Patient safety nucleus: the pathway in a general hospital

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ABSTRACT
Objective: To describe the experience of implementing the patient safety nucleus and the strategies developed to ensure safer care.
Method: Experience report on the implementation of the nucleus and strategies for patient safety in a hospital in the south of Brazil, from 2009 to 2017.
Results: The concern with patient safety was made official in 2009 with the creation of a specific service for risk management and in 2015 it was named the patient safety nucleus. Eight strategies were implemented in order to disseminate the patient safety policy.
Conclusion: An improvement was observed in the processes related to patient safety in the institution. Top management support and leadership engagement were key to this journey.
Keywords: Patient safety. Hospitals. Culture. Patients.

RESUMO
Objetivo: Descrever a experiência da implantação do núcleo de segurança do paciente e as estratégias desenvolvidas para garantir uma assistência mais segura.
Método: Relato de experiência da implantação do núcleo e das estratégias para segurança do paciente em um hospital no sul do Brasil, de 2009 a 2017.
Resultados: A preocupação com a segurança do paciente foi oficializada em 2009 com a criação de um serviço específico para gestão dos riscos assistenciais e em 2015 foi nomeado o núcleo de segurança do paciente. Oito estratégias foram implantadas visando disseminar a política de segurança do paciente.
Conclusão: Foi observado um avanço na melhoria dos processos relacionados a segurança do paciente na instituição. Apoio da alta direção e engajamento das lideranças foram fundamentais nesta caminhada.

RESUMEN
Objetivo: Describir la experiencia de la implantación del núcleo de seguridad del paciente y las estrategias desarrolladas para garantizar una asistencia más segura.
Método: Relato de experiencia de la implantación del núcleo y de las estrategias para la seguridad del paciente en un hospital en el sur de Brasil, en el periodo de 2009 a 2017.
Resultados: La preocupación por la seguridad del paciente fue oficializada en 2009 con la creación de un servicio específico para la gestión de los riesgos asistenciales, y en 2015 se nombró el núcleo de seguridad del paciente. Se implantaron ocho estrategias para diseminar la política de seguridad del paciente.
Conclusión: Se observó un avance en la mejora de los procesos relacionados con la seguridad del paciente en la institución. El apoyo de la alta dirección y el compromiso de los líderes fueron fundamentales en este trayecto.
\section*{INTRODUCTION}

Patient safety is a serious public health problem. The damages resulting from patient care have significant implications for morbidity, mortality and quality of life, in addition to negatively affect the image of both care institutions and health professionals\(^{[1]}\).

Despite great advances since the publication of the report "To Err is Human: Building a Safer Health System"\(^{[2]}\) in specific and problematic areas, such as hospital infections\(^{[3]}\), the work to provide safer care progressed more slowly than what has been predicted, and the health system continues to operate with a low degree of reliability, especially in developing countries\(^{[4,5]}\).

An estimate of the care and economic impacts of adverse events in Brazil has shown that 1,377,243 hospitalized patients per year were victims of at least one incident, between 104,187 and 434,112 deaths would be associated to these conditions and the additional health cost would be between R$ 5.19 billion and R$ 15.57 billion\(^{[6]}\).

Since 2013, when the Ministry of Health established the National Patient Safety Program (PNSP – "Programa Nacional de Segurança do Paciente"), the implementation of the Patient Safety Nuclei (NSP – "Núcleos de Segurança do Paciente") became mandatory in Brazilian health institutions, as a strategy to modify the scenario of insecurity and waste in health\(^{[7,8]}\). The NSP is responsible for the elaboration of the Patient Safety Plan, thus demonstrating the commitment and institutional planning in systematizing practices that may bring greater risks to patients\(^{[9]}\).

In hospital institutions, establishing the NSP and implementing actions to ensure patient safety is extremely complex. Limitation of financial resources, the fragile culture of patient safety, blame on professionals for the error, and lack of knowledge about how to implement these actions are some of the factors that influence the success and development of the NSP in Brazil.

Given the above, this article aims at describing the experience of a hospital in the implementation of its NSP and the strategies developed to ensure safer care. Its relevance lies in sharing this challenge, assisting the health services in the planning and execution of legal regulations for patient safety.

\section*{METHOD}

It is an experience report about the implementation of the NSP and the strategies for patient safety, which integrate the description of the hospital context where the thesis data were collected\(^{[10]}\). The scenario was a large private general hospital (320 beds) in the south of Brazil, which has an average of 14,000 hospitalizations, 26,500 surgical procedures (including endoscopic ones), 55,000 urgency and emergency care, and 160,000 outpatient appointments yearly. The staff board is composed by 1,700 hired professionals and 800 accredited doctors.

The process of implementation of the NSP and the strategies related in this study occurred in the period between 2009 and 2017 and involved professionals both from the care area and from the technical - administrative support.

The hospital consent was given for this report, being consulted and analyzed institutional documents, protocols, indicators and information from situations experienced by the authors on the pathway to the implementation of the NSP and strategies for patient safety.

\section*{RESULTS AND DISCUSSION}

The institution declares its commitment with Patient Safety through a Policy described in 2013 and as a Strategic Planning goal since 2012. The NSP was named in 2015, consisting of a multidisciplinary team composed by nurses, doctors, pharmacist, nutritionist, physiotherapist, and quality analyst, with the aim of disseminating the Patient Safety Policy at the institution.

Before naming the PSN, the Epidemiology and Risk Management Service (SEGER – "Serviço de Epidemiologia e Gerenciamento de Riscos") was created in 2009, with the mission of “To ensure the patient safety patient through risk management involved in the care, technical and administrative processes, implementing the culture for patient safety and instituting practices of excellence”. It is an independent service, which has a nurse with exclusive dedication and a pharmacist with partial dedication to operate the patient safety actions. Still in 2009, the Risk Management Committee (COGER – “Comissão de Gerenciamento de Riscos”) was instituted with the aim of managing other risks of the organization: occupational, environmental, of information, clinical engineering, juridical, and of image.

The SEGER, COGER and NSP operate in an integrated level and they are schematically represented in the institutional organization chart according to figure 1.

Although mandatory, in 6,805 hospitals in the country, only 3,001 (44%) have NSP formally nominated and registered at ANVISA\(^{[11]}\). The NSPs operation is compulsory, and it is up to the health surveillance agencies to supervise the regulations in force and the non-structuring of the NSP constitutes a sanitary infraction\(^{[7]}\).
A study that aimed to know the situation of reference hospitals in Mato Grosso do Sul regarding the use of norms and protocols for patient safety showed that even with NSP implanted, protocols were not incorporated into the work processes, teams were not constituted and the education of professionals did not trigger changes in the care provision\(^{(11)}\).

In the search for improvements in care, the first patient safety strategies were defined by SEGER in 2009 and updated after the NSP nomination in 2015. In compliance with legal requirements\(^{(6-7)}\), eight strategies were implemented up to 2017 (figure 2).

The punitive culture is present in hospital institutions\(^{(12)}\). Overcoming this barrier requires time, support from top management, strengthened leadership, training and capacity building, besides a strong safety program disseminated in the organization. In the search for the Patient Safety Culture, five actions were instituted from 2009 to 2017 (chart 1). The six Patient Safety Protocols recommended by the National Patient Safety Program (PNSP, in Brazilian Portuguese)\(^{(6)}\) were gradually deployed from 2013 to 2016. Aiming at quality, a default template was set up for each protocol development and a professional was chosen as responsible for its preparation, indicators management and training of professionals.
Besides the Security Protocols, the management of Clinical and Care Protocols is the responsibility of the Patient Safety Center (NSP, in Brazilian Portuguese) and the SEGER: SEPSIS, Cerebrovascular accident (CVA), Thoracic Back Pain, Venous Thromboembolism (VTE), Quick Response Team, Vascular Access Management, Prevention of Surgical and Urinary Tract Infection, Safety in Transitions of Care and Safe Mobilization. Each protocol has a professional responsible for its preparation, reviewing and indicators monitoring.

Joining the ANVISA Sentinel Network was one of the first strategies defined by SEGER, and in 2013 Anvisa was officially admitted as a collaborating hospital of the Network. The Patient Safety Indicators monitored by SEGER since 2009 are: the number of reported incidents, the incidence of adverse events, and falls. The monthly average in 2017 was 250 reported incidents, 6.5% adverse events, and 1.8 falls per 1,000 patient-days. In addition to these, each healthcare sector has specific indicators, defined by SEGER and the manager of the area. SEGER is responsible for tabulating the information, and the area manager is responsible for the critical analysis and implementation of improvement actions.

The Healthcare Risks Map consists of a table that describes the risk, its causes and consequences as well as the preventive and corrective actions. Each healthcare sector has a matrix, developed by the area manager and their team in 2015, and updated when a new risk is identified or every two years.

With the aim of capillarizing the patient safety actions, Technical Groups (CCIH, Skin Care Committee, Fall Prevention, Safe Drug Practices, Vascular Catheters, Transfusion Committee and Multiprofessional Nutrition Therapy Team) disseminate patient safety actions in line with NSP and SEGER. The group is responsible for the elaboration of protocols, routines, technical opinions, institutional training and management of relevant incidents.

The Incidents Management is one of the main strategies developed. The notification is made to SEGER via computerized system, e-mail, telephone contact, intranet or manual form, which may be anonymous. Over the years there has been a considerable increase in the number of notifications, demonstrating a maturation of the organizational culture. SEGER classifies the incident into risk circumstance, almost error, incident without data, or adverse event and proceed to the investigation stage.

Falls, transfusion reactions, and care-related infections are investigated by the Fall Prevention Group, Transfusion Committee, and CCIH, respectively. The other incidents are investigated according to degree of damage: moderate and serious events are NSP’s responsibility and the risks circumstances, almost error, incidents without damage, or light damage are managed by the area leaders. A standard instrument is used and the research tool used is the Ishikawa Diagram. In compliance with the ministerial recommendations, the incidents are reported to NOTIVISA. It should be highlighted that of the 3,001 Brazilian institu-

<table>
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<th>Action</th>
<th>Development</th>
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<tr>
<td>Measuring the perception of the patient safety culture</td>
<td>The first measurement was carried out in 2017 and, from this one on, the periodicity is biennial by applying the Brazilian version of the HSOPSC (Hospital Survey on Patient Safety Culture) questionnaire.</td>
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<td>Continuing Education Program</td>
<td>In the integration program for the new employee, since 2009 one hour is assigned to SEGER for the submission of the patient Safety Goals. From 2017 on, a monthly training about patient safety is carried out to employees.</td>
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<td>Leaders for Safety</td>
<td>It is about a multidisciplinary group, composed of the care and administrative leaders who gather weekly, since 2015, to discuss and implement improvement actions related to patient safety. Strengthened leaderships are the key point for implementing the patient safety culture.</td>
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<td>Monthly discussion forum</td>
<td>It is a monthly meeting established in 2009 with the presence of senior managers, clinical staff and leaders, where an event is reported, its possible causes are presented and corrective/preventive action plans are suggested.</td>
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<td>Scientific production</td>
<td>Experience reports, free themes, research and internal journeys are stimulated aiming at the dissemination of knowledge and implementation of the patient safety culture.</td>
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Chart 1- Actions for the Patient Safety Culture development
Source: Epidemiology and Risk Management Service Archives
tions with a registered NSP, only 1,118 notified at least one incident to ANVISA\textsuperscript{10}.

After analysis, action plans are prepared using the SW2H methodology\textsuperscript{19}. The incidents are discussed weekly in an NSP regular meeting and managing them is a major challenge, as well as an essential condition in the search for the patient safety culture.

Throughout these years, difficulties have been experienced mainly in the sense of breaking the paradigm of punishment for a fair culture and developing actions that would effectively develop the leadership of the organization and engage the healthcare body. In spite of this, the pathway taken so far has shown progress in the improvement of the processes and in the involvement of the people.

\section*{FINAL CONSIDERATIONS}

We share our experience with the intention of encouraging the health services to take the pathway of safety, providing safer care to patients as well as to professionals and to the institution itself. The challenges for healthcare establishments in Brazil are huge and, from our experience, the support of top management and the engagement of the leaderships were essential. The understanding that safety problems are systemic and the participation of managers in the discussion of adverse events and incidents, as well as investments for healthcare improvements, have shown to teams the institutional importance that safety has.

The study has as limitation to be a report of the hospital area, however, it can serve as an inspiration for primary care and diagnostic clinics to take the pathway of patient safety.

We reiterate the importance of structuring the NSP not only to meet regulatory requirements, but as an effective strategy to raise awareness about the theme and contribute to the construction of the patient safety culture, as recommended by the PNSP.

\section*{REFERENCES}


