



BEST PRACTICES APPLIED TO PATIENT SAFETY IN THE ADMINISTRATION OF MEDICINES

MELHORES PRÁTICAS APLICADAS À SEGURANÇA DO PACIENTE NA ADMINISTRAÇÃO DE MEDICAMENTOS

MEJORES PRÁCTICAS APLICADAS A LA SEGURIDAD DEL PACIENTE EN LA ADMINISTRACIÓN DE MEDICAMENTOS

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ABSTRACT

Objectives: to identify how the nursing team handles medication administration in low and medium complexity hospital admission units, to analyze the practice of medication administration by the nursing team in light of the best practices focused on patient's safety and to develop protocols directed to practice of medication administration as a subsidy to nursing teams. **Method:** translational research, quantitative approach, descriptive and exploratory typology subsidized by practice based on evidence, based on a University Hospital of Rio de Janeiro/RJ, Brazil and as participants the nursing professionals. The data will be produced through non-participant observation along with semi-structured interview. **Expected results:** the optimization of the work process in drug administration mediated by guiding and updated instruments incorporates qualified recommendations appropriate to the reality investigated, and essentially guarantees that the precepts aimed at patient safety are implemented and validated. **Descriptors:** Patient's Safety; Nursing; Administration of Medicinal Therapy.

RESUMO

Objetivos: identificar como processa a administração de medicamentos pela equipe de enfermagem nas unidades de internação hospitalar de baixa e média complexidade, analisar a prática de administração de medicamentos pela equipe de enfermagem a luz das melhores práticas voltadas para segurança do paciente e elaborar protocolos direcionados a prática de administração de medicamentos como subsídio as equipes de enfermagem. **Método:** pesquisa translacional, de abordagem quantitativa, tipologia descritiva e exploratória subsidiada pela prática baseada em evidência, tendo como cenário um Hospital Universitário do Rio de Janeiro/RJ, Brasil e como participantes os profissionais de enfermagem. Os dados serão produzidos por meio de observação não participante juntamente com entrevista semiestruturada. **Resultados esperados:** que a otimização do processo de trabalho na administração medicamentosa mediada por instrumentos norteadores e atualizados incorpore recomendações qualificadas e apropriadas à realidade investigada, e garanta essencialmente que os preceitos voltados para segurança do paciente sejam implementados e validados. **Descritores:** Segurança do Paciente; Enfermagem; Administração de Terapia Medicamentosa.

RESUMEN

Objetivos: identificar como procesa la administración de medicamentos por parte del personal de enfermería en unidades de hospitalización de complejidad baja y mediana, analizar la práctica de la administración de medicamentos por parte del personal de enfermería a la luz de las mejores prácticas relativas a la seguridad del paciente y desarrollar protocolos específicos a la práctica de la administración de medicamentos como apoyo para el personal de enfermería. **Método:** una investigación traslacional, de enfoque cuantitativo, de tipologia descriptiva y exploratoria subvencionada por la práctica basada en la evidencia, en el contexto de un hospital universitario de Río de Janeiro/RJ, Brasil, y como participantes los profesionales de enfermería. Los datos se produjeron a través de la observación no participante con la entrevista semi-estructurada. **Resultados esperados:** que la optimización del proceso de trabajo en la administración del fármaco mediada guía e instrumentos actualizados incorpore las recomendaciones cualificadas y adecuadas a la realidad investigada y garantiza esencialmente que los preceptos centrados en la seguridad del paciente sean implementados y validados. **Descriptor:** Seguridad del Paciente; Enfermería; Gestión de la Terapia con Medicamentos.

INTRODUÇÃO

In hospital environment patient's safety has generated worldwide debate and has received a number of interpretations, for example, that safety consists in reducing risk and unnecessary harm to the patient associated with health care to the least acceptable level. This refers to what is viable in the face of current knowledge, available resources and the context in which assistance was provided. Among available resources, drug use is one of the most commonly used; however, adverse events and drug-related errors are frequent in the hospital setting.¹

Among the various stages foreseen in the process involving the manipulation of medications, the nursing team is generally responsible for scheduling, preparing and administering medications. Drug administration is the final phase of the medication system and offers the last opportunity to avoid the error in the process. Studies have shown that 38% of errors occur during drug administration and only 2% of errors are intercepted, which calls us attention to the vulnerability of this phase of the process.²⁻³

In order for this phase of the drug process to be not so defenseless and for the professional to provide quality care, scientific knowledge is of vital importance. The multidisciplinary team, especially the nursing team, needs to know the process as a whole and how fragile it can be, so that they identify potential failures and prevent them from occurring. Thus, knowledge will be a strong ally of safe and quality care.⁴

Pharmacology is a very important field for the training of nurses and sometimes this knowledge is insufficient to subsidize professional practice. Since the nursing team is largely responsible for the follow-up of the patient's therapy, these professionals need specific academic training in the field of pharmacology.⁵

Another way to make care safer is to adopt professional practices based on protocols and clinical evidences. The protocolized practice follows a line established and standardized by protocols established in health institutions for the performance of procedures, which contributes to the organization of the work process and are strong allies in the decision-making process. However, protocols should only guide practice, since each case requires a different solution, and thus, the use of protocols cannot mechanize the work process, but somewhat assists it.⁶

In order for safety practices to be discussed and implemented, it is necessary for the leaders of the institutions to create a patient-oriented safety culture and to organize a multidisciplinary team to lead these discussions, seeking to analyze and evaluate each existing process, seeking improvements and incorporation of new technologies and evidence.¹

The use of techniques and technologies applied to health care can have a positive impact on the quality of care provided. It is well known that in health care it is more useful to define technology as tools in a general sense, applications of different knowledge, practices and strategies of construction or deconstruction of knowledge, care in its entire dimension. Considering that technology is not merely applied science, nursing praxis is also technology.⁷

The protocols represent, from this perspective, the application of a type of technology directed directly to the care. They should therefore be developed in a systematic way to assist professionals and clients in deciding on appropriate care in meeting specific health conditions.⁸

The establishment of care protocols capable of early risk screening and the application of timely interventions may represent a gain in the quality of nursing care, especially in situations where decisions should be made on time, both in relation to the diagnosis and possible health damages of the customer.

This study expands the knowledge about the drug preparation and administration process and offers elements to contribute to the care process, aiming at improving the quality of care provided to the patient, promoting the safe and rational use of medications and subsidizing safe practices.

Facing the above, the object of the project in question deals with the practice of medication administration by the nursing team in the hospital setting.

OBJECTIVES

- To identify how the administration of drugs by the nursing team is processed in the hospital units of low and medium complexity.
- To analyze the practice of medication administration by the nursing team in light of the best practices focused on patient safety.
- To elaborate protocols directed to the practice of administration of medicines as subsidy to the nursing teams.

METHOD

◆ Type of study

It is a translational, descriptive and exploratory research having as methodological reference the practice based on evidence, with a quantitative approach. The general purpose will be the collection of detailed information about the variable process of drug preparation and administration in hospital admission scenarios.

◆ Research scenario

The research will be conducted in hospital units of low and medium complexity of a University Hospital located in the city of Rio de Janeiro, where the drug therapy is composed of a great variety of medications and most of the time it takes a long period.

The Hospital to be investigated is a center of excellence in research and teaching, which brings together health academics, including nursing undergraduates, who act directly in the care and research within the institution, corroborating for intellectual production and for the practice of health care. In addition, this institution is part of the Network of Sentinel Hospitals of ANVISA, which is of paramount importance for Patient Safety.

◆ Participants of the research

The population will be composed of professionals of the nursing team who participate in the process of preparation and administration of drugs in the units investigated. The sample will be made up of all the nursing professionals who acted in the process of preparation and administration of medicines in the clinics under study during the period of the investigation and who accept, in writing, to be observed and interviewed.

◆ Data production

◆◆ First stage

It will review the best evidence for the practice of drug administration. For this purpose we will use the databases and virtual libraries: Portal Evidence - VHL, Cochrane - VHL, BDeinf - VHL, Medline, PubMed, Scielo and ISI Web of Science, Embase, SciVerse Scopus, Cinahl. In addition, a dense bibliographic review of the pathophysiology, diagnostic and therapeutic procedures recommended for drug administration cases will be conducted, including a review of the national and international consolidated literatures in the area of knowledge. Next, we will synthesize the knowledge applied

specifically to nursing care and the practice of medication administration.

◆◆ Second stage

We will give the field research, where we choose two inter-involved and associated techniques: the technique of non-participant observation along with the application of a semi-structured questionnaire.

In order to collect the data, non-participant and direct observations will be made following an observation script. To this end, four research assistants, after receiving 16-hour training, will observe the activities of the nursing professionals responsible for receiving medication from the pharmacy, packaging, conference, preparation, administration, checking and registration of medications in prescriptions and monitoring of patients for adverse drug effects. In this stage, the compilation of the data emanated from the interviews together with the synthesis of the best evidence extracted in the first stage will allow the preparation of a previous flowchart of the protocol to be applied in the third stage.

◆◆ Third stage

It will involve the application of the pilot flowchart, through simulated situations that allow the analysis and interpretation of conditions involving patients who need the practice of medication administration. The members of the nursing team that answered the questionnaire should participate in this stage.

Data collection will be carried out exclusively by the researcher, requested scholars and research assistants responsible for the project, in order to avoid bias arising from the application process of the questionnaires. The research team will request the signature in the consent term for participation in research, and will have the function of explaining and clarifying doubts about completing the questionnaire. Participants will be guaranteed voluntary participation and anonymity at all stages of the research process (pre-test and data collection proper).

◆ Data analysis

The consistency of the information contained in the second and third stages will be evaluated; through the presented answers, we will make a comparative test of validity of measures, to identify the effectiveness / efficiency of the use of the protocol of interpretation of blood gases in the clinical practice of the nursing team. The comparison of the answers given in the test (first application of the questionnaire) and in the

retest (second application of the questionnaire) will be done through the Kappa Index.

After testing the flowchart, we will submit it to an initial validation process, aiming at the evaluation by a group of specialists. Therefore, an opinion about the product will be requested from ad hoc evaluators. With vast experience and unquestionable reputation in the area of performance related to the dimension evaluated.

Three criteria will be adopted for evaluation: relevance, probability and validity of the instrument. Relevance takes into account the applicability and relevance of the protocol; Feasibility involves the operational ease, costs, required data and other barriers associated with the application of the protocol; The validity verifies the degree to which the protocol reaches its objectives, that is, it reflects the event or aspect that it proposes to measure. Three aspects of validity can be evaluated operationally: validity can be content (legitimacy of measurement), construction validity (degree of correlation with other measures of the same event), and criterion validity (logical sense for specialists).⁹

After completing these steps, the flowchart has undergone adjustments that should consider institutional, administrative, and scientific aspects, only then to take the methodological design and all scope that requires an assistance protocol.

We used as inclusion criteria: to have an employment relationship with the participating institution and to have experience of at least one year in the participating hospital and as criteria for exclusion: you will be prevented from exercising the profession due to official licenses or extra offices.

♦ Ethical aspects

In view of the ethical-legal issues advocated by the National Health Council, this research was approved by the CAAE 17589513.0.0000.5238 from the Research Ethics Committee (CEP) of the University Hospital Clementino Fraga Filho HUCFF/UFRJ and the CEP of the School of Nursing Anna Nery (Opinion N 336,436), pursuant to the guidelines of Resolution 466/12, which seeks to ensure the rights and duties of the scientific community of research subjects and the state, based on the four basic bioethics references, not maleficence, beneficence, and justice and equity.

EXPECTED RESULTS

It is expected, with the results of this study, the optimization of the work process in drug administration mediated by guiding and updated instruments, to incorporate qualified and appropriate recommendations to the reality investigated, and essentially guarantee that the precepts aimed at patient's safety be implemented and validated.

Researches of this feature generate a potential impact on the quality of direct and indirect nursing care and of all health care body, confirming the scientific, ethical and legal commitment, with the guarantee of the promotion of a greater good for the patient.

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