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ANALYSIS OF THE APPLICABILITY OF A CHECKLIST AS A STRATEGY FOR FALL RISK AND PATIENT SAFETY IN A PUBLIC HOSPITAL IN THE CITY OF RIO DE JANEIRO

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Abstract: The risk of falling represents a barrier in the quality efficiency strategy correlated to patient safety. Managers and the work of multidisciplinary teams become fundamental to mitigating this adverse event. Indicators and protocol proposals are common in clinical practice, communication, dissemination of information and training are predictive and fundamental factors for the success of actions. Regarding the practice itself, there is evidence of a distance from theory, especially what is included in the risk management observed by ABNT's ISO 31,000. Therefore, the study proposed the creation of a checklist, and that its management could be used by any tertiary care professional. A questionnaire was carried out to identify professionals' knowledge of the topic covered, creation of a checklist as an intervention proposal, and bibliographical research with the aim of relating the case studies to the literature. The results shown show a high prevalence of adverse events related to patient falls, lack of knowledge and/or communication, and applicability of risk management protocols related to patient falls. Based on case studies and the author's experience in healthcare, an analysis was carried out using the SWOT technique, with the purpose of identifying possibilities for improvement, and strategies for actions verified by the management team. It was not possible to implement the checklist, further studies related to the topic are suggested, as well as the practical applicability of the nature of this study.
Keywords: Risk of falling; Patient safety; Check list; Risk management.

INTRODUCTION

Patient safety is a central concern in healthcare, as the patient may be subject to different types of risks during their stay in the hospital and also during care. Among these risks, the risk of falling stands out, which is one of the main causes of injury and/or prolonged hospitalization of hospitalized patients. (ANVISA, 2021).

A fall is defined as an event in which a person inadvertently falls to the ground or to another level below that at which they were before the event occurred (SKELTON, TODD, 2004).

A fall can lead to serious consequences, such as head injuries, fractures, risk of hospital infections, and even death. Therefore, it is extremely important that health professionals made up of the multidisciplinary team are aware, informed and trained about protocols and preventive measures with implementation based on scientific evidence that guarantees patient safety and the reduction of such adverse events during the period of hospitalization. (URBANETTO, et al., 2016).

Safety does not mean a guarantee of fully qualified care, however, it is one of the cornerstones of the quality of health care, as the risks inherent to care in these specific environments are evident in themselves (TRES et al. 2016).

To avoid and/or minimize the risk of this adverse event (AE), a regulation was established by the Ministry of Health, namely, RDC number: 36/2013, also dealing with the creation and management of the safety risk for the patient as well as the creation of the patient safety core in organizations. In Ordinance GM/MS Number: 529/2013, the National Patient Safety Program (PNSP) was established. Its creation occurred shortly after the 57th World Health Assembly, resulting in the recommendation of the United Nations (UN) and the concern of Member States on the subject.

ISO 31,000 proposed by the Brazilian Association of Technical Standards (ABNT), created a standard for risk management, having in its essence some principles and guidelines, with systematic processes in detail, brings recommendations for organizations to develop, implement and improve in a its structure continued, with the purpose of integrating the risk management process into governance, creating strategies and planning for actions, generating data analysis processes, policies, values and culture throughout the organization. (ABNT, 2009).

The lack of a protocol established by the multidisciplinary team of a hospital, together with the low or low adherence of professionals on the topic, such as information, training and training, makes the sensitivity of the topic evident, with the development of strategies and dissemination being latent. of knowledge based on the scientific world for a broad debate and discussion about improvements regarding patient safety and the risk of falling, thus reducing prolonged hospitalization time and/or risks of infection resulting fromhospitalization. To this end, a program was created toInternational Patient Safety Goals of the World Health Organization (WHO), and Patient Safety Protocols - Ordinances 1,377/2013 and 2,095/201314-15.

To answer and discuss these questions, the present study has the following general objective: To propose analysis of a checklist to identify fall risk situations in a public hospital in the city of Rio de Janeiro. And presents specific objectives: a) Identify the main protocols adopted for fall risk in hospitals; b) Identify the causes of risk of falls; c) Analyze the main causes of risk based on indicators in the literature; d) Prepare the checklist; d) Analyze the applicability of the checklist, using the SWOT method.

This work presents a strategy for patient safety and their risk of falling in hospitals. Considering the relevance of the topic for patient safety. This study aims to contribute to the awakening ofa hegemonic thought for the multidisciplinary tertiary health care team, a broad discussion and exchange of information on the topic, favoring a flow of decisions, care related to the patient, and creation of models/ protocols replicated in different hospitals.

In addition, contributing and provoking new studies and reflections in order to benefit patients not only in the public sector, but also in the private sector in Hospitals in order to reduce the risks associated with falls.

RESEARCH METHODOLOGY

This research was carried out after visiting two public hospitals in the city of Rio de Janeiro and applying a questionnaire to professionals, via Google Forms as a brainstorming tool, made available through a WhatsApp group, with the aim of analyzing the importance and aspects related to the topic

The hospitals studied were a Municipal Hospital in the city of Rio de Janeiro, with 121 beds, and a Federal Hospital in the city of Rio de Janeiro, with 141 beds, located in the north and south zones respectively, in the city of Rio de Janeiro. in the metropolitan region. The criteria for choosing these units was due to their relevance in demonstrating one of the principles that govern the SUS (Unified Health System), such as the principle of health hierarchization and regionalization, and because they are located in different areas of the city and with economic and social inequalities.

For the development of this study, a bibliographical research was carried out, through access to the following databases: Google Scholar, DataSUS, Pubmed, Scielo, Lilacs, Virtual Health Library (VHL). The search was carried out through online access, in the period between October 2022 and February 2023. The articles were searched

using the following descriptors: "Risk of falling", "patient safety", "check-list", and "risk management". With boolean operators used, and and or.

The inclusion criteria were determined with articles related to the topic, including those of a multidisciplinary nature, such as Nursing and/or Physiotherapy activities, protocols and recommendations from the Ministry of Health, Hospital Accreditation Organizations, review and original scientific articles. For the exclusion criteria, articles that deviated from the topic covered were defined, master's dissertation, doctoral thesis, undergraduate course completion work, magazine articles or any other medium that does not have a scientific character and that were not of agreement as the objective of this study.

RESULTS AND DISCUSSIONS

IDENTIFICATION OF THE MAIN PROTOCOLS ADOPTED FOR PATIENT SAFETY AND RISK OF FALLS IN HOSPITALS

ANVISA proposed a theoretical health risk management model based on monitoring the implementation of patient safety practices, their assessment and management of adverse events (AE), see figure 1.

The implementation of a patient safety center is necessary for prevention and notification of AEs.

The alignment of patient safety is in common agreement with the risk of falls, the number of notifications of incidents related to healthcare shows that falls represent the fourth highest incidence of notifications. The data shown refers to the year 2015, published in the Patient Safety Bulletin in 2016. As shown in figure 2.

The Morse scale is the most used scale for preventing falls in Brazil, it underwent a cross-cultural adaptation and translation into Brazilian Portuguese, in its original version Morse Fall Scale, was published in 1989, based on the sum of the score of six items, receiving a fall risk classification between low, medium and high fall risk. (URBANETTO et al. 2016).

The National Patient Safety Program (PNSP), a fall risk prevention protocol, was proposed by the Ministry of Health, ANVISA, and FIOCRUZ, in 2014, and encompasses the calculation:

Falls Index: Number of falls X 1,000
Number of patients/days

It is important that this data is present in the notes in the patient's medical record and is widely disseminated with managers and sector leaders, for monitoring, updating, and analysis of AEs that occur in each sector in isolation and in the Institution in general, thus generating forms indicators for AEs related to patient falls.

IDENTIFICATION OF CAUSES OF RISK OF FALLS

The ANVISA bulletin demonstrates that the types of falls are correlated with loss of balance, slipping, fainting, tripping, among others, with loss of balance being the most relevant and notifiable (figure 3), the location of the fall, shows that These AEs occur mainly in bed, bathroom, chair, while transported/supported by another individual, on a stretcher, on stairs or steps, in a crib, or when using therapeutic/diagnostic equipment, with the bed-related event being the most reported, with 1,390 incidents, the other events are listed in figure 4.

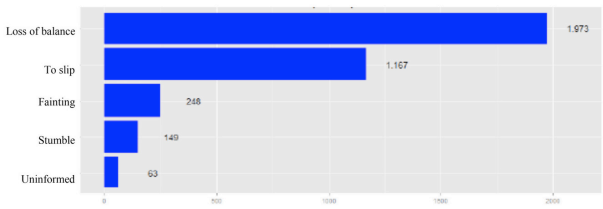

Figure 3 - Types of falls recorded in the bulletin

Source: ANVISA (2016)

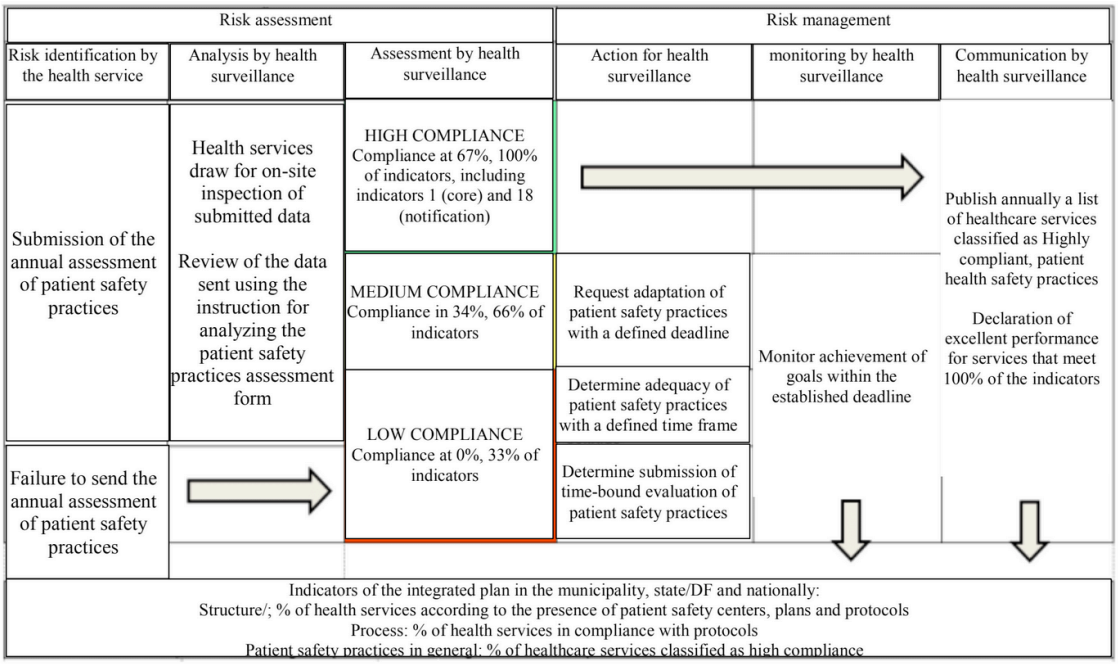

Figure1- Theoretical model of patient safety and risk management

Source: ANVISA (2021)

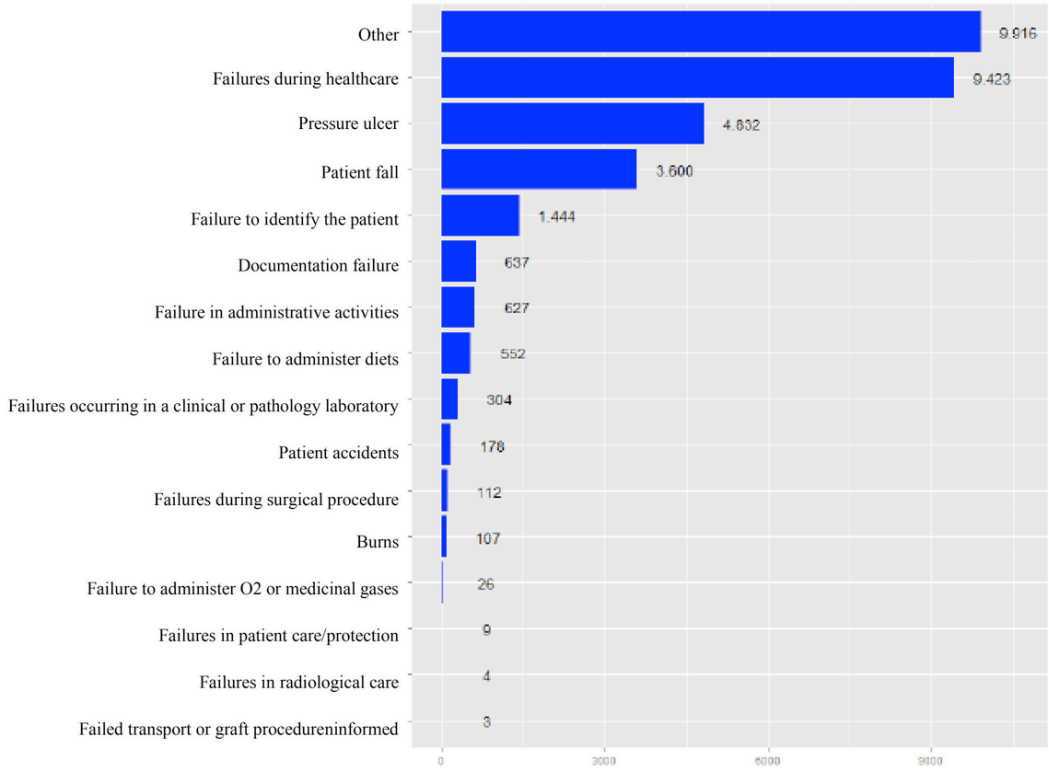

Figure 2 - Incident notifications

Source: ANVISA (2016)

It is important to highlight the actions defined in theGM/MS Ordinance Number: 529/2013, which establishes the PNSP, namely: defining actions based on an incident; actions such as mitigating factors that prevent or moderate the progression of an incident, taken after an error has occurred; improvement or improvement or compensatory actions for any harm to the patient after an incident; risk reduction actions, prevent the occurrence of the same or similar incident; actions to identify the reality and care profile of the point of care. (FIOCRUZ, 2014).

Risk factors can be stratified by demographic profile, psycho-cognitive, health conditions and presence of chronic diseases, patient functionality, sensory impairment, body balance (related to gait), use of medications, severe obesity, and previous history of falls. (ANVISA, 2017).

Another aspect observed were failures in identifying the patient, with the absence of a bracelet represented by 777 notifications, followed by a change of name, lack of identification at the bed, and thirdly, more than one of the two failures mentioned previously, in a total of 1,444 Notifications. (See figure 5).

A guidance guide was prepared in 2021 for completing the assessment of safe patient practices by ANVISA, in 2021, with form assignment, guidelines for implementing non-compliant aspects, and adapting safe practices in relation to the patient. 13 indicators were created, among them item 15 brings risk of fall to be observed. This worksheet must be completed and attached to the National Patient Safety Practices Assessment Form, shown in figure 6:

Falls in hospitals are multifactorial, in some cases it is difficult to identify or specify an isolated cause, making it necessary to analyze each case, however the literature points out some important factors, as listed in Table 1:

Characteristics	Definitions
Muscle weakness	Bedridden patients, or those with mobility deficits, may be at greater risk of falls, especially those who are disoriented.
Medicines	The administration of some medications may momentarily alter the level of consciousness and orientation
Unsafe environment	Whether due to lack of adequate lighting, furniture or even specific equipment, such as a stretcher, equipment, these can be obstacles and increase the risk of falling.
Communication failure	There may be a lack of training, or negligence in the exchange of information by the professionals involved in the service
Work overload	Inadequate or insufficient rest, as well as employees with more than one job, can create a favorable environment for lack of attention and increase negligence during the assessment of potential risks of falls that the patient may present at the time of their intervention.

Table1- Identification of the causes of risk of falls

Source: Kumar (2018)

Prevention is a shared responsibility, both for professionals and family members and caregivers.

According to the National Health Surveillance Agency (ANVISA), the main cause of patient falls in hospitals is muscle weakness, as a consequence of age or illness at the time, degrees of cognitive impairment, disorientation, whether temporal or spatial, use of medications and/or sedatives, lack of coordination or balance, inappropriate positioning, in bed or out of it, work overload of health professionals, lack of communication between employees, with training and guidance to the patient, their family members and caregivers and development of fall prevention strategies, with their respective management. (ANVISA, 2017).

In the hospitals studied, unsafe environments were observed, professionals with work overload, whether due to work in another institution, or due to covering team absences on the day of their shift, communication was also an important thing to

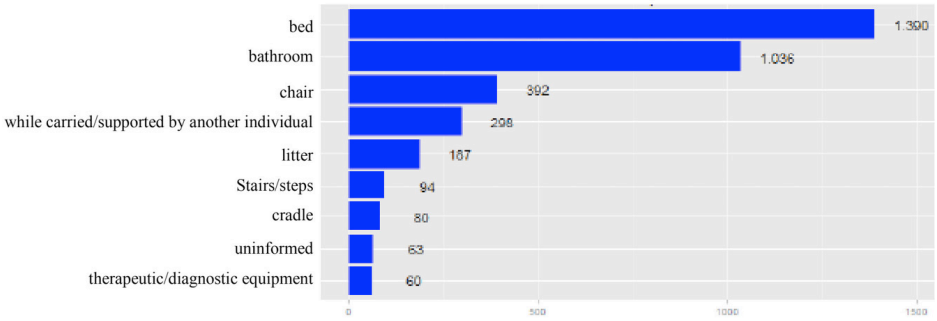

Figure 4 - Location of fall

Source: ANVISA (2016)

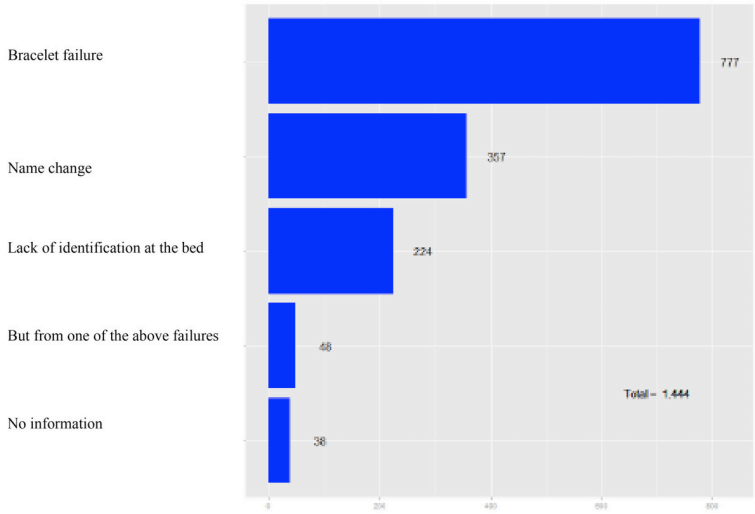

Figure 5 - Failures in patient identification

Source: ANVISA (2016)

Hospital name:
National Register of Health Establishments (CNES):

NUMBER OF RECORDS EVALUATED	PATIENT RECORD NUMBER	DEPARTURE DATE Discharge, death or transfer	QUESTION 14: PRESSURE INJURIES Note: The item will be considered compliant if the SIM number is greater than or equal to 12	QUESTION 15: FALL Note: The item will be considered compliant if the SIM number is greater than or equal to 12	QUESTION 16: SURGICAL SAFETY CHECKLIST Note: The item will be considered compliant if the SIM number is greater than or equal to 12
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
		TOTAL	0	0	0

Figure 6 - Process indicator compliance spreadsheet – patient safety practices

Source: ANVISA (2021)

report, not everyone has the same knowledge about internal patient safety protocols and policies, including how to measure the assessment and make notes in each patient's medical record.

ANALYSIS OF THE MAIN CAUSES OF RISK BASED ON INDICATORS IN THE LITERATURE

Based on reports found in the literature, it can be seen that patient safety and their potential risk of falling is determined by multifactorial issues, and each concrete case must be analyzed specifically, so that the specificity of the fall can be determined.

Muscle weakness characterized by the length of hospital stay and/or the current illness seems to be a relevant factor, as it shows the presence of immobility syndrome, caused by the decrease or absence of the patient's mobility, generating the current motor deficit.

Medications can present a barrier to the patient's lucidity, temporal and spatial orientation, being a point of attention for decision-making regarding transfers or mobilizations by professionals. The medical prescription is an important document to be analyzed by professionals; if there is no knowledge of adverse effects caused by its administration, the medical team must be contacted immediately. (LEE and PARK, 2018).

Every ecosystem in which the patient is inserted may present some degree of accident risk, environments with poor and/or insufficient lighting, an environment with poor hygiene, furniture, furniture and/or properties, type of flooring, local temperature, adequate space for handling, removal from bed and return to bed, represents potential insecurity for the patient to prevent the risk of falling.

Poorly trained teams, or managers not aligned with action protocols, and integration of professionals from different categories, will generate errors in the exchange of information both between teams and for family members and caregivers, generating flaws that could contribute to the failure of care.

Employees who have reduced or insufficient rest, whether due to excessive work in a given institution, or due to the accumulation of jobs, will contribute to a lack of attention to patient management, as well as not guarantee commitment in each phase of the procedure, in order to to mitigate possible distractions. (FIOCRUZ, 2014).

It was not possible to carry out a detailed analysis of the hospitals studied regarding the identification of the causes of the risk of falls with indicators, in research carried out in DATASUS, an information technology system serving the SUS (Unified Health System), there is also no specific data from (regional) hospital units on the proposed theme.

PREPARATION OF THE CHECK-LIST

The filling, interpretation and constant analysis of these steps in Table 2 is presented as a strategy for patient safety and risk of falling. The construction of this table was established by reading the literature, mainly on the Morse Scale, which is the most used.

This assessment model can be analyzed in periodic meetings, in a multidisciplinary team, so that it can be improved, revisited, rewritten and interpreted by all professionals involved in patient management, especially those classified as high risk by the Morse Scale.

The presence and participation of family members and caregivers must be considered in the analysis and interpretation of the team's actions, and guidance and updating of the patient's condition must be the practice in situations that increase or worsen the risks of developing risk situations, the assessment is dynamic, individualized for each specific case, and must not be subjected to comparisons with other patients, nor with other families.

The hospitals in the study did not participate

in the creation of the checklist, the work intended to offer a proposal to prepare a guide so that it can be implemented as a routine by teams in the assessment and monitoring of patient safety and fall risk.

Below (table 2), we propose an assessment tool that is commonly used by professionals and can be applied in any hospital sector, whether in the wards, intensive care centers (ICU), or even in the emergency room, during all phases of the patient's admission to the hospital, hospitalization, pre-surgery, post-surgery, before hospital discharge.

It must be assessed in each case whether the criteria: meet, partially meet, do not meet or do not apply, during the individual assessment of the checklist.

Points for improvement, suggestions, periodic meetings, generation of indicators, for comparative and evolutionary analysis of occurrences and strategies to mitigate the continuity of this adverse event, must be considered and discussed by a multidisciplinary team.

Risk management represents the coordinated activities to direct and control an organization with regard to risks (ABNT, 2009). Regarding the implementation of protocols and strategies to minimize this adverse event, a guide or checklist is presented as a suggestion for its applicability and because it can be carried out by any qualified professional working in tertiary care, whether in the public or private sector, as a strategy for patient safety and risk of falling.

With regard to some assessment protocols, such as mobility and perceived exertion, it is important for professionals to have knowledge of the Medical Research Council (MRC), Functional Scale Score (FSS), adapted Borg scales, which must not be applied very personally. of the Physiotherapy and/or medical team. Based on the proposed checklist, the use of the MRC, FSS, and adapted Borg Perception Scale, which are part of the checklist assessment, is discussed below, as shown in Table 2.

MEDICAL RESEARCH COUNCIL (MRC)

Problems arising from immobility can complicate a primary disease or trauma, or become a bigger problem than the primary disorder (GUEDES, 2018), immobility associated with muscle weakness can become a problem during hospital admission, these isolated or associated factors increase the chances of an EA such as falling.

In the patient's mobility item (table 2), it is proposed to evaluate the patient's degree of muscular strength using the MRC Scale, which does not require an instrument, its assessment is simple and quick. It is made up of six movements performed by the patient and quantified by the evaluating professional, namely: abduction of the arm, flexion of the forearm, extension of the wrist, flexion of the hip, flexion of the knee and dorsal flexion of the foot, all of these movements being performed bilaterally and added together. The scale's score ranges from 0 to 60 points, thus classifying the severity of the patient's global muscle weakness. For each movement, the minimum score is from 0 points to 5 points, as described in Table 3, (NICOLA, 2015).

Degree of muscle strength	Expected movement
0	Absence of contraction and/or joint movement
1	Minimal muscle contraction, no joint movement
2	Minimal muscle contraction, with joint movement, but does not overcome gravity
3	Minimal muscle contraction, with joint movement, overcomes gravity
4	Active movements against gravity and light resistance
5	Normal

Table 3 - MRC Scale – for degree of muscular strength.

Source: Brazilian Journal of Intensive Care (2017)

PATIENT IDENTIFICATION	FULL NAME, REASON FOR ADMISSION AND TIME OF ADMISSION	IT MEETS THE REQUIREMENTS	IT PARTIALLY MEETS THE REQUIREMENTS	IT DOES NOT MEET THE REQUIREMENTS	NOT APPLICABLE
Anamnesis	Carry out directly with the patient and/or family members and caregivers in case of impossibility related to the patient's level of consciousness and collaboration				
Patient medical record history	Collect all information available in medical records and prescriptions that may be relevant to patient safety and risk of falling, e.g. medication that alters alertness.				
Interview with professionals from other categories	Search for other professionals who have already had some contact with the patient or their family members, aiming to add to their assessment the views of other colleagues				
Perform vital sign assessments	Carry out assessment of vital signs and oxygen saturation				
Risk stratification	Greater attention is suggested for neurological, penumopathic, heart disease, post-surgical lower limb, trauma-orthopedic and vascular patients.				
Patient mobility	Assess the degree of muscle strength (MRC), level of mobility in bed (FSS), described in items 3.4.1 and 3.4.2 respectively				
Team work	If you deem it necessary, ask a professional for help when removing the patient from the bed, even if it is to the room itself. Ex. Take him to the bathroom				
Environment in which the patient is inserted	Observe the presence of obstacles, lighting in the area, the type of floor and presence of barriers, whether movable or immovable, and the temperature of the area				
Clothing	Analyze the type of clothing the patient is wearing, whether it may present any risk and whether it is compatible with the environment				
Patient classification	Classify the risk of falling according to the Morse Scale				
Communication and information	Advise the patient on what they can or cannot do alone, with or without supervision, from family members or only with other health professionals				
Perceived effort	Use the Borg Scale for this assessment, described in item 3.4.3				
Assessment of one's own conduct	Reflect on your service and identify areas for improvement				
Patience	Take your time, so as not to carry out this assessment in a hurry and without attention.				
Feedback	Ask for feedback on your conduct from those who observed your conduct during this process				
Other factors that you consider important	Space to insert other assessments not included in this checklist				

Table 2 - Checklist for patient safety and risk of falling

Source: Author himself (2023)

NOTE. Every checklist must be interpreted together.

FUNCTIONAL SCALE SCORE (FSS)

The FSS Scale was translated and adapted into Brazilian Portuguese, with the aim of evaluating the degree of mobility of patients admitted to the ICU. This tool involves five functional tasks, namely: rolling over in bed, transferring from the supine position to sitting, sitting at the edge of the bed, transferring from sitting to standing, and walking. In Table 4 it was described that the score for each task can vary from 0 to 7 points, the lower the patient's score, the greater their mobility difficulty will be, therefore, it will indicate a potential risk of falling, that is, if the patient reaches 35 points (maximum score on the scale), presents low risk associated with mobility and transfers. (SILVA et al., 2017).

Score	Definition
0	Unable to attempt or complete task due to weakness
1	Total dependence
2	Maximum assistance (patient performs < 25% of the work)
3	Moderate assistance (patient performs 26% - 74% of the work)
4	Minimal assistance (patient performs > 75% of the work)
5	Supervision only
6	Modified Independence
7	Total independence

Table 4 - Score for the Functional Scale Score, degree of patient mobility.

Source: Brazilian Journal of Intensive Care (2017)

In Score 6, we read modified independence, the use of a device that helps the patient during the execution of the task, such as a cane, walker, or even holding the bed rail to change position.

BORG ADAPTED PERCEPTION OF EXERTION SCALE

This scale was created with the aim of evaluating the degree of effort perceived by the patient in relation to the workload imposed on them by the exercise. It does not require great skills for its implementation, the score given by the patient is subjective (SILVA et al., 2011). The interpretation carried out by the evaluator, however, during the assessment of the patient's mobility, becomes an important tool to quantify the degree of perceived effort. It receives a score from 0 to 10 points, where the closer to 10 the greater the effort perceived by the patient in the task in question.

ANALYSIS THE APPLICABILITY OF THE CHECKLIST, USING THE SWOT METHOD

Analysis *SOWT* is a strategic analysis technique used by different organizations, teams, companies, institutions, with a focus on analyzing the main strengths, weaknesses, opportunities and threats, in the creation or implementation of some project, product, service or business strategy. (KOTLER and KELLER, 2012).

This analysis can be carried out by identifying internal and external factors, which can map and stratify possible positive and negative points, with the aim of creating solutions and strategies to mitigate weaknesses and threats, as well as enhance the strengths and opportunities found, making the applicability of the project more efficient and effective for the organization.

It is a useful tool to be applied in different contexts, and organizational planning, including listing advantages and disadvantages to a specific situation, thus contributing to a better decision by the team that implemented it, generating data for analysis. (CHIAVENATO, 2014).

Based onthe description of the tool in the literature and its applicability, a SWOT analysis was carried out demonstrating the application of this tool from a hospital point of view, as shown in figure 7.

It is suggested to reapply this analysis whenever an AE occurs that could modify

some of the team's decision-making, such as the patient's fall, change of collaborators, be it the one responsible for managing the patient and/or a team leader.

This proposal seeks to minimize the risk of patients falling, especially those in tertiary care, to create a hegemonic mindset among professionals involved in the conduct, and to prioritize patient safety and well-being. Integration of the professionals involved and application at other levels of health care, whether in primary or secondary care, in the public or private health system.

CONCLUSION

Patient safety is a topic that must be constantly addressed by everyone involved in the health sector, falls represent an event that can be avoided with prevention measures, mainly through the implementation of protocols/ strategies, training, dissemination and multidisciplinary engagement, communication and constant review of points sensitive to falls.

Its cause is multifactorial, and depends on variables to specifically identify its closure, that is, the fall. The implementation of the Patient Safety Center in health services (NSP) is recommended.

The hospitals in the study, although they have a patient safety center, do not have a checklist or an analysis of the risk of patient falls aimed at improving internal processes and planning actions aimed at AEs.

However, due toIn the absence of this type of evaluation and planning of the theme proposed here, managers are expected to analyze the reliability of the data in the literature on these AEs, seek to reflect and analyze the proposal presented here, for the application of the study checklist by a team multidisciplinary approach, avoiding possible risk situations.

Based on this study, it is suggested that periodic assessments of the checklist be carried out throughSWOT tool, generating possibilities for improving processes and consequently improving the strategies used by leaders, teams and managers.

Therefore, this study has an important role as it offers informative support for improvements related to patient safety, in addition to encouraging the practice of identifying fall risk. It is hoped that this study will contribute to further research related to the topic, and mainly that it will be possible to apply this proposed checklist in public and private hospitals.

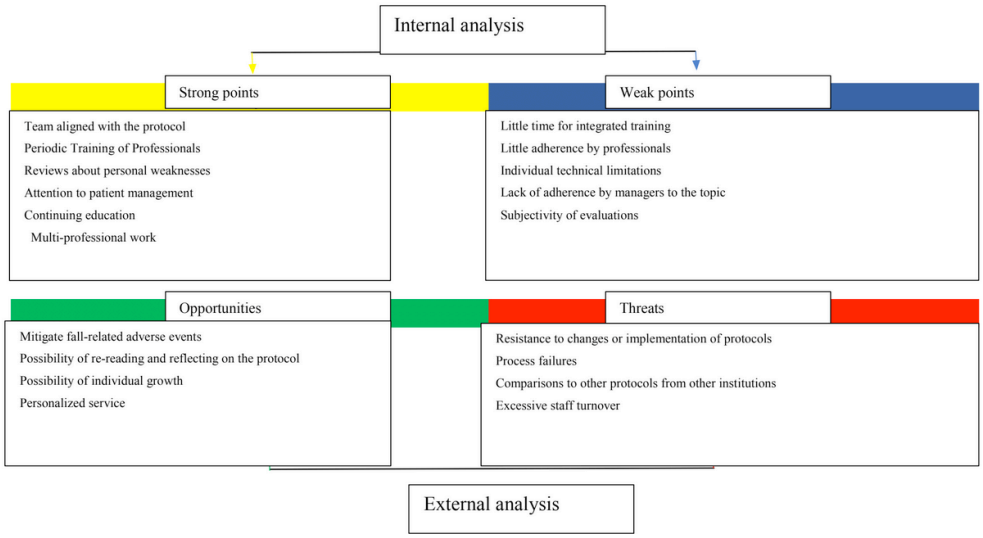

Figure 7: SWOT analysis of the checklist

Source: Author himself (2023)

REFERENCES

Agência Nacional de Vigilância Sanitária (ANVISA). **Prevenção de quedas de pacientes em serviços de saúde. Brasília**, 2017.

Associação Brasileira de Normas Técnicas – ABNT. **Gestão de riscos** – Princípios e diretrizes. ISO 31000. ABNT, 2009.

Boletim Segurança do Paciente e qualidade em serviços de saúde – **Incidentes relacionados à assistência à saúde, Gerência geral de tecnologia em serviços e saúde** GGTES, Brasília, ANVISA, 2016.

CHIAVENATO, Idalberto. **Administração: teoria, processo e prática**. Elsevier, 2014.

GUEDES, *et al.* **Efeitos deletérios do tempo prolongado no leito nos sistemas corporais dos idosos, uma Revisão**. Revista Brasileira de Geriatria e Gerontologia, V. 21, n.4, p. 516-532, 2018.

Documento de referência para o Programa Nacional de segurança do Paciente, Ministério da saúde, Fundação Oswaldo Cruz, Agência Nacional de Vigilância Sanitária, Brasília, 2014.

KOTLER, Philip; KELLER, Kevin Lane. **Administração de marketing**. Pearson Prentice Hall, 2012.

KUMAR, Sheo Dutt; JAIN, Anuja. ***Hospital-acquired infections: Risk factors, prevention, and control. Journal of Clinical and Diagnostic Research***. V. 43, n. 3, p. 115, 2018.

LEE, Kye-Hoon; PARK, Soon Jung, *et al.* ***Characteristics of falls in hospitalized patients and barriers to fall prevention. Journal of clinical nursing***. V.27, n. 3-4, p. e532-e539, 2018.

Nicola Latronico; Rik Gosselink. **Abordagem dirigida para o diagnóstico de fraqueza muscular grave na unidade de terapia intensiva**. Revista Brasileira de Terapia Intensiva, 2015.

Orientações para preenchimento da avaliação das práticas de segurança do paciente, **Gerência de Vigilância e Monitoramento em serviços de saúde**, GGETS, ANVISA, Brasília, 2021.

Programa Nacional de Segurança do Paciente (PNSP), **Protocolo Prevenção de Quedas**. Ministério da Saúde/Anvisa/Fiocruz. PROQUALIS, 2014.

SILVA, *et al.* Escalas de borg e omni na prescrição de exercício em cicloergômetro. Revista Brasileira de cineantropometria & desempenho humano, 2011.

SILVA, *et* al. **Versão brasileira da Escala de Estado Funcional em UTI: tradução e adaptação transcultural**. Revista Brasileira de Terapia Intensiva, 2017.

TRES, *et al*. **Qualidade da assistência e segurança do paciente: Avaliação por indicadores**. Cogitare Enfermagem, v. 21, 2016.

URBANETTO, *et al.* **Análise da capacidade de predição de risco e validade da *Morse Fall Scale* versão brasileira**. Revista gaúcha de Enfermagem, 37(4), 2016.