



## ARTIGO NOTA PRÉVIA

### FATORES ASSOCIADOS AO RISCO DE QUEDAS EM PACIENTES HOSPITALIZADOS

FACTORS ASSOCIATED TO THE RISK OF FALLS IN PATIENTS

FACTORES ASOCIADOS CON EL RIESGO DE CAÍDAS EN PACIENTES

**Vivian Lemes Lobo Bittencourt.** Nurse, Master's degree, Graduation Program in Health Full Care, Rio Grande do Sul Northeast Regional University/Ijuí (RS), Brazil. E-mail: [vivilobo@hotmail.com](mailto:vivilobo@hotmail.com)

**Marli Maria Loro.** Nurse, PhD Professor in Sciences, Nursing Under graduation, Rio Grande do Sul Northeast Regional University/Ijuí (RS), Brazil. E-mail: [marlil@unijui.edu.br](mailto:marlil@unijui.edu.br)

**Eliane Roseli Winkelmann.** Physiotherapist, PhD Professor in Sciences, Master's degree Program in Health Full Care, Rio Grande do Sul Northeast Regional University/Ijuí (RS), Brazil. E-mail: [elianew@unijui.edu.br](mailto:elianew@unijui.edu.br)

#### ABSTRACT

**Objective:** to analyze factors associated to the risk of falls according to Morse range in adult patients admitted into a private hospital. **Method:** quantitative research with descriptive and cross-sectional approach. Is set in a private hospital in Rio Grande do Sul and as participants the hospitalized patients in medical and surgical units. Data will be collected through a questionnaire with opened and closed questions, patient evaluation and medical records analysis. This project was approved by the Research Ethics Committee in the opinion number CAAE 43893615.6.0000.5350. **Expected results:** to acquire more knowledge about the risk factors of falls in hospitalized patients, the study outcome will deepen the knowledge in general health. **Descriptors:** Nursing; Health Evaluation; Accidental Falls; Patient Safety; Hospitalization.

#### RESUMO

**Objetivo:** analisar fatores associados ao risco de queda de acordo com a Escala de Morse em pacientes adultos internados em hospital privado. **Método:** pesquisa quantitativa, com enfoque descritivo, transversal. Tem como cenário um Hospital Privado do Rio Grande do Sul e como participantes pacientes hospitalizados em unidades clínicas e cirúrgicas. Os dados serão coletados por meio de um questionário composto por perguntas abertas e fechadas, avaliação do paciente e análise de prontuário. Esse projeto foi aprovado pelo Comitê de Ética em Pesquisa sob o número do parecer CAAE 43893615.6.0000.5350. **Resultados esperados:** adquirir maior conhecimento quanto aos fatores de risco de quedas em pacientes hospitalizados, o desfecho do estudo aprofundará o conhecimento acerca do estado de saúde geral. **Descriptores:** Enfermagem; Avaliação em Saúde; Acidentes por Quedas; Segurança do Paciente; Hospitalização.

#### RESUMEN

**Objetivo:** analizar los factores asociados con el riesgo de caídas según el diagrama de Morse en pacientes adultos ingresados en un hospital privado. **Método:** investigación cuantitativa con enfoque descriptivo y transversal. Se encuentra en un hospital privado de Rio Grande do Sul y tiene como participantes pacientes hospitalizados en unidades médicas y quirúrgicas. Los datos se recogerán a través de un cuestionario con preguntas abiertas y cerradas, la evaluación del paciente y análisis de los registros médicos. Este proyecto fue aprobado por el Comité de Ética de Investigación en la opinión CAAE 43893615.6.0000. **Resultados esperados:** adquirir un mayor conocimiento sobre los factores de riesgo de caídas en pacientes hospitalizados, el resultado del estudio se profundizará el conocimiento acerca de la salud general. **Descriptores:** Enfermería; Evaluación en Salud; Accidentes por Caídas; Seguridad del Paciente; Hospitalización.

## INTRODUCTION

Hospitalization requires adaptation of the patient to the physical structure, routines, rules, and in relation to relationships with others. In addition to these everyday changes the health problems may diminish the autonomy and functionality, aspects not always understood by the patient, family and health professionals.<sup>1</sup>

In this context, considering the risks in hospital, security incidents with the patient may occur and generate damages that impact in order to hinder or decrease the quality of life of hospitalized patients. Discussions with the focus on patient safety are held worldwide and in Brazil have become a priority issue in recent years.

In 2013 the Ministry of Health (MOH) issued Decree nº. 529 establishing the National Patient Safety Program (NPSP) which aroused greater attention to the issue in our country. This policy has strengthened in health institutions, professionals and the community the importance of promoting patient safety, focused on the qualification of care.<sup>2</sup>

Among the strategies to reduce security incidents to the patient is the prevention of falls during hospitalization constituting one of the targets set by NPSP, defined by the World Health Organization (WHO) as an event in which the person "inadvertently falls to soil, ground or lower levels, exclude the intentional change of position to rest on furniture, walls or other objects."<sup>3:1</sup>

In the hospital setting the incidence of falls ranges from 1,45 to 12,4 drops per 1.000 patient/day, this ratio is related to the individual characteristics of the hospitals and the patients studied.<sup>4,5,6,7,8</sup> Study data that make up the MS falls prevention protocol of Brazil, indicate that the patient fall rate in underdeveloped countries hospitals ranged from 3 to 5 drops per 1.000 patients/day and that damage occurs in 50% of cases.<sup>9</sup>

The prevalence of loss of a service is one of the quality indicators of care and international patient safety goals. Moreover, it constitutes one of the concerns of health institutions to be a multifactorial event to occur can lead to complications such as increased length of hospital stay, morbidity, mortality and increased hospital costs.<sup>10</sup> Moreover, the very assisted population is questioned about the quality of care provided by the health team and the responsibility of the institution on the hospitalized patient.

The risk of falling can be monitored by validated scales, such as the Morse scale. This

Fatores associados ao risco de quedas em pacientes...

is one of the most used methods to assess the risk of falls in the hospital, they can be evaluated patient-related factors. It classifies the risk of falling of patients as low, moderate or high.<sup>11</sup>

The falls are classified as: accidental, usually caused by environmental factors in which the patient slips or stumbles; and Advance Physiologic is that which can be provided by the Morse Scale rating. The same is defined as expected, the patient shows signs that indicate the probability of dropping; Physiological and unanticipated defined as unpredictable, usually associated with clinical events. It is noteworthy that it is extremely important to differentiate between the three types of falls for defining prevention strategies for each type with different strategies.<sup>12</sup>

In view of the above makes it important to know the risk factors insofar as they are revealed it is possible to implement strategies in order to minimize damage due to the fall.

The study aims to:

- Analyze factors associated with the risk of falling according to Morse range in adult patients admitted to a private hospital.
- Characterize the hospitalized adult patients for age, sex and clinical variables.
- Check the risk of falling of hospitalized adult patients through the Morse Fall Scale translated and adapted culturally to Portuguese.
- Identify the number of falls and verify causes, complications and clinical outcome.

## MÉTHODOLOGY

The research is based on a quantitative, descriptive approach with cross-sectional design. Will be developed in inpatient units and Surgical Clinic of a Private Hospital in Rio Grande do Sul. The chosen hospital operates in health care for research and treatment of various diseases and has 115 beds, 79 of these are for the inpatient units and Surgical Clinic. The study population will consist of patients older than 18 years hospitalized in clinical and surgical units, from June to August 2015, featuring an intentional sample. Data collection will be held in the first 24 hours of hospitalization. Will be excluded patients hospitalized more than once during the study period and did not accept to participate in the study.

Participation in the study will entail minimal risk due to discomfort to be observed when answering the survey instrument. In the event the subject may discontinue participation without any damage.

Data collection will be the evaluation of the patient, the Morse scale and questionnaire. For the evaluation will be used a specific questionnaire constructed for this research in order to collect data to enable the socio demographic characterization, and clinical factors associated with the risk of falls. Still it will be far to search for records of the patient's use of medications and complementary data not acquired with the patient. In the assessment of patients will also be applied to Morse Scale translated and adapted to Portuguese.<sup>12-13</sup> In the event of fall there will be a search details for the fall of reasons as causes, complications and clinical outcome as well as the shift that occurred.

For the processing of the data will be used SPSS (18.0 Version, Chicago, IL, EUA). Statistical analysis all variables will be tested for normality using the Kolmogorov-Smirnov test (K-S). Quantitative variables are presented as mean and standard deviation (Average ± DP). It will be used the Student t test for normally distributed variables, to check the differences in the variables between the genders. The Spearman correlation coefficient or Pearson will be used to evaluate the correlation as the distribution of variables will be considered statistically significant p <0.05. All tests will be applied with confidence interval (CI) of 95%.

The study was prepared in accordance with the Guidelines and Norms Regulating Research Involving Human Beings according to the National Council of Health (CNS) nº. 466/2012, and was approved in 2015 by the UNIJUÍ Ethics Committee, in the opinion of the number CAAE 43893615.6.0000.5350. For the subjects, will clarify the objectives and importance of this study and who agree to participate will be asked to consent in writing from the Term of Consent.

## EXPECTED RESULTS

The research provides the knowledge of risk factors for falls in hospitalized patients, the outcome of the study will deepen the knowledge of the general health status of this population with regard to the clinical status and its evolution, and will add to the research already carried out by the community scientific about this population.

It is believed that this study will stimulate further research on the theme of risk factors for falls, which will bring contributions to the patients and especially to nursing, in order to provide subsidies for individualized planning interventions with the patient in the hospital environment.

## REFERENCES

1. Remor CP, Cruz CB, Urbanetto J de S. Análise dos fatores de risco para queda de adultos nas primeiras 48 horas de internação. Rev gaúch enferm [Internet]. 2014 Dec [cited 2015 Sept 03];35(4):28-34. Available from: [http://www.scielo.br/pdf/rgenf/v35n4/pt\\_1983-1447-rgenf-35-04-00028.pdf](http://www.scielo.br/pdf/rgenf/v35n4/pt_1983-1447-rgenf-35-04-00028.pdf)
2. Brasil. Ministério da Saúde. Portaria nº 529, de 1º de abril de 2013. Institui o Programa Nacional de Segurança do Paciente (PNSP). Diário Oficial [da] República Federativa do Brasil. Brasília; 2013.
3. World Health Organization. WHO global report on falls prevention in older age [Internet]. 2007. Available from: [http://www.who.int/ageing/publications/Fall\\_s\\_prevention7March.pdf](http://www.who.int/ageing/publications/Fall_s_prevention7March.pdf)
4. Pasa TS, Magnago TSB de S, Urbanetto J de S. Risco de quedas em pacientes adultos internados em um hospital universitário: nota prévia. J Nurs UFPE on line [Internet]. 2013 July [cited 2015 Sept 03];7(esp):5059-62. Available from: [http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/4652/pdf\\_3127](http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/4652/pdf_3127)
5. Correa AD, Marques IAB, Martinez MC, Laurino PS, Leão ER, Chimentão DMN. Implantação de um protocolo para gerenciamento de quedas em hospital: resultados de quatro anos de seguimento. Rev Esc Enferm USP [Internet]. 2012 Feb [cited 2015 Sept 03];46(1):67-74. Available from: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0080-62342012000100009&lng=en](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0080-62342012000100009&lng=en)
6. Paiva MCM da S de, Paiva SAR de, Berti HW, Campana ÁO. Caracterização das quedas de pacientes segundo notificação em boletins de eventos adversos. Rev Esc Enferm USP [Internet]. 2010 Mar [cited 2015 Sept 03];44(1):134-8. Available from: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0080-62342010000100019&lng=en](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0080-62342010000100019&lng=en)
7. Dykes PC, Carroll DL, Hurley A, Lipsitz S, Benoit A, Chang F et al. Fall prevention in acute care hospitals. J am med assoc [Internet]. 2010 Nov [cited 2015 Sept 03];304(17):1912-8. Available from: <http://jama.jamanetwork.com/article.aspx?articleid=186836>
8. Diccini S, Pinho PG de, Silva FO da. Assessment of risk and incidence of falls in neurosurgical inpatients. Rev Latino Am Enfermagem [Internet]. 2008 July-Aug [cited 2015 Sept 05];16(4):752-7. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/18833459>

Bittencourt VLL, Loro MM, Winkelmann ER.

Fatores associados ao risco de quedas em pacientes...

9. Brasil. Ministério da Saúde. Portaria nº 1.377, de 9 de julho de 2013. Aprova os Protocolos de Segurança do Paciente. Diário Oficial da União; Poder Executivo. Brasília; 2013.
10. Leite BS, Silva EJS, Jorge FAF, Cavaleiro AJBG, Cavaleiro AJBG, Santos WA et al. Risk assessment of falling in elderly. J Nurs UFPE on line [Internet]. 2015 June [cited 2015 Sept 05];9(Supl. 5):8346-53. Available from: [http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/6477/pdf\\_6868](http://www.revista.ufpe.br/revistaenfermagem/index.php/revista/article/view/6477/pdf_6868)
11. Urbanetto J de S, Creutzberg M, Franz F, Ojeda BS, Gustavo A da S, Bittencourt HR et al. Morse Fall Scale: tradução e adaptação transcultural para a língua portuguesa. Rev Esc Enferm USP [Internet]. 2013 June [cited 2015 Sept 05];47(3):569-75. Available from: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S0080-62342013000300569&lng=en](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0080-62342013000300569&lng=en)
12. Morse JM. Preventing patient falls: establishing a falls intervention program. 2nd ed. New York: Springer; 2009.
13. Morse JM, Black C, Oberle K, Donahue P. A prospective Study to identify the fall-prone patient. Soc Sci Med [Internet]. 1989 [cited 2015 Aug 12];28(1):81-6. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/2928815>

Submissão: 07/09/2015

Aceito: 22/01/2016

Publicado: 01/04/2016

#### Correspondência

Vivian Lemes Lobo Bittencourt  
Universidade Regional do Noroeste do Estado  
do Rio Grande do Sul/UNIJUÍ  
Rua do Comércio, 3000  
Bairro Universitário  
CEP 98700-000 – Ijuí (RS), Brasil

Português/Inglês

Rev enferm UFPE on line., Recife, 10(4):1339-42, abr., 2016

1342