

## Management of nursing care for patients with pressure injuries in the Intensive Care Unit

*Gestión de los cuidados de enfermería al paciente con lesiones por presión en la Unidad de Cuidados Intensivos*

*Gerenciamento do cuidado de enfermagem a paciente com lesão por pressão na Unidade de Terapia Intensiva*

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### Abstract

The aim of this study was to highlight the management of nursing care for patients with pressure ulcers in the intensive care unit. The present study is an integrative review with a qualitative approach. For the search, the following sources were selected: Latin American and Caribbean Health Sciences Literature, Scientific Electronic Library Online, and Medical Literature Analysis and Retrieval System Online. The search was conducted in January 2023 and updated in April 2023. Online articles available in full, published in Portuguese, English or Spanish were included; interval from 2018 to 2023 and that presented data on nursing management to patients with pressure ulcers in Intensive Care. It is possible to highlight that nursing systematization is essential for the management of nursing care for patients with pressure ulcers, since good implementation and assistance promotes qualified care and reduction of the risks of pressure ulcers. Nurses, as care managers, need to amplify their knowledge on this subject, considering that they act as educators not only in front of the technical team, but also in front of family members and caregivers, who are part of the health promotion process.

**Descriptors:** Nursing; Management; Pressure Injury; Nurse; Intensive Therapy Unit.

### Resumen

El objetivo de este estudio fue destacar el manejo de los cuidados de enfermería a pacientes con úlceras por presión en la unidad de cuidados intensivos. El presente estudio es una revisión integradora con enfoque cualitativo. Para la búsqueda se seleccionaron las siguientes fuentes: Literatura Latinoamericana y del Caribe en Ciencias de la Salud, *Biblioteca Electrónica Científica en Línea* y *Sistema de Análisis y Recuperación de Literatura Médica en Línea*. La búsqueda se realizó en enero de 2023 y se actualizó en abril de 2023. Se incluyeron artículos en línea disponibles en su totalidad, publicados en portugués, inglés o español; intervalo de 2018 a 2023 y que presentó datos sobre el manejo de enfermería a pacientes con úlceras por presión en Terapia Intensiva. Es posible destacar que la sistematización de enfermería es esencial para el manejo de los cuidados de enfermería a los pacientes con úlceras por presión, ya que una buena implementación y asistencia promueve la atención calificada y la reducción de los riesgos de úlceras por presión. El enfermero, como gestor del cuidado, necesita ampliar sus conocimientos sobre este tema, considerando que actúa como educador no solo frente al equipo técnico, sino también frente a los familiares y cuidadores, que forman parte del proceso de promoción de la salud.

**Descriptores:** Enfermería; Gestión; Lesión por Presión; Enfermero; Unidad de Terapia Intensiva.

### Resumo

Objetivou-se destacar o gerenciamento do cuidado de enfermagem a pacientes com lesão por pressão na unidade de terapia intensiva. O presente estudo é uma revisão integrativa com abordagem qualitativa. Para a busca, foram selecionadas as seguintes fontes: Literatura Latinoamericana e do Caribe em Ciências da Saúde, *Scientific Electronic Library Online* e *Medical Literature Analysis and Retrieval System Online*. A busca foi realizada em janeiro de 2023 atualizada em abril de 2023. Foram incluídos artigos on-line disponíveis na íntegra, publicados nos idiomas português, inglês ou espanhol; intervalo de 2018 a 2023 e que apresentassem dados sobre o gerenciamento de enfermagem a pacientes com lesão por pressão na Terapia Intensiva. É possível destacar que a sistematização de enfermagem é fundamental para o gerenciamento de enfermagem a pacientes com lesão por pressão, visto que a boa implementação e assistência promove um cuidado qualificado e redução de riscos de Lesão por pressão. O enfermeiro, como regente do cuidado, necessita ampliar o seu conhecimento em se tratando desse assunto tendo em vista que exerce como educador não somente frente a equipe técnica, como também frente a familiar e cuidadores, que fazem parte do processo de promoção da saúde do mesmo.

**Descritores:** Enfermagem; Gerenciamento; Lesão por Pressão; Enfermeiro; Unidade de Terapia Intensiva.



## Introduction

In 2016, the organization that aims to promote the prevention and treatment of pressure injury (PI) called the National Pressure Ulcer Advisory Panel (NPUAP), conceptualized PI as a damage that occurs in the skin region or even in the underlying soft tissues, this fact can be due to the inappropriate use of medical devices and other artifacts or bone prominence<sup>1</sup>.

Pressure injuries can range from intact skin to the most exposed form, such as ulcers, and can therefore present pain due to long-lasting pressures in addition to the friction with gravity that causes pressure on the skin, which is called shear<sup>2</sup>.

Regarding the etiology and pathophysiology of pressure ulcers, better scientific evidence is needed to justify the appearance of the lesions, however, extrinsic factors, such as pressure and microclimate, contribute to its occurrence. It is important to highlight that the effectiveness of pressure injury care management results in appropriate management, which reduces cases of PI<sup>1</sup>.

According to the National Health Surveillance Agency (Anvisa), in 2017, developed countries had a rate of 4% to 16% of hospitalized patients presenting risk and/or pressure injuries. In Brazil, there were large percentages of pressure injury occurrence in patients admitted to intensive care units (ICU), ranging from 35.2% to 63.6%, the incidence rate varied from 11.1% to 64.3 %<sup>2</sup>.

The occurrence of pressure injuries in the hospital is related to the patient's condition, the place where they are accommodated and the length of stay. The nurse has an extremely important role in managing measures to prevent, treat and evaluate diseases, especially critical patients admitted to intensive care units, considering that patients are dependent and have a serious clinical condition.<sup>3</sup>

The nurse is responsible for carrying out the nursing systematization, which are fundamental for defining the length of stay, the increased risk of infections, PI treatment expenses, prevention, and treatment, therefore, the risk assessment scales are very important. used to manage PI treatment in intensive care units, the most used in Brazil being the Braden Scale<sup>4</sup>.

The nurse manager has a fundamental role in the social sphere, his practices are consistent with nursing management and care. When the nurse assists the patient, the intention is to implement nursing care in a comprehensive manner. When managing care, she organizes not only the work, but also manages everything from human resources to instruments, equipment, and team practices<sup>5</sup>.

The LP is an indicator considered negative when reporting on the quality of care provided by the nursing team, therefore, care and prevention are important when considering those admitted to the Intensive Care sector<sup>6</sup>.

Considering the fundamental role of nurses in managing the care of patients with Pressure Injuries admitted to the intensive care unit, considered critical patients, and the increase in cases in this environment, there is an interest in carrying out research that aims to highlight

management nursing care for patients with pressure injuries in the intensive care unit.

## Methodology

The present study is an integrative review with a qualitative approach, which promotes the identification, synthesis and carrying out an expanded analysis of the literature, on a specific topic.

The integrative review is defined as a method that provides a synopsis of knowledge and the incorporation of the results of significant studies into practice. In this way, the review is carried out through six steps: the first is the choice of the theme and the guiding question; the second is to establish the inclusion and exclusion criteria; the third, define what content can be extracted from the articles read; the fourth, the evaluation of selected studies; the fifth interpretation of the data; and the sixth the synthesis of acquired knowledge<sup>7</sup>.

To make it possible to define the descriptors or keywords for this review, a thorough search was carried out on the Health Sciences Descriptors (DeCS) and Medical Subject Headings (MeSH) websites. As a result, the terms that fit the proposed theme were: "Nursing", "Intensive Therapy", "Pressure Injury", "Management" and "Nurse", with their correspondents in English, Portuguese, and Spanish.

The guiding question was: "How is nursing care managed for patients with pressure injuries in the intensive care unit?"

For the search, the following sources were selected: Latin American and Caribbean Literature in Health Sciences (LILACS), Scientific Electronic Library Online (SciELO) and Medical Literature Analysis and Retrieval System Online (MedLine). The Boolean "AND" was used between the descriptors in the search to specify and group the articles.

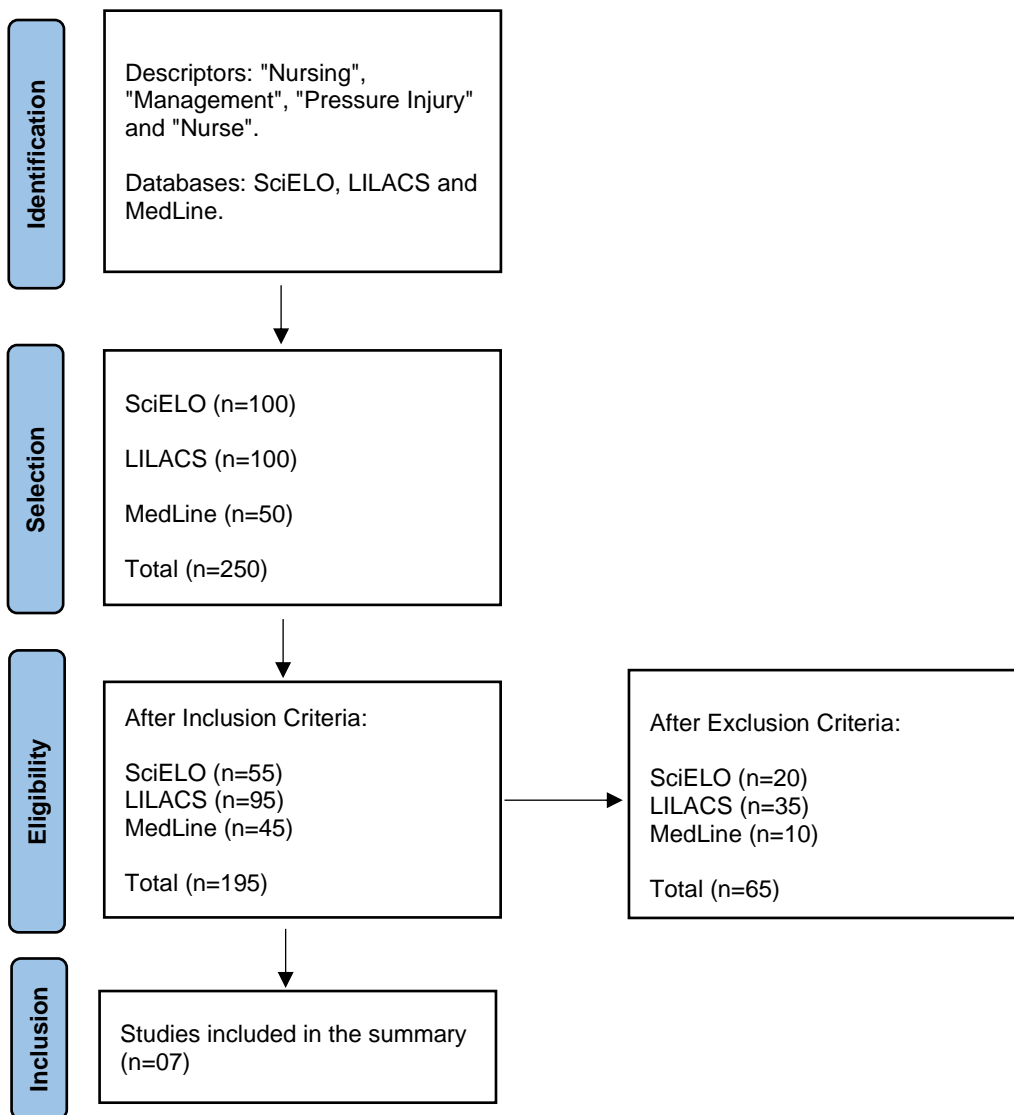
The search was carried out in January 2023, updated in April 2023. From the selected studies, the following variables were extracted: authors, year, journal, and main research results.

The established inclusion criteria were online articles available in full, published in Portuguese, English or Spanish; interval of the last 5 years (2018-2023) and that presented data on nursing management for patients with pressure injuries in intensive care. Articles published longer than the last 10 years, duplicates, paid articles, those that did not answer the research question after reading the summary and/or full text, in addition to literature such as books and/or chapters were excluded. book, letter to the editor, reflection articles and literature reviews, dissertations, and theses.

The electronic search resulted in 250 articles. And based on the exclusion criteria, 55 articles were eliminated, leaving 195 articles for the inclusion criteria, however, applying the exclusion criteria to the included articles left 55 articles, however, 07 articles were used as study results. with the aim of facilitating the search for manuscripts. The following flowchart illustrates the methodological process of the search:



Figure 1. Flowchart illustrating the methodological path with the aim of identifying the origin of the pre-selected studies included in the study. Rio de Janeiro, RJ, Brazil, 2023



The methodological information present in the 07 articles that constituted the final selection of this review was described in a table (Chart 1), and the following topics were presented: title, year of publication, authors, journal, and results of the study.

### Results and Discussion

The chart is presented with the results obtained from the research for the elaboration of this review.

Chart 1. Results obtained from the literature review research. Rio de Janeiro, RJ, Brazil, 2023

Title	Year	Authors	Journal	Results
Atuação do enfermeiro na prevenção e cuidado ao paciente com úlcera por pressão na unidade de terapia intensiva	2022	Marcela Pezzin Felisberto, Magali Hiromi Takashi.	Revista de Divulgação Científica Sena Aires	The nursing team is one of the most important professionals within the ICU environment, due to monitoring the patient for twenty-four hours a day, providing care, from the simplest, such as changing beds, to the most complex. International and national guidelines advise the use of the Braden scale to help identify patients who are at risk for pressure injuries upon admission and during the period of hospitalization and the application of preventive measures by professionals. It is suggested that reassessment occurs at least every 48 hours after admission or whenever the patient's condition changes.
Fatores de risco para lesão por pressão	2022	Leticia Povoas Costa et al.	Revista Pesquisa	Prevention and reduction of the risks of PI are possible through preventive measures adopted mainly by the



em pacientes com COVID-19 em unidade de terapia intensiva			Cuidado É Fundamental	nursing team as they are more present in relation to care. The nurse is primarily responsible for implementing strategies to prevent PI in hospitalization units.
Risco para lesão por pressão em pacientes de unidade de terapia intensiva	2021	Michelle Mayumi Yoshimura de Campos et al.	Revista Cuidarte	Risk factors for pressure injuries were age, length of hospital stay and stay in the ward before the ICU. The influence of nursing workload and risk of non-injury incidents and adverse events in the ICU and the relationship with the skin such as dermatitis, diaper rash and PI were the most frequent, with the occurrence of the incident increasing days spent in the ICU.
Medidas preventivas de lesão por pressão realizadas em unidades pediátricas de terapia intensiva	2021	Bruna Amato Jordão Pinto et al.	Revista Enfermagem em Foco	Pressure injuries (PI) have been a subject of great concern for health services, causing an impact on patients, their families, and the health system. The nurse, as a member of the multidisciplinary team in the ICUs, is responsible for managing care and is the active agent in the observation, notification, and treatment of PI in health services.
Incidência de lesão por pressão em pacientes na unidade de terapia intensiva de um hospital filantrópico	2020	Jonata Bruno da Silva Santos et al.	Revista Nursing	The Nursing Care Systematization (SAE) operates continuously and promotes a positive recovery of patients admitted to this unit. The nurse's assessment carried out daily using the Braden scale contributes to prevention and so that decisions can be made in the event of the development of PI.
Intervenções de enfermeiros na prevenção de lesão por pressão em uma unidade de terapia intensiva	2019	Rigielli Ribeiro Manganelli et al.	Revista de Enfermagem da UFSM	Prevent pressure injuries, care based on knowledge, scientific basis and institutional protocols was evident. As preventive care, nurses prescribed maintaining the patient's skin hydrated, alternating position, body hygiene and the use of a pyramidal mattress.
Incidência de lesão por pressão em unidade de terapia intensiva oncológica	2019	Rafael Tavares Jomar et al.	Revista Brasileira de Enfermagem	Identifying the incidence of PI is essential to assess the magnitude of this phenomenon in the ICU, in addition to being a challenge for nursing professionals when providing bedside care. Although, currently, the incidence of PI goes beyond nursing care, as its etiology is multifactorial, including factors intrinsic and extrinsic to the individual, due to providing direct care to critically ill patients and remaining at their side 24 hours a day, these professionals must commit to adopting preventive measures against this event that compromises patient safety and leads to high costs for health systems.

According to study<sup>8</sup>, pressure injuries cause significant concern in health services considering the impact it has on patients, families, and the health system. In this way, researchers<sup>9</sup> report that the occurrence of pressure injuries is challenging for nursing professionals, as they provide care at the bedside, which requires preventive measures for patient safety, as the etiology of PI goes beyond care.

Considering the occurrence of pressure injuries in health units, especially in critical patients hospitalized in the intensive care sector, researchers<sup>10</sup> analyzed that the factors that contribute to the development of PI, being considered risky, are age, length of stay and stay in the ward before referral to the ICU.

For studies<sup>9,11</sup>, it is possible to prevent pressure injuries in critically ill patients, however, the professional must have knowledge, scientific basis and attention to institutional protocols to prevent the occurrence of PI, as it not only causes harm to patients; patients with this type of injury result in high costs for healthcare systems.

Authors<sup>12</sup> have already identified that the nursing team is the professional category that is very important in

the intensive care unit, as it routinely monitors the patient and provides care from the simplest to the most complex. However, nursing professionals have a very challenging workload, which contributes to exhaustion and work that poses risks to both non-injury incidents and adverse events in the ICU. In this way, nursing care can facilitate the risk of dermatitis, diaper rash and pressure injuries, due to lack of attention to the patient's skin<sup>10</sup>.

Researches<sup>8</sup> highlighted that the nurse is responsible for managing all nursing care, therefore, observing, notifying, and treating pressure injuries in health services. Regarding the role of nurses in managing nursing care for patients with PI in the ICU, a study<sup>13</sup> also identified that it has as its main responsibility the implementation of strategies to prevent PI.

Study<sup>14</sup> highlights that it is extremely important for nurses to assess the risks of PI routinely using the Braden scale, contributing to prevention and decisions to be made promoting efficient and effective management. Authors<sup>12</sup> identified that the Braden scale is an international and national guideline that contributes to identifying patients regarding the risk of pressure injuries. Therefore, through



this scale, it is possible to promote qualified care by presenting the risks for PI from admission, during hospitalization until the application of preventive measures by professionals.

According to authors<sup>14,15</sup>, The Systematization of Nursing Care (SAE) is carried out continuously by nurses, promoting qualified care to promote the recovery of patients admitted to the ICU. The nurse prescribes extremely important and preventive care, such as keeping the skin hydrated, alternating position, body hygiene and the use of a pyramidal mattress<sup>11</sup>.

Through the studies mentioned, it is possible to highlight that nursing systematization is fundamental for nursing management of patients with pressure injuries, since good implementation and quality assistance promote qualified care and reduce the risk of PI.

### Final Considerations

Based on the review, it was possible to conclude that intensive care patients have greater complexity due to several risk factors, being considered more likely to develop pressure injuries, and it is up to the nurse to implement care plans to prevent and reduce the incidence of this adverse event.

It is proven that prevention is still the best way to

treat PI, risk prediction scales are of great value in the health service environment, and it is the professional's responsibility to know and implement them with the intention of anticipating the event. of injuries. The nurse becomes the supervisor of the technical team and, in addition to supervising the service provided, effectively carries out the care prescribed by him.

Using the Braden scale, the nursing team evaluates the patient's skin daily. In addition, it is very important when systematizing care for the nurse to prescribe changes in position, hydration of the skin, decompression using cushions, use of pneumatic mattress and protective dressings.

In this way, it was possible to highlight the management of nursing care for patients with pressure injuries in the intensive care unit, as scientific articles highlighted the importance of this professional category in managing the care of critically ill patients with pressure injuries.

In view of this, in the study it is possible to state that the nurse as leader of care needs to amplify his knowledge when dealing with this subject, considering that he acts as an educator not only in front of the technical team, but also in front of family members and caregivers, who are part of the health promotion process.

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