Implementation of patient safety protocols in an intensive care unit - integrative review

Implantação dos protocolos de segurança do paciente em unidade de terapia intensiva- revisão integrativa

Implementación de protocolos de seguridad del paciente en una unidad de cuidados intensivos - revisión integradora

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RESUMO

Objetivo: discutir como os protocolos de segurança do paciente em UTI têm sido implantados na prática hospitalar. **Método:** trata-se de um estudo bibliográfico do tipo revisão integrativa da literatura com abordagem descritiva exploratória e natureza qualitativa. As fontes científicas foram extraídas da *National Library of Medicine and National Institutes of Health* via Pubmed, Literatura Latino-Americana e do Caribe em Ciências da Saúde e da *Scientific Electronic Library Online*. **Resultados:** os protocolos de segurança do paciente em UTI têm sido implantados com o propósito de lhes oferecer uma assistência humanizada, segura e de qualidade. Sua implantação tem sido realizada pelos Núcleo de Segurança do Paciente(NSP), os quais têm atuado como lócus estratégico da segurança do paciente de modo a disseminar a cultura de segurança nas unidades hospitalares, posto que é formado por uma equipe multiprofissional com capacitação comprovada em qualidade e segurança do paciente e em instrumentos de gestão de riscos em serviços de saúde. Os profissionais de saúde devem estar atentos aos protocolos implementados na UTI, pois são os principais responsáveis pela prevenção dos eventos adversos. **Conclusão:** reconheceu-se a importância de a equipe de saúde ser responsável no cuidado, sendo necessários a compreensão e o conhecimento acerca das diretrizes protocolares implantadas a partir de atividades educativas e do planejamento estratégico desenvolvidos pelo NSP. **Descritores:** Protocolos; Segurança do paciente; Unidade de Terapia Intensiva.

ABSTRACT

Objective: to discuss how ICU patient safety protocols have been implemented in hospital practice. **Method:** This is a bibliographic study of the integrative review type of literature with exploratory descriptive approach and qualitative nature. Scientific sources were extracted from the National Library of Medicine and National Institutes of Health via Pubmed, Latin American and Caribbean Literature in Health Sciences and the Scientific Electronic Library Online. **Results:** ICU patient safety protocols have been implemented with the purpose of providing them with humanized, safe and quality care. Its implementation has been carried out by the Patient Safety Center (NSP), which has acted as a strategic locus of patient safety in order to disseminate the culture of safety in hospital units, since it is formed by a multidisciplinary team with proven training in quality and patient safety and in risk management instruments in health services. Health professionals should be aware of the protocols implemented in the ICU, as they are the main responsible for the prevention of adverse events. **Conclusion:** it was recognized the importance of the health team being responsible in care, being necessary the understanding and knowledge about the protocol guidelines implemented from educational activities and strategic planning developed by the NSP.
Descriptors: Protocols. Patient safety. Intensive care unit.

RESUMEN

Objetivo: discutir cómo se han implementado los protocolos de seguridad del paciente de la UCI en la práctica hospitalaria. **Método:** Estudio bibliográfico del tipo de literatura de revisión integradora con enfoque descriptivo exploratorio y carácter cualitativo. Las fuentes científicas fueron extraídas de la Biblioteca Nacional de Medicina y los Institutos Nacionales de Salud a través de Pubmed, Literatura Latinoamericana y del Caribe en Ciencias de la Salud y la Biblioteca Electrónica Científica en Línea. **Resultados:** se han implementados protocolos de seguridad del paciente de la UCI con el propósito de brindarles una atención humanizada, segura y de calidad. Su implantación ha sido llevada a cabo por el Centro de Seguridad del Paciente (NSP), que ha actuado como locus estratégico de seguridad del paciente con el fin de difundir la cultura de la seguridad en las unidades hospitalarias, ya que está formado por un equipo multidisciplinar con formación contrastada en calidad y seguridad del paciente y en instrumentos de gestión de riesgos en los servicios sanitarios. Los profesionales de la salud deben estar al tanto de los protocolos implementados en la UCI, ya que son los principales responsables de la prevención de eventos adversos. **Conclusión:** se reconoció la importancia de que el equipo de salud sea responsable en la atención, siendo necesaria la comprensión y el conocimiento sobre los lineamientos protocolarios implementados a partir de las actividades educativas y de planificación estratégica desarrolladas por el NSP.
Descriptores: Protocolos; Seguridad del paciente; Unidad de Cuidados Intensivos.

REVIEW

Introduction

In intensive care units (ICU) patients of high complexity are treated and assisted, since they involve clinical instability or alteration of physiological systems. In these care units, patients who have undergone invasive surgical procedures are commonly hospitalized, which require the nursing team to know about the safety protocols of health service users and about patient care regarding the procedures performed.[1]

It is understood that patient safety is an ethical issue with regard to nursing care, which should promote it in practice, by significantly cooperating with the prevention and reduction of errors in the hospital environment. In this context, it is corroborated that patient safety refers to the reduction of the risks of unnecessary damage in association with health care to a minimum considered acceptable. In addition, adverse events (AEs), understood as unintentional due to the care provided to the patient, which are not related to the natural evolution of the underlying disease and can cause measurable lesions in affected patients, death or prolongation of hospitalization.[2]

A study points out that the main errors and failures that compromise the safety of patients within an ICU fall into three categories, including nursing care, increased length of stay in this unit and excessive workload3. It also highlights that the most prevalent AEs are pressure injuries, falls and damage of vascular catheters.[3]

It is already relevant to mention the Patient Safety Center, since it is competent to carry out the survey of the AEs of higher incidence and, later, to define the priority safety rules and establish, specifically, the indicators, goals and action plans according to the reality of each health institution.[4]

It is emphasized that patient safety consists of one of the attributes or dimensions of the quality of health services. Research confirms that patient safety is directly involved with the needs and expectations of users of these services by demonstrating that the quality of the health service in the ICU can only be achieved if the risks of harm to the patient are minimized and controlled through a problem-control care provided by trained professionals.[5]

In Brazil, adopting the line of improvement of health care developed by the World Health Organization (WHO), the Ministry of Health, through Ordinance No. 529 of April 1, 2013, instituted the National Program for Patient Safety (PNSP) by prescribing a set of protocols to direct and support Brazilian health institutions regarding patient safety practices, including in UTIs . Among the protocols provided, we highlight the identification of the patient, the safe surgery, in addition to those related to the practice of hand hygiene, pressure injury, the prevention of falls, the safety in the prescription and the use and administration of medications.[6-7]

It is understood that the implementation of ICU patient safety protocols in health institutions is not so practical, and should therefore be initiated by the change of institutional culture. By understanding that the patient safety culture is part of one of the values of organizational culture, which aims to favor coherent practices and appropriate behaviors from the establishment of attitudes and norms essential to the configurations of a safe work environment, it is worth noting that the characteristics of a solid safety culture involve discussion and learning from errors, recognition of its inevitability, the proactive identification

of risks and the incorporation of a non-punitive system focused on AEs analysis and report.[8]

It is also important the relevance of the incorporation of systemic strategies aimed at the work process of the health team, as well as the development of a Risk Management Program (PGR), seeking to ensure the quality of care and promote the evaluation and control of risks and adverse events that affect patient safety.[8]

The health care provided to the patient is directly linked to their care, well-being and safety. Health professionals should identify and evaluate their needs to maximize their health conditions, minimize losses and limitations, facilitate diagnosis and assist in treatment, always seeking to preserve the health and safety of the patient. In this context, the importance of the implementation of protocols aimed at improving the process in the quality of care is included, starting from the recognition of the imprescindibility in seeking to preserve patient safety during ICU stay.[9]

Based on the considerations set out, it is appropriate to raise the following research problem: how have ICU patient safety protocols been implemented in hospital practice?

The justification for the development of the present study is based on the contribution for the decision-making by the health professional to be based on well-established patient safety management protocols, in order to favor cost reduction, hospitalization time and lower patient exposure to adverse events, given that this safety impacts on the management of ICUs quality indicators.

In this context, the research proposes to analyze the technologies and actions related to the care offered by the nursing team regarding the safety protocols of ICU patients. Thus, it is expected a greater training of nurses in this area so that they can hold the necessary theoretical knowledge and apply it in practice with the purpose of increasing the safety of patients in the face of effective mitigation of the risks of damage and adverse events. Thus, it seeks to collaborate with the analysis of information and with the retention, dissemination and reproduction of knowledge on the subject, by benefiting health professionals and institutions and, especially, the patients themselves, who can be treated and accompanied by a nursing team trained in the ICU.

In this sense, the aim of the study was to discuss how ICU patient safety protocols have been implemented in hospital practice.

Method

The research is a bibliographic study of the integrative literature review (IR) with exploratory descriptive approach and qualitative nature, which was carried out during June, July and August 2022, whose methodological path was composed of six stages, extracted from the article entitled "Integrative review: research method for the incorporation of evidence in health and nursing" , which was elected by the Health Teaching Center to guide the present project, namely: (1) Identification of the theme and elaboration of the research question; (2) Establishment of criteria for inclusion and exclusion of studies/sampling or search in the literature; (3) Definition of the information to be extracted from the selected studies (Categorization of the studies); (4) Evaluation of the studies

included in the integrative review; (5) Interpretation of the results; (6) Presentation of the review (Synthesis of knowledge)[10]. In summary, it is understood that IR is a method, whose purpose is to synthesize results obtained in research on a given theme in an orderly and comprehensive way.[10]

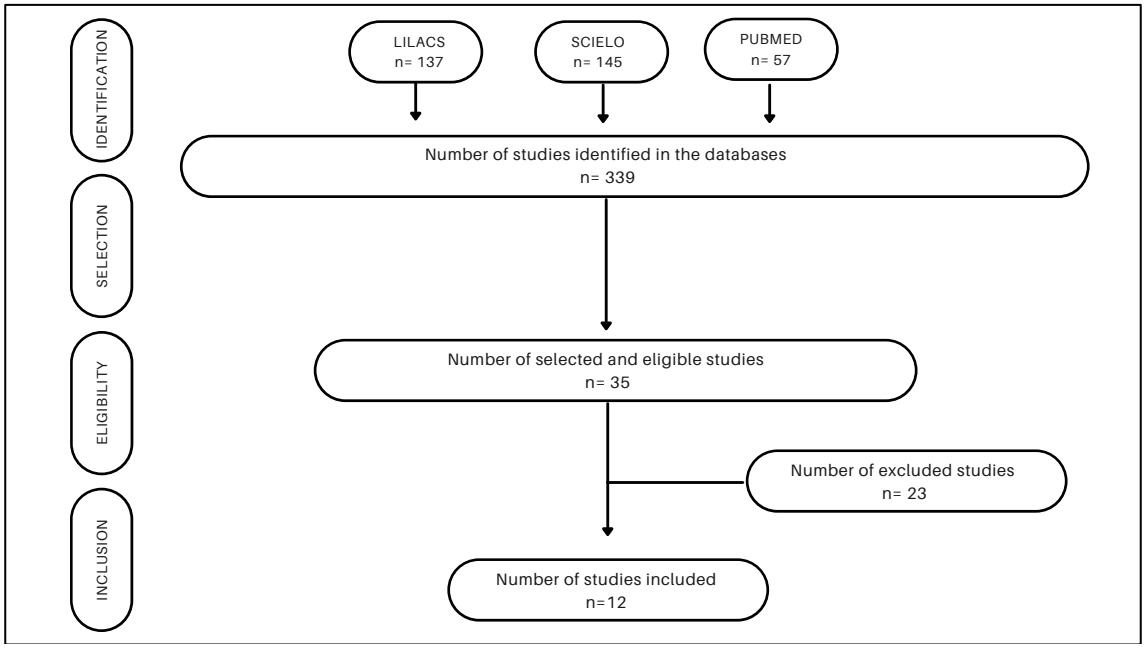
The research question was elaborated with the application of the IcP strategy (population or problem, phenomenon of interest and context) and had as its guide axis the following problematization: how should ICU patient safety protocols be implemented in hospital practice? Thus, "P" Patient Safety, "I" Protocols" and the "co" Intensive Care Unit were conferred.

Scientific sources were extracted from the National Library of Medicine and National Institutes of Health (MEDLINE) via Pubmed, Latin American and Caribbean Literature in Health Sciences (LILACS) and the Scientific Electronic Library Online (SciELO). Advanced search filters were used to select texts published from 2017 to 2021, available in full free of charge, in Portuguese, Spanish and English, with application of controlled descriptors correlating synonyms with the Bolean operator "OR" and interconnected by the Boleano operator "AND". The descriptors were selected from the DeCS system (Descriptors in Health Sciences), namely: "protocols", "patient safety" and "Intensive Care Unit", which were put in the database of BIREME Virtual Health Library (VHL). The result of the number of articles found after the combination of the descriptors was presented.

The inclusion criteria of the sources, in the results and in the discussion, were: original articles published electronically in full, free, in an indexed journal, in the Portuguese, Spanish and English languages, with a time frame of the last 5 years (2017/2021). The results and theoretical discussion, duplicate articles, experience reports, letters, editorials, theses, dissertations, monographs, books and studies not related to the scope were excluded from the results and theoretical discussion.

We carefully read the titles, keywords and abstracts of the articles found in the databases, evaluating their adequacies within the inclusion criteria for the pre-selection of scientific sources. The selection followed the recommendations of PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses)4, as can be seen in Figure 1.

Figure 1- Prism diagram concerning the number of articles that were found, selected, excluded and included in the research. 2022.



Source: Own elaboration (2022) based on PRISMA recommendations[11].

Based on Figure 1, it is observed that of the 84 articles found in the databases, 24 were selected and eligible, of which 16 were excluded (because they were duplicated or were outside the theme) and 08 were included in the research.

In the Decs Mesh platform, when performing the active search with the interterms, two articles related to the scope of the research for the composition of the present study were selected, which were also available on the VHL platform.

The search strategy involved the presentation of these descriptors, the number of sources found, selected and included in the search, the filters applied and the eligibility criteria, as can be seen in Chart 01 presented at the end of this topic.

The data of the included studies were presented in a word table (Chart 2). The extraction, organization and synthesis of the data were carried out with the aid of its own instrument elaborated for the present research, consisting of: database where the article is indexed; author and year of publication; research objectives; type of study, sample and/or interventions (method); main results; and level of scientific evidence.

For the categorization of the level of evidence, the type of study was considered and the classification of evidence levels according to the Joanna Briggs Institute was used: level I: Evidence of experimental studies – systematic reviews and clinical trials; level II: Evidence of near-experimental studies; III: Evidence of analytical observational studies - cohort and case studies - control; IV: Evidence of descriptive observational studies - cross-sectional studies, case series and case studies; V: Evidence of expert opinion and research bank.[4]

The presentation and discussion of the results was carried out descriptively. For interpretation and analysis, we opted for content analysis associated with thematic categorization. It is understood that the thematic-category analysis of content is divided into three stages: a) pre-analysis, which consists in the election of scientific sources that will be analyzed; b) exploration

of the material or codification, step in which the aggregation of the data takes place in smaller units by allowing an accurate description of the characteristics expressed in the sources; c) Treatment of the results - inference and interpretation, which highlights the information contained in the analysis through frequency verification, by enabling the theoretical reconstruction of the analyzed data within elaboratecategories.[4]

The articles selected and included in the research after analysis of the content obtained through the search for the descriptors dealt with the implementation and adhering to the patient safety protocols in the Intensive Care Unit as well as the correlated technologies and actions related to nursing care in these units.

Based on the analysis performed, it was appropriate to elaborate two categories for theoretical discussion: a) Protocols, nursing actions and culture in safety in the context of patients hospitalized in intensive care units; b) Implementation and support related to patient safety protocols in intensive care unit.

According to the ethical precepts that govern good practices in scientific research, because it is an integrative literature review, the study will not be submitted to the Research Ethics Committee, however, it is noteworthy that all the ideas of the authors contained in the included articles will be maintained, being duly referenced.

Chart 1- Search strategies presenting the descriptors, manuscripts found and included, as well as the filters and eligibility criteria applied. 2022.

SEARCH STRATEGIES			
Descriptors	**Total of manuscripts found**	**Applying filters + eligibility criteria**	**Manuscripts included in the review (after full reading)**
Protocols, patient safety and Intensive Care Unit. Protocols. Patient safety and intensive care unit. Nursing or Care, Nursing or Management, Nursing Care or Nursing Care Management or Implementation of Patient Safety Protocols or Adherence to Safety Protocols in an Intensive Care Unit or Risk Management Program or Patient Safety Culture or Adverse Events or Patient Safety Center.	84	Scientific papers. Last five years. Portuguese, Spanish and English. Both sexes / human. Free full text.	08

Results

In this research topic, it is pertinent to present the table describing the sources of the scientific articles selected for the subsequent theoretical discussion and their corresponding objectives, methods, results and level of evidence (Chart 2).

Chart 2- Description of the sources selected for theoretical discussion.2022.

Reference	Objective	Method	Main Results	Evidence	Database
Saraiva et al. (2022)[14]	Build and validate content and appearance of a graphical protocol and checklist for the evaluation of patient safety in UTIn.	Methodological research, developed from March to September 2018, in two stages: construction of the protocol and checklist, and validation of content and appearance. The Delphi technique was used to evaluate the tools and the consensus among the judges was measured by the Content Validity Coefficient. The item with more than 80% agreement was considered valid.	The instruments presented content validity coefficient of 0.97 in the second delphi round, for content validity. The general estimate of the instruments for appearance validation was 0.99 in Delphi II. After the inclusion of suggested alterations 100% of the judges recommended the use of the protocol and checklist.	I	BVS LILACS BDENF
Batista et al. (2021)[15]	To verify the nursing team's support to the glycemic control protocol and the routine of double checking of potentially dangerous medications in Intensive Care Units.	Cross-sectional study of quantitative approach and descriptive design, whose data collection occurred in seven units. The sample consisted of the analysis of medical records through a nursing audit according to the daily patient safety assessment, between 2018 and 2019. The data collection instrument was based on compliance with the glycemic control protocol and the routine of double checking of potentially dangerous medications. Descriptive analysis of parametric and non-parametric variables of the data was performed.	The total sample was 2610 medical records, 1290 for the year 2018 and 1320 for the year 2019. In 2018, compliance in the glycemic control protocol prevailed in 853 records, and the routine double check of potentially dangerous drugs in 877 records, equivalent to 66.12% and 67.98%, respectively. In 2019, 941 compliance records were obtained for glycemic control and 915 for double checking, corresponding to 71.29% and 69.32%, respectively. The year 2019 showed better percentages than 2018, demonstrating greater support and increased culture of patient safety. The audit of nursing care is configured as a necessary strategy to evaluate records and the quality of actions in the work environments.	II	BVS BDENF
Barreto et al. (2021)[16]	To analyze the conceptions of patient safety through the prism of the social representations of intensive care nurses.	Exploratory, quali-quantitative study, based on the Theory of Social Representations, carried out in a large hospital in northeastern Brazil, with 20 intensive care nurses. Data collection occurred in 2019, using the techniques of free word association test and semi-structured interview. The lexicons seized in the test were processed by the OpenEvoc software by	In the composition of the central nucleus, the elements surveillance, knowledge, identification, communication and quality stood out, and in the constitution of the peripheral system of the social representations of intensive care nurses permeate care, attention, attitudes and normative aspects. The triangulation of the findings outlined three thematic categories Central dimensions of critical patient safety; Atoudinal dimensions for patient safety in intensive care;	II	BVS LILACS BDENF

		prototypical analysis of the evocations, and for the interview data, thematic content analysis was used.	Normative dimensions related to the safe management of the patient in the ICU. The social representations of intensive care nurses reveal that the concepts of critical patient safety permeate through effective surveillance and communication, promotion of a safe environment based on risk prevention, use of guides and protocols, teamwork, and the sense of responsibility and commitment to the individuality of being cared for, elements that for this social group are the differential for assertive and safe care.		
Villa et al. (2020)[17]	Implement a care protocol for safe x-ray in bed in critically ill patients in the Intensive Care Unit in a public hospital.	Convergent Care Research (PCA), developed in an intensive care unit of a Teaching Hospital in southern Brazil, from July 2019 to July 2020, with nurses, nursing technicians and radiology technicians, involved in the performance of the x-ray examination in the bed. The scan phase was divided into five stages in the first, and the x-ray examination was observed in the bed, which allowed identifying weaknesses and potentialities of the practice; in the second stage, there was the dissemination of the protocol to be implemented through flayers and cards in order to arouse curiosity and interest in professionals; in the third stage, the professionals were trained to implement the protocol, using didactic video that allowed a greater involvement of the teams; in the fourth stage, the participants were invited to dialogue with the researcher about the practice of taking the exam and in the fifth stage the professionals answered a form of	Eight aspects formed the basis for discussion of the implementation of the protocol, citing the importance of a protocol for the safe performance of x-rays in the bed; capacity building when implementing new care to ensure safe practice; communication between sectors, professionals and patients at the time of the exam; the closure of the enteral tube before the examination; disinfection of hands and equipment; the role of nursing during the examination, unnecessary body exposure of the patient and care with different devices. The importance of standardizing the actions developed by professionals with the implementation of a protocol was scored, bringing as a recommendation the constant need to update the health team, humanized look of professionals and the valorization of the use of protocols by institutions.	II	BVS LILACS BDENF

		what actions they began to perform after the implementation of the protocol.			
Souza et al. (2019)[18]	Identify promotion strategies that contribute to the strengthening of a culture of patient safety in THE ICU	This is a qualitative, descriptive study conducted with five physicians, five nurses and 24 nursing technicians working in intensive care units of two hospital institutions in southern Brazil in 2016. Data collection was performed through semi-structured interviews and treatment was performed by discursive textual analysis.	After data analysis, three categories emerged: implementation of patient safety protocols; institutional and multiprofessional involvement; and patient safety in continuing education. It was scored that health professionals consider the implementation of protocols in health care, the inclusion of the theme of safety in continuing education and the involvement of the institution, as well as the multidisciplinary team, as the main strategies to promote and strengthen the culture of patient safety.	II	BVS LILACS
Maganelli et al. (2018)[19]	Describe nurses' interventions for the prevention of pressure injury in an Adult Intensive Care Unit.	Descriptive cross-sectional research, with 13 nurses from an Intensive Care Unit, between August and September 2017. A questionnaire and descriptive statistics were used.	For the prevention of pressure injury, care based on knowledge, scientific basis and institutional protocols was evidenced. The most frequently appointed care included the evaluation of the activity-mobility of the patients and the physical examination at their admission. As preventive care, the nurses prescribed the maintenance of the patient with hydrated skin, alternating decubitus, body hygiene and the use of pyramidal mattress.	II	BVS LILACS BDENF
Zampollo et al. (2018)[20]	To verify the nursing team's support to care protocols related to patient identification and safe medication in an intensive care unit.	Quantitative, cross-sectional, descriptive field study, developed with patients ≥18 years, with icu stay > 48 hours. Data were collected through a bedside checklist. The Multivariate Linear Regression test was used for independence analysis and prediction among the variables, presented in tables.	The sample consisted of 945 patients, with predominance of males (56.93%) and elderly aged 61 to 80 years (45.19%). It was found that 89.95% had an identification bracelet, 99.47% of the beds were identified with plaque and 78.20% of the medications were correctly identified. There was high support of the nursing team to care protocols related to patient identification and safe medication.	II	BVS BDENF MEDLINE
Miranda et al. (2017)[21]	To compare the results of the incidence of urinary tract infection, through the rate of use of the indwelling bladder catheter and to identify microorganis	Urinary tract infection was defined as patients with positive uroculture >105 CFU/mL, notified by the Hospital Infection Control Service six months before and after the implementation of the protocol. The sample consisted of 47 patients, 28 of which were	The researchers observed a negative linear correlation between the months after the implementation of the protocol and the reduction of reported cases of urinary tract infection by spearman's test (p=0.045) and reduction in the number of microorganisms in uroculture (p=0.026) by fisher's test.	II	BVS MEDLINE SCIELO

	ms in uroculture and surveillance culture before and after the implementation of a care protocol in patients hospitalized in an intensive care unit.	reported before and 19 after. The protocol, created in the institution, is based on the Manual of the Ministry of Health in the prevention of infections related to health care, as a goal of patient safety and improvement in the quality of health services.			

Discussion

Protocols, nursing actions and safety culture in the context of patients hospitalized in an Intensive Care Unit

The incorporation of quality in health and patient safety into care practices in health services requires the development of protocols and performance monitoring strategies that, respectively, can guide and assist the decision-making process in order to minimize risks and avoid adverse events (AEs).

Errors, failures and AEs that affect ICU patients can cause severe consequences, leading to death.[14] It is understood that these incidents involve human, technological and material processes and, therefore, safety in the hospital environment cannot be fully guaranteed.[19] Despite the existence of well-structured and even validated protocols of qualified and humanized multidisciplinary teams, it is known that effective patient safety is not integral.[17] This idea corroborates the recognition of the significant occurrence of infections and pressure injuries in hospital practice.

Thus, it is emphasized that the concepts of patient safety include working in the search for actions, tools, methodologies, solutions and strategies that aim to identify, make visible, prevent, reduce or mitigate risks, and then mitigate or eliminate the occurrence of AEs and make care safe.[16]

Health care technologies have been used by nurses in order to avoid these events that are compromising patient safety in ICUs, including numerous protocols and checklists related to patient care and safety implemented in the practice of hospitals.[14]

The main nursing actions for the prevention of adverse events in THE ICU are associated, in particular, with the prevention of infections, falls, errors in the administration of medications and in the manipulation of devices. Moreover, it is understood that intensive care nurses are essential for improving patient safety and play a fundamental role in promoting the quality of health service delivery, since AEs are frequent in these units and have serious consequences. In addition, there is recognition of the importance of the evaluation and development of the safety culture as a strategic focus for improving health care and quality, especially in high complexity environments and with the high demand of surgical patients.[15]

The safety culture is being incorporated by professionals and evaluation through nursing auditing is necessary to assist nurses in the search for

improvement of care.[15] Research has evidenced that health professionals consider the implementation of protocols, institutional and multiprofessional involvement and the inclusion of the theme patient safety in continuing education as the main strategies to strengthen the culture of patient safety in the ICU. We emphasize the importance of the implementation of patient safety protocols in ICUs as well as the role of NSP in institutions, aiming to minimize the occurrence of errors and AEs and provide greater safety and quality in health care. It is also noteworthy the need for continuous improvements and training of teams working in the ICU and other sectors of the hospital institution, so that simple and effective measures can help prevent and reduce the risks associated with patient health care, by strengthening, consequently, a safety culture in this unit.[18]

It is recognized that the role of nursing professionals is essential to patient safety, since these professionals, because they are constantly together with the patient, should be aware of the issues that can propitiate the emergence of AEs, since they are the main responsible for its prevention. In this context, the importance of developing safety protocols and investing in prevention measures of these events, which involve care teams, infection control and safety centers, is emphasized, in order to enable best practices related to the provision of health care in ICU.

Implantation and support related to patient safety protocols in intensive care unit

Patient safety protocols have been implemented in hospital practice after their elaboration by the Ministry of Health, which commonly follows the guidelines of the World Health Organization (WHO), by researchers and health professionals, whose reliability has required a safe validation, through the adoption of evaluation processes, such as the Delphi technique, widely used.

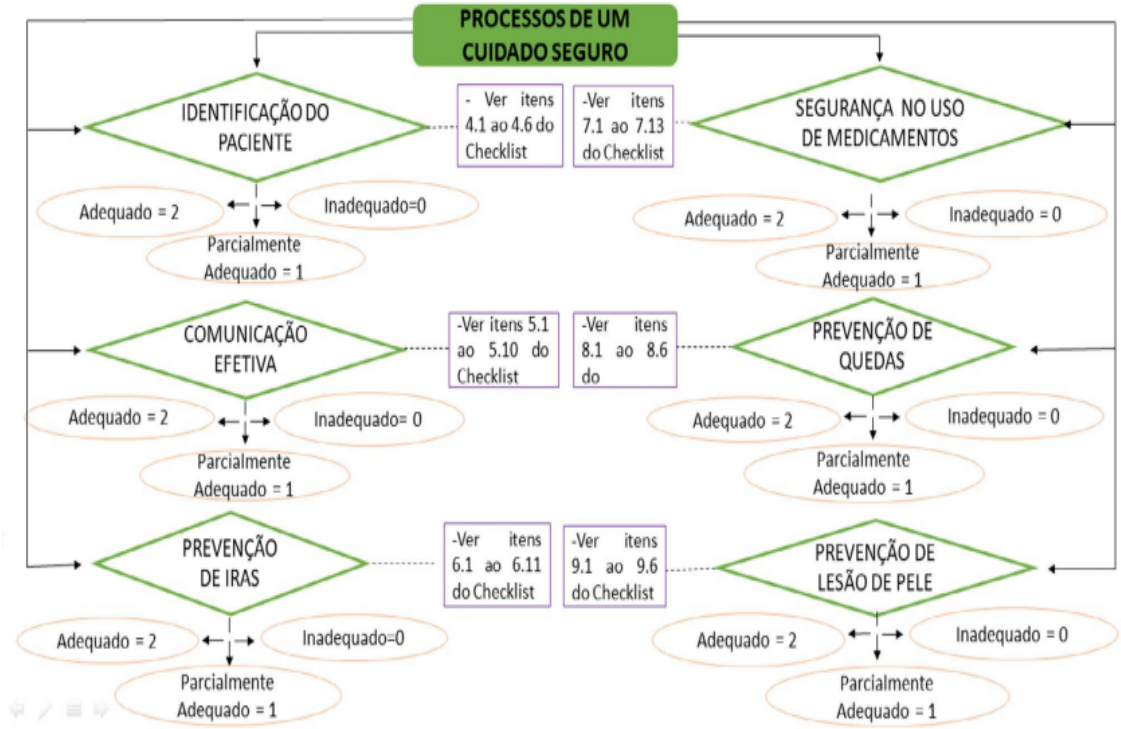
The implementation of the protocols in consultation has been carried out by the NSP, which has acted as a strategic locus of patient safety in order to disseminate the safety culture in hospital units, since it is formed by a multidisciplinary team with proven training in quality and patient safety and in risk management instruments in health services.[14] Hence the importance of RDC No. 36 of July 25, 2013, published by the National Health Surveillance Agency (ANVISA), since it is mandatory to implement NSP in all health services with the purpose of promoting and supporting actions focused on safety, to ensure work processes that can generate lower risk to the patient.[15]

In ICU practice, these protocols refer to the same ones developed by the Ministry of Health and intended for other hospital units, such as patient identification protocols, safe surgery – which involves the immediate postoperative period – hand hygiene and also those concerning pressure injury, prevention of falls, safety in

the prescription and use and administration of medications; among other specific scans related to health practices in these units, such as patient intubation and extubation protocols, hemodynamics in the postoperative period of cardiac surgery and x-ray in the ICU bed.

In this context, it is appropriate to point out the protocol developed and focused on the safety of the newborn hospitalized in a NICU, which was segmented into three parts, named a) "Structure for safe care", b)"Processes of safe care" and c) "Results of safe care".[14] Regarding the second part, it is observed, in Figure 2, the insertion of many general protocols of patient safety in the hospital environment.

Figure 2- Stage of a protocol aimed at patient safety in ICU. 2022.



Source: Saraiva et al. (2022, p.11).[14]

The elaboration and validation of a protocol and checklist for the evaluation of patient safety in the context of the Intensive Care Unit becomes fundamental as it identifies the essential requirements for the safe care of patients hospitalized in this unit, based on legal rules and scientific evidence that influence the process of continuous improvement[14], understood as the search for improvement through health actions and activities developed in the hospital institution to the promote the increase in the quality of the provision of the health service to demand, in terms of the needs and expectations. Thus, the processes of content and appearance validation become essential for the reliability of protocols, in order to make them safe for use in the services to which they are directed.

Thus, it is suggested that the implementation of protocols related to the safety of patients in the ICU should be accompanied by a Checklist of Patient Safety Assessment in this unit.

The implementation of a patient safety protocol in the ICU requires a period for the implementation of the actions added to the involvement and motivation of the multidisciplinary team, with professionals committed and aware of their attributions, who have the domain and knowledge of the protocol, so that it is effectively integrated in the care actions in these units.[17] By implementing the care protocol, professionals become aware and understand that the actions developed during technical practices, when executed correctly, result in benefits for the team and, in particular, for the patient.[17]

In this context, a care protocol for safe x-ray in bed was implemented in critical patients in the ICU in a public hospital, highlighting the importance of nursing and radiology teams working in ICU to be qualified and trained to provide this activity, to develop their correct role during the examination and to ensure the safety of patients.[17]

Research finds a high percentage regarding the nursing team's adhering to care protocols related to patient identification and safe medication in a hospital ICU, pointing out that the institution required the identification of hospitalized patients and medications as a way to minimize errors, since the placement of identification bracelets and label containing the date of birth; the medicine to be infused and its value; dilution; the name of the professional responsible for the preparation; and the date and time of installation; rules that have been properly complied with, although it has emphasized the need to make health professionals aware of the relevance of reporting adverse events in order to favor the management of care risks.[20]

A study points out that ICU health professionals recognize the importance of the preventive protocol of the Ministry of Health focused on LP and, as a rule, provide the care determined in the proposed guidelines by contributing, thus, to a practice based on the standardization of care. Since it was observed that not all determinations were being implemented in the usual way, the research also emphasized the need for systematization of care by pointing out that nursing care is still based on individual knowledge. When relating the measures recommended by this protocol with nursing actions, they observed that the most common and most common measures correspond, such as decubitus alternation, pressure reduction and physical examination of the skin, thus disregarding recommendations ranging from moderate to high risks regarding the development of LP in ICU patients. This emphasized the importance of knowledge about valid preventive measures in order to apply them in accordance with the risk presented.[19]

It is increasingly necessary to improve the professional's support to ICU patient care and safety protocols, including glycemic control and double checking of potentially dangerous drugs, seeking to offer greater safety to hospitalized patients.[15]

It is considered that educational interventions with implementation of patient safety protocols in ICUs of health institutions contribute considerably to the reduction of risks and AEs by favoring, for example, the standardization of maintenance with invasive devices, which has reduced colonization and subsequent cases of infection.[21]

Based on the literature consulted, it is emphasized that health professionals should adhere to the patient safety protocols in ICU implemented in hospital practice. It is also important to program educational activities and the development of strategies aimed at the effectiveness of this health care technology with the purpose of contributing to a practice based on scientific evidence.

Thus, it is recognized that the continuing education program, as well as the PGR, developed by the NSP are considerably important regarding the prevention of adverse events and the practical concretion of protocols implemented in the ICU, since it can effectively contribute to the control of risks and the reduction of these effects, which can affect the safety of patients hospitalized in this unit.

In this context, it is considered that the dissemination of the positions presented and discussed in the present study can contribute to the dissemination of knowledge on this theme to health team professionals in favor of the safety of hospitalized patients.

Final Considerations

Even recognizing the difficulty in health practice regarding the implementation and adhering to protocols related to ICU patient safety, in the scientific sources consulted, it was noted that the implementation of these health care technologies in hospital practice favors the minimization of risks to hospitalized patients.

Health professionals should be aware of the protocols implemented in the ICU, as they are the main responsible for the prevention of AEs. It is recognized the importance of the entire health team being responsible in the issue of care, being necessary the understanding and knowledge about the protocol guidelines implemented in these units based on educational activities and strategic planning developed by the NSP, so that the PGR achieves its practical effectiveness by minimizing the risks of human failures, materials in this unit, in which special care is required for assisted patients, as well as avoiding the aforementioned events.

The protocols regarding the safety of patients in ICU have been implemented with the purpose of offering them a humanized, safe and quality care. Based on this scope, the study highlighted the importance of the ICU safety checklist being used in the phase of protocol implantations.

The protocols regarding the safety of patients in ICU have been implemented with the purpose of offering them a humanized, safe and quality care. Based on this scope, the study highlighted the importance of the ICU safety checklist being used in the phase of protocol implantations.

We expect that the present study can be used as a starting point or as a theoretical basis for other studies that are interested in disseminating data related to patient safety in the ICU, in order to contribute to the development of strategies aimed at the effectiveness of protocols regarding the achievement of the purposes for which they were developed and implemented in the hospital practice.

Aknowledgment

This study was not granted to be done.

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