RIASE
REVISTA IBERO-AMERICANA DE SAÚDE E ENVELHECIMENTO
REVISTA IBERO-AMERICANA DE SALUD Y ENVEJECIMIENTO

CONFUSION IN PEOPLE ADMITTED TO AN INTERNAL MEDICINE WARD

A CONFUSÃO EM PESSOAS INTERNADAS NUMA ENFERMARIA DE MEDICINA INTERNA

CONFUSIÓN EN PERSONAS INGRESADOS EN UNA ALA DE MEDICINA INTERNA

Fernando Carvalho – Hospital Center of Entre o Douro e Vouga, EPE, Santa Maria da Feira, Portugal.
ORCID: https://orcid.org/0000-0003-1785-200X

Corresponding Author/Autor Correspondente:
Fernando Carvalho – Centro Hospitalar de Entre o Douro e Vouga, EPE, Stª. Maria da Feira, Portugal. enf.fernando.sc@gmail.com

Recebido/Received: 2022-07-18 Aceite/Accepted: 2022-08-02 Publicado/Published: 2022-08-29

DOI: http://dx.doi.org/10.24902/r.riase.2022.8(1).557.23-37

VOL. 8 NO. 1 APRIL 2022

ABSTRACT

Introduction: Confusion in hospitalized patients is a frequent problem that can have the consequences such as: physical restraint, falls and mortality. Early recognition is the best tool to reduce it.

Objectives: Describe the confusion in hospitalized patients and verify its relationship with the variables physical restraint, falls and mortality.

Material and Methods: Observational study of quantitative nature, cross-sectional, descriptive-correlational developed at an Internal Medicine ward of a Hospital Center in the Portuguese Northern Region. The data collection instrument was performed by the author. Data were collected between June and August 2021, from every patient admitted to an internal medicine ward. Spearman's correlation coefficient was used to verify the relationship between the variables.

Results: The final analysis included 194 patients of which 70.7% presented with confusion and 47.8% were between 80 and 89 years of age. Physical restraint occurred in 22.3% of the participants, all with identified confusion, and two falls were reported (1.3%). Regarding mortality, 39.5% died in the following three months. The significant positive correlation between confusion, physical restraint and mortality is highlighted.

Conclusion: The presence of confusion is very common in the Internal Medicine ward mainly in patients over 70 years of age. The presence of confusion is related to the application of physical restraint. This study highlights the significant relationship between confusion and mortality.

Keywords: Accidental Falls; Confusion; Institutionalization; Mortality; Physical Restraint.

RESUMO

Introdução: A confusão nos doentes internados é um problema frequente que pode ter como consequências a contenção física, as quedas e a mortalidade. É importante o seu reconhecimento precoce.

Objetivos: Descrever a confusão nos doentes internados e verificar a sua relação com as variáveis contenção física, quedas e mortalidade.

Material e Métodos: Estudo de natureza quantitativa, do tipo transversal, descritivo-correlacional, desenvolvido num serviço de Medicina Interna de um Centro Hospitalar da Região Norte. O instrumento de colheita de dados foi realizado pelo autor. Os dados foram colhidos entre junho e agosto de 2021, a todos os doentes internados numa enfer-

maria de Medicina Interna. Utilizou-se o coeficiente de correlação de Spearman para verificar a relação entre as variáveis.

Resultados: Foram analisados os dados relativos a 194 doentes e 70,7% apresentaram confusão. Da amostra, 47,8% apresentou idade compreendida entre os 80 e os 89 anos de idade. A contenção física verificou-se em 22,3% dos participantes, todos com confusão identificada, sendo que foram registadas duas quedas (1,3%). Em relação à mortalidade, 39,5% faleceram nos três meses seguintes. Destaca-se a correlação positiva significativa entre a confusão, a contenção física e a mortalidade.

Conclusão: A presença de confusão é muito frequente em enfermaria de Medicina Interna sendo que grande parte dos doentes confusos apresentam idade superior a 70 anos. A presença de confusão está relacionada com a aplicação de contenção física. É importante sublinhar a relação significativa entre a confusão e a mortalidade.

Palavras-chave: Confusão; Contenção Física; Institucionalização; Mortalidade; Quedas Acidentais.

RESUMEN

Introducción: La confusión en los pacientes hospitalizados es un problema frecuente que puede tener las consecuencias en la restricción física, las caídas y la mortalidad. El reconocimiento temprano es importante.

Objetivos: Describir la confusión en pacientes hospitalizados y verificar su relación con las variables restricción física, caídas y mortalidad.

Material y Métodos: Estudio de carácter cuantitativo, de tipo transversal, descriptivo-correlacional, desarrollado en una ala de Medicina Interna de un Centro Hospitalario de la Región Norte. El instrumento de recolección de datos fue realizado por el autor. Los datos se recopilaron entre junio y agosto de 2021, a todos los pacientes hospitalizados en una ala de medicina interna. Se utilizó el coeficiente de correlación de Spearman para verificar la relación entre las variables.

Resultados: Se analizaron los datos de 194 pacientes y el 70,7% presentó confusión. De la muestra, el 47,8% tenía entre 80 y 89 años de edad. La restricción física ocurrió en el 22,3% de los participantes, todos con confusión identificada y se registraron dos caídas (1,3%). En cuanto a la mortalidad, el 39,5% falleció en los tres meses siguientes. Se destaca la correlación positiva significativa entre la confusión, la restricción física y la mortalidad.

Conclusión: La presencia de confusión es muy común en la ala de Medicina Interna y la mayoría de los pacientes confundidos tienen más de 70 años de edad. La presencia de con-

fusión está relacionada con la aplicación de restricción física. Es importante destacar la importante relación entre la confusión y la mortalidad.
Descriptores: Confusión; Contención Física; Caídas; Institucionalización; Mortalidad.

INTRODUCTION

In 2020, the population living in Portugal was composed of 13.4% young people, 64.1% people of working age and 22.4% elderly. Between 2015 and 2020, the proportion of young people decreased from 14.1% to 13.4%, the proportion of people of active age decreased from 65.2% to 64.1% and the proportion of elderly increased from 20.7% to 22.4%[1]. In 2019, the proportion of elderly people in Portugal was higher than in the European Union (27 countries), being the 4th country with the highest percentage of elderly, only surpassed by Greece, Finland and Italy[1].

Since demographic ageing is not a problem, it is already the way we age. And in order to meet this challenge we must think about health from a different paradigm, taking into account, first of all, the current needs of an elderly population. Nurses can be a significant resource in helping these people by designing more effective responses to the health and well-being of these citizens[2].

The state of confusion may be acute or chronic and the terms "delirium" or "acute confusional syndrome" are associated with acute confusion[3]. The state of confusion and the states of acute or chronic confusion are different nursing diagnoses. In this study, "confusion" was evaluated, encompassing acute and chronic confusion.

Confusion can be defined as a "distorted thought: memory committed to disorientation towards the person, place, or time"[4:32]. Acute confusion, on the other hand, is defined as a process of abrupt and reversible onset while chronic confusion is of insidious and irreversible onset, characterizing the delirium of a medical diagnosis with characteristics overdue to acute confusion[3].

Acute confusion is a serious situation, which includes changes in attention, awareness and cognition, developing in a short period of time[5]. The American Psychiatric Association[6], in DSM-5, defines delirium as changes in attention (decreased ability to maintain or change the focus of attention) and consciousness (decreased orientation towards the environment) these are the changes that develop in a short period of time (usually hours to days), representing an acute change in baseline attention and level of consciousness and tend to fluctuate throughout the day.

Confusion is a problem little recognized by health professionals, and it is associated with greater morbidity, mortality and costs, resulting in high stress in patients, families and health professionals[7-10] but which remains underdiagnosed in hospitalization services[8-12].

Underdiagnosis is a problem, since patients who are not identified in a timely manner end up not benefiting from appropriate interventions at the rigth time, with all possible consequences and associated complications[13].

Confusion and physical restraint are closely linked, and immobilizing means "[...] keep someone or something with movement restriction."[3:74] and the use of instruments or equipment restricting the patient's movements may be used[14]. Physical containment is typically used to "[...] prevent confused people from wandering, prevent the externalization of medical devices and minimize the risk of fall."[15:50].

Patient falls are frequent episodes in hospital admissions that can lead to injuries, longer hospitalizations, delay in rehabilitation and increased costs, however short, profoundly alters daily life habits, which associated with poor health, physical and cognitive limitations increases considerably the risk of falls[16].

Scientific evidence for the treatment of confusion (especially in hyperactive states) exists, but is scarce, and non-pharmacological therapy is preferred, with implementation of environmental, behavioral and social strategies. Pharmacological treatment is second-line and should be instituted in such a way to prevent the patient from being at risk, in particular through the use of antipsychotics, and for patients who do not respond to non-pharmacological measures[7,8]. Nevertheless, pharmacological therapy is not always effective in preventing confusion[17].

In this context, the recognition of confusion is essential, so it is essential to education and training of health professionals, as well as the follow-up and support to family members[7,8,12] making it important to act early in patients with confusion, whether acute or chronic.

Not many studies were found on the confusion in internal medicine wards, and the few existing studies evaluated only acute confusion/delirium in intensive care units. The evaluation of confusion should be systematized in patients admitted to wards with a higher incidence of this problem and, eventually, in all hospital wards due to the aging of the population and the predictable association of confusion with older age.

The investigation about confusion is justified by its prevalence and possible consequences, as well as its low identification and recognition. The aim of this study is to describe the confusion in patients hospitalized in an Internal Medicine ward of a Hospital Center

in the Northern Region of Portugal and to verify its relationship with the variables physical restraint, falls and mortality.

MATERIAL AND METHODS

The study is observational with a design of a quantitative nature, of the cross-sectional, descriptive-correlational type.

The sample is non-probabilistic for convenience. The inclusion criteria are: patients with hospitalization of more than 24 hours in an Internal Medicine ward, coming from the Emergency Department and the exclusion criteria are: patients from other services of the institution, transfers from other institutions or hospitalization less than 24 hours. Data were collected from all patients hospitalized between June and August 2021, during the first five days of hospitalization.

The variables age, gender and diagnosis of admission were defined and the research variables confusion, physical restraint, falls and mortality were defined. To respond to these variables, a data collection instrument was performed by the author and, for its completion, the clinical processes of all patients in the referred period were analyzed.

The response to the variables age, gender and mortality was collected by reading the face of the clinical process. The analysis of the diagnosis of admission was collected by reading the admission note done by the doctor/physican. In relation to confusion, physical restraint and fall, the indicators themselves in the process were analyzed.

In this Internal Medicine ward, the Confusion Assessment Method (CAM) is not used, neither the Richmond Agitation-Sedation Scale (RASS), nor the NeeCham Confusion Scale. However, Neves, Silva & Marques[18] point to a statistically significant, positive and strong correlation between the NeeCham Confounding Scale and the Glasgow Coma Scale scores ($r = 0.866$; $p = 0.0001$).

Thus, the occurrence of confusion was verified based on the analysis of the Glasgow Coma Scale[19] in relation to the item "verbal response" (if less than 5, it was considered a confusion), and the analysis of the items "eye opening" and "motor response" was not considered relevant. In addition, descriptive notes are performed by nurses in all shifts and, to confirm the occurrence of confusion, physical restraint and fall, descriptive notes were read in all shifts in the first five days of hospitalization having the variables been double-checked.

For the data processing, the statistical program SPSS®, version 20, and its analysis through descriptive statistics were used, and the analysis of frequency distribution and correlation between the studied variables was performed. Spearman's correlation coefficient was used to analyze the intensity and direction between the variables.

The investigation was submitted to the Ethics Committee of the Hospital Center of Between the Douro and Vouga and was approved. The data were anonymized in an alpha--numerical way. It was not necessary the informed consent of the participants because it was a study of analysis of clinical processes.

RESULTS

The final sample consists of 194 participants. Thirty-seven participants were excluded because they did not meet the inclusion criteria (18 participants were hospitalized less than 24 hours and 14 were hospitalized for intra- or inter-hospital transfer, and not by the emergency department). Thus, the final sample included 157 patients.

In the final sample, there was a predominance of mainly females with 88 female and 69 male participants, which in relative frequency resulted in 56.1% and 43.9% respectively.

Regarding the age variable (Table 1↗), the interval between 80 and 89 years registered the majority of participants (47.8%), and 86.0% of the participants were 70 years old or older.

Regarding the diagnosis of admission (Table 2↗), respiratory infection (29.3%) was the most frequent, followed by heart (17.8%) and renal (16.6%) insufficiency. These three diagnoses totaled 63.7% of the sample.

For the confusion research variable, the occurrence was 70.7% (n = 111).

Physical restraint was verified in 22.3% (n = 35) of the patients, all with identified confusion, and two falls were confirmed (1.3%).

Regarding mortality, 62 patients (39.5%) died within three months of the recorded episode of confusion.

Regarding the crossing between all variables, there was a significant positive correlation ($r = 0.381^{**}$) between confusion and age, between confusion and physical restraint ($r = 0.345^{**}$) and between confusion and mortality ($r = 0.234^{**}$).

There was no significant correlation between the gender variable (r = 0.050) and the fall variable (r = 0.073), at the intersection with the confusion variable.

DISCUSSION

The results found in this study are, globally, in agreement with scientific evidence on the subject. In relation to the main variable under study, confusion, there was a high prevalence in this sample representing a significant and worrying percentage. Although this is not a main objective of the study, the predictable significant relationship between age and confusion is still emphasized.

Confusion

The generality of the scientific evidence found studied acute confusion and delirium in intensive care units. Studies in internal medicine wards are scarce, and if we specifically consider the variable confusion encompassing acute and chronic confusion, no study has been found to date.

In Souza's work, Avant & Berndt[20] tried to clarify the distinction between the diagnosis of acute or chronic confusion, precisely due to the doubt that seems to exist in its clear identification, also referring that the nursing care provided to both patients are similar. Thus, the present study may be a pioneer in the description of infirmary confusion, since it identifies acute and chronic episodes.

In this sample, the occurrence of confusion (acute and chronic) was 70.7%.

In the Spanish study conducted by Marco *et al*[8] with a sample of 4,628,397 patients admitted to Internal Medicine, the prevalence of delirium was 2.5%, being more frequent above 81 years of age (48%).

In the investigation by Lopes de Araújo *et al*[21], the prevalence of delirium in the ward was 40.7% in a sample of 54 patients, while in the study by Pereira & Lopes[22], with a sample of 173 patients hospitalized in the ward, the prevalence of delirium was 17.9% and the mean age was 71.2 years. In Colombia, a study by Peralta-Cuervo *et al*[23] with 1,599 patients admitted to an infirmary with a mean age of 86 years, the prevalence of delirium was 51%.

The study by Bastos *et al*[24] with a sample of 157 patients in intensive care units, showed that 22.3% had delirium and 49.7% subsindromatic delirium. Also in another intensive care unit, in a sample of 335 patients, it was found that 36% of patients had delirium. Conversely, Barcellos *et al*[25] in a study of 1,271 intensive care patients found the prevalence of delirium in only 8% of patients.

Analyzing the existing bibliography in relation to acute confusion/delirium, the disparity in the conclusions of the different studies is highlighted, which may be related to the difficulty or inaccuracy of the diagnosis, in essence, underdiagnosis.

For both acute and chronic confusion, there are autonomous nursing interventions that can be used in these patients, such as the reduction of stimuli (luminosity, noise) especially after dinner, the use of dental, visual and auditory prostheses, orientation to reality, visits of reference people, simplification of communication, use of wristwatch/wall, management of pain and intestinal transit, mobility and removal of devices as soon as possible.

In the study by Goldberg *et al*[26], another factor that seems to have a relationship with the increased incidence of confusion in elderly patients is bed transfer and the change of ward, which thus translates into a modifiable prevention factor.

Physical restraint and falls

In this sample, physical restraint occurred in 22.3% of the participants, all with identified confusion, and two falls were recorded (1.3%).

In Costa's study[27], in an Internal Medicine ward, 20.2% of patients underwent physical restraint while, in another study, Faria, Paiva & Marques[15] concluded that, in another Internal Medicine ward, 37.3% were subjected to physical restraint. In the study by Silva, Silva & Marques[28], physical restraint was used in 36.6% of patients.

Thus, on the variable physical restraint, the results of this study are in line with other studies already conducted and in this investigation it was also possible to identify a significant positive relationship between confusion and physical restraint ($r = 0.345^{**}$).

In Teece's study, Baker & Smith[29], it was concluded that physical restraint is used when it is not possible to continuously monitor patients and when there is danger to the patient himself and to the surrounding environment such as monitors, ventilators and other devices. They also refer to the psychological burden for nurses who care for confused patients, especially in hyperactive states.

Quaresma *et al*[9], identified physical restraint and limitation of autonomy as independent factors for the occurrence of delirium. Physical restriction of mobility is not recommended[14]. However, nurses are responsible for several patients simultaneously, distributed in different physical spaces (different wards without simultaneous view of patients), which makes it impossible to continue visual surveillance. Thus, the main reasons for physical restraint seem to be the prevention of falls and the removal of devices such as venous accesses, bladder catheters, feeding probes, oxygen devices or noninvasive ventilation and dressings.

In this sample, only two falls (1.3%) were observed and no significant relationship was identified between this variable and confusion.

In the study by Caveião *et al*[30] with a sample of 16 patients who were victims of hospital fall, they concluded that the most frequent risk factor was neurological alteration (43.7%), which seems to demonstrate that in case the patient presents some type of confusion, he/she will have a higher risk of fall.

In this study, it is not known exactly if the number of falls would be higher if there was no use of physical restraint.

Mortality

In this sample, 62 patients (39.5%) died within three months of the investigation, with a significant positive correlation between confusion and the occurrence of death ($r = 0.234^{**}$).

In the study by Quaresma *et al*[9], after the diagnosis of acute confusion, 62 deaths (39.5%) were recorded in the three-month period, with the occurrence of delirium being associated with higher mortality. Also, the studies by Marco *et al*[8] and Peralta-Cuervo[23] associated acute confusion with mortality.

This study was due to originality. Its greatest contribution is to show evidence on topics that have been little studied. It also has the contribution of describing the confusion (acute and chronic) in an Internal Medicine ward in a Portuguese hospital.

The need for nursing care in services is naturally different when dealing with patients with confusion regarding non-confused patients. When confusion is present, in the acute or chronic, underactive or hyperactive form, nursing care increases in complexity.

It is suggested the promotion of a systematized evaluation of confusion, which would probably improve the recognition rates of this problem and allow the implementation and validation of more appropriate nursing interventions.

Eventually, widespread application to all hospitalized patients of the Confusion Assessment Method (CAM), or the Richmond Agitation-Sedation Scale (RASS), or the Neecham Confusion Scale, could contribute to identifying and categorizing confusion.

The analysis of clinical processes was sufficient to collect all the information necessary for the operationalization of the variables and this was a strong point of the study.

The limitations of the research have to do with the fact that this Hospital Center has undergone several reorganizations over the last few years in the Internal Medicine service due to the growing need for inpatient beds, a situation that has been verified throughout the country due to the aging of the population.

In this Hospital Center there are several internal medicine inpatient services and the nursing teams are different, which may lead to some differences in the provision of care and interventions. In addition, data due to being collected in the summer months may eventually cause differences in relation to winter due to the typology of patients who are usually admitted to internal medicine services.

Another limitation of this study was the impossibility of distinguishing participants with acute or chronic confusion, nor hypoactive or hyperactive states. Thus, patients with confusion (acute and chronic) were analyzed.

It was also the first study of its kind conducted in this Hospital Center. Further studies in the context of hospital confusion and its consequences for patients are suggested in the future.

CONCLUSION

The presence of confusion is a very frequent occurrence in the Internal Medicine ward and most patients with confusion are elderly people over the age of 70 years.

The presence of the nursing diagnosis confusion, is related to the physical restraint of patients and mortality, however, it does not seem to be related to the occurrence of falls. It is important to emphasize the positive relationship between confusion and the occurrence of mortality in the three months following the time of investigation.

Due to the high prevalence of confusion, this study demonstrates the relevance of training and training of professionals on non-pharmacological interventions aimed at preventing confusion and acting at the time of diagnosis. It also reinforces the importance of early identification of the diagnosis of confusion.

Authors' contributions

FC: Design and coordination of the study, data collection, storage and analysis, review and discussion of results. The author read and agreed with the published version of the manuscript.

Ethical Disclosures

Conflicts of Interest: The authors have no conflicts of interest to declare.

Financing Support: This work has not received any contribution, grant or scholarship.

Confidentiality of Data: The authors declare that they have followed the protocols of their work center on the publication of data from patients.

Protection of Human and Animal Subjects: The authors declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the 2013 Helsinki Declaration of the World Medical Association.

Provenance and Peer Review: Not commissioned; externally peer reviewed.

Responsabilidades Éticas

Conflitos de Interesse: Os autores declaram a inexistência de conflitos de interesse na realização do presente trabalho.

Fontes de Financiamento: Não existiram fontes externas de financiamento para a realização deste artigo.

Confidencialidade dos Dados: Os autores declaram ter seguido os protocolos da sua instituição acerca da publicação dos dados de doentes.

Proteção de Pessoas e Animais: Os autores declaram que os procedimentos seguidos estavam de acordo com os regulamentos estabelecidos pelos responsáveis da Comissão de Investigação Clínica e Ética e de acordo com a Declaração de Helsínquia de 2013 da Associação Médica Mundial.

Proveniência e Revisão por Pares: Não comissionado; revisão externa por pares.

REFERENCES

1. Instituto Nacional de Estatística. Estatísticas Demográficas – 2020. Lisboa. Portugal; 2021. [accessed 2022 Jul]. Available from: https://www.ine.pt/xurl/pub/442993507

2. Goes, M., Lopes, M., Marôco, J., Oliveira, H., & Fonseca, C. Psychometric properties of the WHOQOL-BREF(PT) in a sample of elderly citizens. Health Qual Life Outcomes. 2021; 19(1):146. doi: https://doi.org/10.1186/s12955-021-01783-z

3. Sampaio F, Sequeira C. Tradução e validação do Confusion Assessment Method para a população portuguesa. Referência. 2013;III Série(9):125-34.

4. International Council of Nurses. Classificação Internacional para a Prática de Enfermagem (CIPE®). Genéve. Suiça; 2018. [accessed 2022 Jul]. Available from: https://www.icn.ch/sites/default/files/inline-files/icnp-Portuguese_translation.pdf

5. Sousa L, Simões C, Araújo I. Prevenção da confusão aguda em doentes adultos internados em cuidados intensivos: Intervenções autónomas do enfermeiro. Rev Port de Enferm de Saúde Mental. 2019;22:49-57. doi:10.19131/rpesm.0263

6. American Psychiatry Association. Diagnostic and Statistical Manual of Mental Disorders – DSM-5. 5.ª ed. Washington: American Psychiatric Association; 2013.

7. Prayce R, Quaresma F, Neto IG. Delirium: O 7.º Parâmetro Vital? Acta Med Port. 2018; 31(1):51-8. doi:10.20344/amp.9670

8. Marco J, Méndez M, Cruz-Jentoft AJ, García Klepzig JL, Calvo E, Canora J, et al. Características clínicas del delirio y sus implicaciones pronósticas en los servicios de medicina interna españoles: análisis de una gran base de datos clínico-administrativa. Rev Clin Esp. 2019;219(8):415-23. doi:10.1016/j.rce.2019.02.005

9. Quaresma F, Maria A, Sérgio P, Maria I, Almeida J. Delirium numa enfermaria de Medicina Interna – impacto na prática clínica. Revista de Medicina. 2020. [accessed 2022 Jul]; 99(4):357-65. Available from: https://www.revistas.usp.br/revistadc/article/view/160152

10. Lopes FG. Prevenção, diagnóstico e tratamento do delirium no doente idoso internado. [Dissertação]. Coimbra: Faculdade de Medicina da Universidade de Coimbra; 2019. [accessed 2022 Jul]. Available from: http://hdl.handle.net/10316/89531

11. Inouye SK, Westendorp RG, Saczynski JS. Delirium in elderly people. Lancet. 2014;383 (9920):911-22. doi:10.1016/S0140-6736(13)60688-1

12. Rieck KM, Pagali S, Miller DM. Delirium in hospitalized older adults. Hosp Pract (1995). 2020;48:3-16. doi:10.1080/21548331.2019.1709359

13. Pereira J, Barradas F, Sequeira R, Marques M, Batista M, Galhardas M, et al. Delirium in critically ill patients: risk factors modifiable by nurses. Referência. 2016;30;IV Série(9): 29-36. doi:10.12707/RIV16006

14. Direção Geral da Saúde. Prevenção de comportamentos dos doentes que põem em causa a sua segurança ou da sua envolvente. Lisboa. Portugal; 2011. [accessed 2022 Jul]. Available from: http://nocs.pt/wp-content/uploads/2016/03/DGS-Prevenc%CC%A7a%CC%83o-de-comportamentos-dos-doentes-que-po%CC%83em-em-causa-a-sua-seguranc%CC%A7a-e-da-sua-envolvente1.pdf

15. Faria H, Paiva A, Marques P. A restrição física da mobilidade – estudo sobre os aspetos ligados à sua utilização com fins terapêuticos. Referência. 2012;31;III Série(6):7-16. doi: 10.12707/RIII1192

16. Romão AL, Nunes S. Quedas em internamento hospitalar: causas, consequências e custos: estudo de caso numa unidade hospitalar de Lisboa. Port J of Public Health. 2018; 36(1):1-8. doi:10.1159/000488073

17. Swarbrick CJ, Partridge JSL. Evidence-based strategies to reduce the incidence of postoperative delirium: a narrative review. Anaesthesia. 2022;77(1):92-101. doi:10.1111/anae.15607

18. Neves H, Silva A, Marques P. Tradução e adaptação cultural da escala de confusão de NEECHAM. Referência. 2011;III Série(3):105-12. doi:10.12707/RII1052

19. Baptista RCN. Avaliação do Doente com Alteração do Estado de Consciência – Escala de Glasgow. Referência. 2003. [accessed 2022 Jul]; 10:77-80. Available from: https://rr.esenfc.pt/rr/index.php?module=rr&target=publicationDetails&pesquisa=&id_artigo=2067&id_revista=5&id_edicao=11

20. Souza PA, Avant KC, Berndt AE. Nursing diagnoses of impaired memory and chronic confusion for older adults: diagnostic content validation. Rev Bras Enf. 2021;74(2):1-8. doi: 10.1590/0034-7167-2020-0370

21. Lopes de Araújo D, de Assis Dantas B, da Nóbrega O, Nogueira Neta H, Ibiapina W, Ibiapina G. Delirium e correlações clínicas observadas em pessoas da terceira idade internadas em um hospital geral. Rev Cienc Saúde Nova Esperança. 2014. [accessed 2022 Jul]; 12(2):57-67. Available from: http://www.facene.com.br/wp-content/uploads/2010/11/Delirium-PRONTO.pdf

22. Pereira FB, Lopes MA. Delirium in elderly inpatients admitted to clinical wards Prevalence and investigation of clinical conditions in a Brazilian sample. Dement Neuropsychol. 2018;12(2):152-6. doi:10.1590/1980-57642018dn12-020007

23. Peralta-Cuervo AF, Garcia-Cifuentes E, Castellanos-Perilla N, Chavarro-Carvajal DA, Venegas-Sanabria LC, Cano-Gutiérrez CA. Delirium prevalence in a Colombian hospital, association with geriatric syndromes and complications during hospitalization. Rev Esp Geriatr Gerontol. 2021;56(2):69-74. doi:10.1016/j.regg.2020.10.007

24. Bastos A, José S, Paulo S, Article O, Marinilza L, Cristiny da Silva D, et al. Prevalence of delirium in intensive care patients and association with sedoanalgesia, severity and mortality. Rev Gaúcha Enf. 2020;41(2):1-7. doi:10.1590/1983-1447.2020.20190068

25. Barcellos RA, Zanon A, Castilhos TC, Candaten AE, Báo AP. Prevalence of delirium in adult intensive therapy. Res Soc Dev. 2020;9(8):1-11. doi:10.33448/rsd-v9i8.5431

26. Goldberg A, Straus SE, Hamid JS, Wong CL. Room transfers and the risk of delirium incidence amongst hospitalized elderly medical patients: a case–control study. BMC Geriatr. 2015;15(1):1-9. doi:10.1186/s12877-015-0070-8

27. Costa C. A enfermagem de reabilitação e os eventos adversos da restrição física da mobilidade [Dissertação]. Coimbra: Escola Superior de Enfermagem de Coimbra; 2013. [accessed 2022 Jul]. Available from: http://repositorio.esenfc.pt/?url=tc4FEopO

28. Silva RCG, Silva AA, Marques PAO. Analysis of a health team's records and nurses' perceptions concerning signs and symptoms of delirium. Rev Lat Am Enfermagem. 2011; 19(1):81-9. doi:10.1590/S0104-11692011000100012

29. Teece A, Baker J, Smith H. Understanding the decision-making of critical care nurses when restraining a patient with psychomotor agitation secondary to hyperactive delirium: A 'Think Aloud' study. J Clin Nurs. 2022;31(1-2):121-33. doi:10.1111/jocn.15889

30. Caveião C, Sales W, Montezeli J, Sena E, Loureiro G, Avanci M. Perfil clínico e consequências decorrentes de quedas em hospital universitário no sul do Brasil. Revista Saúde e Desenvolvimento. 2018. [accessed 2022 Jul]; 12(10):183-96. Available from: https://www.revistasuninter.com/revistasaude/index.php/saudeDesenvolvimento/article/view/877

Table 1 – Description of the frequency of the age variable.

Age Range	N (157)	%
Until 39 years old	0	0
40-49	2	1.3%
50-59	4	2.5%
60-69	16	10.2%
70-79	31	19.7%
80-89	75	47.8%
More That 90 years old	29	18.5%

Table 2 – Description of the frequency of the admission diagnostic variable.

Admission Diagnosis	N (157)	%
Respiratory infection	46	29.3%
Stroke	2	1.3%
Venous Thromboembolism	3	1.9%
Renal Failure	26	16.6%
Heart failure	28	17.8%
Decompensated Diabetes	2	1.3%
Urinary Tract Infection	23	14.6%
Other	27	17.2%