

Strategies used by nurses to minimize the occurrence of delirium in critically ill patients

Estratégias utilizadas por enfermeiras para minimizar a ocorrência de *delirium* em pacientes críticos

Estrategias utilizadas por las enfermeras para minimizar la aparición de delirio en pacientes críticos

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Abstract: Objective: to describe the strategies used by nurses to minimize the occurrence of delirium in patients admitted to the intensive care unit (ICU). **Method:** exploratory-descriptive study, with a qualitative approach, developed in a large public teaching hospital in the city of Salvador. It was carried out in September and October 2018, 16 nurses participated in the study. Data were collected through semi-structured interviews and analyzed using the “Thematic Content Analysis Technique”. **Results:** from the data analysis, two thematic categories emerged, named: “Lack of knowledge about monitoring delirium in the ICU” and “Strategies of nurses to minimize the occurrence of delirium in the ICU”. **Conclusion:** although the nurses' lack of knowledge about delirium, there is a coherence in the methods of interventions to prevent it. The implementation of protocols and educational activities are essential to empower nurses regarding the interventions performed.

Descriptors: Delirium; Intensive Care Units; Cuidados de Enfermagem; Nursing Care; Critical Care Nursing; Qualitative Research

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Resumo: Objetivo: descrever as estratégias utilizadas por enfermeiras para minimizar a ocorrência de *delirium* em pacientes internados em unidade de terapia intensiva (UTI). **Método:** estudo exploratório-descritivo, de abordagem qualitativa, desenvolvido em um hospital de ensino, público, de grande porte da cidade de Salvador. Foi realizado nos meses de setembro e outubro de 2018, participaram do estudo 16 enfermeiras. Os dados foram coletados mediante entrevista semiestruturada e analisados por meio da “Técnica de Análise de Conteúdo Temática”. **Resultados:** da análise dos dados emergiram duas categorias temáticas, denominadas: “Desconhecimento sobre monitorização do *delirium* em UTI” e “Estratégias das enfermeiras para minimizar a ocorrência de *delirium* em UTI”. **Conclusão:** apesar do pouco conhecimento das enfermeiras sobre o *delirium* existe uma coerência quanto aos métodos de intervenções para preveni-lo. A implementação de protocolos e atividades educativas são imprescindíveis para empoderar o enfermeiro quanto às intervenções realizadas.

Descritores: Delirium; Unidade de Terapia Intensiva; Cuidados de Enfermagem; Enfermagem de cuidados críticos; Pesquisa Qualitativa

Resumen: Objetivo: describir estrategias utilizadas por enfermeras para minimizar la aparición de delirio en pacientes ingresados en unidad de cuidados intensivos (UCI). **Método:** estudio exploratorio, descriptivo, con enfoque cualitativo, desarrollado en un gran hospital público docente de la ciudad de Salvador. Se realizó en septiembre y octubre de 2018, con 16 enfermeras participantes del estudio. Los datos fueron recolectados por entrevistas semiestructuradas y analizados utilizando la "Técnica de análisis de contenido temático". **Resultados:** del análisis de datos, surgieron dos categorías temáticas, llamadas: "Falta de conocimiento sobre el monitoreo del delirio en la UCI" y "Estrategias de las enfermeras para minimizar la aparición de delirio en la UCI". **Conclusión:** a pesar de la falta de conocimiento de las enfermeras sobre el delirio, existe coherencia en los métodos de intervención para prevenirlo. La implementación de protocolos y actividades educativas es esencial para empoderar a las enfermeras con respecto a las intervenciones realizadas.

Descriptor: Delirio; Unidades de Cuidados Intensivos; Atención de Enfermería; Enfermería de Cuidados Críticos; Investigación Cualitativa

Introduction

Delirium is an acute neurological disorder that is frequently observed in Intensive Care Unit (ICU), characterized by transitory alterations of consciousness and cognition, fluctuations to mental state, inattention and disorganized thinking, generally for short periods of time and with oscillations throughout the day.¹ A published study demonstrates that *delirium* triggers important functional decline and is associated to longer periods in mechanical ventilation, prolonged hospitalization periods, increased costs and increased mortality.²

Findings point out that the incidence of *delirium* in critical patients varies between 47% and 80% and its prevalence between 20% and 80%.³ However, it remains underdiagnosed in percentages of between 25% and 75%. This data could be related to the fluctuating nature of the

condition, associated to the lack of knowledge of the health professionals in relation to the pathology, as well as low accession to diagnostic tools.⁴

According to the *Diagnostic and Statistical Manual of Mental Disorders - 5 (DSM-5)*⁵ is defined as: 1) alterations to consciousness with decreased capacity for maintaining or focusing attention; 2) alterations to cognition (memory, orientation or speech) or 3) development of alterations to perception, which is not well explained by established or developing dementia. The described alterations develop over short periods of time, generally hours or days, and tend to fluctuate throughout the day. *Delirium* is also considered as heterogeneous manifestation and, in order to better characterize it, three subtypes were described: hyperactive (agitation), hypoactive (apathy) and mixed (with characteristics of both subtypes).

The risk factors for *delirium* are presented under varied clinical contexts and its causes are multifactorial, however, some types of patients, due to their peculiar intrinsic or extrinsic characteristics, present a higher incidence for the development of the condition. However, the development depends on and interaction between the vulnerability of the patient (predisposing factors) and the insults of the acute disease (precipitating factors), in such a manner that patients with low vulnerability require more intense insults, whilst those with high vulnerability may require only minimal insults and more vulnerable patients may present *delirium* with minimal insults.⁶

Prevention of *delirium* is directly related to the recognition of the modifiable risk factors, those that are subject to interventions, where preventive treatment is still the most effective. Treatment strategies may be pharmacological or non-pharmacological. Among the pharmacological strategies emphasis is given to the use of haloperidol, which as a lower cost, however, the sedative of choice is dexmedetomidine. Benzodiazepines, on the other hand, should be avoided due to the collateral effect of mental confusion. Non-pharmacological strategies occur through psychological care at the UCI, prolonged family engagement, promoting a calm and

silent environment with the reduction of audible and luminous stimuli. There are other actions such as avoiding the use of physical restraint, stimulating early mobilization, implementing music therapy, early use of assessment methods such as the Confusion Assessment Method in an Intensive Care Unit (CAM-ICU), use of glasses and hearing aids, early removal of invasive devices and correction of hydroelectrolytic disturbances.⁷⁻⁸

Based on the program called “ICU Liberation” the Society of Care Medicine (SCCM) updated the “Clinical Practice Guidelines for the Management of Pain, Agitation and Delirium”, describing the best evidences available to approach the crucial elements to assure the comfort and safety of patients hospitalized in ICUs. Two topics were added to these guidelines for clinical attention related to rehabilitation/mobilization and sleep, published as: “Clinical Practice Guideline for the Prevention and Treatment of Pain, Agitation/Sedation, Delirium, Immobility and Sleep Disruption in Adult Patients in the ICU (PADIS).¹⁰

In the ICUs nurses are generally the first to identify changes to behaviors presented by patients, being concerned with the confusional state or agitation due to adverse events that could place at risk their safety and cause detrimental consequences.¹¹ Accordingly, the importance and the need for early identification of *delirium* by the nurses by means of valid instruments, as well as the knowledge of possible factors related to the occurrence of *delirium* of patients hospitalized in ICUs.

Moreover, during the experience as intensive care nursing residents, it was possible to perceive a loophole in relation to intervention actions and systematic assessment for the early diagnosis of *delirium*, as well as the absence of protocols for prevention. Accordingly, this study is based on the following research question: What are the strategies used by the nurses to minimize the occurrence of *delirium* in patients hospitalized in intensive care units? For this purpose, the aim is to describe the strategies used by nurses to minimize the occurrence of *delirium* in patients hospitalized in an intensive care unit.

Method

A qualitative study, of an exploratory-descriptive nature, carried out in an adult ICU of a public hospital in the city of Salvador, Bahia, Brazil. This institution was inaugurated in 1979, and presently has 630 available hospital beds for reference medical emergency/urgency treatment in obstetrics and trauma, as well as specialties in neurology, infectiology, obstetrics, nephrology, gastro-hepatic, digestive hemorrhage and exogenous poisoning center. The Intensive Care Units correspond to the largest UCI complex in the State of Bahia, with 109 beds, divided between adult UCI (general, surgery, cardiovascular and neurological), pediatric and neonatal.

The research followed the preconized ethical standards, complying with the provisions of Resolution 466/12 of the Brazilian National Health Council (CSN). The project was approved by the Ethics Committee of the mentioned hospital under number 2.824.588.

The established inclusion criterion was being a nurse at an adult UCI. All nurses not working directly with the care of critical patients and/or were away on vacation, leave of absence or medical leave were excluded. The total possible quantity of participants was of 22 nurses, however with the data saturation criterion, 16 participated in the study, once the responses began to be repetitive.

Data collection occurred in the months of September and October, 2018 by means of a semi-structured interview, with questions related to the strategies used by nurses to minimize the risk of *delirium* in the UCI, such as: 1. Are you aware of any instrument for monitoring *delirium* in the UCI? 2. In your work process, in the UCI, do you include monitoring for *delirium*? 3. During your nursing care to critical patients, is there a work strategy used for the prevention of *delirium*? If not, why? There is also a form to answered with information for

sociodemographic characterization with reference to age, gender, allocated unit, period of time as nurse graduate, specialization and length of service.

Data was collected by the responsible researcher. The interviews were performed in a reserved room, with previously scheduled dates and times, according to the availability of the participants. Each interview had an average duration of 30 minutes. The participants were included in the study after signing the written informed consent form and received fictitious identifications, with flower codenames. The interviews were recorded and after the interviews these were transcribed, with the aid of earphones and a mobile phone, using the app “Speech-to-Text Text to Speech PDF”, in order to guarantee the accuracy and minimize possible errors. The whole transcribed material went through double review.

The data analysis process occurred using the “Thematic Content Analysis Technique”¹² organized in accordance with the following phases: 1. Pre-analysis: starting from the interview transcription process and skimming through the texts, when the content of the answers became clearer. 2. Exploration of the material where it was possible to identify the units of register (words) which were coded in accordance with the units of meaning (through selection of the speech in the interviews). 3. Treatment of the results: in this phase the condensation and emphasis of the information for analysis occurred, resulting in the inferential interpretations; the moment of intuition, analysis, reflexive and critical analysis, permitting the categorization of ideas.

Once this is a field research, with data collection by means of the knowledge of the participants, there is the risk of exposure of this data, therefore, it was guaranteed to the participants that the information would be confidential and that, once transcribed and the transfer of the process from speech to written verified, the audio would be immediately discarded, and the only the written register would be filed for a five-year period.

Results and discussions

Characterization of the participants

The participants of the research were all of the female gender and average age of 34 years. Regarding period as graduate nurses, most had an average of 5 years of profession. The period of time of these professionals working in intensive care was quite heterogeneous, five participants had less than one year of experience, ten had between one and four years and only one informed eight years of experience. In relation to working hours, the majority (12) work 30 hours per week and, four of which have more than one employment, with a total of 74 working hours per week.

It is important to observe that most (thirteen) of the participants are certified in intensive care. Therefore, it was expected that most of these professionals would be able to recognize the signs and symptoms of *delirium*, the risk factors and the nursing care required for prevention of this disorder.

Two theme categories were revealed from the analysis of the interviews: Unawareness of monitoring for *delirium* in ICUs, and Strategies of nurses for minimizing the occurrence of *delirium* in ICUs, as presented below:

Unawareness of monitoring for *delirium* in ICUs

Upon analysis of the answers of the nurses regarding unawareness of any instrument for monitoring *delirium* in the ICU and its use, the interviewees, in their majority, had not knowledge about the existence of any instrument for monitoring *delirium* and its use in the nursing care practice of patients hospitalized in the ICU

No, I am not aware of any instrument to this date. (Sunflower)

Specific instruments, no. I imagine there is a strategy? But applying an instrument, in practice, by nurses, no, not to my knowledge. (Rose)

Equipment in itself, equipment? Only the professional perceives during a conversation with the patient, in the patient's discourse, that the patient is having an episode of delirium. (Lily)

Nursing care has a crucial role in the assessment and identification of *delirium*, once there is a professional team that remains 24 hours with the patient, any oscillation in the state of mind that the patient presents may be easily identified.¹³ Most of the nurses know how to recognize some signs of *delirium*, yet they are unaware of *delirium* as an organic disorder, furthermore, they are unaware of assessment methods, imposing only to the doctor the diagnosis, apart from the lack of knowledge of any methods of prevention and care of patients with *delirium*.¹⁴

To enable the diagnosis of *delirium* in patients admitted to the UCI, an instrument of observation and assessment of critical ill intubated patients, under mechanical ventilation, was created based on the main characteristics of the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (DSM-IV), the CAM-ICU. This tool was validated for the Portuguese language in 2011, the results of which have demonstrated high specificity (96.2%), good sensibility (72.5%), as well as good predictive power when the scale is used in a systematic manner⁶. The CAM-ICU instrument favors a communication via a uniform language in a multidisciplinary team, being considered as a “gold-standard” instrument for recognition of the syndrome in critical patients.¹⁵

In relation to the use of any instrument for the assessment or monitoring of *delirium*, the interviewed participants referred to not having used the CAM-ICU or any other method for

diagnosis. It should be observed that this practice is not implemented in the scenario of this study, as identified below:

I am aware of the scale that monitors delirium; however, we do not use it at the ICU I work at because it is not in the protocol.
(Azalea)

There is no specific form. We are able to identify it through the clinical condition of the patient, but there is no specific form.
(Rose)

No, there is no protocol. (Rose moss)

Corroborating the evidences of the present research, in relation to awareness and use of the CAM - ICU, a study carried out in the general hospital of the state of Santa Catarina evidenced insufficient knowledge about the diagnostic scale and the importance of the bedside assessment of *delirium*. Authors discuss that for the prevention and control of *delirium* not only scientific knowledge is necessary, but also structural and behavioral changes of the professionals. Underdiagnosis is linked to the lack of knowledge, allied to wrongful conducts, such as the excessive use of sedation, badly executed mechanical restraint, among other aspects related to poor quality of nursing care.¹⁶

A study performed with nurses on the assessment of *delirium* in the ICU concluded that the practice of identification through the above-mentioned method was effective in reducing the use of sedatives, of mechanical restraint and improved handling of aspects related to the environment, influenced by interventions prescribed by nurses.¹⁷

Accordingly, the focus of the work of the nurse, as a part of the multidisciplinary team, professional team, is on the nursing care, through clinical care and judgment, as well having the role of diagnosing problems related to the patient. In this regard, the nurse uses critical

thinking to determine accurate diagnostics, promote guidance and nursing interventions with the aim of achieving better results for the patient and family members.¹⁸

Strategies of nurses for minimizing the occurrence of delirium in ICUs

The statements under this category permitted an understanding of the perception that the professionals of this study have in relation to *delirium*, as well as the experience and strategies used for prevention. When questioned about work strategy used for the prevention and occurrence of *delirium*, the answers were related to the thematic axes of family – mobilization – environment. In relation to the first aspect, family, the participants of the study stressed the importance of the presence of the family beside critical patients, emphasizing that the presence of the family contributes towards the patient being kept guided as to time and space.

[...] it gives them a sense of time and space, always telling the patient where they are, the day, the time, and always trying to draw the family close in order for the patient not to become delirious. I believe that every intensive care unit should have the visiting times amplified for these patients, with a psychological support, because the family is very important in this process, let's put it this way. (Sunflower)

[...] keep the patient updated as to the day, where he is, speak to the family? Keep up a dialog and humanized care [...]. (Calla Lily)

So, it [...] means being closer to the patients, offer them comfort, visits could be for a little longer period[...]. (Lily)

[...] permit visits outside visiting hours [...] we know that visits help a lot in the recovery of the patient, and do not disturb, as we used to imagine [...]. (Carnation)

The knowledge of nurses on the risk factors that could favor the occurrence of *delirium* is crucial in order for them to perform a systematization of nursing care, adequate for the patients, as well as special attention regarding a greater support and the presence of family members.¹⁹ Family engagement is ratified in a study²⁰ also considered as a modifiable risk factor by nurses and it was observed that there is a significant percentage (44%) of patients not receiving visits and the presence of *delirium*.

Experiences worldwide with the flexibilization of visiting hours for family members to UCIs have demonstrated to be safe and reproductive. Congruent to this scenario, the “UCI Visits” project was prepared with the purpose of increasing visiting time for family members in Brazilian UCIs, in order to humanize the care, based on the needs of the patient and the family.²¹ The surgery ICU of the hospital, locus of this research, has been participating of this project since 2017, and has been presenting the proposal of extended visits, aiming to qualify the care to critical patients.

The second aspect related to the strategies of nurses to minimize the risk of *delirium* is related to mechanical restraint, in which the interviewees inform that they avoid this practice, keeping it only in the case of risk of removing of medical devices.

[...] I avoid leaving patients restrained without need. The patient I realize is not agitated, that has a level of consciousness to protect himself and that is not at risk of removing medical devices, of extubating accidentally, I try to assess this critically with the

multidisciplinary team, in order for the patient not to be restrained. (Orchid)

[...] not leave the patients unnecessarily restrained [...] not mechanically restrain the patient in an unnecessary manner [...]
(Carnation)

In clinical practice, psychomotor agitation must be considered, and normally requires pharmacological care due to the risk of adverse events, such as the exteriorization of devices and even a fall. However, the multidisciplinary team needs to take actions that permit a peaceful environment, in order for the patient to remain calm, awake and collaborative to develop all the pertinent interventions for the prevention and treatment of *delirium*, such as early mobilization, engagement with the family and reorientation.²²

The use of physical restraint is routinely and indiscriminately observed in patients hospitalized in ICUs, despite knowing that this is one of the main precipitating factors for the occurrence of *delirium*. The use of restraints is a complex theme which goes beyond nursing care, encompassing physical, psychological, legal and ethical issues.

Thus, Resolution 427, of 2012, issued by the Brazilian Federal Nursing Council (COFEN) resolves that nursing professionals may only use mechanical restraints under the direct supervision of the nurse and in compliance with the protocols established by the health institutions, with exception to cases of urgency or emergency. It is also recommended that mechanical restraint be used only when it is the only way possible to prevent damage to the patients or to others, and should not be prolonged or used with the purpose of disciplining, punishing or coerce or even for the convenience of the team.²³

In a study¹⁶ with nurses, it was observed that there is a concern in relation to the inadequate use of mechanical restraints and, at the same time, the fear for the accountability of the nurses should anything occur to a patient not duly restrained. Thus, it is important to

emphasize that physical restraint may be necessary in certain situations to avoid the occurrence of adverse events, such as falls, accidental extubation, removal of devices, among others. However, the nursing team together with the multidisciplinary team must carefully assess each individual case before opting for this kind of restriction.

Regarding the sleep environment and hygiene, emphasis is given to interventions that can be implemented, such as offering an interactive means of communication, such as television, reducing and controlling noise, offering an environment with visibility of sunlight, reducing luminosity during the night, as described below:

[...] I think that the closed-in environment favors the increase of these episodes of delirium in the patient, there should be more windows so as they can see the daylight [...] (Lily)

[...], I think that if there were a means of communication, a television, something like that, that patients could have an idea – closed environments such as UCIs, I believe favor delirium due to the environment and all [...] confinement. (Yellow Rose)

[...] sometimes there is too much light, the noise of the monitor, I always try to leave the monitor with similar alarms, so as they are not always there [...] the light, for nearly 100% of the patients that are there, we put a pillow-case, the light doesn't pass through the pillow case, because the light bothers [...] it changes the sleep, the quality of the sleep. (Violet)

Nursing care in relation to the hospital environment can be a preventive factor for the development of *delirium*. In this manner, the care of the environment is indicated to minimize

factors that can aggravate the condition. Creating and maintaining a more familiar environment, permitting that the family places photographs or preferred objects, are simple attitudes but which have a positive impact in relation to a decrease in the risk of patients presenting disorientation and mental confusion.

Moreover, critically ill patients have a high probability of presenting *delirium* due to the dynamics of the unit, once it is a noisy environment with a lot of agitation, which ends up causing inconsistent sleep of the patient, as well as favoring precipitating factors of this disorder. Thus, it is necessary to control the environment with reference to noise and other factors that hinder sleeping standards and the rest of the patients.⁶

In this respect, it is indispensable that the nursing team pay utmost attention so that environment, especially at night, is calm and the lights softened, as well as adjusting the hours of the medication and procedures, with the purpose of rendering a more effective sleep, because it is known that the lack of sleep causes inattention and cognitive impairment, characteristics that could be present in patients with *delirium*.

Conclusion

The results permitted us to conclude that, despite the knowledge gaps of nurses in the diagnosis of *delirium*, there is a coherence in relation to the preventive strategies, however, the actions present in the speech of the participants are superficial. The nurses emphasize the presence of the family, avoiding the indiscriminate use of mechanical restraint, the control of the environment regarding noise and luminosity and sleep hygiene, as preventive measures to minimize *delirium* in critical patients.

The data of this study ratifies the need and importance of permanent education involving *delirium* for the nursing team in order to enable the organization of a nursing process with reference to the knowledge and application of strategies that enable early identification of

delirium in such a way that the patient is assisted in a safe manner and free of iatrogenesis. Thus, it will be possible to improve clinical outcomes of critical patients in *delirium*, with a qualified and safe nursing care.

Therefore, it is essential that health institutions develop protocols in order for the assessment score of this condition to be performed, together with educational activities, once that through the instrumentalization of the knowledge on *delirium*, the work process becomes more objective and scientific, not being verified only by means of empirical observation.

References

1. Mori S, Takeda JRT, Carrara FSA, Cohrs CR, Zanei SSV, Whitaker IY. Incidence and factors related to delirium in an intensive care unit. Rev Esc Enferm USP. [internet] 2016 [acesso em 2018 Ago 1];50(4): 585-591. Disponível em: http://www.scielo.br/pdf/reeusp/v50n4/pt_0080-6234-reeusp-50-04-0587.pdf DOI: <http://dx.doi.org/10.1590/S0080-623420160000500014>
2. Brummel NE, Vasilevskis EE, Han JH, Boehm L, Pun BT, Ely EW. Implementing delirium screening in the ICU. Crit Care Med. [internet] 2013 Set [acesso jun 2019 1];41(9):2196-208. Disponível em: <https://www.ncbi.nlm.nih.gov/pubmed/23896832doi:10.1097/CCM.0b013e31829a6f1e>.
3. Faria RSB, Moreno RP. Delirium na unidade de cuidados intensivos: uma realidade subdiagnóstica. Rev. bras. ter. intensiva [internet]. 2013 [acesso em Abril 2018 8];25(2):137-147. ISSN 0103-507X. Disponível em: <http://dx.doi.org/10.5935/0103-507X.20130025>.
4. Sanchez JC, Gonzalez MI, Gutierrez JC. Delírium en pacientes mayores de 60 años en un hospital público de tercer nivel en la ciudad de Pereira (Colombia): subdiagnóstico y subregistro. rev.colomb. psiquiatr. [internet]. 2013 [acesso Jun 2018 15];42(2):191-197. ISSN 0034-7450. Disponível em: http://www.scielo.org.co/scielo.php?pid=S0034-74502013000200006&script=sci_abstract&tlng=pt
5. American Psychiatric Association (Washington). Diagnostic and Statistical Manual of Mental Disorders: (DSM V) Revised. 5. ed. 2013.
6. Flôres DG, Capone NA. Delirium no paciente grave. Clínicas de Medicina Intensiva Brasileira (CMIB). 2013, 23(18). Associação de Medicina Intensiva Brasileira (AMIB). São Paulo: Atheneu, 2013.
7. Pincelli EL, Waters C, Hupsel ZN. Ações de enfermagem na prevenção do delirium em pacientes na Unidade de Terapia Intensiva. Arq Med Hosp Fac Cienc Med Santa Casa São Paulo. [internet]. 2015 [acesso Out 2019]; 60:131-9. Disponível em: <http://arquivosmedicos.fcmsantacasasp.edu.br>.

8. Salluh JIF, Pandharipande P. Prevenção do delirium em pacientes críticos: um recomeço? *Rev Bras Ter Intensiva*. [internet] 2012 [acesso Nov 2018 23];24(1). Disponível em: <http://dx.doi.org/10.1590/S0103-507X2012000100001>.
9. Barr J, Fraser G, Puntiglio K. Clinical Practice Guidelines for the Management of Pain, Agitation, and Delirium in Adult Patients in the Intensive Care Unit. *Critical Care Medicine*. [internet] 2013 Jan [acesso Jun 2018 13];41(1) 263-306. Disponível em: <https://www.ncbi.nlm.nih.gov/pubmed/23269131doi:10.1097/CCM.0b013e3182783b72>
10. Devlin JW, Skrobik Y, Gélinas C, Needham DM, Slooter AJC, Pandharipande PP, Watson PL, et al. Clinical Practice Guidelines for the Prevention and Management of Pain, Agitation/Sedation, Delirium, Immobility, and Sleep Disruption in Adult Patients in the ICU. *Crit Care Med*. [internet] 2018 Sep [acesso Mar 2018 12];46(9):825-873. Disponível em: <https://www.ncbi.nlm.nih.gov/pubmed/30113379doi:10.1097/CCM.0000000000003299>
11. Faustino TN, Pereira LC; Freitas YS; Silva RMO; Amaral JB. Prevenção e monitorização do delirium no idoso: uma intervenção educativa. *Rev. Bras Enferm.*[internet] 2016;69(4):678-85. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S003471672016000400725&lng=pt&tlng=pt doi: 10.1590/0034-7167.201669416
12. Bardin L. *Análise de conteúdo*. 3 ed. São Paulo: Edições 70, 2016, 2141p.
13. Reich R, Vieira DFVB, Lima LB, Silva ERR. Carga de trabalho em unidade coronariana segundo o Nursing Activities Score. *Rev. Gaúcha Enferm.* [internet] 2015; July/Sept. [acesso Dez 2018 20];36(3). Disponível em: http://www.scielo.br/scielo.php?pid=S1983-14472015000300028&script=sci_arttext&tlng=ptdoi:10.1590/1983-1447.2015.03.51367.
14. Luna AA, Bridi AC, Silva RCL. Delirium em terapia intensiva um estudo retrospectivo. *Rev enferm UFPE*. C 2015 Jan [acesso Jan 2019 20]; 9(1):69-75. doi: 10.5205/reuol.6817-60679-1-ED.0901201510.
15. Frenette AJ, Bebawi ER, Deslauriers LC, Tessier AA, Perreault MM, Delisle MS, Bertrand JC, et al. Validation and comparison of CAM-ICU and ICDSC in mild and moderate traumatic brain injury patients *Intensive Care Med*. Epub.[internet] 2016 Jan [acesso Out 2018 20];42(1):122-3. Disponível em: <https://www.ncbi.nlm.nih.gov/pubmed/26170098doi:10.1007/s00134-015-3964>.
16. Ribeiro SCL, Nascimento ERP, Lazzari DD, Jung W, Boes AA, Bertencello KC. Conhecimento de enfermeiros sobre delirium no paciente Crítico: discurso do sujeito coletivo. *Texto & Contexto Enfermagem*. [internet] 2015 abr-june [acesso Abr 2018 26];24(2):513-520. Disponível em; <http://www.indexf.com/textocontexto/2015/r24513.php> doi; org/10.1590/0104-07072015001702014.
17. Souza RCS. Capacitação de enfermeiros na utilização de um instrumento de avaliação de delirium. *Rev Gaúcha Enferm.* [internet] 2017 [acesso Out 2018 15];38(1):644-84. Disponível em:

http://www.scielo.br/scielo.php?script=sci_abstract&pid=S1983-14472017000100801&lng=pt&nrm=iso&tlng=ptdoi:10.1590/1983-1447.2017.01.64484.

18.Herdman TH. Processo de Enfermagem: um momento para lembrar seu propósito. Revista da Rede de Enfermagem do Nordeste. [internet] 2013 [acesso fev 2019 18];14(3):458-9. Disponível em: <http://www.redalyc.org/articulo.oa?id=324027991001>.

19.Scott P, Mcilveney F, Mallice M. Implementation of a validated delirium assessment tool in critically ill adults. Intensive Crit Care Nurs. [internet] 2013 [acesso Dez 2018 15];29(2):96-102. Disponível em: <https://www.ncbi.nlm.nih.gov/pubmed/23177554doi:10.1016/j.icc.2012.09.001>.

20. Pereira JM, Barradas FJR; Sequeira RMC, Marques MCMP, Batista MJ, Galhardas M, Santos MS. Delírium no doente crítico: fatores de risco modificáveis pelos enfermeiros. Revista de Enfermagem Referência. 2016, IV(9), abr./mai./jun: 29-36. Disponível em: <http://dx.doi.org/10.12707/RIV16006>

21.Projeto UTI Visitas. Implementação e avaliação da visita familiar ampliada em UTIs brasileiras. Hospital Moinhos de Vento. [internet] 2017 [acesso jan 2019 20] Disponível em: https://www.abrhrs.org.br/sites/default/files/.../case_hospital_moinhos_de_vento.pdf.

22.Souza TL, Azzolin KO, Fernandes VR. Cuidados multiprofissionais para pacientes em delirium em terapia intensiva: revisão integrativa. Rev Gaúcha Enferm. [internet] 2018 [acesso em Out 2019];39. doi: <https://doi.org/10.1590/1983-1447.2018.2017-0157>

23.COFEN Resolução nº 427/2012.Conselho Federal de Enfermagem. [internet] [acesso Nov 2018 20]. Disponível em: http://www.cofen.gov.br/resoluo-cofen-n-4272012_9146.html.

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