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Evaluation of the administration process of gastrointestinal medicines in neonatology: a cross-sectional study

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ABSTRACT

Aim: To evaluate the process of administration of medicines by gastrointestinal catheters performed by Nursing in a Neonatal Unit. **Method:** Observational cross-sectional study, of quantitative approach, which will be performed through systematic observation of the work process during drug administration, with the aid of a structured script. The number of doses to be observed will compose the research sample, which was calculated through the formula used for cross-sectional studies of finite population, resulting in 150 observations. The performance analysis will occur with a cutoff point of 70%. **Expected results:** Due to the unprecedented nature of the research in the neonatal context, the knowledge of the actions carried out may allow the implementation of barriers in the possible flaws in the process, in light of the analyzed data.

Descriptors: Patient Safety; Medication Errors; Gastrointestinal Intubation; Neonatology; Nursing.

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INTRODUCTION

The issue of patient safety has been recognized as a problem for nearly 20 years. The general concept includes the detection of potential hazards and the prevention of errors. Thus, patient safety is the basis for risk prevention and fault minimization[1].

The discussion on the safe use of medicines is accessible in the literature. Although it is exercised around the sphere of several professionals, the stage of medication administration demands the competence of Nursing, which usually performs it as a routine activity[2].

In this context, the gastrointestinal catheter route appears in the literature with discussions regarding the safe use of medication. This route has unique characteristics and comprises a complex process that may favor errors, since the drugs produced for the oral route were not developed in appropriate formats for use in gastrointestinal catheters. Therefore, the performance of this activity is complicated for Nursing, which often performs it without criteria[2].

Failures in the administration of medicines by gastrointestinal catheters are described in different contexts. Discussions on the subject mainly involve adult patient care units or mixed units. New approaches are necessary, as there is no research involving exclusively the neonatal clientele.

The relevance of the study is due to the fact that the pharmaceutical industries do not evaluate the importance of the different forms of administration in their list of possibilities, which implies the adaptation of the drug in a way that is not always safe. Added to this fact, medication administered to neonatal clients requires safe processes.

AIM

To evaluate the process of administration of medicines by gastrointestinal catheters performed by Nursing in the Neonatal Unit of a teaching hospital in Mato Grosso do Sul.

METHOD

This is a cross-sectional, quantitative observational study to be carried out in the Neonatology Sector of a three-unit public hospital teaching institution: Neonatal Intensive Care Unit, and Conventional Neonatal Intermediate Care and Kangaroo Units.

Data will be collected during 2019. The population will consist of all nursing professionals assigned to the Unit, to whom the following inclusion criteria will be applied: time spent in the neonatal area equal to or greater than one year and having the usual assignment in a service schedule to administer medication. Those who are on vacation or leave during the data collection period will be excluded.

In order to obtain the monthly average of the number of doses of medication per gastrointestinal catheters administered by Nursing, an analysis of the Sector was performed. Thus, the number of doses to be observed by the formula used in cross-sectional studies of finite population was calculated, thus resulting in 150 observations.

The survey will consist of an interview with a structured instrument in order to characterize the socio-demographic profile of the population. Then there will be systematic observation in the passive position of the observer, with the aid of a structured script developed for this research, given the absence of a validated instrument.

The observation will be carried out by three researchers and will occur on different days of the week, in different shifts, for analysis and recording of the professionals' performance. The observations performed for pre-testing purposes will not be counted in the study.

The variables verified with respect to errors will be: professional category, shift, catheter characteristics, medication type, preparation technique, administration technique, and patient safety. For performance analysis, the rating "satisfactory" will be used if the result of the calculation is equal to or higher than 70% and "unsatisfactory" if it is below 70%[3]. The analysis of the results will be carried out by means of descriptive and inferential statistical categories and measures. Numerical data will be presented by mean ± standard deviation of the average and the categorical data by absolute and relative frequency, arranged in graphs and tables. The associations between two variables will be calculated by Fisher's Exact Test and between three variables by Chi-square Test, both with 5% significance level.

The research was approved by the Ethics Committee of the Federal University of Mato Grosso do Sul, through the opinion No. 3,002,202 of November 6, 2018. The ethical aspects recommended by Resolution no. 466/2012 will be respected.

EXPECTED RESULTS

The research aims to contribute new knowledge about the safe process of administering gastrointestinal catheter medication to neonates. Such knowledge may allow the implementation of barriers in the possible existing failures in drug administration in light of the analyzed data, which may support the implementation of a review of the work process of nursing in order to reduce risks.

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