# International Journal of Health Science

## PATIENT SAFETY IN THE SURGICAL CENTER: AN IMPORTANT CRITERIA FOR SAFE CARE

## Mariangela Francisca Sampaio Araújo

Nurse at NOVAFAPI, specialist in urgency and emergency, surgical center and sterilization material center. PhD in Intensive Care Unit.

## Aryany Harf de Sousa Santos

SCIELO- Scientific Electronic Library Online Nurse at FACID, specialist in surgical center and center of sterilization material, Neonatology with qualification in PCC and neonatal resuscitation.

### Marcelo Augusto Viturino Aragão

Physician at NOVAFAPI, General Surgeon.

### William Gomes Silva

Professor Advisor at Integrated Units of Postgraduation, Research, and Extension -UNIPÓS. Specialist in Public Health with an emphasis on Family Health.



All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0). Abstract: Patient safety is an issue that requires care and attention not only for the patient, but for the environment, procedures and equipment used, as it becomes very important for the hospital environment. In view of this, it must be noted that patient safety prevents hospital infections, sequelae and even deaths. The present work aims to identify studies on patient safety in the operating room. Specific objectives: describe the importance of patient safety in the operating room and characterize the problems identified in the non-implementation of patient safety and the role of the team in the operating room. This is a literature review study with articles located in Scielo, from 2010 to 2017. 100 materials were found and 20 articles were included, it was possible to identify that there are many articles published on the subject. Errors without the implementation of the patient safety core occur in all phases of the system. The challenge of patient safety, which seeks to reduce events in health institutions, has been the assimilation that the cause of errors and adverse events is multifactorial. The role of the team requires scientific knowledge, responsibility, technical skill, emotional stability due to the diversity of professionals working there. It is concluded that patient safety is essential for the operating room, as it avoids errors, helps to organize the team's data and procedures, so that the hospital environment is safe and the team has security in the procedures and actions performed.

**Keywords:** Security, Patient, Surgery Center, Nursing, Multi-professional.

## INTRODUCTION

Patient safety is defined as reducing the risk of unnecessary harm associated with health care, to an acceptable minimum, since, considering the complexity of procedures and treatments, the potential for harm is real. Thus, with patient safety, there is a better assessment of the nurse in the supervision of possible risks or harm to the patient in the hospital (NASCIMENTO; DRAGANOV, 2015).

In 2008, data from the WHO reveal that 234 million operations were carried out in the world, one for 25 people alive. However, 75% of these in developed countries that account for only 30% of the world's population. Two million patients died in these procedures and about 7 million had complications, 50% of which were considered preventable. Furthermore, for every 300 patients admitted to hospitals, one patient dies. More than 50% of these patients are surgical and the damage is preventable (ANVISA, 2014).

Safe care results both from the correct actions of health professionals, as well as from adequate processes and systems in institutions and services, as well as from regulatory government policies, requiring a coordinated and permanent effort. The concern with safety is already shown to be implicit in the Brazilian model of health care, which is "based on the defense of life" (HENRIGUES; COSTA; LACERDA, 2016).

Professionals who provide a service in the operating room must be trained to attend to all diseases, therefore, the decisions taken by them are beneficial to the patient, mainly aimed at patient safety in the hospital environment. Given the statements, this theme was chosen, with the aim of deepening knowledge about the researched object (NUNES, 2017).

The National Patient Safety Program was published by the Ministry of Health by Ordinance Number: 529, on April 1, 2013 and proposes a set of measures to prevent and reduce the occurrence of adverse events in health services. For a surgical procedure to occur safely, it is necessary to have the equipment in good condition, materials and adequate environment, according to legislation, and highly trained professionals (CRUZ; SELOW, 2017). Anvisa's regulation related to the subject of patient safety is RDC n°. 36, of July 25, 2013, which institutes actions for patient safety in health services. The RDC establishes the mandatory implementation of the NSP in health services. According to the RDC, the NSP is responsible for developing the actions and strategies provided for in the PSP, including those aimed at safe surgery in health services (ANVISA, 2014).

The health professional has the role of acting in the field of patient safety in the operating room. Because it requires a study and understanding, an integration of various disciplines, sectors and organizations. It is important to adopt prevention methods such as clarifying lectures for communities and professionals on the importance of patient safety in the operating room (MANRIQUE; SOLER; BONMATI et al, 2015).

This work has as general objective: to identify studies on patient safety in the operating room. Specific objectives: to describe the importance of patient safety in the operating room and characterize the problems identified in the non-implementation of patient safety and the role of the multidisciplinary team in the operating room addressed in scientific studies published in Scielo, from 2010 to 2017, the problem of this study was presented as follows: What is the importance of patient safety in the operating room and in relation to the topic, what is the role of the multidisciplinary team in patient safety in this environment?

The relevance of this study lies in the fact that it presents useful information to health professionals who work in the operating room and can develop measures and actions in relation to patient safety.

## LITERATURE REVIEW PATIENT SAFETY LEGISLATION

In 2012 the RDC (Resolution of the Collegiate Board) number 15, which aims

to establish the requirements of good practices for the operation of services that carry out the processing of health products, aiming at the safety of the patient and the professionals involved. Continuing, Anvisa decides to compose a Working Group (WG) on Patient Safety, coordinated by the Agency and formalized through Ordinance No. 1443. The WG had as objectives to discuss and indicate strategies for the elaboration and implementation of the "Action Plan for Patient Safety and Quality in Health Services" (BRASIL, 2012).

The exponential increase in cases of illnesses that require surgical treatment brought with it some problems in relation to patient safety and the responsibility of health teams, in addition to health management. It was observed that a large number of patients who were admitted to hospitals had some Adverse Event (AE) not related to their underlying disease, and many of these events would be potentially preventable (WHO, 2009).

The World Health Organization (WHO), seeing these problems, turned to the development of programs aimed at mitigating these potentially avoidable adverse events, developing safety protocols and checklist, in addition to setting goals for systematization of care. The main focus of the program is the health teams, through awareness of the safety culture and ongoing training (BRASIL, 2014).

2012, Anvisa made available In an information leaflet that guides the patient to ask certain questions considered strategic during the health care process, promoting good communication with the health professional. The patient must be informed, for example, about the risks involved in a surgical process and the care to be taken before the surgery (how is the surgery, preoperative preparation, time, expected results, duration postsurgical and possible surgical complications). (ANVISA, 2014).

The W.H.O. prepared a document with guidelines on patient communication for safe surgery, which must be adopted before and after the surgical procedure. In the Surgical Center, the nursing process must be adopted for a complete nursing care, involving the nursing history, nursing diagnosis, planning of expected results, implementation of nursing care (nursing prescription) and evaluation of nursing care (BRASIL, 2014).

This increase led the World Health Organization (W.H.O.) to launch campaigns with strategies and challenges aimed at reducing risks and damages in health care. Safety is one of the basic requirements that guarantee quality care to patients. In this sense, it is necessary that health institutions create strategies to reduce the occurrence of adverse events (W.H.O., 2013).

### PRECEPTS USED BY PROFESSIONALS

Safety in the transoperative period has been configured as an important managerial activity for nurses. However, when evaluating the perception of health professionals about the safety culture in the operating room of a public hospital, a recent survey observed the distance between managers and other professionals, with precarious working conditions and fragility in the safety culture, suggesting strategies such as communication between teams and the introduction of new management tools (NUNES, 2017).

Nurses face challenges when organizing the different interfaces that make up their work process, implying the management of nursing care in the transoperative period. This condition comprises the articulation. Between the managerial and care dimensions of the nurse's work, in such a way that management is configured as a middle activity of the final activity, which is care (REIS; MARTINS; LAGUARDIA, 2013). The managerial activities of nurses are actions with the purpose of ensuring the quality of nursing care and the proper functioning of the institution. Among the actions taken, the following stand out: dimensioning the nursing team; exercise of leadership at work; nursing care planning; training of the nursing team; management of material resources; coordination of the care process; performing more complex care and/or procedures and evaluating the result of nursing actions (HENRIGUES; COSTA; LACERDA, 2016).

Logically, this situation has a multifactorial character, involving health management, systematization infrastructure and of care. Because health management is what contributes to the purchase of material, as technology contributes to better care. Infrastructure contributes to the comfort of patients and professionals in the hospital, less stress. Therefore, generating the systematization of care serves to guarantee humanized care and quality, thus aiming at the quality of service and professionals (NUNES, 2017).

The safety culture is present in most highly credible healthcare institutions, which are characterized by having complex risk processes, but with low error rates. Such organizations achieve high credibility, as they are concerned with possible harm, and with the educational aspects of each team member involved in this process (RIEGEL; JUNIOR, 2017).

Professional nurses who work in surgical centers, the desire and need to implement the NP (Nursing Process) in daily care in the search for greater quality and safety of care. It can help managers and care managers to rethink practices in health services, based on a safety policy associated with the implementation of the Nursing Process (RIEGEL; JUNIOR, 2017).

## PATIENT SAFETY IN THE SURGICAL CENTER

Patient safety is an essential component of quality of care, increasingly important to patients, families, managers and healthcare professionals. Incidents associated with healthcare, such as adverse events, represent an increase in mortality and morbidity in all healthcare systems. (CRUZ; SELOW, 2017).

In operating rooms, the adoption of safety measures means a lower incidence of morbidity and mortality. From this perspective, researchers relate simple care, such as checking patient data, clinical information about the person and the organ, availability and proper functioning of all materials and equipment, which reflect on the success of the procedures (SANTOS; MORAIS; SOUZA et al, 2017).

The Safe Surgery Protocol can be used by any health professional and can be applied in all health institutions and places that carry out any type of surgical procedure, whether for diagnosis or therapy, and that an incision occurs in the human body with the use of equipment, inside or outside the operating room. There are flaws in surgical procedures for patients who underwent organ surgery and had their limbs amputated on the wrong side, leading them to permanent disability due to lack of attention and communication from the teams (CRUZ; SELOW, 2017).

Surveillance, monitoring and evaluation of outcomes is an essential component of surgical care. According to the national protocol for safe surgery, the following indicators must be monitored by health services, such as: Percentage of patients who received antibiotic prophylaxis at the appropriate time; Number of surgeries in the wrong place; Number of surgeries on wrong patient; Number of wrong procedures; Risk-adjusted in-hospital surgical mortality rate and Adherence rate to the Surgical Safety Checklist (ANVISA, 2014).

In addition to tracking deaths and surgical

complications, measurements of process indicators can also be incorporated into the assessment system, helping to identify safety lapses and areas for improvement. High compliance was associated with better results, and can identify weak points in the surgical care delivery system, so patient safety collaborates to the monitoring and identification of positive and negative results in patient care before, during and after surgery (BRAZIL, 2013).

Furthermore, the following can be monitored in the surgical safety service in health services: Demarcation of the surgical site by the surgeon; Carrying out anesthetic safety check; Use of pulse oximetry throughout the anesthesiology process; Objective airway assessment; Use of sterility indicators to ensure the adequacy of the sterilization process; Administration of prophylactic antibiotics up to one hour before the surgical incision; Verbal confirmation of the patient; Preoperative briefing (sets of information or collections) of the surgical team (BRAZIL, 2014).

## METHODOLOGY

Bibliographic research is the act of filing, relating, referencing, reading, filing, summarizing matters related to the research in question. This type of research aims to investigate the different scientific contributions on a given topic, so that the researcher can use them to confirm, confront or enrich their propositions (LAKATOS, 2003).

The bibliographical research is elaborated from the survey of elaborated materials, mainly of books and scientific articles, soon after, the contents will be analyzed. This type of research allowed the researcher a very broad knowledge, allowing him not to carry out direct research (GIL, 2007).

This study is configured as a bibliographical research, whose works were located in Scielo.

All publications surveyed were about patient safety in the operating room. As a first stage of this work, a survey of bibliographic material on the theme of the proposed project was carried out.

Publications dealing with the theme of patient safety in the operating room were located in Scielo. All researches had as inclusion criteria national works, that is, texts published in Portuguese and reporting patient safety in the hospital, and excluding texts published in a foreign language, such as English, Spanish and French, in addition to works that talk about safety of the patient in health units, clinics and laboratories. Therefore, the following keywords were used: safety, patient, operating room, nursing, multiprofessional.

The second part of the process was the selection of articles on patient safety in the operating room, at this stage the studies on patient safety in the operating room were characterized in the scielo database, from 2010 to 2017. A survey was carried out. systematized publications on patient safety in the operating room, presenting a synthesis of selected information. Data were exposed in topics for better visualization and understanding.

## **RESULTS AND DISCUSSION**

After analyzing the Scielo portal, 100 references were obtained, excluding 39 publications that did not address the research topic. As a final result, 61 publications on patient safety in the operating room were obtained, but 20 references were selected for this article, all located in Scielo.

In the table above, note that the most common problems found in published articles are medication errors caused by nursing. Soon after, adverse events that may or may not be related to investigations and claims of patients who have drug allergies were mentioned. Finally, a scientific work related to the environment with contributions to problems in patient safety, as it contributes to the risk of falls in the operating room.

In view of this, errors occur in all phases of the medication system: 39% of errors occur during prescription, 12% in transcription, 11% in dispensing and 38% during administration. Nurses and pharmacists intercept 86% of medication errors related to prescribing, transcription and dispensing errors, while only 2% are intercepted by patients. On the other hand, there is no safety net for nurses when medications are administered to

Nº	Article name	Year	First Author	Magazine	Problems identified
01	Protocol for Safe Surgery.	2013	OMS	MINISTÉRIO DA SAÚDE.	Adverse events
02	Safe Surgery Checklist Pilot Test: report and experience.	2017	SANTOS; MORAIS; SOUZA et al	Rev Enferm UFPI	worker and the work environment
03	Patient safety: promoting the safety culture.	2015	CALORI; GUTIERREZ, ; GUIDI	Saúde em foco	complex and poorly planned technical and organizational processes
04	Strategies to promote patient safety: from risk identification to evidence-based practices.	2014	OLIVEIRA; LEITÃO; SILVA et al	Escola Anna Nery (nursing magazine),	To administer medications
05	Patient safety and the paradox in drug use.	2006	CASSIANI	Rev Bras (nursing)	prescription, transcription, dispensing and administration

 

 Table 1. Analysis of articles published in journals regarding the problems identified in relation to the nonimplementation of patient safety in the hospital environment.

 patients (CASSIANI, 2006).

The World Health Organization studied the critical points of health care and launched strategies to prevent adverse events. These damages associated with care cause several impacts, therefore, patient safety is one of the global challenges (DIAS; SILVA; SILVA, 2011).

Error rates in hospital nursing have characteristics related to the worker and the work environment. To reduce these occurrences, actions to prevent modifiable risk factors are needed. Through this inservice teaching proposal, with the care and management interface, developed in the form of a pilot test, it was possible to experience the dynamics of using a safe surgery checklist model by nursing students, with teachers and staff of a surgical center of a teaching hospital (SANTOS; MORAIS; SOUZA et al, 2017).

The biggest challenge for patient safety, which seek to reduce events in health institutions, has been the assimilation, on the part of managers, that the cause of errors and adverse events is multifactorial and that health professionals are susceptible to committing events adverse when technical and organizational processes are complex and poorly planned (CALORI GUTIERREZ; GUIDI, 2015).

The understanding that systems fail and allow professionals' failures to spread, reaching patients and causing adverse events, allows the hospital organization to review its processes, study and reinforce its defense barriers and latent failures, which are present in the places and that make the system fragile and susceptible to errors (SILVA, 2010).

It is worth remembering that administering medication to patients in health institutions is a complex process, with several steps, comprising a series of decisions and interrelated actions that involve professionals from various disciplines as well as the patient, requiring this updated knowledge about the medicines and access at the necessary time to complete and accurate information about the patient (OLIVEIRA; LEITÃO; SILVA et al, 2014).

Considering the high number of anestheticsurgical procedures performed and the complexity of the unit. The role of the nurse requires, in addition to scientific knowledge, responsibility, technical skill, emotional stability, combined with knowledge of human relationships, favoring the management of conflicts, which are frequent, in particular, due to the diversity of professionals working there (STUMM; KIRCHNER, 2006).

The demand for bureaucratic and administrative activities is intense in the unit, requiring significant time from the nurse. He needs to delegate these activities to have time to fully care for the patient who will undergo anesthetic and/or surgical treatment. Such care is the correct verification of vital signs, risk of bleeding, respiratory and cardiac output, in addition to the patient's awareness in the postoperative period (SILVA; SILVA; SANTOS et al, 2016).

The role of nurses in the SC (surgery center) has become more complex every day, as they need to integrate activities that cover the technical, administrative, care, teaching and research areas. In the integration of these activities, in which the various professionals interact under various aspects, the interpersonal relationship is highlighted, which is usually difficult in a closed, stressful and dynamic unit such as the operating room (FONSECA; PENICHE, 2009).

The SC (surgery center) nurse faces a dilemma in the development of their actions facing the use of the SAEP (Systematization of Perioperative Nursing), generating a conflict between their decisions regarding what they would be able to do. This difficulty persists as the administration of health institutions does not understand the importance of the role of nurses in assisting surgical patients in the perioperative period, providing a shift from their care function to management (FONSECA; PENICHE, 2009).

The nurse who works in the operating room is related to heterogeneous professionals and this can be one of the factors that generate conflicts, disagreements, dissatisfaction, evolving to stress. It needs to interact continuously so that the work can be carried out efficiently and effectively. The health care professional is based on human relationships, whether with the patient or with the multidisciplinary team (GALVÃO, 2002).

So, the nurse coordinator of a surgical center needs to be aware of the individual characteristics of the professionals, seeking to know how each one acts and reacts to situations, in order to better lead their team. From the moment he acts this way, he will have greater subsidies to manage conflicting situations that arise, reducing misunderstandings, discussions and, mainly, increasing the satisfaction of professionals, with positive repercussions on patient care (STUMM; MAÇALAI; KIRCHNER, 2006).

## CONCLUSION

It is concluded that the present work managed to achieve its goals. E Based on the results of this one, we observe that there are more works published in the Scielo database, mainly regarding the most recent years. Data like these are worrying when we remember that patient safety is essential for hospitalization or any procedure within the hospital environment, especially in the operating room.

Patient safety is defined as reducing the risk of unnecessary harm associated with health care, to an acceptable minimum, since, considering the complexity of procedures and treatments, the potential for harm is real. There are flaws in surgical procedures for patients who underwent surgery on organs and had their limbs amputated on the wrong side, leading to permanent disability due to lack of attention and communication from the teams, hence the importance of patient safety in the operating room. It is necessary to use methods such as the checklist in order to reduce the risk of possible errors that are often irreparable.

Patient safety is not exclusive to nurses, patient safety is also focused on the responsibility of the physician, nurse, pharmacist and an entire multidisciplinary team. Patient safety, specifically in the operating room, involves greater attention from interpersonal involvement, attention to medication, and nursing actions and medical procedures.

So, the problems identified as medication errors committed by the nursing staff that can harm the patient's health in the operating room were seen in the articles. Soon after, the adverse events that are related to drug allergies tracked by nursing or not, or cited or not by the patient.

The importance of the professional nurse is highlighted with regard to the application of protocols that reduce risk and increase patient safety, as well as the main regulator of these practices related to patient safety.

## REFERENCES

Agência Nacional de Vigilância Sanitária (ANVISA). **Implantação do Núcleo de Segurança do Paciente em Serviços de Saúde.** No prelo. Brasília: ANVISA. 2014.

BRASIL. Agência Nacional de Vigilância Sanitária.**Resolução da Diretoria Colegiada - RDC n. 15, de 15 de março de 2012.** Dispõe sobre requisitos de boas práticas para o processamento de produtos para saúde e dá outras providências. Brasília, 2012.

BRASIL. Ministério da Saúde. Documento de referência para o Programa Nacional de Segurança do Paciente. Manual. Brasília, 2014.

BRASIL. Ministério da Saúde. **Portaria nº. 1.377 de 9 de julho de 2013.** Aprova os Protocolos de Segurança do Paciente. Diário Oficial da União, 2013.

CRUZ, I. A.; SELOW, M. L. C. Avaliar a relevância do protocolo de cirurgia segura nas instituições de saúde. v.2, n.1. Curitiba: Revista Dom Acadêmico, 2017.

CALORI, M. A. O.; GUTIERREZ, S. L. ; GUIDI, T. A. C. Segurança do paciente: promovendo a cultura de segurança. 7 ed. Saúde em foco, 2015.

CASSIANI, S. H. B. A segurança do paciente e o paradoxo no uso de medicamentos. V. 58 N. 1. Rev Bras Enferm, 2005.

DIAS, S. R. S.; SILVA, A. C. A.; SILVA, J. F. et al. **Boas práticas para segurança do paciente:** revisão integrativa. V. 31, n. 4. Univ. fed. Rio grande do sul, 2011.

FONSECA, R. M. P.; PENICHE, A. C. G. **Enfermagem em centro cirúrgico:** trinta anos após criação do Sistema de Assistência de Enfermagem Perioperatória. V. 22, n.4, Acta Paul Enferm., 2009.

GALVÃO, C. M. **A prática baseada em evidencias**: uma contribuição para a melhoria da assistência de enfermagem perioperatória. Ribeirão preto: escola de enfermagem de ribeirão preto da universidade de são Paulo, 2002.

Gil, A.C. Métodos e tendências de pesquisa social. 5º ed, 8º reimpr. São Paulo: Atlas, 2007.

HENRIGUES, A. H. B.; COSTA, S. S.; LACERDA, J. S. Assistência de enfermagem na segurança do paciente cirúrgico: revisão integrativa.v. 21, n. 4. cogitare enferm., 2016.

OLIVEIRA, R. M.; LEITÃO, I. M. T. A.; SILVA, L. M. S. et al. **Estratégias para promover segurança do paciente:** da identificação dos riscos as práticas baseadas em evidencias. V.18, n.1. Escola Anna Nery revista de enfermagem, 2014.

OMS. MINISTÉRIO DA SAÚDE. Protocolo para Cirurgia Segura. Manual, 2013.

LAKATOS, E. M. Fundamentos de metodologia científica. 5. ed. São Paulo: Atlas, 2003.

MANRIQUE, B. T.; SOLER, L. M.; BONMATI, A. N. et al. Segurança do paciente no centro cirúrgico e qualidade documental relacionadas a infecção cirúrgica e a hospitalização. v. 28, n. 4. Acta Paul enferm, 2015.

NASCIMENTO, J. C.; DRAGANOV, P. B. História da qualidade em segurança do paciente. V. 6, n.2.Hist. Enferm ver eletrônica, 2015.

NUNES, D. A. A. **Segurança do paciente cirúrgico em Rondônia:** uma análise crítica sobre os processos de trabalho. v.6, n.1, Porto Velho: Saber Científico, 2017.

RIEGEL, F. ; JUNIOR, N. J. O. **Processo de enfermagem**: implicações para a segurança do paciente em centro cirúrgico. V.22, N. 4. Cogitare Enferm, 2017.

REIS, C. T.; MARTINS, M.; LAGUARDIA, J. A segurança do paciente como dimensão da qualidade do cuidado de saúde- um olhar sobre a literatura. v.18, n.7. Rio de Janeiro: Cienc.saúde coletiva, 2013.

SANTOS, J. S.; MORAIS, A.C.; SOUZA, D.O. et al. **Teste piloto de checklist de cirurgia segura**: relato e experiência. v. 6, n. 1. Rev Enferm UFPI, 2017.

SILVA, A. E. B. C. **Segurança do paciente:** desafios para a prática e a investigação em enfermagem. V. 12, N.3, Revista Eletrônica de Enfermagem, 2010.

SILVA, A. C. A.; SILVA, J.F.; SANTOS, L.R.O. et al. A segurança do paciente em âmbito hospitalar: revisão integrativa da literatura. v.21, n.1. cogitar enferm, 2016.

STUMM, E. M. F.; MAÇALAI, R. T.; KIRCHNER, R. M. **Dificuldades enfrentadas por enfermeiros em um centro cirúrgico.** v. 15, n.3, Florianópolis: Texto Contexto Enferm, 2006.