



THE WORK PROCESS OF A MEDICATION TEAM AT THE NEONATAL INTENSIVE CARE UNIT

O PROCESSO DE TRABALHO DE UM TIME DE MEDICAÇÃO NA UNIDADE DE TERAPIA INTENSIVA NEONATAL

PROCESO DE TRABAJO EN UN EQUIPO DE MEDICACIÓN EN LA UNIDAD NEONATAL DE TERAPIA INTENSIVA

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ABSTRACT

Objectives: to describe the work process of the medication team from the Neonatal Intensive Care Unit and to validate the practice of the medication team from the Neonatal Intensive Care Unit. **Methods:** this is a descriptive study by using the research-action method, determined by the following steps: literature survey for grounding the study; exploratory stage; research theme, group meetings, data collection, action plan and external disclosure. The research setting will be the Neonatal Intensive Care Unit from the *Hospital Universitário Pedro Ernesto* (HUPE-UERJ). The research subjects will be all nurses assigned at that sector, who compose the work staff of the medication team. The project was approved by the Ethics Research Committee, under CAAE nº 10209312500005259. **Expected results:** we hope to see an unveiling of the practice of medication team, by validating its work process. **Descriptors:** Patient Safety, Medication Systems; Medications; Neonatal Intensive Care.

RESUMO

Objetivos: descrever o processo de trabalho do time da medicação da Unidade de Terapia Intensiva Neonatal e validar a prática do time de medicação da Unidade de Terapia Intensiva Neonatal. **Método:** estudo descritivo utilizando o método da pesquisa-ação, determinada pelas seguintes etapas: levantamento bibliográfico para fundamentação do estudo; fase exploratória; tema da pesquisa; reuniões de grupo; coleta de dados; plano de ação e divulgação externa. O cenário da pesquisa será a Unidade de Terapia Intensiva Neonatal do Hospital Universitário Pedro Ernesto (HUPE-UERJ). Os sujeitos da pesquisa serão todos os enfermeiros lotados no referido setor, que compõem a equipe de trabalho do time de medicação. O projeto foi aprovado pelo Comitê de Ética em Pesquisa, sob CAAE nº 10209312500005259. **Resultados esperados:** desvelamento da prática do time de medicação, validando o seu processo de trabalho. **Descritores:** Segurança do Paciente; Sistemas de Medicação; Medicamentos; Terapia Intensiva Neonatal.

RESUMEN

Objetivos: describir el proceso de trabajo de un equipo de medicación de la Unidad Neonatal de Terapia Intensiva y validar la práctica del equipo de medicación de la misma. **Método:** estudio descriptivo utilizando el método de investigación-acción, determinada por las siguientes etapas: levantamiento bibliográfica para fundamentación del estudio; fase exploratoria; tema de la investigación; reuniones de grupo; reunión de datos; plan de acción y divulgación externa. El escenario de la investigación será la Unidad Neonatal de Terapia Intensiva del Hospital Universitario Pedro Ernesto (HUPE-UERJ). El universo de la investigación serán todos los enfermeros destinados al citado sector, que componen la plantilla del equipo de medicación. El proyecto se aprobó por el Comité de Ética en la Investigación, CAAE nº 102009312500005259. **Resultados esperados:** desvelamiento de la práctica del equipo de medicación, validando su proceso de trabajo. **Descritores:** Seguridad del Paciente; Sistemas de Medicación; Medicamentos; Terapia Intensiva Neonatal.

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INTRODUCTION

In the Intensive Care Unit Neonatal from the HUPE, only nurses are responsible for the preparation of medications, as well as their administration in central venous catheters, following the guidelines recommended by the National Health Surveillance Agency - *Agência Nacional de Vigilância Sanitária* (ANVISA) through the Resolution nº 45, which fosters the best practice in parenteral solutions in the healthcare services.¹

The nurse is responsible for the preparation, administration and prescription of nursing care in the use of parenteral solutions, being that the preparation phase may be individually conducted or in together with the pharmacist.²

Following this ANVISA normalization, every nurse is qualified for preparing medications. In the HUPE, initially, this practice was conducted by the on-duty nurse, according to a rotation shift. There was not a member exclusively intended for the performance of such a function in the staffs, as well as discussion groups aimed at improving the care quality during this process, although isolated training has occurred for this practice.

Nonetheless, with the observation that there were still mistakes in this process, it was possible to realize that the care and the quality throughout the drug therapy were not restricted only to the stage of medications prescription and administration; the medication system is broader and has details that should be worked to support all stages of the drug therapy, which is seen by many professionals as the main or only one of the whole process.

The patients from intensive care units are more vulnerable to adverse events and more susceptible to nosocomial infections. Such events deserve a detailed investigation, due to the required nursing care by the patient and the complexity of care provided in the above mentioned places.³

The backgrounds of the medication system, therefore, are lined by the teamwork, which transcends the stage of prescription and administration, including an ongoing work process that involves the building of work clinical protocols, discussions and awareness of the entire team. Accordingly, from May 2011, with a view to expanding and as an attempt to improve this process, for discussion and review of the medication system, it was formed a working group comprised of nurses, which was called "medication team".

This group consisted of: twenty on-duty nurses, who were exclusive for the preparation of medications, three nurses from the routine sector and the head of nursing from that sector, which occupies the position of coordinator of the group.

The nurses were selected by means of indication of the leadership and nurses who were leaders of the on-duty shift (nurses indicated by the leadership to lead the nursing group at the shift of 12 hours), by following criteria for effective participation in discussions concerning the medication system, involvement in the building of Standard Operating Procedures - *Procedimentos Operacionais Padrão* (POPs) of the sector and, mainly, by interest in composing this group.

When considering the reality of the unit, technology and available stuffs and equipment, medication team acts as a kind of "judge", based on the best practices and in the literature, by judging and making decisions related to the whole process of the drug therapy. The clinical practice of this group is mandatory, always guided by the legislation in force.

The medication team has objectives that guide its work, namely: promoting reviews, updatings, discussions and assessment of protocols ranging from the preparation to the administration of medications; developing and implementing, uniformly, new protocols for preparation and administration of medications in the sector; being reference in matters related to the preparation and administration of medications in the sector, for medical and nursing staffs, in discussions and decision-making processes related to the matter; monitoring the sector, the adverse events caused by the administration of medications; performing technical opinions related to the drug therapy, by evaluating stuffs and equipment of the unit, and the medication team's members are responsible for issuing opinions, whether for inclusion, exclusion and for the permanence of used products in the unit.

The Center of Disease Control and Prevention (CDC) in its guidelines for preventing catheter-related infections, recommends that intravenous therapy teams called "IV Team", specialized, are effective in reducing the incidence of catheter-related infections, and hazards and associated costs. Moreover, it still informs that the infection risk increases with the scarcity of specialized nursing staff.⁴

Organizations may be benefited when they hire a nurse specialized in infusion therapy. A service that carried out the deployment of the

team with three nurses had increased their demand and has outlined wide objectives to be followed by thereof.⁵

Furthermore, a portion of the demand of the intravenous therapy team is referring to the training, being that the nurses are the workforce of such a service, who will be responsible for providing a bundle of trainings for education and understanding, by ensuring that all treatment will be carried out with effectiveness and safety.⁵

During the first semester, after deployment of the medication team, monthly meetings were established to build and review the POPs and the routines, being that after the aforementioned semester, the group started to conduct meetings through specific issues arising from the everyday practice, which were related both to issues related to medication mistakes and to updating and review of the related procedures.

The working process of the medication team still does not have a standardization of its work process, with pre-established flowcharts. Although all group members have certain uniformity in the conduction of their activities, the way of performing most activities related to the drug therapy is a task of nurses who compose the team for every shift of 12 hours.

The standardization of stages/flows/priorities in the work process promotes the improvement of quality and progress of the service-related activities. During the nursing service, people have better performance of their duties with tools that drive the assistance, guides or standardized flows capable of driving the execution of a task, grounded on order and stability, to provide a better and faster operation of any service.⁶

With a view to analyzing the activities performed by the team in question, we have defined as a study object: **The work process of the medication team from the Neonatal Intensive Care Unit.**

OBJETIVES

- To describe the work process of the medication team from the Neonatal Intensive Care Unit;
- To validate the practice of the medication team from the Neonatal Intensive Care Unit.

METHODOLOGY

In this current study, the methodology to be adopted will be the qualitative, where data will be descriptive, and obtained from

the contact of the researcher with the investigated situation. The methodological strategy will be research-action, which is understood as the research conducted in close association with an action or with the resolution of a collective problem, so that the researchers and the participants representative of the situation or problem are involved in a cooperative and participatory way.⁷

The research-action is a method used by the participants and researchers themselves with a view to transforming and improving the practice, with the effective participation of the investigated group. Participants should be clarified about what they are doing and the reasons that led them to perform such an action.

In this current study, it will be necessary to recognize the work process of the medication team (research), which will be described by the author, unveiling its steps and details, in order to plan and implement interventions (action) in this process.

For organizing the research, the research-action method defines the following stages: exploratory, research theme, problem outline, theory location, data collection, and action planning.⁷

• Exploratory Stage

The chosen research setting is the Neonatal Intensive Care Unit of the perinatal nucleus from the *Hospital Universitário Pedro Ernesto* (HUPE); this is a public hospital of the state network, located in the north zone of the city of Rio de Janeiro, due to being the unit in which the investigated group - the medication team - is inserted.

The exploratory stage will be started at the next meeting of the medication team, where the project and the research objectives will be presented. The researcher will explain about the expectations and possible troubles reported by nurses who compose the medication team, which are related to the work process of the medication team.

• Research theme

The general theme of the research was previously defined, in view of the participation of the researcher in the group to be investigated, in this case, the medication team, by means of previously held discussions within the group at stake. Furthermore, the conduction of a previous literature survey has pointed out the lack of flows that describe the work process of the medication team, both in the literature and in the investigated unit. Thus, the work process of the medication team will be the research theme.

• Problem outline

Questionings about the problems that are related to the work process of the medication team will be taken to the group, including the emergence of eventual group proposals to solve them.

• Group Meetings

The meetings of the medication team occur regularly and whenever necessary, when there is a further routine to be implemented, reviewed or by a group demand.

In the research-action seminars, all the information brought to the group and possible interpretations are discussed.⁷

In this study, there will be an adaptation of the research-action seminars to the existing routine of meetings in the Neonatal Intensive Care Unit. The meetings scheduled by the group will be used for data collection and possible interventions and learning about the medication team.

• Observation Field, Sampling and Qualitative Representativeness

In this study, we will use the principle of intentionality, which prioritizes the qualitative aspects of the participants and does not consider all elements of the population, with values equivalent to the investigated problem.⁷

As the research object is the work process of the medication team in the NICU, the study subjects were previously delimited: nurses assigned at the Neonatal Intensive Care Unit, which compose the work staff of the medication team.

• Data Collection

The data collection will be divided into two steps:

The first step consists of the literature research, where we have conducted a review on the research theme and all its possible details in view of understanding the chosen theme; and the documentary research, which will be performed from the data collection and analysis, through the pursuit of documents produced by the team or during the group meetings.

The second step, which covers the field study, will be conducted through observation of the working process of the team (systematic participant), individual interviews through a semi-structured script that will be applied to the nursing leadership and nurses of the medication team, in order to gather information about the group.

We have designed a Free and Informed Consent Form (FICF) for application in a time prior to the interview moment, which will be

given to nurses, after reading and signing, being that these forms will be collected twenty four hours after the signing of the FICF.⁸

• Action Plan

The action matches to what is necessary to solve the problems. These solutions are dependent on the action field, and they may be educative, communicative, technical, political and cultural. Such actions can result in personal or collective implications.⁷

• External Disclosure

The work will be presented during a meeting of the group, in order to disclose the research to the participants, as well as there will be the elaboration of a scientific paper for publication and disclosure of this practice in the academic scope.

• Ethics Research Committee

This study, originated from the Master dissertation project in Maternal and Infant Healthcare from the *Universidade Federal Fluminense* (UFF), was sent to the Ethics Research Committee of the the Hospital Universitário Pedro Ernesto (HUPE), from the *Universidade Estadual do Rio de Janeiro* (UERJ), receiving approval by the above mentioned committee, under CAAE nº 10209312500005259.

EXPECTED RESULTS

This study aims at unveiling the practice of medication team, with the building and description of flowcharts that describe the creation and the work process of the medication team, validating the work process of the group at stake.

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