

Nurses' training in the use of a delirium screening tool

Capacitação de enfermeiros na utilização de um instrumento de avaliação de delirium

La formación de las enfermeras en el uso de un instrumento de evaluación del delirium



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How to cite this article:

Souza RCS, Bersaneti MDR, Siqueira EMP, Meira L, Brumatti DL, Prado NRO. Nurses' training in the use of a delirium screening tool. Rev Gaúcha Enferm. 2017 Mar;38(1):e64484. doi: <http://dx.doi.org/10.1590/1983-1447.2017.01.64484>.

doi: <http://dx.doi.org/10.1590/1983-1447.2017.01.64484>

ABSTRACT

Objective: To narrate the nurses' training experience in the implementation of a systematic delirium screening tool using the Confusion Assessment Method for Intensive Care Unit.

Method: Experience report covering the steps of situation diagnosis, planning, staff training and evaluation of the tool's implementation between January and March 2013 with nurses in the ICU of a tertiary hospital in São Paulo.

Results: The implementation of the assessment, using the Confusion Assessment Method for Intensive Care Unit, obtained significant nurse adhesion and became a service indicator.

Final considerations: The experience has shown that this assessment allows the results of the work process to be analyzed and the consequent transformation of daily initiatives.

Keywords: Delirium. Nursing. Patient safety. Inservice training.

RESUMO

Objetivo: Narrar a experiência de capacitação de enfermeiros para implementação da avaliação sistematizada do delirium pelo método do *Confusion Assessment Method for Intensive Care Unit*.

Método: Relato de experiência que abrangeu as etapas de diagnóstico situacional, planejamento, capacitação da equipe e avaliação da implementação do instrumento entre janeiro e março de 2013 com enfermeiros de uma UTI de um hospital terciário do município de São Paulo.

Resultados: A implementação da avaliação, utilizando o *Confusion Assessment Method for Intensive Care Unit*, obteve uma adesão significativa dos enfermeiros e se tornou um indicador de assistência.

Considerações finais: A experiência demonstrou que essa avaliação possibilita analisar os resultados do processo de trabalho e a transformação consequente das iniciativas no cotidiano.

Palavras chave: Delírio. Enfermagem. Segurança do paciente. Capacitação em serviço.

RESUMEN

Objetivo: Contar la experiencia de formación de enfermeras para la implementación de la evaluación sistemática de delirio por el método de la confusión Método de Evaluación de la Unidad de Cuidados Intensivos.

Método: Relato de experiencia que cubría las etapas de análisis de la situación, la planificación, la formación del personal y la evaluación de la aplicación de instrumentos, entre enero y marzo de 2013, con la enfermería en una unidad de cuidados intensivos de un hospital de tercer nivel en São Paulo.

Resultados: La aplicación de la evaluación utilizando el Método de Evaluación de la confusión de la Unidad de Cuidados Intensivos, obtuvieron una importante participación de las enfermeras y se convirtieron en un indicador de servicio.

Consideraciones finales: La experiencia ha demostrado que esta evaluación permite analizar los resultados del proceso de trabajo y las iniciativas de transformación consiguientes en la vida diaria.

Palabras clave: Delirio. Enfermería. Seguridad del paciente. Capacitación en servicio.

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■ INTRODUCTION

Delirium is the most common neurological disorder in patients hospitalized in intensive care units (ICUs) with an incidence of 5 and 92%⁽¹⁻²⁾. It is associated with an increased hospital stay length, hospital costs, use of sedatives and mechanical restrictions, the accidental removal of catheters and tubes and increased mortality.

Despite the prevalence, its diagnosis is often not recognized, especially among patients who are on mechanical ventilation⁽²⁾. This aspect may be related to factors such as the team's lack of knowledge on pathophysiology, diagnosis and treatment, the absence of an implemented systematic assessment service and the conception that this is an expected cognitive impairment, with temporary and minimal consequences⁽³⁾.

The hypoactive subtype is the one with highest incidence (60% of cases), but it is not easily recognized, precisely because patients with this condition do not show the classic signs of agitation⁽³⁾. It is associated with a worse prognosis by increasing the duration of mechanical ventilation, for the higher incidence of pneumonia associated with ventilation and pressure ulcers, as well as other complications related to immobility. Early identification improves intensive care outcomes and is reflected in cost reduction⁽³⁾.

Applying a *delirium* screening tool is a key part in identifying and treating the condition, where the ideal instrument is one that allows the evaluation of the dysfunction in patients who are non-verbal or who are intubated and mechanically ventilated⁽³⁾.

The first validated for *delirium* screening, developed specifically for ICU patients was the *Confusion Assessment Method for Intensive Care Unit (CAM-ICU)*, adapted from the *Confusion Assessment Method (CAM)*. It is used by professionals at the patient's bedside, and its full execution lasts only two minutes and requires minimal training⁽⁴⁾.

The original CAM-ICU in English was validated in three large cohort studies of patients with a sensitivity of 95% to 100%, specificity of 89% to 93% and high interobserver reliability. Its translation and validation to Portuguese occurred in 2011, with sensitivity and specificity of 72.5% and 96.2%, respectively⁽⁵⁾, and agreement among evaluating nurses at 100%. It incorporates the four characteristics of the original instrument⁽⁴⁾, where the *delirium* is identified when about three of these characteristics are present⁽⁴⁾.

Nurses working in ICUs need to be trained to use the screening tool⁽⁶⁾, because they can act in the edu-

cational processes of the team and family. This condition contributes to better quality care through early dysfunction identification that determines the causes, allows the identification of modifiable risk factors and allows the planning of therapeutic interventions and prevention together with the multidisciplinary team. In a recent study, a need for greater improvement among nurses through training was mentioned⁽⁷⁾. Health services in which the tool was implemented revealed an increase in the diagnosis of *delirium*, as well as an optimized care. These factors contributed to the decision of the group to instrumentalize the nurses and implement the systematic screening of *delirium*⁽⁸⁻⁹⁾. Studies have shown that the records made by nurses regarding *delirium* were important because of their impact on the outcomes of care^(6,10).

Assessing *delirium* is essential in clinical practice because, among the benefits of this action, are a reduced hospital stay, reduced incidence of infections and complications, allowing nurses to build another perspective on care and giving more autonomy in the implementation of non-pharmacological interventions to prevent and treat the dysfunction. In the US and Canada, nurses are responsible for this assessment⁽¹¹⁾.

It is recognized today that non-pharmacological interventions are essential for the prevention and treatment of *delirium*, and are part of the multi-professional team's field of action and can be widely implemented. This fact significantly promotes patient safety and the reduction of risks related to the event. This report provides a report on the nurses' training experience for the implementation of a systematic *delirium* screening tool using the Confusion Assessment Method for Intensive Care Unit (CAM-ICU) in an adult ICU.

■ METHOD

Experience report on the implementation of a *Delirium* assessment method, CAM-ICU, in a general adult ICU with 30 beds in a tertiary hospital in São Paulo, Brazil. The process was comprised of the following described steps:

Situational diagnosis

The training of nurses to apply CAM-ICU arose from the need for a clinical evaluation of patients that would allow the diagnosis of the disorder in order to propose appropriate remedial measures. Adverse events relat-

ed to patient agitation and disorientation, and complications related to immobility by mechanical and chemical restraints were factors present in our clinical practice that aroused the interest and concern with the problem.

Planning

It was conducted by a group consisting of four clinical nurses, the nurse responsible for the continuing education unit and the nurse coordinator. At this stage, the aim of training was defined as the correct use of the CAM-ICU method by nurses to assess *delirium*.

The resources needed and the steps of the process were defined, and a lecture and illustrative videos for the presentation of the theme, guidance materials with the instrument application flowchart and the practical assessment script were developed.

Staff training

The instrumentalization was carried out in two phases, between January and March 2013. The first consisted of an orientation through a lecture and a 50 minute and three minute video, respectively on the importance of diagnosing this dysfunction, pathophysiology, prevention and treatment, indication and application of the instrument. This phase comprised a period of 15 days and was carried out by the group responsible for training during the nurses' work shift (morning, afternoon and evening).

The second stage comprised a period of 15 days and started after the theoretical part was completed. It comprised the training of each nurse in the application of the bedside instrument. During this phase, patients and their companions were informed about the procedure and the inclusion of patients followed the criteria of altered consciousness or mental status.

The nurse considered enabled was that who applied the instrument at least three times and reached the satisfactory grade in all five items from a script prepared in the instrument training manual: indication of the instrument application, patient approach, proper guidance for application on patients, instrument application in the correct sequence and the correct score in the instrument application. The manual that referenced the training was developed by researchers at Vanderbilt University Medical Center and is available on the Internet ⁽¹²⁾.

Evaluation

The evaluation stage occurred one month after the completion of the training and evaluation of the implementation and included a reorientation to answer questions in the instrument application. The application interval of the CAM-ICU was set every 8 hours exclusively by nurses for all patients except those with moderate to advanced dementia and those who are qualified by specific scale in deep sedation.

The Research Ethics Committee of the institution where the intervention was implemented authorized the publication because it is a professional training that did not involve collection of patient data and/or the data of professionals.

RESULTS

60 clinical nurses were instrumentalized and the systematic evaluation of *delirium* (every 8 hours) was implemented with records held in the patient's files. The literature recommends that the evaluation be done every 8 hours or at least when necessary, so the definition of the time interval followed this criteria. Since then, this assessment and the adherence by the professionals have become care indicators. Adherence was expressive and nurses showed interest and motivation in the use of the instrument, because according to their perceptions. the assessment helps to reduce the incidence of adverse events and assists in proper indication of mechanical and chemical restraint.

Situations were observed during training in which the indication of the evaluation was not considered properly by nurses. This data showed a difficulty of nurses in the eligibility of patients to be evaluated by the method and thus, a meeting was held with a specialist for new guidance, including the clarification of doubts about the instrument's application.

DISCUSSION

The implementation of protocols and guidelines by nurses has a major impact on clinical practice⁽¹³⁾, because in addition to direct and standardized care, it assists in reading the results, comparing it to other indicators and service standards. As *delirium* has a substantial influence on health care and has become a concern for the professional teams involved in the care, its management is directed by Pain Control Policy, Agitation and *Delirium* in adult patients of the American College of Critical Care

Medicine (ACCM) and the Society of Critical Care Medicine (SCCM) ⁽¹¹⁾.

There is a consensus that the first step to its control is to implement prevention strategies and evaluate their effectiveness through a changing diagnostic tool. Option was made to incorporate the CAM-ICU into daily clinical evaluation performed by nurses, because this instrument is recommended by the Guideline pain, agitation and delirium in critically ill patients ⁽¹⁴⁾. It is widely used, it is easy to apply, its application time is two to five minutes and its most significant advantage is the accuracy in the evaluation of intubated patients. Studies show that where a diagnostic tool is not part of professionals' routine assessment, *delirium* is underdiagnosed in about 72% of patients ⁽¹¹⁾. Our experience showed that there was an increase in the number of patients diagnosed after the implementation of the instrument, as confirmed by the indicator unit. This situation was similar in other services ⁽⁸⁻⁹⁾.

The nurse has an important role in the prevention and early identification of the dysfunction, because it establishes a close proximity to the patient that allows recognition and, thus, can contribute to improved quality of care and, consequently, its results ⁽³⁾. This is possible because it by determining the causes, care that includes early mobilization, noise reduction and the implementation of routines and protocols to preserve sleep can be adopted ⁽¹¹⁾. The implementation of *delirium* assessment by nurses in an ICU, proved to be effective in reducing the use of sedatives, mechanical restraints and better management of issues related to the environment such as luminosity and noise level under the influence of interventions prescribed by nurses ⁽¹⁵⁾.

Nurses relate some barriers in *delirium* assessment that comprise the difficulty of assessing intubated patients, the inability to identify the level of patient sedation, insecurity in the use of instruments, the time spent and the complexity of the instruments ⁽⁶⁾. These obstacles are likely to prevent adhesion of the professionals to the use of this assessment in their clinical practice ⁽⁶⁾. A survey of 331 nurses from four ICUs to identify practices and perceptions of *delirium* assessment showed that the hospitals in the study already provide instruments to screen the dysfunction, however, less than half of respondents used them. The study noted that the barriers identified related to poor adherence were the complexity of the tools and the inability of professionals to complete assessments performed on sedated patients ⁽¹¹⁾.

These reports confirm the experience reported in this paper, which noted that among the obstacles that need to

be addressed through continuing education, is the difficulty of implementing the sedation scale.

■ FINAL CONSIDERATIONS

Implementation of systematic evaluation by nurses with clinical recording of standardized indicators enables more studies on the subject, that can be used to display the results of the work process, the subsequent processing, their initiatives in daily life. The limitation of our study was the difficulty of nurses in the applying the Richmond Agitation-Sedation Scale, used to assess the level of consciousness during the *delirium* screening with the CAM-ICU, which was resolved with an increase in the use and the scale applicability. The training concerning the issue contributes to nurses' body of knowledge favoring health care with better results.

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Received: 06.06.2016

Approved: 02.06.2017