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Introductory Note



## Critical incidents in the process of medication in a neonatal unit: a descriptive study

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### ABSTRACT

This is a research project of the Academic Masters in the Sciences of Health Care, from Fluminense Federal University.

**Aim:** To observe the process of medication performed by the nursing team in the Neonatal Unit of Pedro Ernesto College Hospital.

**Aims:** To characterize the process of preparation and administration of medication on the part of the nursing team, before and after changes implemented by the management of the unit; to analyze the situations, behavior and consequences, both positive and negative, identified in the process, based on the reports of the professionals involved; to discuss the impact and implications of the changes implemented.

**Method:** This is a descriptive, qualitative research, using a Critical Incident Technique (CIT) approach. After the data collection, involving recorded, semi-structured interviews with nursing professionals, the interviews will be fully transcribed and then textually analyzed using ALCESTE software. The results can assist the creation of a work procedure in terms of the medication system, improving the assistance provided by nursing staff in any institution.

**Descriptors:** Nursing; Management; Task Performance and Analysis.

## PROBLEM-SITUATION AND ITS SIGNIFICANCE

The rate of premature births in the world is, on average, 12% in poor countries and 9% in most developed countries. This information is found in a survey published in 2012 by the World Health Organization (WHO). This report affirms that, on average, 15 million preterm babies are born each year in the world, of which 1.1 million will die due to causes linked to the prematurity<sup>(1)</sup>. Brazil has a premature birth rate of 9.2%, at the same level as developed countries such as Germany. The problem is that, in absolute numbers, it is still a significant number, as last year 279,300 babies were born before 37 weeks of pregnancy in Brazil, placing the country in the tenth position of the world rankings with regard to prematurity<sup>(1)</sup>. And the premature baby finishes the growth period in Neonatal Units, which should be an intrauterine development. In such units, multidisciplinary assistance of high complexity and high quality is the only strategy that can change the intrinsic characteristic of prematurity: the risk of complications and death of the infantile population. Prematurity is one of the election criteria for a newborn to be hospitalized in an Intensive Care Unit. Weight below 1,500 grams, hypoglycemia, respiratory failure, hypoxia, early sepsis, exposure to HIV, hyperbilirubinemia, metabolic imbalances, neonatal asphyxia, congenital malformations, and convulsions are pathologies that demand complex care and make up much of the reasons for bed usage in Neonatal Care Units. The specialized neonatology teams confront the difficulties and the prospect of death with a desire to provide top quality assistance. In order to help achieve this, this study aims to contribute to the discussion by evaluating the work process of a nursing team in a Neonatal Unit, using the Critical Incident Technique (CIT). According to John C. Flanagan,

the author who created the method, CIT consists of a set of proceedings aimed at collecting direct observations of human behavior, in order to facilitate a potential use of this observation to solve problems in the workplace<sup>(2)</sup>.

The process chosen for examination was medication, an activity of fundamental importance when the safety of the patient is concerned. Errors in medication generate iatrogenic complications and can harm the patient, the professionals involved and the health institution. In the daily life of hospital care, the nursing team deals with countless activities involving diversified caring tasks, and errors should not be ignored<sup>(3)</sup>. The phases studied in the process are the preparation and administration of drugs, recognized in the literature and in legislation as activities to be performed by nursing professionals. The authors of this study expect that, when performing the field research in order to analyze such a relevant work process, they will contribute to the development of safer caring practices.

## GUIDING QUESTIONS

How is the process of medication undertaken by the nursing team of the Neonatal Unit of Pedro Ernest College Hospital?

What were the changes introduced in the most recent review of this process?

From the point-of-view of nursing professionals, what are the positive and negative aspects of the process of medication that are currently adopted, that can interfere in the provision of a high quality caring service?

## AIMS

1. To characterize the process of preparation and administration of medication performed by

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- the nursing team, before and after the changes implemented by the area management;
2. To analyze situations, behavior and consequences, both positive and negative, identified in the preparation and administration of medication, based on reports collected from the nursing professionals involved;
  3. To discuss the impact and implications of the process of dealing with medication implemented in the Neonatal Unit of Pedro Ernesto College Hospital.

## METHOD

This is a descriptive research with a qualitative approach, using CIT. The data collection will be done in individual semi-structured interviews. The place of study is the Neonatal Unit of Pedro Ernesto College Hospital (HUPE/UERJ, in Portuguese). The interviewed subjects will be nursing professionals who have worked in the institution for some time before the introduction of changes in the process of medication, as the evaluation of the results of this change is the main goal of this study.

The possible sample is 109 people - the total number of assisting nursing professionals working in the unit based on a preparatory survey for this study. **Criteria of inclusion:** nursing professionals who have worked in the Neonatal Unit under consideration since the period prior to the implementation of new routines of preparation and administration of medication, in May 2011, working in assisting activities, and who have shown a desire to participate by providing written content. The sample will be randomized.

**Criteria of exclusion:** professionals on vacation or away from work for whatever reasons during the period of data collection, estimated to be three months long, starting in April 2013. After data collection, the information gathered will be analyzed using ALCESTE software. The categorization will be based on the separation of critical behavior, positive or negative, generated by the interviewees. We hope to acquire information to identify solutions to problematic situations in the process, whereby characterization will be structured in flowcharts built by the authors. The project was submitted and approved by the Ethics in Research Committee, under protocol 11187813.1.0000.5243UFF/2013, according to Brazilian standards.

## REFERENCES

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