Correction of fracture/osteosynthesis with 20 (18%) interventions each. The most widely used type of anesthesia was epidural (63-57%), followed by spinal anesthesia (36-33%); on the duration of surgical procedures, 48 surgeries occur in the range from 30 to 60 minutes and 14 from 61 to 90 minutes and 14 from 91 to 120 minutes, respectively.

Neurological complications related to epidural anesthesia are rare and when they occur, they have a favorable prognosis.<sup>18</sup>

These data enable the management of the activities of the SC by the nurse, because the definition of scales of surgical teams and performing all procedures is crucial to analyze the dynamics of needs, such as time used by teams of specialties as well as the type and extent of surgery performed. Furthermore, these data allow the prediction and provision of adequate human resources for materials center, as well as the managing of monthly

and daily scale of the nursing staff and their training.<sup>7,15,18</sup>

Comparative study of epidural anesthesia and general anesthesia in patients undergoing mastectomy showed a lower incidence of complications such as pruritus, nausea and vomiting in patients undergoing epidural. The use of additional analgesia was shown to be required only in patients undergoing general anesthesia and patients with epidural had pain in the postoperative period controlled with the use of anti-inflammatories. The time of recovery from anesthesia and hospitalization was also lower in the group receiving epidural.<sup>19</sup>

Study on risk factors for complications in the post-anesthesia with 110 elderly patients showed that 56.4% were male and 32.7% were hypertensive; 53, 6% underwent abdominal surgery; 50.9% of the patients was given general anesthesia (50.9%); the duration of the surgery was less than three hours for 62.7% of patients; and the most frequent complications were hypothermic (55.5%), pain (43.6%) and increased blood pressure (36.4%).<sup>15</sup>

Regarding the time of surgery, the study found that patients undergoing surgical procedures for more than five hours were more likely to have hypertension. However, regardless of the time of surgery, preoperative factors can increase the risk of cardiac and respiratory events, extending the period of post-anesthetic recovery (PAR). Therefore, the shorter the time of surgery, the lower the chances of complications to occur in postoperative.<sup>15</sup>

In view of the potential risk for contamination, 60 (54%) of the surgeries were classified as clean, 26 (24%) as potentially contaminated, 23 (21%) as contaminated and only 1 as infected. In surgeries of 64 (58%) patients, three professionals were present in the operating room and four during other 30 (27%) operations.

The care provided to patients in the perioperative period should be planned according to individual needs of the patient. All steps of perioperative are important, have their peculiarities and nursing work based on SAE, which aims to quality of care. But is in the preoperative period that the work of nurses has expressive meaning, given that the planning and development of nursing actions in the surgical process dependent on adequate data collection of patient through interview and physical examination that this professional can perform. Simultaneously, the provision of information and guidance by the nurse to the patient and family is essential for

the occurrence of less complications in perioperative, taking into account emotional and physical factors of surgical patient possible to be mitigated and prevented. In this sense, the training of nurses of SC and surgical inpatient unit becomes a priority to the quality of nursing care.

Thus, the results of this study indicate the need for nursing interventions such as preoperative education about the surgery and its aftermath, the need for special care in the postoperative period with the use of strategies such as educational brochures that promote self-care at home with family participation.<sup>10-11</sup>

## CONCLUSION

Scientific and technical knowledge and skills of surgical nurse, when combined with knowledge of socio-demographic and clinical characteristics of the patient, can subsidize its practice for the planning of improved quality of care in all phases of the perioperative period, including post-operative recovery and rehabilitation, in addition to forecasting and provision of human and material resources on care units of these patients.

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