



KNOWLEDGE OF THE NURSING TEAM ABOUT THE RIGHTS OF MEDICATION IN INTENSIVE CARE UNITS

CONHECIMENTO DA EQUIPE DE ENFERMAGEM ACERCA DOS CERTOS DA MEDICAÇÃO EM UNIDADES DE CUIDADOS INTENSIVOS

CONOCIMIENTO DEL EQUIPO DE ENFERMERÍA SOBRE LOS PRINCIPIOS DE MEDICACIÓN EN UNIDADES DE CUIDADOS INTENSIVOS

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ABSTRACT

Objective: to identify the knowledge of the nursing staff of the ICU of a university hospital about certain applied in the medication process. **Method:** descriptive exploratory study with a quantitative approach consisted of 29 nurses in the Intensive Care Unit of the University Hospital Onofre Lopes / HUOL located in Natal / RN between June 1 and October 31, 2011. The data were collected through non-participatory observation and interview. This study was a research project approved by the Research Ethics Committee, CAAE 0239.0.051.000-10. **Results:** most respondents (62,06%) has not an adequate knowledge of certain medication; 11 professionals (37,93%) committed time errors ; and four employees (13,79%) committed error in dosage. **Conclusion:** most of the nursing staff does not have the proper knowledge about certain medication, which may have generated in practice, the occurrence of errors. **Descriptors:** Medication Errors; Nursing; Patient Safety.

RESUMO

Objetivo: identificar o conhecimento da equipe de enfermagem das UTIs de um hospital universitário acerca dos certos aplicados no processo de medicação. **Método:** estudo descritivo-exploratório com abordagem quantitativa realizado com 29 profissionais de enfermagem nas Unidades de Terapia Intensiva do Hospital Universitário Onofre Lopes/HUOL localizado no município de Natal/RN entre 1° de junho e 31 de outubro de 2011. Os dados foram coletados por meio de observação não participativa e entrevista. O estudo teve o projeto de pesquisa aprovado pelo Comitê de Ética em Pesquisa, CAAE 0239.0.051.000-10. **Resultados:** a maioria dos entrevistados (62, 06%) não possui o conhecimento adequado acerca dos certos da medicação; 11 profissionais (37,93%) cometeram erros de horário; e quatro funcionários (13,79%) cometeram erro de dose. **Conclusão:** a maior parte da equipe de enfermagem não possui o conhecimento adequado acerca dos certos da medicação, o que pode ter gerado, na prática, a ocorrência de erros. **Descritores:** Erros de Medicação; Enfermagem; Segurança do Paciente.

RESUMEN

Objetivo: identificar el conocimiento del equipo de enfermería de las UTI de un hospital universitario acerca de los aciertos aplicados en el proceso de medicación. **Método:** estudio descriptivo-exploratorio con enfoque cuantitativo realizado con 29 profesionales de enfermería en las Unidades de Terapia Intensiva del Hospital Universitario Onofre Lopes/HUOL localizado en el municipio de Natal/RN entre 1° de junio y 31 de octubre de 2011. Los datos fueron recogidos por medio de observación no participativa y entrevista. El estudio tuvo el proyecto de investigación aprobado por el Comité de Ética en Investigación, CAAE 0239.0.051.000-10. **Resultados:** la mayoría de los entrevistados (62,06%) no posee el conocimiento adecuado acerca de los aciertos de la medicación; 11 profesionales (37,93%) cometieron errores de horario; y cuatro funcionarios (13,79%) cometieron error de dosis. **Conclusión:** la mayor parte del equipo de enfermería no posee el conocimiento adecuado acerca de los aciertos de la medicación, lo que puede haber generado, en la práctica, la ocurrencia de errores. **Descriptor:** Errores de Medicación; Enfermería; Seguridad del Paciente.

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INTRODUCTION

Drug therapy is one of the most widely used intervention practices during the provision of patient care, occupying a dominant place in the health system and treatment of diseases. It is estimated that 88% of patients seeking care related to health are prescribed medications.¹

To administer medications to patients in health institutions is a complex process that involves several interlinked and interdependent professionals from different fields of knowledge and steps.² Intensive Care Unit (ICU) is a sector of the hospital for the care of critically ill patients requiring complex and specialized care. Due to have a worse clinical condition and greater disease severity, patients in the ICU receive at least twice more medications than patients hospitalized in general, which increases their exposure to medication errors.³

To promote safe use of medicines and implement prevention strategies, medication errors can be defined as *"any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is under control of a health care professional, the patient or consumer."*^{4:4}

Such events may be related to professional practice, products, procedures and health care systems, including prescribing, reporting, labeling, packaging and nomenclature of the product; and composition, dispensing, distribution, administration, education, monitoring and use.⁴

Errors can occur at any stage of drug therapy. If there is damage, there is an adverse event, defined as injury suffered during the health care, causing secondary disease or worsening of the current situation of the patient. Since a response harmful unexpected and undesired related to the administration of a drug at doses normally used for prophylaxis, diagnosis and treatment is considered necessary to medication adverse event, differing error.⁵

Aiming to develop tools to support practitioners and institutions to handle errors in a systematic and consistent manner, the American Society of Health System Pharmacists (ASHP) in 1993 proposed a categorization of the types of medication errors, which ranks on: prescription; of omission; of time; drug delivery unauthorized; dose; presentation; preparation; administration; By use of deteriorated drugs; monitoring; because of patient compliance; and others.⁶

The occurrence of errors is linked to a chain of events within a poorly prepared and many factors can contribute to their achievement system. With regard to medication errors is related to multiple causes. Unsuitable physical environment, staff fatigue and stress, distraction, failure to communicate, work overload, inadequate professional training, noncompliance with rules, lack of protocols on the preparation and administration of drugs, illegible or incomplete requirements, improper operation of infusion pumps insufficient and inadequate for the patient and medicine, among other information.^{7:2}

The nursing staff is responsible for the preparation and administration of drugs, the last stage of the medication process. So it is the combination of routine and not perceived mistakes in the early stages of the process to these professionals. This fact also increases the responsibility of the nursing staff, because it is the last opportunity to intercept and prevent an error occurred in the early stages, becoming one of the last barriers to prevention.⁸

To avoid errors in medication administration, prevention strategies must be incorporated into nursing practice, such as: double-check medications, consultation on drug incompatibility system and the adoption of some system of medication.⁹

From the assumptions made, this study aims to identify the knowledge of the nursing staff of the ICU of a university hospital about certain applied in the medication process.

METHOD

Descriptive study with a quantitative approach, performed in the ICU of a university hospital in the city of Natal / RN, between June 1 and October 31, 2011.

The hospital is part of the integrated network of UFRN hospitals of the Ministry of Education, the institution classified as medium and high complexity of SUS hospital complex. There are, in the hospital, two intensive care units: the General, who has eight beds, an isolation, for the care of critically ill patients of various specialties; and Cardiac Surgery-Neurological, with four beds, serving patients submitted to cardiac, neurological and cardiac surgery patients without clinical focus of infection.

The population consisted of professional nursing staff (nurses, technicians and nursing assistants) active in ICUs, totaling forty professionals. The sample consisted of seven nurses and 22 nursing technicians, who agreed

to participate and it suited the inclusion criteria.

Exclusion criteria were: to work in the ICU, according to frustrate the planning of observation; being on maternity leave or vacation at the time of data collection. The inclusion criteria included: a member of staff acting in ICU nursing and working in direct care to inpatients.

Data collection occurred in two phases from June to October 2011. At first, we carried out a systematic and non-participatory observation of each of the subjects who agreed to participate, on days and times pre-determined according to the roster. The observation was guided by a structured questionnaire, which included the time of the beginning and end of the observation and execution of certain medication.

In the second step, the researcher conducted an interview through a semi-structured script, which was divided into a part of characterization and one with open questions on the topic. These were, according to availability and preference of the respondent and to better capture the speeches, a recorder with the permission of the participant was used.

The analysis occurred through descriptive statistics, so that initially built a bank of electronic data in Microsoft Office Excel spreadsheet application created and later tables with their absolute and relative frequencies.

The research project was approved by the Committee of Ethics in Research (CER) of

Federal University of Rio Grande do Norte / CEP / UFRN by Protocol No. 046/2011 and CAAE Number 0239.0.051.000-10, all participants signed term of free and informed consent /TCLE.

RESULTS AND DISCUSSION

About the listing of participating professionals, we have: 82.76% were females; 79.74% were adults aged between 24 and 40 years old; 58.34% were married; 31.04% were between eleven and fifteen years of graduates; and 37.94% had between five and nine years of professional experience in ICU.

Considering the importance of checking the knowledge of the nursing staff on appropriate steps in time to prepare and administer medications, the respondents were asked if they knew the right that should be applied in the medication process and could name them. To organize the answers in an understandable way between those professionals who held the knowledge about the right medication and those responses that could represent a deficiency of knowledge, it was necessary to group them into categories.

It was considered appropriate response that expressed that professionals know the five rights of medication and cited the same as not in proper order. In the inadequate category comprised those responses considered incomplete, in which professionals said they knew the right, but failed to mention them. The responses about knowledge about certain medication are presented in Table 1.

Table 1. Distribution of active nursing staff in the Intensive Care Unit of the University Hospital Onofre Lopes about their knowledge of certain medication.

Knowing the right medication	n	%
Adequated	10	34,48
Do Not adequated	18	62,06
Do Not know	1	3,46
Total	29	100

The safe conduct of drug therapy is a major concern and one related to the quality and safety of patient care overall problem, since it is one of the most widely used intervention practices during the provision of patient care, occupying a dominant place in the system health and treatment of diseases.¹⁰

During hospitalization, there are several diseases that can happen to the patient, so that the system-related medication has a prominent place. The consequence of this type of event to the patient may vary from the absence of damage to disability or death. The chance of a person dying from hospital medication error is three times larger than a car accident.¹¹

In 2002, data from the report released by the Institute of Medicine of the United States showed that about 7,000 Americans die annually from medication errors. Also it is estimated that each patient admitted to a hospital suffer 1.4 medication errors during their hospitalization and 1,000 prescriptions made 4.7 errors will be found. Per 1000 days of hospitalization will meet 311 errors and nineteen adverse drug events. In 5% of the prescriptions will be medication errors and 0.9% of these result in an adverse medication event.¹

It is noteworthy that, although commonplace, drug therapy is a complex process that involves several steps:

prescription; review and validation of the prescription; dispensation; preparation; administration; and monitoring the patient. With so many small steps in the chain formed between the prescription and the patient receiving the medication, there are many opportunities for that error happening.¹²

The nursing staff is at the tip of this chain, since it is responsible for the preparation and administration of medications. In this sense, he carries the responsibility of being the last opportunity to intercept an existing error in earlier stages of the process. Moreover, often undetected and errors occurring in the initial stages it is wrongly assigned.²

In order to detect errors in the early stages and avoid them at the time of preparation and administration of drugs, nursing makes use of a simple practice, the "right of the medication." Initially "five rights" were created and deployed (right patient, right drug, right dose, right time and right route), which are still the most widespread and common practice of health services.

However, due to changes in the health system, the model of "Nine rights", which included drug compatibility, guidance and

information to the patient, the right to refuse the medication and the correct annotation was created.¹¹

In the present study, we observed that the majority of respondents (62, 6%) has not an adequate knowledge of right medication, which can lead to greater errors in time to prepare and administer a drug. When there is the adoption of the "five rights" by the nursing staff, there is less likelihood of errors in drug administration.¹³

When confronted with this information *in situ* observations, we noticed that during the observation period, eleven professionals (37.93%) made errors of time, ranging from twenty minutes to an hour before or after the time of scheduling; and four employees (13.79%) committed error in doses (Figure 1). A study by Teixeira and Cassiani on the review of medication errors in a teaching hospital showed that of the 74 errors occurred 24.3% were dose errors and 22.9% of time errors (Figure 1).¹⁴



Figure 1. Distribution of the nursing staff of the ICU according to the occurrence of errors during the medication process

The occurrence of a higher number of time errors can be associated with delays in delivery of the doses by the pharmacy as well as their own nursing work, which has other duties besides medication administration.

Moreover, it was also found during observations that no nurse held preparation and administration of medications. Although it is known that this professional is responsible for the planning, preparation and administration of medications, the patient monitoring and may delegate certain procedures to other members of the nursing team under his supervision.¹¹ However, the accumulation of erroneous attributions and relationship between the number of patients and the number of nurses are factors that lead

to greater delegation of functions, including the administration of medications.¹⁵

In Brazil, studies show that activities involving drug therapy in health services are performed, mostly by technicians and nursing assistants under the supervision of nurses. Thus, it is extremely important that professionals are aware of the legal responsibilities that guide the implementation of this therapy in order to promote patient safety.¹⁶

As already mentioned, the completion of the drug treatment is not a simple task. Thus, it cannot run it in five, seven, eight or nine rights, but as many as are necessary for the realization of safe practice for patients.¹⁷

Guided by the medication system, as well as major errors and difficulties of each reality, tools must be created and incorporated into nursing practice to ensure safe and efficient practice for the patient.

CONCLUSION

The results show that most of the nursing staff does not have the proper knowledge about right medication, which may have generated, in practice, the occurrence of errors. This is because it was observed that more than half of the participating professionals committed faults related to the administration of medication during the development period of the study, the main errors of time and dose.

It is proposed that changes be made in the study hospital. It is needed to start with small steps, initially covering just a few steps of the process. All improvement requires change, but not all optimize results, because it should identify the changes that will result in improvement.

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