Nursing diagnosis risk for bleeding as an indicator of quality of care for patient safety

Diagnóstico de enfermagem risco de sangramento como indicador de qualidade assistencial à segurança de pacientes

Diagnóstico de enfermería riesgo de sangrado como indicador de calidad asistencial de la seguridad de pacientes

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ABSTRACT

Objective: To describe the implantation of a care quality indicator associated to the nursing diagnosis of patients at high risk of bleeding, based on the alarming results of prothrombin time (PT), partially activated thromboplastin time (aPTT) and platelets.

Methods: Retrospective experience report of multidisciplinary actions developed in a university hospital. The stages of the study involved team meetings, search for effective communication strategies and creation of a new indicator of quality of care.

Results: The indicator was called "Compliance of Nursing Diagnosis Risk for bleeding", monitored monthly since June 2016. The technical file includes the characteristics and attributes of the indicator. Based on the analyzes of the indicator, action plans are established for its qualification.

Conclusion: The implementation of the quality of care indicator associated to the nursing diagnosis improved the communication process, the monitoring and the nursing care to patients at risk of bleeding.

Keywords: Nursing. Nursing diagnosis. Quality indicators, health care. Patient safety.

RESUMO

Objetivo: Descrever a implantação de um indicador de qualidade assistencial associado ao diagnóstico de enfermagem de pacientes com alto risco de sangramento, com base nos resultados alarmantes de tempo de protombina (TP), tempo de tromboplastina parcialmente ativada (TTPa) e plaquetas.

Métodos: Relato de experiência retrospectivo de ações multidisciplinares desenvolvidas em um hospital universitário. As etapas do estudo envolveram reuniões de equipes, busca de estratégias de comunicação efetiva e criação de um novo indicador de qualidade assistencial.

Resultados: O indicador foi denominado "Conformidade do Diagnóstico de Enfermagem Risco de Sangramento", monitorado mensalmente desde junho de 2016. A ficha técnica contempla as características e atributos do indicador. Com base nas suas análises são estabelecidos planos de ações para sua qualificação.

Conclusão: A implantação do indicador de qualidade assistencial associado ao diagnóstico de enfermagem aprimorou o processo de comunicação, monitoramento e cuidado de enfermagem a pacientes com risco de sangramento.

Palavras-chave: Enfermagem. Diagnóstico de enfermagem. Indicadores de qualidade em assistência à saúde. Segurança do paciente.

RESUMEN

Objetivo: Describir la implementación de un indicador de calidad asistencial asociado al diagnóstico de enfermería de pacientes con alto riesgo de sangrado, con base en los resultados alarmantes de tiempo de protombina (Tp), tiempo de tromboplastina parcialmente activada (TTPa) y plaquetas.

Método: Relato de experiencia retrospectiva de acciones multidisciplinares desarrolladas en un hospital universitario. Las etapas del estudio involucraron reuniones de equipos, búsqueda de estrategias de comunicación efectiva y creación de un nuevo indicador de calidad asistencial.

Resultados: El indicador se denominó "Conformidad del Diagnóstico de Enfermería Riesgo de Sangrado", y se monitoreó mensualmente desde junio de 2016. La ficha técnica contempla las características y atributos del indicador. Con base en los análisis del indicador se establecen planes de acción para su cualificación.

Conclusión: La implementación del indicador de calidad asistencial asociado al diagnóstico de enfermería mejoró el proceso de comunicación, el monitoreo y el cuidado de enfermería a pacientes con riesgo de sangrado.

Palabras clave: Enfermería. Diagnóstico de enfermería. Indicadores de calidad de la atención de salud. Seguridad del paciente.

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■ INTRODUCTION

Patient safety is a strategic issue in the world and an important agenda of the World Health Organization (WHO), which has acted as a global leader in this issue, disseminating knowledge and innovation to reduce to an acceptable minimum the risk of unnecessary harm associated with the care of Cheers. It is estimated that 421 million hospitalizations occur worldwide annually, and approximately 42.7 million adverse events occur in patients during these hospitalizations[1].

It is commonly reported that inpatients experience damage that could have been avoided with safety actions. Recent research on hospital adverse events, with 25 studies in 27 countries, showed a median of 10% (2.9 - 21.9%) of patients affected by at least one adverse event, with a median of 7.3% (0.6 - 30%) of fatal events and 51.2% (34.3 - 83%) preventable. These data confirm estimates that one-tenth of hospitalizations include adverse events, half of which are preventable[2].

Recognizing the magnitude of the issue of patient safety and concerned to reduce the problem of unsafe care, WHO launched the World Alliance for Patient Safety in 2004, proposing interventions that have also been used by the Joint Commission International (JCI). Thus, the International Patient Safety Goals (IPSG) were established, which are: identify patients correctly; improve effective communication; improve the safety of high-alert medications; ensure safe surgery; reduce the risk of health care-associated infections; and reduce the risk of patient harm resulting from falls[3].

In order to implement IPSG and patient safety standards, health services need strategies that will improve their work processes. One of these strategies is the use of quality of care indicators, which are units of measurement used as a guide to plan, monitor and evaluate the quality of care and activities of a service[4]. The information produced by them is important for managers to set goals and direct attention to expected results, strengthening patient confidence and encouraging professionals to the health safety culture[4-5].

Among the main types of quality indicators are the environment, structure, processes, results and the derivatives of sentinel events. All of them must possess attributes of validity, sensitivity, specificity, simplicity, objectivity and low cost, so that they can achieve their main objective, which is to evaluate the quantity and quality of what is performed in the institution[4]. The indicators need to have a well-defined description and justification name for their use, information source, sample, analysis formula, measurement frequency and target, as well as a responsible one. Also, they should be associated with the institutional perspective of monitoring, critical analysis and action plan for continuous improvement[4,6].

The quality management of nursing care should have as focus the patient and their safety[5], and it is in this logic that the importance of associating elements of the stages of the nursing process with the indicators of quality of care[7]. In addition, standardized nursing languages such as NANDA *International* (NANDA-I)[8] can be important driving axes, both for the construction and management of an indicator of quality of care.

NANDA-I presents the nursing diagnosis (ND) Risk for bleeding, which identifies the patient's susceptibility to this condition as a result of a disease or treatment regimen[8], which may generate adverse events at different levels of severity. This clinical situation is relatively common in hospitalized patients and can be monitored, most of the time, by means of laboratory analysis, which can support a quality indicator capable of monitoring and preventing sentinel events[4].

The aim of this article is to describe the implementation of an indicator of quality of care associated to the nursing diagnosis of patients at high risk of bleeding, based on the alarming results of prothrombin time (PT), partially activated thromboplastin time (aPTT) and platelets.

■ METHODS

Retrospective experience of actions to implement an effective communication process, monitored by an indicator of quality of care, in a Brazilian university hospital, from June 2016 to August 2018.

The creation of the indicator occurred from a sentinel event[4] of patients with cerebral hemorrhage after falling to the ground. The actions for its development involved a multidisciplinary team with nurses, doctors and biochemists, the Patient Safety Center (NSP), the Laboratory Diagnostic Service and the Nursing Process Commission of the institution, with a view to seeking effective communication strategies. Reference literature in the area[4,6], NANDA-I[8], as well as the international accreditation standards of JCI[3] were used. Data Sheets Shared by *Google drive* began to generate information for the new quality of care indicator to be monitored monthly to promote the safety of patients at risk of bleeding.

The parameters used to trigger the notification of the indicator were defined by the Laboratory Committee, which are: PT (> 120 seconds), aPTT (> 150 seconds) and platelets (< 20,000 in adult and < 100,000 in newborn)[9].

The ethical aspects of this report have been respected, maintaining the anonymity of institutional information and using only those that are already in the public domain[10].

■ RESULTS

The root cause analysis of the sentinel event of a patient who presented cerebral hemorrhage after falling to the ground caused a discussion between the NSP of the institution and the care and management teams. Thus, it was verified the necessity of strategies of security barriers, in order to avoid the repetition of this type of aggravation.

It was found that the patient was at high risk for bleeding related to thrombocytopenia, which information was not known to all the care team responsible for the patient, since the reason for hospitalization had another etiology and the alarming examination report had only been notified to the medical team, according to the institutional routine of the time.

From this, in multidisciplinary team meetings, the communication of alarming results of exams involving the risk of bleeding was redesigned, involving the nurse of the patient's hospitalization unit, in the search for effective communication strategies. The transmission of alarming result information to bleeding, detected by the laboratory professional, which until then was passed on only to the doctor requesting the examination, started to include the communication also for the nurse of the patient's hospitalization unit, as another strategy of safety. This process, based on the institution's effective communication policy and plan, involves the need for the recipient of the information to write the transmitted result and then re-read it to the transmitter, ensuring a complete understanding of the content informed.

The second strategy, in order to signal and alert the nursing staff that the patient is at risk, was the attribution of the ND Risk for bleeding in the electronic health record (EHR), plus the nursing prescription of the bleeding prevention care, which are visualized and executed both by the nurse and by the nursing technician.

As a result of this process, the operational quality indicator of care called "Conformity of Nursing Diagnosis Risk for Bleeding" was devised, implemented in June 2016. The same is based on the adhesion index of the attribution of the ND Risk for bleeding and its registration in the electronic health record of the patient within 24 hours after telephone communication of the alarming result to the nurse of the unit.

The data for the indicator composition is collected from a worksheet in *Google Drive*, called "Communicating Control - Patient with Bleeding Risk", and shared between the Laboratory Diagnostic Service and Nursing Process Commission, which is responsible for monitoring and analyzing the data. Daily, the laboratory team notes on the worksheet the patients who had alarming results and the Nursing Process Commission team checks which patients are at risk. Afterwards, in consultation with the electronic health record, it checks if the nurse established the ND Risk for bleeding and prescribed preventive nursing care.

The technical file of the indicator includes its name, description, scope, justification and methodology for data collection and compilation, which includes the target to be reached and the formula for its calculation. The formula consists of the number of ND Risk for bleeding established by the nurses of the units after reporting the alarming result of the examination done by the laboratory, divided by the total number of releases in the period and multiplied by 100. The numerator and denominator are extracted from the worksheet shared between the Laboratory Diagnostic Service and Nursing Process Commission.

The monitoring of the indicator is monthly, since June 2016, presenting a rate between 50% and 79% of conformity. To improve this index, in order to reach the goal that is 95%, other actions have been implemented: training of the laboratory and nursing teams, sensitization meetings for the importance of the indicator with nursing heads, as well as educational reinforcement to the nurse whenever it is identified that a patient with alarming results did not have the risk of established bleeding and no preventive care prescribed in their medical records.

The recommended care involves patient and family counseling about bleeding risk, monitoring of signs and symptoms of active bleeding, and measures to prevent falls, which can lead to severe trauma and, consequently, bleeding of various types. The educational actions for the unit nurse contribute to the fact that all patients at risk of bleeding have in their electronic health records the referred ND with the preventive care prescribed, since the monitoring of the worksheet is daily, which allows to act while the patient is still finds boarding school. However, to calculate the indicator, the establishment of the late ND does not count positively.

■ DISCUSSION

Root cause analysis of serious adverse events is a practice in the field institution of this study a few years ago. However, this was the first time that a sentinel event analysis resulted in a new institutional quality indicator, as a safety strategy for patients, changing care practice. It is worth noting the relevance of this, because this is the first Brazilian study that, based on the literature on standards of care quality indicators, used an ND described in an internationally recognized taxonomy[8], as a driving axis.

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Studies report the use of nursing classification systems for other management data such as human resource planning[11] and classification of patient dependency levels[12]. However, studies that have used them as a basis for quality of care indicators are not known, considering that they are important instruments of the advanced nursing process[13], even if this path has already been pointed to[14].

Nursing classification systems have been used in several countries and point to benefits in qualifying patient care[13,15]. However, they are still fragile in the presentation of evidence, demonstrating that it is necessary to expand its use and knowledge in clinical practice and nursing management. In turn, it is known that the indicators of quality of care are extremely relevant for the monitoring and evaluation of the effectiveness of the actions that involve the care processes[4] and therefore in the continuous improvement of patient safety[3], where nursing plays a relevant role because it is, most of the time, with patients.

Thus, it is inferred that studies such as this one, that intertwine the nursing process and the monitoring of care quality by an indicator, can contribute to the nursing use and qualify the records of the elements of its practice, such as the NDs and the nursing prescription, in order to produce evidence and reduce aggravating factors, increasing health safety as recommended by the WHO[1].

Together with this, the actions reported here are in line with what is advocated by the IPSG, specifically to the goal "Improve effective of communication"[3], which involves enhance the transmission of important information among the multidisciplinary team to promote quality and safety of care.

Finally, it should be noted that the Risk Management Committee that is part of the NSP, responsible for analyzing adverse events in the institution, did not receive new notifications of events like those that drove the creation of the indicator, demonstrating the effectiveness of the action plan for patients with high risk of bleeding.

■ CONCLUSION

This study allowed us to conclude that the implementation of a process aimed at the safety of patients at high risk for bleeding, using as a strategy an indicator of quality of care with referential and driving axis in ND Risk for bleeding from NANDA-I adequately monitors patients and favors the implementation of measures to prevent unwanted events. The periodic analysis of the indicator has provided important information for new action plans that in improving safety barriers and in the quality of patient care at the institution.

NANDA-I proved to be a strong alliance with patient safety practices, supporting the construction of the quality of care indicator, leading to adequate nursing care for patients at risk of bleeding. Because this is an innovative proposal, this result offers an important contribution to teaching, research and assistance.

As a limitation of the study, it is the fact that it was carried out in a single institution, and there are no evaluative parameters of other realities, which demonstrates the need for new investigations in different care settings.

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