Assessment of the safe practice of use and administration of medicines in a hospital: under the audit approach

Avaliação da prática segura do uso e administração dos medicamentos em um hospital público: sob o enfoque da auditoria

Evaluación de la práctica segura de uso y administración de medicamentos en un hospital público: desde la perspectiva de la auditoría

RESUMO

Objetivo: Apresentar possíveis inconformidades pesquisadas e analisadas nos registros das prescrições medicas e registros de enfermagem dos pacientes internados na UTI, quanto o uso, prescrição e administração dos medicamentos. Métodos: foram analisados as prescrições médicas e registros de enfermagem sobre o uso, prescrição e administração seguras dos medicamentos, com base em um dos eixos da Política Nacional de Segurança do Paciente e Indicadores do Instituto para as Práticas Seguras no Uso de Medicamentos, utilizando-se de instrumentos para a coleta de dados durante o período de 13 de novembro a 12 de dezembro de 2019, após apresentação e aceitação do TCLE, após ser submetida e aprovada do comitê de ética de pesquisa. Resultados: Foram obtidas 67, sendo identificar inconformidades em alguns itens analisados mediante a auditoria realizada e comparação com a legislação especifica. Conclusão: foi possível concluir que com base na auditoria é possível visualizar erros relacionados à assistência medica e de enfermagem, mesmo considerando o ambiente do estudo se caracterizar por uma UTI.

DESCRITORES: Registros médicos, Auditoria Clínica, Qualidade da assistência à saúde, Registro de enfermagem, Segurança do Paciente.

ABSTRACT

Objective: To present possible nonconformities researched and analyzed in the records of medical prescriptions and nursing records of patients admitted to the ICU, regarding the use, prescription, and administration of medicines. Methods: medical prescriptions and nursing records on the safe use, prescription, and administration of medicines were analyzed, based on one of the axes of the National Patient Safety Policy and Indicators of the Institute for Safe Practices in the Use of Medicines, using- instruments for data collection during the period from November 13 to December 12, 2019, after submission and acceptance of the informed consent, after being submitted and approved by the research ethics committee. Results: 67 were obtained, being to identify nonconformities in some items analyzed through the audit carried out and comparison with the specific legislation. Conclusion: it was possible to conclude that, based on the audit, it is possible to visualize errors related to medical and nursing care, even considering that the study environment is characterized by an ICU.

DESCRIPTORS: Medical records, Clinical Audit, Quality of health care, Nursing record, Patient Safety.

RESUMEN

Objetivo: Presentar posibles no conformidades investigadas y analizadas en los registros de prescripciones médicas y registros de enfermería de pacientes ingresados en la UCI, sobre el uso, prescripción y administración de medicamentos. Método: Se analizaron las prescripciones médicas y los registros de enfermería sobre el uso, prescripción y administración segura de medicamentos, con base en uno de los ejes de la Política Nacional de Seguridad del Paciente e Indicadores del Instituto de Prácticas Seguras en el Uso de Medicamentos, utilizando instrumentos para la recolección de datos durante el período comprendido entre el 13 de noviembre y el 12 de diciembre de 2019, previa presentación y aceptación del ICF, después de ser sometido y aprobado por el comité de ética de la investigación. Resultados: se obtuvieron 67, identificando no conformidades en algunos ítems analizados a través de la auditoría realizada y comparación con la legislación específica. Conclusión: fue posible concluir que a partir de la auditoría es posible visualizar errores relacionados a los cuidados médicos y de enfermería, incluso considerando el ambiente de estudio caracterizado por una UCI.

DESCRIPTORES: Historias clínicas, Auditoría clínica, Calidad de la asistencia sanitaria, Historia clínica de enfermería, Seguridad del paciente.

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INTRODUCTION

Since Health services have been considering the qualification and standardization of health care in an attempt to reduce as much as possible damage or incidents that could compromise the patient's health or lead to death. [1] Care planning is carried out based on references mediated by scientific research that guarantee the effectiveness and proof of specific methods, in addition to the standardization of care in health services. Patient care requires the constant pursuit of good practices, based on evidence, for the qualification and continuous improvement of care and assistance to the hospitalized individual. [2]

In order to prevent events that may aggravate or compromise the patient's life, the National Patient Safety Program (PNSP), established by Ordinance No. 529, of April 1st, 2013, was created to ensure adequate conditions for the provision of health services. [3] The analysis and verification of certain activities in health, considering the surveillance and evaluation in the provision of services, whether carried out in a timely or continuous manner, can be considered for the evaluation of the patient's health care.

Audits are ways of instrumentalizing the inspection and monitoring of health care services, used as a means of stimulating quality assurance and effectiveness in the provision of services, with the aim of presenting and analyzing data that facilitate the effective reduction of negative indicators on the problems related to the prescription and administration of medicines in hospitals, for example. [4]

The problem is justified when there is a need to intervene in the quality of health care services, considering the practice of drug administration, an action that requires attention, as well as technical and practical understanding of the professionals involved. [5]

Based on the above, the theory can be generated that every activity related to health care needs standardization, aiming at the effectiveness and quality of care provided to healthy or unhealthy individuals, regardless of its instance and agreement for the provision of its services. On this hypothetical basis, one can try to elucidate what evidence or nonconformities can be found in the audit of the medical records of patients hospitalized in the ICU of a public hospital, located in the city of Natal/RN, when related to records on safe practice in the use of medicines? The objective of this study is to present possible nonconformities researched and analyzed in the medical records of patients hospitalized in a public hospital, in the city of Natal, in the State of Rio Grande do Norte, verifying the use, prescription and administration of drugs in an Intensive Care Unit (ICU).

METHOD

The present study is characterized by being a field research, analogous to carrying out an Operational Audit, descriptive and quantitative, which according to the Ministry of Health [4], defines that one of its objectives is to evaluate the efficiency, effectiveness and effectiveness of health systems.

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Therefore, it was necessary to collect relevant information about the chosen institution, thus managing to estimate the population and type of expected sample, professionals involved, services offered and bed availability. In addition to references and legislation governing assistance activities. Enabling the partial conclusion of the analytical phase of the audit, becoming a description of the needs to be audited.

Subsequently, the operative phase was carried out, carried out in loco at the hospital unit itself, inserting itself according to the methods described in the scope of this project. In turn, the operative phase is characterized as an exploratory descriptive study, of a quantitative nature where we used the document analysis formatted under audit of the medical records of patients admitted and hospitalized in the ICU of the chosen Hospital, by collecting information regarding the medical prescription and administration of medications performed and recorded by the nursing team, according to the daily routine of the sector.

To collect the information, an instrument was used, elaborated according to the recommendations of one of the axes of the National Patient Safety Program (PNSP-Programa Nacional de Segurança do Paciente) and according to the Safety Protocol in Prescription, Use and Administration of Medicines, launched by the Ministry of Health. As well as the Indicators for the evaluation on the subject, prepared by the Institute for Safe Practices in the Use of Medicines (ISMP - Instituto para Práticas Seguras no Uso de Medicamentos).

It was possible to check the items mentioned in the instrument, comparing them with medical prescriptions and nursing records and notes, according to the daily routine of the sector, contained in the patient's medical record of the chosen institution.

The instrument used was elaborated with pertinent questions for the evaluation of the prescription, safe use and administration of the medicines, allowing clear and objective answers, with checklist markings, containing "yes" or "no" answers, based on the established questions, for the possibility of quantification and calculation of results and data analysis.

It is worth noting that prior to using the instrument, the Free and Informed Consent Form (FICF) was applied to conscious or responsible patients (represented during the day shift at the selected institution, during visiting hours previously established by the institution. Making it possible to clarify the details of the research, as well as guidance on protecting and guaranteeing the rights of participants.

Therefore, after hospitalization of the patients in the ICU, the researchers approached their guardians to present the study proposal and obtain the signature of the informed consent form. Guided by the list of the daily hospitalization census, to control and check the stay of patients in the ICU and correlate it with their respective records.

Each instrument was listed referencing a sample, specified by the prescription and daily nursing records. The number of hospitalized patients was not considered, but the professionals' records, which provided a sample variation during the period of data collection. A number was also added to the sample, based on each date of registration performed.

Medical records of patients admitted to the ICU during the period in which the research was carried out were included. Patients undergoing intensive care were selected according to the inclusion and exclusion criteria. These, as inclusion criteria, to be at least eighteen years old, regardless of their admission diagnosis and to be in accordance with the terms clarified in the TCLE.

Among the exclusion criteria, we included staying less than 48 hours in cases of death or discharge from the sector, patients younger than 18 years, or those who refused to participate in the research or who did not agree to sign the TCLE. Completion of the checklist was carried out at the hospital institution itself, in an appropriate place, emphasizing the collection one day after the production of the records, as it did not interrupt the routine of care activities.

The collection was carried out by the researchers who were the authors of the study, during the period between November 13 and December 12, 2019. After submission and approval by the ethics committee, substantiated and approved with CAAE: 19348319.9.0000.5537, subsidizing legal ethical aspects of the involvement of human beings in scientific research.

The institution chosen has its activities operating for outpatient and hospital care of high and medium complexity. With clinical and intensive hospitalization services, regulation, emergency, Auxiliary Diagnostic and Therapy Service (SADT - Serviço Auxiliar de Diagnóstico e Terapia) and health surveillance, all insured by the SUS, serving the population by spontaneous demand. In addition to having support services with its own pharmacy classified as a hospital pharmacy and Patient Records Service (SPP- Serviço de Prontuário do Paciente). The analysis was based merely on statistical recognition, with the somatization of responses, through nonconformities. It is possible to elucidate through the researched and studied references, associating the pairing between the presented data and the theory that governs the theme.

At the same time, the quantitative data were deposited, analyzed, stored and tabulated with the help of Microsoft Excel 2010. Both for the evaluation and presentation of the samples collected and made available, as for the identification of indicators, on compliance or non-compliance with the legislation relevant to the study.

RESULTS AND DISCUSSIONS

It is noteworthy that during the days intended for data collection, from November 13th to December 12th, 2019, there was a reduction in the incidence of hospitalizations in the sector. It was also noted a reduced number of occupied beds, justified by the insufficient number of human resources and inputs for patient monitoring.

Thus, the decrease in vacancy of beds, combined with the stoppage of doctors

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and nursing staff, reducing the minimum number of 30% of staff, after the start of the strike in the chosen institution. The strike lasted from the 2nd to the 20th of December, and consequently increased the number of blocked beds in the ICU to three.

4.1 Findings in medical prescriptions

For analysis purposes, it was possible to observe the compliant and non-compliant items, inserted in the medical prescriptions of the patients hospitalized in the ICU of the hospital where the study took place. Of the total sample, 65 (97.0%) analyzed prescriptions were made digitally, with the addition of some items written by hand, when necessary, by the physician on duty, day laborer or specialist/reviewer. Only 02 (2.99%) prescriptions were completely handwritten.

There are no controversies regarding the use of prescriptions being written by hand, however, it is necessary that there is an easy understanding in the reading, for the safety of medication administration and to facilitate communication between the multidisciplinary team. It is the duty of the prescriber to make any changes or additions to the patient's prescription in a legible manner. The number of 42 (64.6%) prescriptions presented handwritten additions. Of these, only 03 (7.14%) were not legible when reading. Being considered a nonconformity according to the Code of Ethics of the medical professional. [6,7,8]

The health institution must guide its professionals on awareness and accountability regarding the productions on their records. In this case, when the prescriber identifies problems with his handwriting, he should be advised to prefer digital means to reduce too many errors. [6,7,8]

In the findings on patient identification in the prescription, only 07 (10.4%) prescriptions with the full names of hospitalized patients were observed, among the 67 prescriptions analyzed. The others had abbreviations with initials or the absence of a surname. The completeness of the patient's name is considered important to differentiate an individual from another with the same or similar name or surname. Being its main form of social identification and another means of distinguishing patients with similar names. [6,7,8]

As for the item related to inserting identification of the patient's date of birth, only 03 (4.48%) prescriptions presented this record. There is a need to establish the date of birth as a differential, when one more item is needed for individual distinction and to avoid patient identification errors. [6,7,8]

The absence of patient identification is considered a non-compliance given the good practices established in the PNSP, guiding the axes of correct patient identification and safe use, prescription and administration of medication. [6,7,8] Regarding the identification of the prescriber, it was possible to raise the number of 65 (97.02%) of the prescriptions that had the stamp of the prescribing physician. Of these, 02 (3.08%) had the stamp registration illegibly, with the presence of flaws.

Of the total samples, only 02 (2.99%) prescriptions were not validated with the doctor's stamp or signature. Contradicting the recommendation of the Federal Council of Medicine, and presenting itself as non-compliant data, when the guidance for validating the prescription with the registration of the prescribing professional remains. Prescription without signature or stamp, may be considered as not revised on the date of its origin or invalidated. [6,7,8]

Analyzing the drug prescription, with the total of the 67 prescriptions evaluated, only 03 (4.48%) did not present the quantification of ampoules, pills and vials or pharmaceutical form to be administered. Considering a positive point, since there is a small number of prescriptions with this non-compliance.

Regarding the use and recommendation of diluents, 06 (8.96%) of the prescriptions had some medications without their description. There were also 05 (7.46%) prescriptions without the volume of their diluents. These, at the discretion of the nursing team, the volume/quantity that the medication will be diluted, as well as the type of diluent to be used. Thus allowing risks when wrong dilution, drug interaction between diluent and active principle or even drug instability, inactivating its functionality. As well as the contraindication to the desired and not described diluent, according to the comorbidity presented by the patient.

4.2 Findings in nursing records

In 67 medical prescriptions evaluated, it was observed that in 08 prescriptions, there was the presence of the stamp and the signature of the nurses, deducing that a revision of the prescription was made for the opening of the medication schedules by the professional himself. Thus, becoming responsible for double checking the prescription and medications to be administered. It should be noted that the other 59 prescriptions presented only the opening hours, without any identification of the person responsible for the act. [9,10,11,12]

The opening of medication schedules must be validated by the professional nurse who made it, using a stamp or signature in order to be standardized in the sector or institution, as it facilitates review of doubts regarding the schedule to be administered or, if necessary, corrected, through changes in the prescription, among other reasons. [9,10,11,12]

Of the evaluated prescriptions, 58 samples were fully checked by nursing professionals. In 09 of the prescriptions presented, it was possible to observe some findings about the routine checks in the sector, including the non-specificity of the presence or absence of the act.

During data collection, it was observed that among these 09 prescriptions, sometimes there were no records about the administration of medications. Thus, the schedule remained blank, with no record of the lack of medication at the institution or any other justification in the nursing records and notes. Resulting in doubt about the effectiveness of the record or the act of administering the drug, prevailing as the medication at the time not administered,

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configuring a break in the continuity of patient care or risk of overdose, when there is the possibility of the medication being administered again.[9,10,11,12]

About medication information not checked, not administered or calculated in nursing records. Of these, only 03 samples that were flagged in the prescription were informed in the nursing records as "missing medication in the institution's pharmacy". Considered as a valid justification, since there was some report about the non-administration of the drug with a calculated schedule.

About medication information not checked, not administered or calculated in nursing records. Of these, only 03 samples that were flagged in the prescription were informed in the nursing records as "missing medication in the institution's pharmacy".

Considered as a valid justification, since there was some report about the non-administration of the drug with a calculated schedule [9], presented by Resolution No. 564, of November 6th, 2017, suggests the ethical behavior of nursing professionals, citing as duties related to nursing records, articles numbers 35, 36, 38, 46.

CONCLUSION

The audit showed that, although relatively small numbers were obtained in relation to the expected sample, it enabled the observance that, even in an intensive care unit, where maximum care is required for the patient, data and numbers of important non-conformities can be presented, both in medical prescriptions and in nursing records.

In addition to generating indicators that support the visualization of possible care errors. They provide data that make it possible to devise strategies based on the existing problem for the formulation of improvements regarding the care provided and risk management.

The objective of the study was achieved when the presented results demonstrate inconsistencies regarding the use, prescription and administration of drugs referenced through protocols on drug management in patient safety.

It certifies that quality auditing provides an evaluator and supervisory means in health care, as well as it was possible to certify the hypothetical idea for the existence of standardization and standardization of medical prescriptions and nursing records, will be able to confirm and guarantee the continuity of safe care, quality of communication, professional support and cost reduction, ensuring efficiency, effectiveness and effectiveness, in the control of healthcare and benefits for the patient. Ensuring communication in the transition of care throughout the hospital unit, enabling the guarantee of good practices regarding the professionals' records on the use of medications in the ICU.

Therefore, also providing evidence of clinical data for changes in attitude and professional improvement, standardization of care activity, permeating the self-critical and ethical view of their obligations that govern each professional category, generating self-analysis about the audited object, in order to develop new plans and indicators about the care provided in the studied hospital unit.

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