

STRATEGIES FOR PREVENTING FALLS IN EMERGENCY CARE UNITS

*ESTRATÉGIAS PARA PREVENÇÃO DE QUEDAS EM UNIDADE DE PRONTO
ATENDIMENTO*

*ESTRATEGIAS PARA PREVENIR CAÍDAS EN LAS UNIDADES DE ATENCIÓN DE
EMERGENCIAS*

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ABSTRACT

Carry out cycles of improvements to prevent falls in Emergency Care Unit. Experimental study, before and after, quantitative and qualitative, from March 2022 to March 2023. An instrument called a safety walk was used to collect data. In the comparison between 2022 and 2023, an increase was identified from 61% to 83% in general compliance with the walking requirements, when carrying out the assessment of the risk of falls upon admission, we went from 0% to 80%, when carrying out the assessment daily risk rate, we evolved from 0% to 100%, in signaling for the risk of falling, we evolved from 0% to 100%, as for the environment close to the patient free of obstacles, illuminated and dry floor we maintained 100%. The improvements implemented in the service went beyond the fall prevention protocol, through routine practices.

Keywords: *Accidents due to Falls; Emergency Medical Services; Patient Safety.*

RESUMO

Realizar ciclos de melhorias para prevenção de quedas em uma Unidade de Pronto Atendimento. Estudo experimental, do tipo antes e depois, quanti-qualitativo, no período de março de 2022 a março de 2023. Para coleta de dados, foi utilizado um instrumento denominado caminhada de segurança. Na comparação entre 2022 e 2023, identificou-se o aumento de 61% para 83% de conformidade geral aos requisitos da caminhada; na realização da avaliação do risco de quedas na admissão, passamos de 0% para 80%; na realização da avaliação diária do risco, evoluímos de 0% para 100%; na sinalização para o risco de queda, evoluímos de 0% para 100%; quanto ao ambiente próximo ao paciente livre de obstáculos, iluminado e piso seco, mantivemos 100%. As melhorias implantadas no serviço foram além do protocolo de prevenção de quedas, por meio de práticas inseridas na rotina.

Descritores: *Acidentes por Quedas; Serviços Médicos de Emergência; Segurança do Paciente.*

RESUMEN

Realizar ciclos de mejoras para prevenir caídas en la Unidad de Atención de Emergencia. Estudio experimental, antes y después, cuantitativo y cualitativo, desde marzo de 2022 a marzo de 2023. Para la recolección de datos se utilizó un instrumento denominado caminata de seguridad. En la comparación entre 2022 y 2023 se identificó un aumento del 61% al 83% en el cumplimiento general de los requisitos de caminata, al realizar la evaluación del riesgo de caídas al ingreso pasamos del 0% al 80%, al realizar la evaluación del índice de riesgo diario evolucionamos de 0% a 100%, en la señalización de riesgo de caída evolucionamos de 0% a 100%, en cuanto al ambiente cercano al paciente libre de obstáculos, iluminado y seco Piso que mantuvimos al 100%. Las mejoras implementadas en el servicio fueron más allá del protocolo de prevención de caídas, a través de prácticas rutinarias.

Descritores: *Acidentes por Caídas; Servicios Médicos de Emergencia; Seguridad del Paciente.*

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INTRODUCTION

The Emergency Care Units (UPA) are health establishments of intermediate complexity, with uninterrupted operation, whose work processes are linked to the execution of numerous procedures, with continuous interruptions of activities, work overload and conditions that reflect on the quality of the care offered¹.

Among the events that may occur in these establishments are falls, defined as the unintentional displacement of the body to a level lower than the initial position, caused by multifactorial circumstances, resulting or not in damage. A fall is considered when the patient is found on the ground or when he/she needs support during the displacement, even if he/she does not reach the ground, and the same can occur in a multifactorial manner^{2,3}. They are the third leading cause of death in Brazil, where we identified a higher increase in the rate of hospitalization due to falls in the Northeast Region (44%)⁴.

There is a high probability of reducing the occurrence of patient falls at the points of care and the resulting damage, through the implementation of measures that include the patient's risk assessment, ensure multidisciplinary care in a safe environment, and promote the education of patients, family members, and professionals⁵.

According to the World Health Organization (WHO), the concept of Patient Safety refers to a structure of organized activities that creates cultures, processes, procedures, behaviors, technologies, and environments in the health area, which consistently and sustainably reduces risks, reduces the occurrence of avoidable harm, makes errors less likely, and reduces the impact of harm when it occurs⁶.

In the context of the UPA, there is a gap in the implementation of the safety protocols recommended by the National Patient Safety Program (PNSP). Among them, falls, which is punctual, fragmented and even non-existent in this scenario, still little used in hospital emergency care⁷.

The general objective of this study was to carry out improvement cycles for the prevention of falls in the Emergency Care Unit.

METHODS

This is an experimental, before-and-after study, comparing March 2022 and March 2023, with a concurrent time series and a quantitative-qualitative approach. It was carried out in axis two of the UPA of Messejana, located in the city of Fortaleza, in the State of Ceará. In axis two of the unit, patients who stay more than 24 hours in the unit remain, and they are accommodated on 16 stretchers, which are requested to be transferred and await regulation, with an average length of stay of 60 hours.

For the study, an improvement team was initially defined for the fall protocol in the unit, composed of the nursing coordinator, two clinical nurses, a continuing education nurse, manager and quality analyst of the Patient Management and Safety Center (NUGESP) of the UPA and two quality and safety analysts of the Quality Management and Patient Safety Center (NGQS) of the Institute of Health and Hospital Management (ISGH).

Initially, an identification and prioritization of opportunities for improvement was carried out based on a prioritization matrix, when the absence of application and

monitoring of the fall assessment scale was identified, as well as the implementation of the fall prevention protocol in the unit.

In view of this identified and prioritized opportunity, an Ishikawa diagram was developed to identify the possible causes. Among them are: lack of training in the existing fall prevention protocol; lack of qualified personnel to assess the risk of falling; lack of understanding of the importance of evaluating and monitoring the fall prevention protocol; absence of a standard for the application of the fall risk assessment and lack of knowledge of preventive measures.

In view of this, quality and safety criteria were established for evaluation before and after the improvements implemented in the unit, as defined in the 2013 fall prevention protocol⁸.

Among the defined criteria are:

- Perform assessment of the risk of falls on admission, stratified by degree of risk;
- Perform daily assessment of the risk of falling, stratified by degree of risk;
- Check the nursing prescription for nursing care (keep the upper bed rails elevated and wheels locked, instruct the patient on the use of non-slip footwear);
- Verify if the patient has stratified fall risk signals;
- Check that the environment near the patient is free of obstacles, lit and dry floors.

These criteria are monitored in the monthly data collection on the instrument used during the patient safety walk. The criteria were validated through a face-to-face moment to ensure the uniformity of the data collected.

The Safety Walk is an institutionalized methodology that aims to reinforce adherence to good practices of the safety protocols defined by ANVISA, carried out through a structured checklist with criteria to be evaluated⁹. In this study, we used only the criteria for the fall protocol, which requires consultation of medical records and on-site observation.

The proposal is that 20 monthly observations would be carried out in axis two of the UPA, being applied by trained professionals and directed to this activity, and the good practices carried out in all shifts and different teams would be evaluated. To monitor the indicator, the technical sheet of the indicator of the compliance rate to the requirements of the safety walk of the fall protocol was defined.

According to the Support Program for the Institutional Development of the Unified Health System (PROADI-SUS), in improvement projects, the sample size does not present statistical significance, as hypothesis testing is not being performed, as in scientific articles¹⁰. In this sense, the use of samples with hundreds of observations is avoided, so that the project team can focus on the changes that will need to be made¹¹.

For preliminary data analysis, patient care records were evaluated in the period from March to April 2022, with 61% compliance in March, with the application of the fall scale being the greatest fragility. This scale was published by Morse in 1989 and consists of six criteria for assessing the risk of falls. Each criterion receives a score

ranging from 0-30 points, totaling a risk score, whose classification is as follows: 0 to 24 is classified as low risk; 25 to 44, medium risk; and above 45, high risk¹².

With the preliminary analysis and the identification of opportunities for improvement, it was established that interventions would be carried out to carry out improvement cycles to prevent falls in the unit with the unit's improvement team. The formation of this team aimed to establish meetings to initially discuss the definition of the system for applying the fall risk scale, which previously did not exist in the unit. The meetings took place every two weeks until the systematic definition of the scale to be implemented, becoming more spaced out to enable the execution of the interventions defined from change tests in cycles carried out.

In cycle 1 of the change test, we defined the following necessary tasks: Present the Morse scale and the calculator to the unit's team (improvement team); Include a calculator in the unit's computers for risk assessment; Start risk assessment at night; Record the result of the risk in the electronic medical record.

In cycle 2 of the change test, we defined the following necessary tasks: Discuss with the team the opportunities for improvement to apply the scale systematically and carry out a survey of improvements; Multiply training for all clinical nurses; Standardize the recording of the score and classification of the risk of falls in the nursing evolution; Present and implement the bed plate with fall risk signs to start the application in the unit; Present the table of fall prevention measures by degree of risk; Present an example of a folder for the involvement of patients and companions.

Based on the discussions with the falls team, it was established that the application of the scale will be daily, with the morning and afternoon team making the scale at admissions and the night team performing daily evaluation with a record of the score and classification in the medical record, as well as the risk signaling on the bed board. The exclusion criterion was intubated and sedated patients under 18 years of age.

It was necessary to train the care team regarding the routine application of the Morse scale, application of preventive measures, notification of incidents, daily signaling of the risk on the new bed plate, and the marking being updated with a brush, in addition to the presentation of the folder that would be delivered to patients/companions and discussion of the information contained therein. These trainings were conducted through remote and face-to-face moments, with the use of games and always supported by the unit's permanent education team.

To strengthen the performance of notifications, it was necessary to implement notification via the system, with a new strategy through the use of QRCode by employees, because until October 2022, the unit had manual notification, still needing to be strengthened with the care teams. Currently, the unit has notification via the system, which enabled the dissemination of the safety culture to the entire multidisciplinary team, the engagement of leaders and the care team.

After the actions carried out, the walk was resumed in February 2023 by the unit's medical and nursing coordinators.

In order to strengthen the patient safety culture in the UPA, align the requirements of each safety protocol, disseminate the guide for the safety walk and strengthen the practice of safety briefings, the NGQS, in partnership with the NUGESP of the UPA,

carried out, in March 2023, a visit to the unit, where we follow the safety walk carried out in the unit. During the course, we were able to ask questions and align requirements of the walk form, as a strategy to make it sustainable and effective.

The preliminary stages were developed during the teaching, not requiring ethical appraisal, according to Resolution No. 510/2016. However, during the improvement cycles, when actions involving human beings were developed, according to Resolution No. 466/2012, the project was submitted for consideration and approved by the ethics committee in December 2022.

RESULTS

In the comparison between 2022 and 2023, an increase from 61% to 83% in overall compliance with the requirements of the walk was identified. In assessing the risk of falls on admission, we went from 0% to 80%; In carrying out the daily risk assessment, we have evolved from 0% to 100%; In the requirement compliance in the checked nursing prescription, regarding care (keeping upper bed rails elevated and wheels locked), we had 86% compliance in 2022 and 60% in 2023; in the requirement related to the checked nursing prescription, regarding care (patient guidance on the use of non-slip footwear), we went from 86% compliance to 80%; in signaling for the risk of falling, we have evolved from 0% to 100%; As for the environment close to the patient free of obstacles, illuminated and dry floor, we maintained 100% compliance in both years, as shown in the table below:

Table 1 - Comparison of results

Results	March 2022	March 2023
Compliance with fall prevention goal safety walk requirements	61%	83%
Samples	14 samples	05 samples
1. Carrying out the assessment of the risk of fall on admission stratifying by grade	0%	80%
2. Carrying out the daily assessment of the risk of falling, stratifying by grade	0%	100%
3. Nursing prescription checked for care (keep upper bed rails elevated and wheels locked)	86%	60%
4. Nursing prescription checked for care (patient guidance on the use of non-slip footwear)	86%	80%
5. Stratified fall hazard signalling	0%	100%
6. Obstacle-free, illuminated and dry environment close to the patient	100%	100%

Source: Own authorship (2022).

As for the trainings held in 2022, we obtained the following adherence rates, as shown in the table below:

Chart 2: Rate of adherence to training.

Period	Topic addressed	Employee adherence rate to training
August/2022	Morse scale	88%
August/2022	Fall Prevention Measures	56%
October/2022	Fall Prevention Measures (1)	65%
October/2022	Fall Prevention Measures (2)	57%
November/2022	Event Notification System	50%
December/2022	Event Notification System	42%

Source: Own authorship (2022).

DISCUSSION

According to the World Health Organization, unsafe care that causes harm to patients is a challenge for public health worldwide, and is enhanced when there are weaknesses in operational processes for care that can compromise the safety of users, with incidents occurring that can cause harm to patients¹.

It is believed that there are about 2.6 million deaths every year related to these events, leading to a social cost that can reach 2 trillion dollars per year. It is known that these events could be minimized if patient safety measures are adopted, such as the implementation of preventive measures for the protocols recommended by the Ministry of Health¹³. Patient assessment and identification of factors that may increase the likelihood of falls are essential for planning effective prevention measures. However, the use of specific tools to identify individuals at higher risk of falls can be an ally in preventing incidents¹⁴.

Recognizing the risks of falls is the best way for the multidisciplinary team to establish strategies to reduce adverse events. That is why it is so important to approach and interact with all health professionals who provide care, in order to recognize the reality, including the risks to which the patient is exposed, so that we can work together¹⁵.

Studies indicate that the emergency department has a high number of patients at high risk for falls (53.33%), since this environment has specific characteristics, such as: crowded corridors, reduced space, high flow of people, in addition to the fact that patients remain in these services for longer periods and require greater complexity in care¹⁴. Despite this, there is a gap related to studies that investigate the incidence of this event in PUAs, as well as risk assessment using validated instruments, such as the Morse scale¹⁴.

However, despite the high rate of falls in emergency services, there are few studies that address the occurrence of falls in these services, as well as few studies reporting experiences and approaches used with the teams, as described in this study.

In view of the change tests and interventions carried out in the unit, we observed that the implementation of an improvement team was relevant for the beginning of the discussion of the system for the application of the Morse scale, having them as supporters and multipliers of prevention actions. A reference in continuing education with the team made a difference in supporting the dissemination of good practices and new routines to

be instituted. To this end, it is essential to engage managers and the care team in recognizing this demand and to commit to improving the unit's safety processes.

It was observed in the results that the rate of compliance with the requirements of the walk to the fall target increased from 61% to 83% in one year of interventions carried out, compared to March 2022 and March 2023. There was a significant increase in the requirements related to the fall assessment scale and the risk signaling on the bed plate, observing a lower evolution regarding the care of keeping the upper bed rails elevated and wheels locked, and patient guidance on the use of non-slip footwear, measures included in the nursing prescriptions.

It is worth noting that we observed a low adherence to training related to fall prevention measures and awareness of reporting events carried out by continuing education with the front teams. These findings corroborate the results found. The higher adherence was related to the requirements in which we made the most progress (scale for evaluating falls at admission and daily). Thus, we understand that, in order to generate a greater impact, we need to achieve high levels of adherence, in addition to establishing a pre-defined system to ensure the support of good patient safety practices.

One of the challenges pointed out was the difficulty of carrying out the walks according to the quantity established for the sample (n=20), and the importance of the involvement of other members for the application of this practice was observed. Currently, we have a nursing coordinator, with the support of clinical nurses to carry out the walks, making them feel part of the process. Most changes will not happen without people's help and, for this change to be effective, people need to cooperate, and this practice should be integrated into the daily lives of care professionals¹¹.

In addition, it should become the institution's practice to systematically monitor and disseminate the data obtained by the safety walk, through meetings with managers with the leadership team, as well as in safety briefings, contributing to the application and dissemination of good practices, placing patient safety as a constant agenda and favoring the continuous improvement of the process and a great experience in the institution.

There is a consensus that team engagement and patient and family involvement represent several benefits for patients, healthcare professionals, and organizations. For this, it is essential that there is open communication, teamwork and constant learning¹⁶. Strategies to educate patients and family members should be used, including guidance on the risk of falls, damage due to falls, and preventive measures, which should take place at admission and during the patient's stay at the health unit, using accessible and easy-to-understand language¹⁷.

The existence of few published studies on falls in emergency services made it difficult to compare them with other cases and highlighted the importance of research on the subject. Thus, the need to implement fall prevention protocols in the emergency service is proven, as well as to carry out the assessment of the risk of falls, at admission and on a daily basis, as a tool to ensure safe care, in addition to the use of multifactorial strategies that collaborate to strengthen the institution's safety culture. such as the walk and safety briefings. Practices that ensure a constant and vigilant look at good patient safety practices in an institution¹⁷.

CONCLUSION

The purpose of this study was to carry out cycles of improvements for the prevention of falls in the unit, implementing the fall prevention protocol and, thus, new practices for the care team, making the falls team of the service feel part of the process, listening to the work dynamics of an urgent and emergency service and taking these factors into account at the time of the implementation of a new practice. leading them to understand the purpose, so that the practice is sustained.

However, we were able to observe that the improvements made went far beyond the fall prevention protocol. We observed the strengthening of the safety culture in the institution, through practices that should be inserted in the routine of the service to ensure active surveillance and involvement of all employees who are part of the care and who contribute to ensuring patient safety and quality in the care and service provided.

Since the publication of the National Patient Safety Program (PNSP), it has been a challenge to implement strategies that ensure solid and sustainable actions aimed at patient safety. It is necessary that safety issues be part of the permanent agenda of health services and, for this to happen, it is important that there is systematic planning, structure, methods, definition of responsibilities and deadlines for execution. It is also known that the implementation and dissemination of a strong safety culture requires a lot of efforts, considering that managers, leadership teams and care teams need to be committed to safety-related issues, since the culture reflects the behavior of the members of an institution.

The limitations of the study were the permanence of the systematic execution of the safety walks, because without this routine implemented in the Unit, we weakened the process of active surveillance of the requirements and safety. We have as a potential of the study the application of a risk assessment scale in UPAs, an innovative and non-existent practice at this level of care complexity, as well as the strengthening of studies related to the theme, since articles and works focused on the area are almost non-existent.

FOMENTATION

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