

Assistance indicators after implementation of patient safety center in a teaching hospital

Indicadores de assistência após implantação de núcleo de segurança do paciente em um hospital de ensino

Indicadores de atención tras la implementación del centro de seguridad del paciente en el hospital docente

RESUMO

OBJETIVO: Analisar indicadores de assistência à saúde após implantação do núcleo de segurança do paciente. **MÉTODO:** Estudo retrospectivo, analítico, quantitativo, documental realizado em um Hospital Estadual de ensino e pesquisa na cidade de Teresina Piauí. **RESULTADOS:** Na dimensão identificação correta do paciente houve variação entre 92 e 100% entre sua implantação e implementação; taxa de falha na assinatura do checklist por categoria profissional, que apontou o profissional anestesiológico com média de 33%, seguido pelo médico cirurgião, 24,66%; e índice de adesão à higienização das mãos por categoria profissional, que apontou a classe médica com menor taxa de adesão, 19,85%. **CONCLUSÃO:** Observou-se sensível melhoria de indicadores após treinamentos e busca ativa diária. A falta de controle contínuo aliada a subnotificação comprometem as informações. Nota-se a importância destes setores estratégicos para a melhoria da assistência, bem como treinamentos e sistemas de notificação.

DESCRIPTORES: Indicadores de saúde; Avaliação da Qualidade dos Cuidados de Saúde; Segurança do Paciente; Controle de risco; Educação em Saúde.

ABSTRACT

OBJECTIVE: Analyzer of health care indicators after implantation of the patient safety nucleus. **METHOD:** Retrospective, analytical, documentary study carried out in a state hospital in Teresina and research in the city of Teresina Piauí. **RESULTS:** Correct patient identification occurred between 92 and 100% between implantation and implementation; checklist surgery failure rate by professional category, 3% of the anesthesiologist's signature with the media followed by the physician, 24.66%; and adherence to a qualification of hands by professional category, which is a medical class with the lowest adherence rate, 19.85%. **CONCLUSION:** Observe the optimized improvement of indicators after training and active search. The lack of continuous control integrated with an underreporting compromising the information. It is noted the importance of these sectors for the improvement of care, as well as training and notification systems

DESCRIPTORS: Health indicators; Assessment of the Quality of Health Care; Patient safety; Risk control; Health education.

RESUMEN

OBJETIVO: Analizador de indicadores asistenciales tras la implantación del núcleo de seguridad del paciente. **MÉTODO:** Estudio retrospectivo, analítico, documental, realizado en un hospital estatal de Teresina e investigación en la ciudad de Teresina Piauí. **RESULTADOS:** La identificación correcta del paciente ocurrió entre el 92 y el 100% entre la implantación y la implementación; tasa de fracaso de la cirugía de lista de verificación por categoría profesional, 3% de la firma del anesitiólogo con los medios seguidos por el médico, 24,66%; y la adherencia a una calificación de manos por categoría profesional, que es la clase médica con la tasa de adherencia más baja, 19,85%. **CONCLUSIÓN:** Observar la mejora optimizada de indicadores tras entrenamiento y búsqueda activa. La falta de control continuo integrado con un subregistro comprometiendo la información. Se destaca la importancia de estos sectores para la mejora de la atención, así como la formación y los sistemas de notificación.

DESCRIPTORES: Indicadores de salud; Evaluación de la Calidad de la Atención en Salud; Seguridad del paciente; control de riesgo; Educación para la salud

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Lidyane Rodrigues Oliveira Santos

Possui graduação em Enfermagem pela Universidade Federal do Piauí (2011). Doutora em Enfermagem pelo Programa de Pós Graduação em Enfermagem da UFPI. Mestre em Enfermagem pelo Programa de Pós Graduação em Enfermagem da UFPI. Atuou como Preceptora de Estágio na Faculdade Santo Agostinho-FSA. Professora do Instituto Camillo Filho(ICF).
ORCID: 0000-0002-4954-5584

Solange Cristina Ferreira de Queiroz

Enfermeira. Residente do programa de Residência Profissional em Saúde- Enfermagem Obstétrica UFPI/MDER
ORCID: 0000-0002-1716-0110

Valdeane Silva Santos

Técnica em Enfermagem-COREN PI; 001.205.847 - Acadêmica em Enfermagem; Coordenadora discente da Liga Acadêmica de Enfermagem em Unidade de Terapia Intensiva- LAEUTI na Faculdade Estácio de Teresina; bolsista Programa de Iniciação Científica (PIBIC)-ESTÁCIO DE TERESINA
ORCID: 0000-0003-3221-5367

Maria Tamires Alves Ferreira

Possui graduação em Enfermagem pela Universidade Federal do Piauí (2009), Especialista em Terapia Intensiva pela SOBRATI e Mestrado em Enfermagem - Universidade Federal do Piauí (2015). Atualmente é plantonista da Fundação Municipal de Saúde de Teresina, docente na graduação na Faculdades Estácio de Teresina e professora de pós graduação.
ORCID: 0000-0001-7822-9575

Bruna de Abreu Sepúveda Reis

Professora de enfermagem da Faculdade Estácio de Sá, Teresina. Mestre em Saúde da Mulher pela Universidade Federal do Piauí (UFPI); Enfermeira Obstetra pela Universidade Federal do Piauí- UFPI (2012). Instrutora GentleBirth pelo instituto Gentle-Birth (Equipe Brasil). Graduação em Enfermagem pela Faculdade de Saúde, Ciências Humanas e Tecnológicas do Piauí (2009).
ORCID: 0000-0002-3751-7674

Adriana Rodrigues Alves de Sousa

Enfermeira graduada na Faculdade Integral Diferencial - FACID no ano de 2010.1. Especialista em Estomaterapia na Universidade Estadual do Ceará - UECE. Mestre em Ciências e Saúde pela Universidade Federal do Piauí - UFPI. Professora Auxiliar I da Faculdade Estácio de Teresina. Enfermeira Estomaterapeuta da Convatec- Brasil. Atuante na docência do ensino superior, na educação de pessoas que vivem com estomias de eliminação e no tratamento de feridas.
ORCID: 0000-0003-0646-4124

INTRODUCTION

The quality of care in health services is measured through indicators defined by the World Health Organization (WHO) as measures or synthesis that measure a health characteristic in a population, through primary data that result in indicators for analysis and verification of relevant health aspects, these are fundamental for decision-making of actions to improve care quality. Considering the management instruments that the path to excellence in care offers a way in which the activity of health professionals verifies a certain reality and evaluates what happens with the path, the efficiency with patients and the processes related to organizational results. These are fundamental for decision-making of actions to improve the quality of care.^{1,2}

Data point to alarming numbers of deaths resulting from adverse health events. It is estimated that approximately 400,000 patients die annually as a result of preventable adverse events (AEs) and between two and four million events have serious consequences for the patient's health, but do not lead to death. A study carried out in 58

hospitals in Latin America, between 2007 and 2009 with 11,379 patients, showed that 1,191 had at least one adverse event related to care, causing disability in 28%, 6% were associated with patient death. The causes identified in the Latin American study were related to hospital infections (37.13%), therapeutic and diagnostic procedures (28.5%), general care (13.4%), medication administration (8.32%) diagnosis (6.15%) and 6.5% of events were not specified.^{3,4}

In the last decade, these indicators have become more relevant for organizations, due to the intense concern with patient safety, since it is a topic widely discussed in institutions globally. This aspect gained more consistency when, in 2004, the World Health Organization (WHO) created the Global Alliance for Patient Safety, aiming to organize the concepts and definitions of patient safety by proposing measures to reduce risks and adverse events, there are alarming numbers regarding errors related to health care, published in the North American report in 1999 "To err is human: building a safer health system" from the Institute of Medicine (IOM), which pointed out in its results, occurrence of iatrogenic

events in more than 3% of the medical records analyzed and between 44 and 98 thousand patient deaths per year in the United States of America (USA), which, for the most part, could be avoided through preventive measures.^{3,5}

Since then, several actions have been taken to promote patient safety and improve the quality of care. Among them, in 2013, the creation of the National Patient Safety Program (PNSP - Programa Nacional de Segurança do Paciente) stands out, which sets goals for prevention, control of hospital infection, and qualification of health care in all health establishments in the national territory, through the implementation of protocols, patient safety centers and notification of adverse events.

Among them, the following stand out: hand hygiene; prescribing safety, medication administration; patient identification; fall prevention, pressure injury and safe surgery. These are instruments to build a safe care practice and are mandatory components of patient safety plans in these establishments.⁶

Based on the mandatory establishment of Patient Safety Centers in health services, institutions improve their services through

the implementation of strategic sectors to control adverse events and risk management in the hospital environment. In this way, the professional who manages these sectors, especially the nurse, must have a holistic view by combining sectors such as: waste center, continuing education, patient safety center and risk management, with a view to diagnosing and preventing diseases. This analysis is necessary as an element of the daily work in health, in order to allow the identification of weaknesses and visualization of opportunities for improvement.

Thus, considering that studies that analyze indicators of strategic sectors in services are of paramount relevance, with the purpose of identifying changes in the quality of care, the study aims to analyze the indicators of the quality of health care from the implementation of the patient safety center in a teaching hospital.

METHOD

This was a retrospective, document-analytic, quantitative study carried out at the patient safety center at the State Teaching and Research Hospital in Teresina-PI. The hospital has 99 beds and is a reference in clinical/surgical care, mainly orthopedic, urological, gynecological, oral and maxillo-facial surgeries and general surgeries, with an average of around six thousand surgeries per year. The unit also offers outpatient care with consultations in various specialties, laboratory tests and imaging tests.

Strategic Planning started in 2017, but

only in 2019 did the patient safety center become independent with the supervision of two nurses exclusively dedicated to operationalizing its actions. In this way, the consolidated data for the study focused on the period from January to December 2019, as it is the year with the most complete and reliable information. Data collection took place in January and February 2020 at the patient safety center of the aforementioned hospital, based on the monthly reports of the indicators measured and consolidated in the sector.

The inclusion criteria were: data related to the monthly health care quality indicators measured and consolidated from January to December 2019. As exclusion criteria: those were incomplete or illegible data from indicators or that did not achieve the objectives of the study. The indicators measured were: rate of patients using a legible wristband and adherence by post (patient identification), rate of failure to sign the Checklist by professional category and adherence to hand hygiene by professional category.

Data were tabulated and analyzed by double typing into Microsoft Excel spreadsheets. The research followed the precepts established in the STROBE checklist and resolution 466/2012 and was initiated after approval by the Research Ethics Committee with CEP of the Federal Institute of Education, Science and Technology of Piauí with certificate number of presentation for ethical review under CAAE: 19130819.10000.9207, conducted in ac-

cordance with the ethical standards required by the National Health Council.

RESULTS

The data collected point to improvements in the care indicators regarding the security dimension in the correct identification of the patient, as shown in table 1. Regarding the correct use of wristbands, a significant advance in the annual average of adherence of 97.35% was identified.

Table 02 corresponds to failures in the signature of surgical checklist by professional category. Among the professional classes, the following are listed: surgeon, anesthesiologist, nurse, surgical and circulating scrub nurse. In this study, among the professional classes analyzed, the anesthesiologist stands out with a general average of 33% of failure to sign the surgical checklist, followed by the surgeon with an average of 24.66%, as shown in Table 2.

According to table 03, which depicts adherence to hand hygiene by category, five categories of professionals were analyzed: stretcher bearers, nursing technicians, physiotherapists, nurses and doctors. The indicator of adherence to hand hygiene showed that the professional nurse has a higher average adherence, with about 35.5%, and with lower adherence of the medical professional, 16.2%, when considering the professional category, the stretcher-bearer also indicated a low adherence rate with 10%.

DISCUSSION

Table 1 - Rate of patients using a legible wristband and adherence per unit. Teresina, Piauí, Brazil, 2020

POSTS	JAN	MAR	MAY	AUG	OCT	NOV	DEZ
Post 1	96%	96%	96%	95%	100%	100%	100%
Post 2	92%	94%	92%	96%	100%	100%	100%
Post 3	96%	100%	100%	90%	100%	100%	100%
General	94%	95%	94%	100%	100%	100%	100%

Source: Direct Survey (2020)

Table 2 – Checklist subscription failure rate by professional category. Teresina, Piauí, Brazil, 2020

SPECIALTY	JAN	MAR	AUG	OCT	NOV	DEZ
Surgeon	23%	22%	25%	26%	26%	26%
Anesthesiologist	25%	24%	40%	36%	49%	46%
Nurse	17%	18%	13%	21%	15%	3%
Surgical Instrumentator	32%	30%	15%	12%	7%	14%
Circulating nurse	3%	6%	7%	5%	3%	11%

Source: Direct Survey (2020)

Table 3 Adherence to hand hygiene by professional category. Teresina, Piauí, Brazil, 2020

SPECIALTY	JAN	MAR	MAY	AUG	OUT	NOV	DEZ	MEAN
Nursing Technician	32%	13%	13%	32%	29%	29%	26%	24,85
Nurse	31%	18%	8%	54%	55%	37%	46%	35,5
Physical therapist	29%	50%	37%	40%	21%	39%	3%	31,2
Doctor	22%	5%	0%	15%	30%	28%	14%	16,2
Stretcher bearer	16%	0%	0%	2%	38%	3%	11%	10

Source: Direct Survey (2020)

The indicators evaluated are essential for a safe environment in care. Goals and care protocols help focus this action. Sectors such as Patient Safety Centers, Risk Management, Permanent Education Center and Health Waste Management are sectors for the management of health actions that guarantee adequate quality of care. The indicators evaluated are essential for a safe environment in care. Goals and care protocols help focus this action. Sectors such as Patient Safety Centers, Risk Management, Permanent Education Center and Health Waste Management are sectors for the management of health actions that guarantee adequate quality of care. Safety culture defined by the Agency for Healthcare Research and Quality

(AHRQ) as the product of values, attitudes, perceptions, skills and behavior patterns of groups and individuals, when installed in services, it facilitates understanding and contributes to perceptions of the role of each individual involved in the stages of the strategies implemented, which favors the measurement of results and indication of factors to achieve the proposed objectives.⁶

Correct patient identification is among the easiest international safety goals to implement. Considered low cost and easy to accept because equipment is not needed for its use, it becomes the basis for the realization of the other goals proposed by the security nucleus. Its adherence is essential given that it can compromise care if the patient is not correctly identified, which

includes the absence of erasures or legibility.

A study carried out in Rio Grande do Sul with 385 patients that aimed to evaluate the use of the identification bracelet in hospitalized patients showed that 83.9% of the patients had correct identification and the main nonconformities found in the identification bracelets were incomplete names, different record numbers, data illegibility, and integrity issues.⁷ Patient identification is a necessary component of safety and fundamental to ensuring planned care. It becomes of paramount importance mainly for the safe administration of drugs and prevention of failures in homonymous patients. With crucial purposes of safely determining the legitimacy of the recipient of the procedure.

re and ensuring that the procedure to be performed is what the patient needs, this first step is not given due importance in practice, which is sometimes neglected. A study highlights that, although in its totality, 98% of the hospitals developed effective policies with these guidelines, the percentage (23%) that reported difficulties in the implementation and implementation between patients and staff is still considerable. It is observed that its correct use associated with the definition of standardization by colors are effective resources in combating incalculable errors that incorrect identification can cause.⁷

In another study carried out with 137 patients in a cardiac-intensive unit of a university hospital, it was observed that the presence of the identification bracelet occurred in 100% of the patients, however, 26% had non-conformities. Also, the survey shows that 61% of professionals did not use the wristband to confirm identification at the time of performing the procedure and 90% of patients were not instructed on the reason and importance of using the wristband. It is noted in the studies the concern with the sensitization of the multiprofessional team as a crucial factor for the fulfillment of these goals.⁸

Another indicator measurement parameter created by the WHO is the surgery checklist. Used in three moments: entry (before anesthetic induction), time out or pause (before the incision) and exit (before the patient leaves the operating room) this feature was implemented as a surgical safety goal and aims to minimize the occurrence of adverse events during the intervention. For this indicator, effective team communication is crucial in this strategic sector of the hospital environment, considered critical in terms of its potential for contamination, for the control and reduction of errors and consequent infections. Also, its execution involves patient care, confirmation and correct marking of the surgery site, as well as review of medical records and exams, forecast and provision of necessary equipment.⁹

Research confirms that the correct completion of the surgical checklist in its en-

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tirety significantly reduces the risk of adverse events from failures in health care, however, a cultural change with the use of new tools is still necessary, which indicates that management needs to be instigated in a way that demonstrates improvements.⁸

In care practice, this tool has not always contributed to better communication, however, it provides more safety to the procedure. In addition, professionals are more sensitive to patient safety issues and express a favorable opinion regarding the application of the surgical checklist, as well as its implementation in health services. The WHO suggests that the checklist should be performed by the nurse, however, it can be performed by another health professional duly qualified for this purpose and involved with the proposed surgical procedure.⁹

Regarding hand hygiene, this measure is low cost and a fundamental pillar for infection control and, in turn, represents one of the major causes of morbidity and mortality, especially in immunocompromised patients. However, this, in addition to being necessary, must be done correctly, and for that, ANVISA has established a standard for its correct execution and also highlights when it should be performed: before and after patient contact, after the risk of exposure to biological hazards and after contact with areas close to the patient, even if there is no contact with him.^{10,11}

Due to the intense interactions of the hands with the environment, through the contact between professionals, articles, surfaces and patients, the recommended technique is based on studies that point to the places on the skin with the greatest storage of microorganisms, in order to avoid horizontal microbial transmission. In this way, it is important to promote measures that encourage the practice of hand hygiene by all who provide services in the health area, since the damage caused by their negligence also impacts on high costs by prolonging the period of hospitalization of the patient, due to adverse events related to poor care.^{10,12}

Strategic sectors such as patient safety and

risk management centers are fundamental gains in building this culture, as they work to improve practices through continuing education, with a view to changing the safety culture of services. These do not use punitive measures in the conduct of the process, but with strategic goals and within the reality of the units. However, in this research, failures were observed in these sectors regarding the absence of data in sequential order of months and years, which made a more in-depth and inferential analysis of the data difficult. This

absence is justified by those responsible due to the recent implementation of the system.

Limitations

Access to information prior to the period collected and since the beginning of the implementation of the patient safety core made it impossible to carry out a more robust analysis of the information.

CONCLUSION

A significant improvement in indicators

was observed after training and daily active search. The lack of continuous control combined with underreporting compromises the information. Note the importance of strategic sectors for the improvement of care, as well as training and notification systems.

The study will serve as a subsidy for diagnosis and implementation of more targeted actions for health education with a view to favoring a sensible improvement of indicators and consequent quality of health care.

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