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

SURGICAL PATIENT WITH DELIRIUM: CLINICAL PRACTICE GUIDELINE

Maria do Céu Marques – Department of Nursing, University of Évora. Comprehensive Health Research Centre (CHRC), Évora, Portugal. ORCID: https://orcid.org/0000-0003-2658-3550

Patrícia Silva – Hospital do Espirito Santo Évora, EPE Surgery department, Évora, Portugal. ORCID: https://orcid:0000-0002-5276-1130

Rute Pires – Hospital do Espirito Santo Évora, EPE Surgery department, Évora, Portugal. ORCID: https://orcid:0000-0002-5903-1712

VOL. 5 NO. 2 AUGUST 2019

ABSTRACT

Objectives: To create a Clinical Practice Guideline to manage delirium in surgical patients, based on existing Clinical Practice Guideline, and to assess whether the application of a multi-component interventions promote the safety of surgical patients with delirium, admitted in a Surgical Care Unit at a Central Hospital.

Methodology: A Clinical Practice Guideline based on current scientific evidence was adapted, using the ADAPTE process. Subsequently, the effectiveness of its application was evaluated through a retrospective analysis, relating to the month of December in 2016 and in 2017. A data collection instrument was created and its statistical analysis was performed using spreadsheets in Excel.

Results: The Clinical Practice Guideline "Approach to delirium in the surgical patient" was created. After its implementation there was a decreasing on delirium incidence, length of stay and associated consequences.

Conclusion: The multi-component interventions implementation, included in evidence--based Clinical Practice Guideline, has shown a good influence in quality of care, patient safety and health care results.

Keywords: Delirium; patient safety; practice guidelines as topic; evaluation of results of therapeutic interventions.

INTRODUCTION

Delirium, also understood as an acute confusion state[1], is a cerebral dysfunction or insufficiency[2], characterized by a disturbance in attention and consciousness that develops acutely and with a fluctuating course[3]. The most common surgical complication in the elderly, with a postoperative incidence ranging from 5.2% to 52.2%, is associated with increased postoperative complications, increased mortality, morbidity, duration of hospitalization and institutionalization, leading to a significant increase in hospital costs[4]. These costs are estimated to amount to more than US$ 164 billion per year in the United States, and around 182 billion per year at European level[2].

Delirium is a priority for public health and patient safety[2,5], which is also a priority area for health quality[6]. It is increasingly seen as a strong indicator of patient safety[2] and improvement of surgical quality[2,4,5].

With a 30% reduction in the incidence of delirium with the implementation of multicomponent measures[7], it is essential to understand the risk factors for delirium development in elderly surgical patients to implement programs based on this type of measures, for increasing safety in these patients and reducing complications, morbidity, mortality and costs[5]. However, although widely recommended by the international consensus[8-11], most hospitals do not have programs of delirium prevention/management approach or protocols are implemented inconsistently[12], which limits efforts to improve quality[4] and patient safety[2].

These delirium treatment programs/protocols include the application of pharmacological measures and non-pharmacological multi-component measures (implemented mainly by nurses)[13], which are the best outcomes for patients[2,13]. Closely linked to nurses' daily practice[14], multi-component measures include orienting patients to reality, promoting the presence of family members and early mobilization[1].

In implementing these measures, the specialist nurse plays a key role in addressing this syndrome, both by creating and maintaining a safe therapeutic environment, preventing incidents and managing risk[15], and preventing complications[16]. These measures increase patient safety and improve the care provided[17], meeting the common competences evidenced by the specialist nurse[15] and that described in the Quality Standards of Specialized Nursing in Critical Nursing[16].

Quality improvement includes analysis and review of practices regarding their results. It is up to the specialist nurse to evaluate the quality and, starting from the results, to implement continuous improvement programs[15]. It is understoodthat "the production of good practice guides of nursing care based on empirical evidence is an important structural basis for the continuous improvement of nurses' quality of professional practice"[18:12]. Given all these assumptions, and that the concept of Good Practice is in very similar to the concept of the Clinical Guidance Standard (CGS)[19], there is a need to create a CGS regarding the approach to the delirium surgical patient. This will summarize the scientific evidence on this subject, with the aim of guiding nurses in the decision making process, contributing to an improvement in the quality of life, safety and care provided to surgical patients with delirium[20].

The elaboration of a CGS follows its own rigorous methodology, based on the highest available scientific evidence[20]. In this process, a complete CGS can be created or an adaptation can be made from existing CGSs[20]. Since the elaboration of a new CGS requires the collaboration of experts in the area in focus, it is time consuming and resource intensive[21], a CGS will be adapted, taking advantage of the high quality scientific evidence pre-

sent in existing CGSs through the application of the ADAPTE process. This process provides a systematic approach that enables CGS to be adapted in different cultural and organizational contexts, showing to be flexible, clear and efficient, leading to an improvement in the quality and validity of adapted CGS[21].

Given all these premises, delirium in the surgical patient is a very relevant and current theme. The implementation of multi-component nursing interventions, inserted in a CGS, will have all the relevance, both in terms of care improvement and patient safety. In this sense, the **main objective** was to contribute with evidence-based knowledge in the promotion of delirium surgical patient safety in an intensive care unit (UCCI), and with **specific objectives**: (1) To elaborate anapproach CGS to the surgical patient with delirium, based on existing CGSs; (2) To evaluate whether the application of multi-component interventions (present in the CGS) promotes the safety of delirium surgical patients.

METHODS

A descriptive exploratory study was carried out at a UCCI of a Central Hospital, following the positive opinion of the Ethics Committee and the Board of Directors of that hospital. This was based on the following question, formulated through the PIPOH strategy[22]: "Do elderly surgical patients with delirium (P) undergoing multicomponent interventions (I), implemented by nurses (P), contribute to the promotion of security (O) in a UCCI (H)?".

This study consisted of two distinct phases. In a first phase, a CGS based on current studies was adapted and, in a second phase, the effectiveness of its application was evaluated.

In the CGS adaptation process, the ADAPTE methodology was used, presented in table 1.

Table 1 – ADAPTE Process.

Phase	Module	Steps
Planning	Preparation	**1.** To establish an Organizing Committee.
		2. To select a topic.
		3. To check if adaptation is feasible.
		4. To identify skills and resources needed.
		5. To complete the tasks required for the adaptation phase.
		6. To write an adaptation plan.
Adaptation	Scope and purpose	**7.** To determine health issues: – Target population and disease characteristics; – Intervention (s) of interest; – CGS target professionals; – Expected Outcomes: For the patient, health service and/or public health outcomes; – Health service where CGS will be implemented.
	Search and monitoring	**8.** To search for CGS or other relevant documentation.
		9. To select the obtained CGSs.
		10. To reduce the number of CGSs obtained (use of the AGREE instrument).
	Evaluation	**11.** to **15.** Quality assessment of CGS using the AGREE instrument.
	Decision and Selection	**16.** To reassess the review to assist in decision making.
		17. To select CGSs and recommendations to create a tailored CGS. Five options can be taken: 1 – To reject all CGS; 2 – To accept all CGS and all its recommendations; 3 – To accept only the CGS evidence summary; 4 – To accept only some specific recommendations; 5 – To modify specific recommendations.
	Adaptation	**18.** To prepare a CGS adapted outline.
Finalization	External Review and Confirmation	**19.** External review by CGS target users.
		20. To consult the authorities responsible for approval.
		21. To consult the creators of the original CGSs.
		22. References of the sources of the documents used.
	Post-planning	**23.** Plan for the revision and update of the adapted CGS.
	Final production	**24.** Final elaboration of the CGS.

Fonte: *ADAPTE Collaboration*[21]

After defining the theme in question, the viability and adaptability of the CGS was confirmed by the existence of international guidelines on the approach of delirium (prevention and treatment), with publications from 2006 to 2016.

The following health issues were determined according to PIPOH:

- Population – Surgical patient with delirium present or at increased risk of delirium development;
- Intervention – Non-pharmacological approach in the treatment of delirium;
- Targeted Professionals – Nurses;
- Expected Outcomes – Improved quality of care, decreased duration and severity of seizures, ensuring patient safety, decreasing length of stay and improving health outcomes in these patients;
- Context – UCCI of a Central Hospital.

CGS were searched in International Organization electronic databases dedicated to the development and publication of such documents, such as: National Institute for Health and Care Excellence, Registered Nurses' Association of Ontario, National Guideline Clearinghouse, Guidelines International Network, Canadian Medical Association Practice Guidelines InfoBase. The following search terms were used: "delirium" "postoperative delirium" and "Clinical Practice Guideline".

Three inclusion criteria were defined: (1) CGSs prepared or reviewed less than 4 years ago; (2) CGS in English and (3) CGS regarding delirium patient approach. As exclusion criteria CGS for delirium tremens.

The CGS selection process is shown in Figure 1.

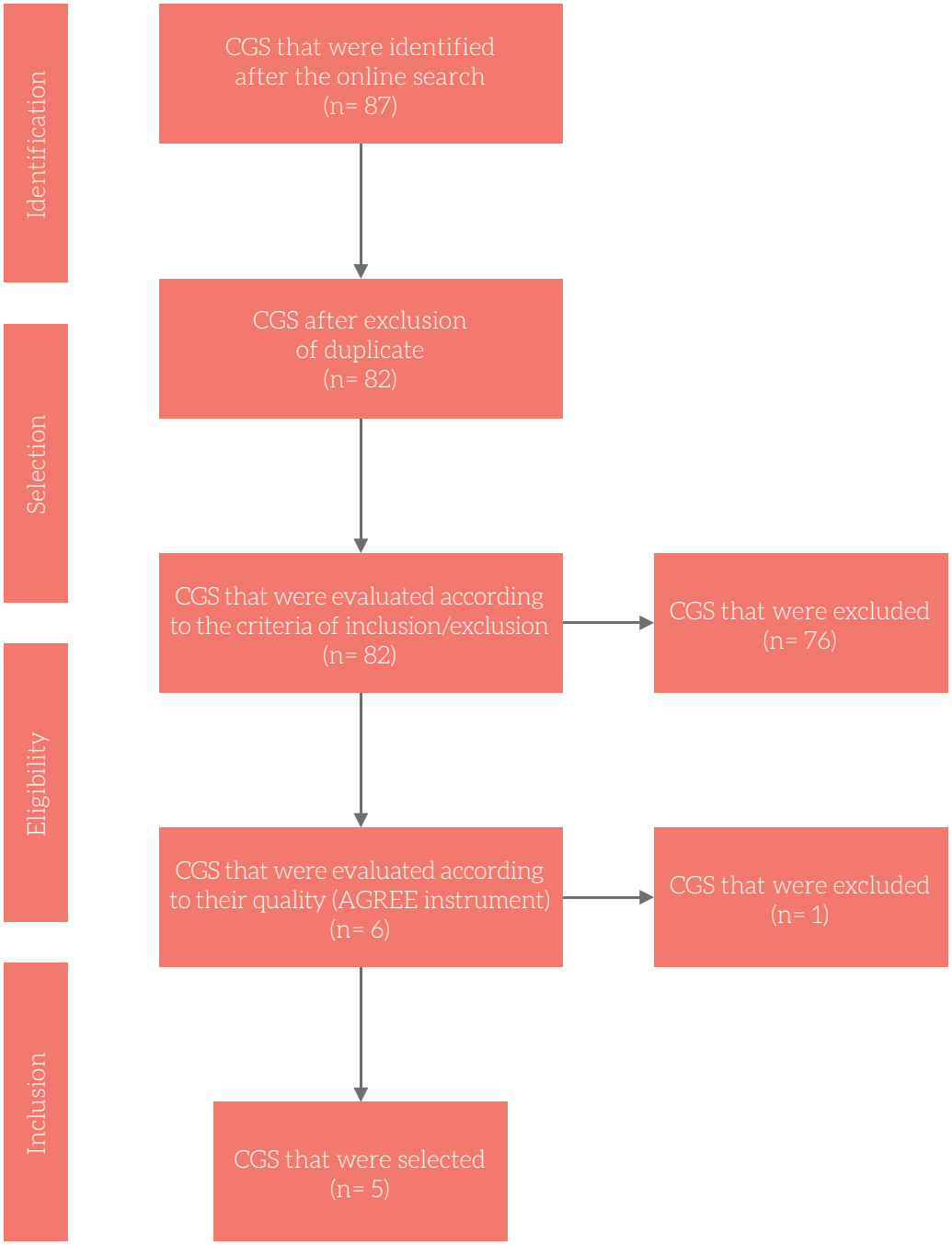

Figura 1 – Processo de seleção de NOC.

When the AGREE II instrument was applied[24], the selected CGSs generally had a score of four or more, in seven, with percentages between 77% and 94.5%, proving their high quality, and their use is widely recommended. The following CGSs were selected:

- *DELIRIUM: diagnosis, prevention and management, Clinical Guideline 103*[8], reviewed in 2015;
- *Delirium, Dementia, and Depression in Older Adults: Assessment and Care*[9];
- *The Assessment and Treatment of Delirium*[10], and the review in 2014 (*2014 guideline update: The assessment and treatment of delirium*)[25];
- *Clinical Practice Guideline for Postoperative Delirium in Older Adults*[11].

Based on these, relevant and most relevant recommendations were selected and the CGS was created: "Approach to the surgical patient with delirium". Subsequently, an external review was carried out by some of the CGS's target users and it was obtained a positive opinion from the Chief Nurse, a Surgeon (expert agreement) and a Psychiatrist. Finally, the entity responsible for the approval of the CGS, of the Director of Service, was consulted, and the approval was obtained.

Approved by the CGS, and aiming at its implementation, 62.5% of the nursing team constituting the UCCI was formed. Subsequently, and after the CGS was implemented by the nursing team, the effectiveness of the interventions that compose it was analyzed, which constitutes the 2nd phase of this study.

A retrospective analysis based on nursing and medical records was performed for December 2016, based on consultation of the clinical file of all patients admitted to this unit during this period. To this purpose, a data collection instrument was created, focusing on age, gender, presence or absence of mental confusion, resulting complications, presence of medical devices and length of stay. After applying the CGS over a one-month time period, similar data were collected with a similar data collection instrument for all patients admitted to UCCI in December 2017 and compared with the respective month of the previous year. Descriptive statistical analysis, absolute and relative frequencies were performed in the qualitative and mean variables and standard deviation in the continuous quantitative variables.

The ethical principles set out in the Helsinki Declaration have been respected.

RESULTS

The set of recommendations that comprise the CGS provide essential guidance on the approach delirium in surgical patients. They are composed of[8-11,25]:

1 .**General Recommendations** – to evaluate the administration of medication, especially that considered high risk and polymedication; to use mechanical containment as a last resource;

2 .**Evaluation** – to assess risk factors for delirium on initial contact and if patient's clinical condition changes;

3 .**Planning** – To develop a delirium prevention plan based on multi-component measures for patients at risk of developing delirium;

4 .**Implementation** – To implement the delirium prevention plan outlined; to use delirium assessment tools; when delirium is present: identify underlying cause(s) and contributing factors; to implement multicomponent interventions that should include: (a) treatment of precipitating causes, (b) non-pharmacological interventions and (c) use of appropriate medication to relieve delirium symptoms and/or pain control; to educate patients at risk of developing delirium and their family members and/or caregivers on prevention and treatment measures.

5 .**Evaluation** – evaluate delirium (DcD) patients at least once a day using appropriate assessment tools and documenting the effectiveness of interventions.

The multicomponent interventions performed by nurses were implemented taking into account the risk factors for delirium development. The following are the ones that are most relevant (Table 2).

Table 2 – Multi-component Interventions in Approach of the patient with Delirium[9-11, 25].

Risk Factors	Interventions
Cognitive Commitment Sensory deprivation	Cognitive orientation, reorientation (reorienting the person by explaining where they are, who they are, and what their role is).
	Environmental Factors (Adequate light; Clear signaling; 24-hour clock; Calendar).
	Cognitively stimulating activities (use of radio or television; reminiscence).
	Facilitate the visit of family/caregivers/friends (involving the family).
Sensory deficiency	To ensure the use of hearing and / or visual prostheses.
	Adequate lighting.
Infection	To identify and treat the infection.
	To avoid unnecessary urinary catheterization.
Dehydration/obstipation Hydroelectrolytic changes	To monitor nutrition, hydration and renal/intestinal function.
	Prevention of hydroelectrolytic disorders/dehydration.
	To ensure adequate fluid intake.
Nutrition	To ensure proper nutrition.
	To ensure proper fit of dental prostheses.
Hipoxy	To monitor oxygen saturation and to optimize oxygenation.
Pain control	To evaluate and control pain.
	To evaluate which pain treatment is most appropriate when identified.
Sleep Deprivation	To avoid procedures during bedtime.
	To schedule medication administration to avoid disturbing sleep.
	To reduce noise and light to a minimum during night time.
Immobilization/limited mobility functional disability	To avoid using mechanical restraint.
	To assess the risk of developing pressure ulcers.
	Mobilization as soon as possible after surgery.
***Polymedication*/use of high risk medication**	Review of patient medication.

In a second phase, a retrospective analysis of the data from December 2016 and 2017 was performed. In 2016, the sample consisted of 34 patients, from them 13 (38%) developed delirium, whereas in 2017, 8 of 26 inpatients developed this condition. There were average ages of 76 years-old in 2016, with a standard deviation of 11.72, and in 2017, average ages of 80 years-old, with a standard deviation of 8.08. The sample characterization and complications resulting from delirium in December 2016 and 2017 are described in Table 3.

Table 3 – Sample characterization and delirium complications (December 2016/2017).

	December 2016	December 2017
Patients with delirium (%)	38%	30,7%
Patients without delirium		
Age (average)/years	63 years-old	68 years-old
Length of stay (average)/days	7 days	8 days
Development of delirium(in hospitalized patients)		
Men (%)	43,7%	31%
Women (%)	33,3%	28%
Patients with delirium		
Men (%)	53,8%	75%
Women (%)	46,2%	25%
Age (average)/years	76 years-old	80 years-old
Length of stay (average)/days	27 days	15 days
Type of delirium (%)		
Hypoactive	23%	37,5%
Hyperactive	77%	62,5%
Agressive	40%	80%
Visual hallucination	20%	20%
Associated sensory deficit (%)	15,3%	50%
Mental Confusion (days)	9 days	5 days
Mechanical containment (days)	9 days	4 days
Patients with delirium – complications (no. of evaluations in DcD)/% of complications		
Medical Device Withdrawal:		
– **Nasogastric tube**	(4) 100%	(2) 50%
– **Venturi mask (O_2)**	(5) 50%	(5) 62,5%
– Peripheral Venous Access	(8) 72,7%	(4) 66,6%
– Ileo System/Colostomy	(1) 50%	(1) 50%
– Aspiration drain	(1) 33,3%	-
– Chest Drain	-	(1) 100%
– Algalia	-	(1) 16,6%
Patients with hypererative delirium – complications (no. of evaluations in DcD)/% of complications		
Lift attempts	(10) 100%	(5) 100%
Pressure ulcers	(1) 7,6%	-
Falls	-	-
Slaps	(1) 7,6%	-

DISCUSSION

The CGS "Approach to delirium in the surgical patient" was prepared, which allowed nurses to systematize the care / interventions to be given to the surgical patient with delirium or at risk of developing this condition, basing its praxis on the latest international scientific evidence[9-11,25]. This process is presented in the following algorithm (Figure 2).

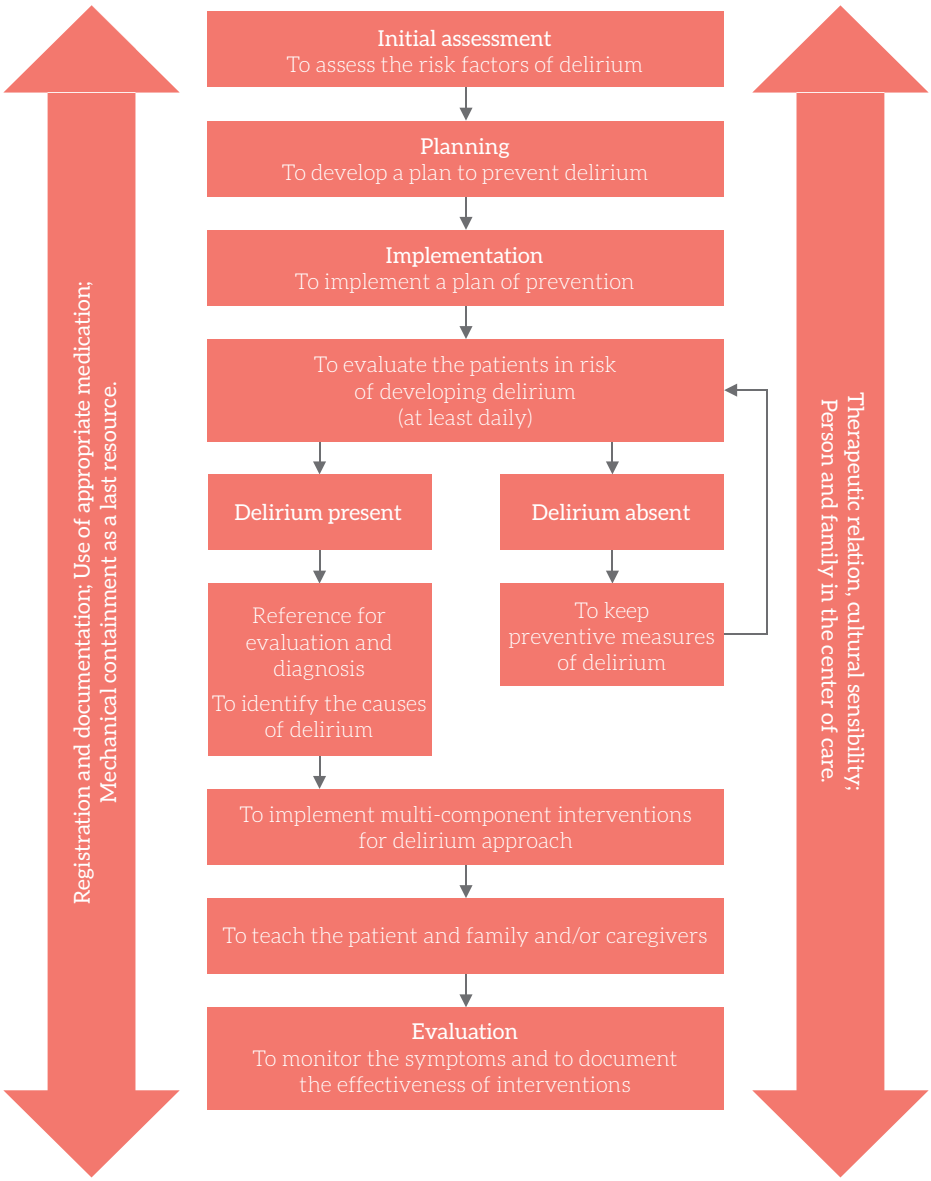

Figura 2 – Algoritmo de abordagem ao doente com delirium.
Fonte: http://rnao.ca/sites/rnao-ca/files/3Ds_BPG_WEB_FINAL.pdf[6]

Regarding the data collected (2016/2017), delirium appeared predominantly in older patients, with a mean age of over 75 years-old, mostly in male patients. Both variables (age ≥75 years-old and male gender) are described as factors that predispose the development of delirium, as well as the presence of sensory, visual or hearing impairment[1,2,8,10], identified in 15,3. % of DwD in 2016, and 50% in these patients in 2017.

Delirium patients had a longer (average) length of stay when it is compared to patients without delirium (DsD), a fact widely described in the literature[1,2,5,7-9].

It is noted that after the training, nurses began to assess the presence of delirium with the Confusion Assessment Method (CAM), and this assessment and recording was made in all DcD processes.

According to the literature, it was found that the implementation of non-pharmacological multi-component measures performed by nurses have a fundamental role in reducing the incidence of delirium[1,2,4,5,7-14,17], and mean length of stay[12]. After one month of implementation of the CGS, a reduction in the incidence of delirium by 7.3% and the mean length of stay at 12 days were confirmed. There was also a decrease in the average period of DcD mental confusion by 4 days, as well as the average time required with mechanical restraint at 5 days. However, despite the lower incidence of delirium in 2017 and shorter duration of seizures, cases of hyperactive delirium with aggression towards professionals have doubled, and in these situations, a pharmacological intervention to control symptoms is necessary. Contrary to what was described by some authors[1,9], there was a higher incidence of cases of hyperactive delirium compared to hypoactive delirium, both in 2016 and in 2017.

Regarding the short-term complications reported, and based on the literature[1,13,14], there was the removal of medical devices such as probes, catheters and drains, and the development of self-inflicted or pressure lesions. However, despite the high risk of falling also described[13,14], no falls were recorded in both evaluations, despite attempts to lift 100% of hyperactive DcDs. This occursbecause UCCI is a unit with continuous nurse presence where any attempt to lift is promptly stopped.

The implementation of multi-component measures promotes the reduction of complications in DcD[12,13,14], as evidenced in 2017, with a decrease in the incidence of withdrawal of medical devices such as SNG, peripheral access and aspiration drains, as well as in the development of pressure ulcers and spurs. However, there was the removal of a chest tube (100%) and an algalia (16.6%) in aggressive patients with hyperactive delirium, which highlights that although the measures are implementedin these situations, it is necessary the control of symptoms through the administration of appropriate medication, by prescription or established protocol.

CONCLUSION

The implementation of evidence-based CGSs influences positively the quality of care provided by nurses, improving patient safety and health gains.

The use of ADAPTE methodology proved to be fundamental to the fast and viable adaptation of a CGS, benefiting from the high available scientific evidence.

A delirium CGS approach was adapted in the surgical patient, based on the implementation of multi-component measures by nurses, showing efficacy in reducing the incidence of delirium, length of stay and associated consequences, promoting an increase in the safety of these patients and improving in care. Given the results, the intervention of nurses in the care of surgical patients with delirium is fundamental, promoting the creation and maintenance of a safe therapeutic environment, preventing incidents and managing the risk and consequently avoiding complications.

Considering the increase of hyperactive, aggressive DcD and its associated complications, it would be pertinent to develop an appropriate medication administration protocol in order to control symptoms at this stage, limiting future complications.

REFERENCES

1. Marcantonio ER. Delirium in Hospitalized Older Adults. New England J Med. [Internet]. 2017 [cited on 2017 Dec 16]; 377(15): 1456-66. Available from: http://www.nejm.org/doi/full/10.1056/NEJMcp1605501

2. Inouye SK, Westendorp RGJ, Saczynski JS. Delirium in elderly people. Lancet [Internet]. 2014 [cited on 2017 Dec 16]; 38: 911-22. Available from: http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)60688-1/fulltext

3. American Psychiatric Association. Manual Diagnóstico e Estatístico de Transtornos Mentais, DSM-5. 5 ed. Porto Alegre: Artmed Editora; 2013.

4. Berian, JR, Zhou L, Russell MM, Hornor MA, Cohen ME, Finlayson E, et al. Postoperative Delirium as a Target for Surgical Quality Improvement. Ann Surg [Internet]. 2017 Jul [cited on 2017 Dec 16]; 24: 1-7. Available from: https://www.ncbi.nlm.nih.gov/pubmed/28742701

5. Gleason LG, Schmitt EM, Kosar CM, Tabloski P, Saczynski JS, Robinson T, et al. Effect of Delirium and Other Major Complications on Outcomes After Elective Surgery Older Adults. JAMA Surg [Internet]. 2015 [cited on 2017 Dec 16]; 150(12): 1134-40. Available from: https://pdfs.semanticscholar.org/ba10/648622facb617d8c44b0487e19e981f63bd6.pdf

6. Castilho AM, Parreira PD, Pereira MS. Cuidados de Enfermagem e Eventos Adversos em Doentes Internados: Análise dos Fatores Intervenientes. RIASE online [Internet]. 2016 Aug [cited on 2018 Jan 6]; 2(2): 605-623. Available from: http://dx.doi.org/10.24902/r.riase.2016.2(2).600

7. Siddiqi N, Harrison JK, Clegg A, Teale EA, Young J, Taylor J, et al. Interventions for preventing delirium in hospitalised non-ICU patients. Cochrane Database Syst Rev [Internet]. 2016 [cited on 2017 Dec 19]; 11(3): CD005563. Available from: http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD005563.pub3/pdf

8. National Institute for Health and Care Excellence. Delirium: prevention, diagnosis and management. NICE clinical guidelines N.º 103. London: NICE; 2010 [cited on 2017 Dec 16]. Available from: https://www.nice.org.uk/guidance/cg103/evidence/cg103-delirium-full-guideline3

9. Registered Nurses' Association of Ontario. Delirium, Dementia, and Depression in Older Adults: Assessment and Care. Toronto: Registered Nurses' Association of Ontario; 2016 [cited on 2017 Dec 16]. Available from: http://rnao.ca/sites/rnao-ca/files/3Ds_BPG_WEB_FINAL.pdf

10. Canadian Coalition for Seniors' Mental Health. The assessment and treatment of delirium. Toronto: Canadian Coalition for Seniors' Mental Health; 2006 [cited on 2017 Dec 16]. Available from: https://ccsmh.ca/wp-content/uploads/2016/03/NatlGuideline_Delirium.pdf

11. American Geriatrics Society. Clinical Practice Guideline for Postoperative Delirium in Older Adults. New York: American Geriatrics Society; 2014 [cited on 2017 Dec 16]. Available from: https://geriatricscareonline.org/application/content/products/CL018/slide/AGS-PostOp-Delirium.2.pdf

12. Hshieh TT, Yue J, Oh E, Puelle M, Dowal S, Travison T et al. Effectiveness of Multicomponent Nonpharmacological Delirium Interventions: A Meta-analysis. JAMA Intern Med [Internet]. 2015 [cited on 2017 Dec 19]; 175(4): 512-20. Available from: http://unmhospitalist.pbworks.com/w/file/fetch/92874693/ioi140142.pdf

13. Martinez F, Tobar C, Hill N. Preventing delirium: should non-pharmacological, multicomponent interventions be used? A systematic review and meta-analysis of the literature. Age and Ageing Preventing delirium: should non-pharmacological, multicomponent interventions be used? Age Ageing [Internet]. 2014 [cited on 2017 Dec 19]; 44(2): 196-20. Available from: https://academic.oup.com/ageing/article/44/2/196/93749

14. Faustino TN, Pedreira LC, Freitas YS, Silva RMO, Amaral JB. Prevenção e monitorização do delirium no idoso: uma intervenção educativa. Rev Bras Enferm [Internet]. 2016 [cited on 2017 Nov 19]; 69(4): 725-732. Available from: http://www.scielo.br/pdf/reben/v69n4/0034-7167-reben-69-04-0725.pdf

15. Portugal. Ordem dos Enfermeiros. Regulamento n.º 122/2011 de 18 de fevereiro. Regulamento das Competências Comuns do Enfermeiro Especialista. Diário da República. 2011; 2.ª Série, n.º 35. 8648-53 [cited on 2017 Dec 16]. Available from: http://www.ordemenfermeiros.pt/legislacao/Documents/LegislacaoOE/Regulamento122_2011_CompetenciasComunsEnfEspecialista.pdf

16. Portugal. Ordem dos Enfermeiros. Regulamento n.º 361/2015 de 26 de junho. Regulamento dos Padrões de Qualidade dos Cuidados Especializados em Enfermagem em Pessoa em Situação Crítica. Diário da República. 2015; 2.ª Série, n.º 123. 17240-43 [cited on 2017 Dec 16]. Available from: http://www.ordemenfermeiros.pt/legislacao/Documents/LegislacaoOE/Regulamento_361_2015_PadroesQualidadeCuidadosEspEnfPessoaSituacaoCritica.pdf

17. Luna AA, Entringer AP, Silva RCL. Prevalência do subdiagnóstico de delirium entre pacientes internados em unidade de terapia intensiva. Rev enferm UERJ [Internet]. 2016 [cited on 2017 Dec 20]; 24(1), 1-5. Available from: http://dx.doi.org/10.12957/reuerj.2016.6238

18. Ordem dos Enfermeiros. Padrões de Qualidade dos Cuidados de Enfermagem. Lisboa: Ordem dos Enfermeiros; 2012 [cited on 2017 Dec 17]. Available from: http://www.ordemenfermeiros.pt/publicacoes/Documents/divulgar%20-%20padroes%20de%20qualidade%20dos%20cuidados.pdf

19. Ordem dos Enfermeiros. Recomendações para a Elaboração de Guias Orientadores da Boa Prática de Cuidados. Lisboa: OE; 2007 [cited on 2017 Dec 16]. Available from: http://www.ordemenfermeiros.pt/documentosoficiais/Documents/Recomend_Manuais_BPraticas.pdf

20. Hoesing H. Clinical Practice Guidelines: Closing the Gap Between Theory and Practice. USA: Joint Commission International; 2016 [cited on 2017 Dec 20]. Available from: https://www.clinicalkey.com/info/sea/wp-content/uploads/sites/12/2014/07/JCI-Whitepaper_CPGs-Closing-the-gap-between-theory-practice.pdf

21. ADAPTE Collaboration. The ADAPTE Process: Resource Toolkit for Guideline Adaptation. Version 2.0. 2009. Available from: http://www.g-i-n.net

22. Sousa LM, Marques JM, Firmino CF, Frade F, Valentim OS, Antunes AV. Modelos de formulação da questão de investigação a Prática Baseada na Evidência. Rev Inv Enferm. 2018; S2(23): 31-39.

23. Moher D, Liberati A, Tetzlaff J, Altman DG. The PRISMA Group. Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med [Internet]. 2009 [cited on 2018 Jan 6]; 6(7): e1000097. Available from: https://doi.org/10.1371/journal.pmed.1000097

24. AGREE Next Steps Consortium. The AGREE II Instrument. 2013. Available from: http://www.agreetrust.org

25. Gage L, Hogan DB. 2014 guideline update: The assessment and treatment of delirium. Toronto: Canadian Coalition for Seniors' Mental Health; 2014 [cited on 2017 Dec 16]. Available from: https://ccsmh.ca/wp-content/uploads/2016/03/2014-ccsmh-Guideline-Update-Delirium.pdf

Correspondence: mcmarques@uevora.pt