


IMPLEMENTATION OF A PRESSURE INJURY PREVENTION PROTOCOL IN A LARGE UNIVERSITY HOSPITAL

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ABSTRACT

Pressure injuries (LP) during hospitalization are negative indicators of quality of care, which can be prevented through specific actions, such as the implementation of protocols. This study described the process of implementing the PL Prevention Protocol at the Large University Hospital in Triângulo Mineiro (HUGPTM), in April 2023, during the "April for Patient Safety" event. The program included a review of the protocol based on scientific evidence, standardization of preventive practices, and adaptation to institutional conditions. Standard operating procedures were elaborated, and the "Tree of Belonging" was used as a strategy for team engagement. Training with clinical simulation addressed risk assessment, skin care, repositioning, and transdisciplinary work. In addition, leaders were sensitized and strategic meetings aligned the team. In April 2023, 353 professionals were trained, with formal records for monitoring. The implementation of the PL prevention protocol required an integrated approach, which combined health education, technological innovation, and teamwork. Despite the challenges, the powers present in this environment can be strategically leveraged to promote the success and sustainability of the protocol, which enables the safety and quality of patient care.

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INTRODUCTION

Pressure injuries (LP) are damaged areas of the skin resulting from continuous compression, which compromises blood flow to the affected area. They usually develop in regions of the body where there are bony prominences, such as the heels, sacrum, and elbows, and can be caused by factors such as immobilization, malnutrition, and humidity (EPUAP; NPIAP; PPPIA, 2019).

The consequences are significant, which include pain, infections and increased hospitalization time, which represents a negative impact on the perspective of quality of life and care costs. The prevalence of PL is a worrying problem in health settings, especially among bedridden patients or those with reduced physical mobility, such as those who are hospitalized in Intensive Care Units (ICUs) or wards (BRASIL, 2013).

A study shows that the incidence of PL is alarming, which makes its prevention a priority for nursing care and care. The implementation of appropriate prevention practices, such as frequent changes in decubitus, regular risk assessment, and the use of pressure relief devices, is essential to reduce the occurrence of these injuries. Thus, the prevention of LP becomes an essential responsibility of health professionals and requires up-to-date knowledge and practical skills to ensure the integrity of the skin and the health of the patients under their care (BARBOSA; BECCARIA; POLETTI, 2014).

LPs are significant public health problems, with high prevalence in Brazil and worldwide. It is estimated that the incidence of PF in hospitals varies from 3% to 30%, depending on the population analyzed and the care environment, it is more common in patients admitted to ICUs, where this percentage can exceed 40%. In addition to the physical consequences, such as pain and discomfort, PFs entail substantial financial costs for the health system, which include treatment expenses, prolonged hospitalization, and, in severe cases, the need for surgical interventions (SILVA *et al.*, 2013).

Effective prevention of these injuries is essential, as it can significantly reduce associated complications, such as infections, which can lead to sepsis and other serious conditions. In addition, the implementation of preventive measures improves patients' perception of quality of life and provides greater comfort and dignity during treatment (TORRA-BOU *et al.*, 2017).

The use of appropriate techniques, such as continuous risk assessment, frequent changes of position, and the use of pressure relief devices, is effective in reducing the incidence of PF. Therefore, investing in prevention strategies not only benefits patients but

also represents significant savings for Health Care Establishments, highlighting the importance of continuing education of health professionals in the implementation of these practices (ANVISA, 2017).

The objective of this study was to describe the process of implementation of the PL Prevention Protocol at the Large University Hospital in the Triângulo Mineiro (HUGPTM); implement the classification of the potential risk of developing PL for patients, according to the Braden scale; institute preventive measures to reduce or minimize the occurrences of LP and reduce the incidence of pressure injury (LP) acquired during hospitalization at the HUGPTM.

METHODOLOGY

This is a descriptive study, with a qualitative approach, of the experience report (ER) type, which considers the authors' experiences and experiences during the "*April for Patient Safety*" of a Large University Hospital in the Triângulo Mineiro, which took place in April 2023. This report describes the implementation of the Pressure Injury Prevention Protocol of the aforementioned Health Care Facility.

This report was based on the experiences of health professionals, especially the nursing team, in the context of clinical practice and academic training. According to Mussi, Flores and Almeida (2021), the RE addresses the detailed description of interventions carried out, with theoretical-scientific support and accompanied by critical reflections on the process.

In this context, the ER was characterized by the narratives elaborated by the authors involved in the action and intervention and were based on a theoretical framework, which aimed to know learning and worldview derived from experiences (Daltro; Faria, 2019).

Searches of scientific articles were carried out in the *Scientific Electronic Library Online* (SciELO), Virtual Health Library (VHL) and *Google Scholar* and PubMed. The descriptors used were: "Pressure Injury", "Safety Measures", "Health Education", and "Continuing Education", with their respective counterparts in English and Spanish.

Regarding the budget, all the materials, equipment and human resources necessary for the realization of the event were provided by the institution itself.

As these data do not refer to research with human beings, there was an exemption from the appreciation by the Ethics Committee for Research with Human Beings, according

to Resolution No. 466/2012 of the National Health Council, but all national and international ethical principles regarding citations were respected (Brasil, 2012).

REPORT OF THE EXPERIENCE

The prevention of LP is a priority strategy in nursing care and care, and reflects the responsibility of professionals to promote the safety and well-being of patients. LPs can cause serious complications and compromise patients' lives, which can result in pain, discomfort and significant physiological dysfunctions. Therefore, the implementation of good care practices is essential to mitigate these risks (DEALEY; POSNETT, WALKER, 2012).

Effective prevention directly impacts clinical outcomes, this promotes not only skin integrity but also recovery and patient satisfaction. Among the main preventive measures are the change of decubitus, which relieves pressure on vulnerable areas; the use of support surfaces, such as pneumatic mattresses, cushions and specific cushions, which distribute pressure, and continuous risk assessment, which involves the early identification of patients susceptible to LPs (SILVA *et al.*, 2013).

Education and training of health professionals about these practices are essential to promote adherence to prevention guidelines. Thus, the prevention of LPs is not just a matter of clinical practice, but a vital component of holistic care, which promotes the health and well-being of patients, which reduces the incidence of injuries and the associated consequences. The continuing education of health professionals plays a fundamental role in maintaining the quality of care and preventive care, especially in the prevention of LPs (ANVISA, 2017).

In a dynamic scenario of constant changes in health guidelines and advances in care practices, the constant updating of professionals is essential to promote knowledge and the skills necessary to offer effective care and assistance. Continuing education programs, such as training courses, *workshops*, and practical training, are effective in improving adherence to PF prevention practices (SOARES *et al.*, 2011).

In addition, health education promotes a culture of continuous learning, which seeks to encourage professionals to stay up-to-date on best practices and new scientific evidence. This not only improves the technical competence of professionals, but also reinforces the importance of teamwork and communication among health team members (ANVISA, 2017).

By investing in health education, Health Care Establishments seek to promote their professionals, so that they are prepared to implement and/or implement effective prevention strategies, which will possibly result in successful clinical outcomes and the promotion of the well-being of the patients under their care (BAVARESCO; MAN; LUCENA, 2013).

Regular training of health professionals not only provides up-to-date knowledge about the best preventive practices, but also promotes adherence to established guidelines, which tends to result in more effective care (SOARES *et al.*, 2011).

When professionals participate in health education programs, they tend to become more able to identify patients at risk, implement appropriate interventions, and use assessment tools, which contributes to reducing the incidence of LPs. According to ANVISA (2017), institutions that invest in health education see significant improvements in clinical outcomes. This reflects in a decrease in associated complications and the well-being and satisfaction of patients.

In this context, it is worth analyzing this relationship, which contributes to the construction of solid knowledge about the importance of health education in the prevention of PLs, and thus enables the quality of care and patient safety in health environments.

It is important to highlight that the Skin Commission (COMPELE) is linked to the Nursing Division (DENF). In this way, the DENF and the Nursing Management Support Unit (UAGENF) structured and conducted this process, to implement a strategy of reception, reception and health education for the HUGPTM nursing team, since these professionals provide highly complex care, and it is essential to prepare and update knowledge so that patients can be offered safe and quality care and care.

The alignment of care practices at HUGPTM has become a priority, in the face of the scenario of intense changes in the human resources framework. In this sense, the Florence Nightingale Knowledge Station, responsible for training at that institution, also started to offer practical stations with short-term clinical simulations, for specific topics of the main care issues of interest to the HUGPTM, which sought to make in-service education possible, alternating with qualifications of denser topics that require more time and dedication.

The contents addressed were based on institutional documents that guided nursing care and assistance at the HUGPTM, and functioned as a space for professionals to answer questions and enabled them to put into practice the knowledge acquired about the

topics offered. This initiative also aimed to encourage health education practices at HUGPTM, in addition to promoting voluntary engagement with the staff of internal facilitators, professionals with varied *expertise*, to enrich and diversify internal partners in conducting the hospital's training, and thus awaken the importance of a culture of valuing institutional education.

DEVELOPMENT OF THE EXPERIENCE

COMPELE of the HUGPTM is of a permanent technical-scientific nature. It is an advisory body linked to the DENF of the aforementioned EAS, which aims to develop actions for the prevention, promotion, evaluation and treatment of wounds and stomas. In addition to the commitment to offer quality care to patients with wounds and/or stomas.

COMPELE is composed of a transdisciplinary team, which has full members and consultants. Full members are regulated in an ordinance issued by the Superintendence of the aforementioned hospital, which is validated annually and updated as needed.

COMPELE has consultants from the care teams at the hospital level, who are not members of it, who can be formally invited to participate in specific meetings as defined by COMPELE. Medical specialties such as: general surgery; cardiovascular; Oncological; orthopedics; paediatrics; Plastic surgery; dermatology; intensivists; social services; psychology; occupational therapy; pharmacy; physiotherapy and nursing technicians may be invited to participate in the elaboration and validation of standard operating procedures, protocols, and other matters defined by COMPELE.

The full members are representatives of DENF, UAGENF, medicine, pharmacy, Patient Safety Center (NSP), Health Care-Related Infection Control Service (SCIRAS) and clinical nurses. COMPELE has at least one nurse representing the functional units of the Health Care Establishment.

COMPELE monitors patients hospitalized at the institution, after requesting an opinion from COMPELE in the University Hospitals Management Application (AGHU). The nurse representative of COMPELE, with the wound assessment form, performs the assessment together with the patient's care team and records the evolution at the AGHU. Requests for opinions are answered within a maximum period of 48 hours. The ordinary and extraordinary meetings of COMPELE are held in a previously scheduled room, located inside the clinical hospital and *online* on the TEAMS platform.

Ordinary meetings are held monthly, with a previously scheduled day and time, calendars available in the COMPELE Group on the TEAMS platform and forwarded to the head of the line of care and leadership of the functional unit at the beginning of each year and may need extraordinary meetings.

In April 2023, a **campaign dedicated to actions aimed at Patient Safety (PS)** was carried out, where the PL prevention protocol was implemented at HUGPTM. The National Patient Safety Program (PNSP) launched on April 1 through Ordinance GM/MS No. 529/2013. This occasion was an excellent moment to emphasize SP and the initiatives developed in Brazil. It is a way to share knowledge and safe practices and publicize the role of services, professionals and the university in promoting patient safety. In this way, UAGENF and COMPELE of the HUGPTM, used this moment to intensely disseminate with their teams goal six related to patient safety, which is to reduce the risk of LP.

This process was necessary since HUGPTM underwent significant changes in its human resources staff. Many employees hired and with diverse experiences, and it is necessary to intensify training with the objectives of maintaining effective and efficient communication with the teams, about institutional documents and consequently good care practices.

In this sense, a health education program was organized where several opportunities for events were promoted at the HUGPTM, given the relevance of the theme for professional practice.

For the implementation of the protocol, the following activities were carried out: review of the protocol, the protocol for the prevention of PF was reviewed, with clear and objective guidelines for the prevention of these lesions. The purpose of the revision of the PL prevention protocol was to enable the guidelines and practices adopted to be updated and aligned with the latest scientific evidence, as well as with the best practices in the sector.

In carrying out this review, the objectives were: to update the guidelines; incorporate new scientific discoveries or technological advances that could improve the prevention of LP; improve the quality of care and assistance; to enable preventive practices to be effective and safe; make the guidelines clearer and more objective, to facilitate their application in the daily life of the health team; adapt to the reality of the institution; adjust best practices to the conditions, resources and particularities of the institution; update and

train; to offer an instrument to support the continuous training of health professionals, so that they follow evidence-based practices.

In parallel with the PL protocol, the Standard Operating Procedure (SOP) was developed and revised regarding the change in decubitus, use of pneumatic mattress and use of foams. The purpose of the elaboration of a SOP is to promote the standardization of activities and procedures in an institution, in an attempt to provide greater safety, consistency and quality in the execution of tasks by professionals.

In the context of nursing, SOPs establish a sequence of detailed and specific actions for the performance of care, care or handling of equipment, so that all team members receive and follow the same guidelines, avoiding variations that may compromise the effectiveness of care.

When developing and reviewing SOPs related to change of decubitus and the use of pneumatic and foam mattresses, the objectives were: to reduce the incidence of PF and to standardize the frequency and technique of change of decubitus.

In this context, a Tree of Belonging was built, to promote an environment of appreciation and inclusion of the team, which promoted adherence and engagement in the process of implementing the protocol. Playfully, a representation of each part of the tree was made: the roots, represented each care unit, the importance of the teams that supported the entire process and strengthened the protocol. The stem represented the objective, which is to implement the PL prevention protocol and the fruits were the objectives achieved - safe and quality care for patients, with the reduction of adverse events.

A meeting was held between UAGENF and Compele with the Patient Safety Center (NSP) where the proposal for the PL prevention protocol was presented, and it was the theme of the April 2023 PS campaign, at the HUGPTM, the proposal was accepted and later materialized.

In this sense, meetings and awareness-raising actions were held for the heads and leaders of the HUGPTM, which aimed at their engagement and support for the implementation of the LP protocol. The positive impacts and strengths of PL prevention on the safety and quality of care and care provided to patients were presented. In addition, meetings were held with the care teams responsible for implementing the protocol, to align knowledge on the subject, clarifying doubts and defining implementation strategies.

The purpose of the meetings with the care team was to promote effective communication, alignment of knowledge and integration among team members, which made it possible for everyone to be aware of the guidelines, objectives and responsibilities related to the implementation of new protocols or procedures.

In the specific case of the implementation of the PL prevention protocol, the meetings played an essential role in aligning knowledge; enable care team professionals to understand the content of the protocol, technical guidelines, and evidence-based best practices for the prevention of PL; to offer a space for professionals to raise questions, discuss aspects of the protocol and resolve possible doubts, which promoted security and confidence to the health team about its application.

In addition, it was possible to collaboratively establish the best strategies for the practical implementation of the protocol, which considered the available resources, the particularities of the work environment and the needs of the patients.

The meetings were fundamental to promote an effective implementation of the protocol, a collaborative, safe work environment aligned with the best care practices, with a focus on prevention and safe and quality patient care.

After the meeting with the unit heads and leaders, it was proposed that they organize a Tree of Belonging for each care area. Thus, invitations were prepared for the HUGPTM teams to participate in the training of the PL prevention protocol.

In this sense, training sessions open to the entire hospital community and *on-site* training in the units were carried out. In the context of PL prevention and the correct use of materials and equipment, these trainings were essential to update knowledge, share the latest scientific evidence and guidelines on PL prevention. This made it possible for a significant number of professionals to participate in training and updating seeking the development of technical skills, referring to the correct use of materials and equipment, such as pneumatic mattresses and the use of foams.

In this context, the resources mentioned above could be used effectively and safely, which maximized their impact on the prevention of LPs; uniformity in practices, in addition to having enabled professionals to carry out the principles of standardized techniques in the same way, to reduce variations in care practices that could compromise the quality of care and care. Thus, the training aimed not only to educate, but also to train and motivate the team to act proactively and safely in the prevention of PL.

In all training, official records were made, through attendance lists, which sought to establish a formal and documented control of the participation of professionals in the training, which allowed for better management and monitoring.

In addition, this approach made it possible to create strategies to reach those who had not yet participated in the training, as well as the maintenance of a formal and documented record of the training history. This record can be used as evidence in internal and external audits, which proves the institution's commitment to training focused on the quality of care and assistance. Additionally, it allowed the planning of future training, the evaluation of the scope of the training carried out and the identification of the need for new classes or complementary training. It also made it possible to analyze the impact of the training, correlating the number of trained professionals with the clinical results observed, such as the reduction in the incidence of pressure injuries (LP).

The method used for the training was clinical simulation. In this way, Stations were elaborated, which had specific methods, explained below:

- **Station 1** – Risk assessment using the Braden Scale. To start the cycle of the seasons, a clinical case was proposed that would support the entire circuit. In this first moment, after reading the clinical case, the indispensable aspects of clinical evaluation for the prevention of PL were discussed, which directly impact the outcome of this event. In addition, the places with the highest incidence of PL were presented. After this explanation, the institutional form containing the Braden scale was made available so that the participants could classify the referred patient in the clinical case according to the institutional flowchart presented and validated with the participants.
- **Station 2** – Skin care. The participants were divided into groups so that they could list the main skin care of hospitalized patients. After that, the facilitator of the station explained about the main scientific evidence.
- **Station 3** – Repositioning on the bed and support surface. The clinical simulation method was used to demonstrate to the participants the correct way to reposition the patient in bed and what should not be done. Finally, the importance of changing decubitus according to the institutional protocol was addressed and, when it is not possible to perform it, decompression should be performed to minimize the possibility of LP occurrence.

- **Station 4** – Transdisciplinary team. At this station, the importance of the transdisciplinary team being involved and committed to the prevention of the occurrence of PL was emphasized.
- **Station 5** – Nursing diagnosis and prescription. After the evaluation stage of the Nursing Process (NP) in the previous stations, the possible nursing diagnoses and the main nursing prescriptions for the patient in question in the clinical case were addressed.
- **Station 6** – Evolution of nursing. Cardboard and brushes were made available for the participants to elaborate the nursing evolutions related to the clinical case presented. After this elaboration, they presented to those present and, together with the workshop facilitators, discussed the best ways to carry out nursing evolutions.
- **Station 7** - Patient-centered care. Guidance was given to the patient and his/her family members/companions to promote a safe discharge.

The implementation of a PL prevention protocol in a university hospital involves several strengths and challenges, which must be considered to enable the success of the initiative. As strengths, the following stood out: the teaching environment; the possibility of research, such as innovation and health education; access to new research and the possibility to test and implement evidence-based practices.

Constant scientific updating allows the protocols to be aligned with best practices. The training, as it is a university hospital, there is the presence of, in addition to professionals, students and residents, which allows an interface with the academy and enables a culture of PL prevention from the training of health professionals and the transdisciplinary team, since the variety of specialties and teamwork allow for a more holistic and integrated approach to PL prevention.

As educational resources, clinical simulations were carried out in amphitheaters, *in locu* Bedside, this was essential for the dissemination and strengthening of protocols among all levels of the health team. Related to technology and infrastructure, advanced technologies, such as pneumatic mattresses, pressure relief devices, and monitoring systems, help in the prevention of PF and regarding electronic documentation and evaluation, the implementation of electronic medical records facilitated the continuous monitoring of patients' skin conditions and compliance with protocols.

As challenges, organizational complexity, resistance to change, as in any large institution, brought resistance. The introduction of the protocol was challenging, it required a strong work of sensitization and culture change.

The diversity of professionals from different regions of Brazil and students at different stages of training resulted in variations in adherence to the protocol. Standardizing the understanding and application of the guidelines among all is an ongoing challenge. In addition, the overload and turnover of professionals in university hospitals can hinder the implementation and implementation of new practices and consistent adherence to protocols.

Overworked professionals may prioritize other tasks over PL prevention. Added to this, the high turnover of professionals and students was highlighted, where professionals admitted to this institution remained the minimum time to request their transfers to their states of origin and students and residents, who undergo internships in several units, may result in inconsistencies in the application of the protocol.

About financial resources, the cost of implementation, although in the long run the prevention of LP reduces hospital costs, the initial implementation of a protocol may require significant investments in training, technology and material resources, in addition to the maintenance of equipment and supplies, the continuous use of specific materials for the prevention of LP, such as dressings and mattresses, can represent a considerable cost to the institution.

Finally, the need for continuous monitoring and evaluation, effectiveness evaluation, how to measure the effectiveness of the protocol in real time and make the necessary adjustments can be complex, especially in an environment with high complexity patients. Implement continuous audit systems and provide *feedback* to enable the protocol to be followed correctly in all areas of the hospital.

In this sense, it is recommended to maintain periodic awareness and training events, which seek the continuous improvement of the team; periodic evaluations to monitor adherence to PL prevention practices; possible points of improvement and disseminate the results and positive impacts of the implementation of the protocol, to encourage the continuity of good practices and the commitment of the entire team.

FINAL CONSIDERATIONS

The implementation and implementation of the PL prevention protocol at HUGPTM required an integrated approach, which combined health education, technological innovation, and teamwork. Despite the challenges, the powers present in this environment can be strategically used to promote the success and sustainability of the protocol, which enables the safety and quality of patient care. In this context, it was a successful process, evidenced by the engagement of the team, the sensitization of the leaders and the training of a significant number of nursing professionals. These actions contributed to the improvement of the safety and quality of care and assistance to patients, since the prevention of LP is a fundamental measure to provide a safe and free environment

REFERENCES

1. ANVISA. National Health Surveillance Agency. Technical Note GVIMS/GGTES No. 03/2017 Safe practices for the prevention of Pressure Injuries in Health Services. Brasília. 2017. Available at: <https://www20.anvisa.gov.br/segurancadopaciente/index.php/alertas/item/nota-tecnica-gvims-ggtes-03-2017>. Accessed on: 28 jan. 2025.
2. BARBOSA, T. P.; BECCARIA, L. M.; POLETTI, N. A. A. Risk assessment of pressure ulcers in ICU and preventive nursing care. Rev. Enferm. UERJ., Rio de Janeiro, v. 22, n. 3, p. 353-358, 2014. Available at: <http://www.e-publicacoes.uerj.br/index.php/enfermagemuerj/article/view/13724/10494>. Accessed on: 28 jan. 2025.
3. BAVARESCO, T.; MEDEIROS, R. H.; LUCENA, A. F. Association of Braden subscales with the risk of developing pressure ulcers. Rev. Gaúcha Enferm., Porto Alegre, v. 34, n. 2, p. 21-28, 2013. Available at <http://dx.doi.org/10.1590/S1983-14472013000200003>. Accessed on: 28 jan. 2025.
4. BRAZIL. National Health Council. Resolution No. 466, of December 12, 2012. Provides for guidelines and regulatory standards for research involving human beings. 2012. Available at: <https://conselho.saude.gov.br/resolucoes/2012/Reso466.pdf>. Accessed on: 07 jan. 2025.
5. BRAZIL. Ministry of Health. Protocol for pressure ulcer prevention. Brasília: [s. n.], 2013.
6. DALTRO, M. R.; FARIA, A. A. Relato de experiencia: uma narrativa científica na pós-modernidade. Studies and Research in Psychology, v. 19, n. 1, p. 223-23, Apr. 2019.
7. DEALEY, C; POSNETT, J; WALKER, A. The cost of pressure ulcers in the United Kingdom. J. Wound Care. 2012. v. 21, n. 6, p. 261-266. Available at: <https://doi.org/10.12968/jowc.2012.21.6.261>. Accessed on: 28 jan. 2025.
8. EUROPEAN PRESSURE ULCER ADVISORY PANEL, NATIONAL PRESSURE INJURY ADVISORY PANEL AND PAN PACIFIC PRESSURE INJURY ALLIANCE. Prevention and treatment of pressure injuries/ulcers. Quick reference guide. (English edition). Emily Haesler (Ed.). EPUAP/NPIAP/PPPIA: 2019. Available at: <https://pubmed.ncbi.nlm.nih.gov/30658878/>. Accessed on: 28 jan. 2025.
9. MUSSI, R. F. de F.; FLORES, F. F.; ALMEIDA, C. B. de. Assumptions for the elaboration of an experience report as scientific knowledge. Práxis Educacional Magazine, v. 17, n. 48, p. 60-77, 2021.
10. SILVA AJ, SANDRA MP, RODRIGUES A, ROCHA AP, VARELA J, GOMES LM, et al. Economic cost of pressure ulcer treatment: a theoretical approach. Rev. Esc. Sick. USP. v. 47, n. 4, p. 971-976. Available at: <http://dx.doi.org/10.1590/S0080-623420130000400028>. Accessed on: 28 jan. 2025.

11. SOARES MO, BOJKE L, DUMVILLE J, IGLESIAS C, CULLUM N, CLAXTON K. Methods to elicit experts' beliefs over uncertain quantities: application to a cost effectiveness transition model of negative pressure wound therapy for severe pressure ulceration. *Med. Stat* 2011. v. 30, n. 19, p. 2363-2380. doi: 10.1002/sim.4288. Epub 2011 Jul 11. PMID: 21748773. Accessed on: 28 jan. 2025.
12. TORRA-BOU, J. E.; GARCÍA-FERNÁNDEZ, F. P.; PÉREZ-ACEVEDO, G.; SARABIA-LAVIN, R.; PARAS-BRAVO, P.; SOLDEVILHA-ÁGREDÁ, J. et al. The economic impact of lesions by prison: an integrative bibliographic review. *Gerokomos*. v. 28, n. 2, p. 83-97. Available at: http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1134-928X2017000200083&lng=es. Accessed on: 28 jan. 2025.