Objective: to investigate the knowledge, attitudes and practices of nurses in the chemotherapy unit regarding preventive measures and exposure to chemical risk. Method: study of quantitative and qualitative approach, KAP survey type (knowledge, attitude and practice), followed up by the participant observation strategy. The study will be carried out with nurses pursuing their activities in two chemotherapy units in a cancer institute located in the city of Rio de Janeiro, RJ, Brazil. The project was approved by the Research Ethics Committee, CAAE No. 12361613.4.00005274. Expected results: contributions to the practice of nurses who work with chemotherapy and support strategies for safety of workers facing chemical risk. Descriptors: Knowledge; Attitudes and Practices in Health; Chemical Risks; Chemotherapy; Biosafety; Oncology nursing.

ABSTRACT

Objective: to investigate the knowledge, attitudes and practices of nurses in the chemotherapy unit regarding preventive measures and exposure to chemical risk. Method: study of quantitative and qualitative approach, KAP survey type (knowledge, attitude and practice), followed up by the participant observation strategy. The study will be carried out with nurses pursuing their activities in two chemotherapy units in a cancer institute located in the city of Rio de Janeiro, RJ, Brazil. The project was approved by the Research Ethics Committee, CAAE No. 12361613.4.00005274. Expected results: contributions to the practice of nurses who work with chemotherapy and support strategies for safety of workers facing chemical risk. Descriptors: Knowledge; Attitudes and Practices in Health; Chemical Risks; Chemotherapy; Biosafety; Oncology nursing.

RESUMO

Objetivo: investigar os conhecimentos, atitudes e práticas dos enfermeiros na central de quimioterapia, em relação as medidas de prevenção e a exposição ao risco químico. Método: estudo de abordagem quantitativa e qualitativa, do tipo inquérito CAP (conhecimento, atitude e prática), acompanhado pela estratégia de observação participante. O estudo será realizado com os enfermeiros que exercem suas atividades em duas centrais de quimioterapia de um instituto de tratamento para o câncer localizado na cidade do Rio de Janeiro, RJ, Brasil. O projeto foi aprovado pelo Comitê de Ética em Pesquisa, CAAE n° 12361613.4.00005274. Resultados esperados: contribuições para a prática dos enfermeiros que trabalham com quimioterapia e subsidiar estratégias para a segurança do trabalhador frente ao risco químico. Descriptores: Conhecimentos, Atitudes e Práticas em Saúde; Riscos Químicos; Quimioterapia; Biossegurança; Enfermagem oncológica.

RESUMEN

Objetivo: investigar los conocimientos, actitudes y prácticas de los enfermeros en la unidad de quimioterapia a respecto de medidas preventivas y exposición al riesgo químico. Método: estudio con enfoque cuantitativo y cualitativo, tipo inquérito CAP (conocimiento, actitud y práctica), acompañado por la estrategia de observación participante. El estudio se llevará a cabo con los enfermeros que ejercen sus actividades en dos unidades de quimioterapia de un instituto de oncología localizado en la ciudad de Rio de Janeiro, RJ, Brasil. El proyecto fue aprobado por el Comité de Ética de Investigación, CAAE N° 12361613.4.00005274. Resultados esperados: contribuciones a la práctica de los enfermeros que trabajan con la quimioterapia y subsidiar las estrategias para la seguridad de los trabajadores frente al riesgo químico. Descriptores: Conocimientos; Actitudes y Prácticas en Salud; Riesgos Químicos; Quimioterapia; Bioseguridad; Enfermería Oncológica.

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INTRODUCTION

This work is the result of the researcher's experience as an oncology nurse, who has been performing her activities in chemotherapy units of private services for seven years and is currently working in the public sector. In the course of this trajectory, concerns have arisen as to the exposure of nurses when handling antineoplastic drugs, which can be considered as a situation of vulnerability within the working environment regarding chemical risk.

Known for centuries, cancer has been widely regarded as a disease of developed countries with large financial resources. For the last four decades approximately, this situation has changed and most of the global burden of cancer can be observed in developing countries, especially those with little resources.¹

Antineoplastic chemotherapy (AC) began to be studied and used in the late 19th century, with the discovery of Fowler's solution (potassium arsenite) by Lissauer, in 1865, and Coley's toxin (association of bacterial toxins), in 1890. However, only from intense myelodepression cases and death caused by bone marrow hypoplasia among soldiers victims of the effects of an explosion in deposit of mustard gas in 1943, during World War II, this medication has aroused the attention and the US Pentagon started to conduct clinical studies in a research project developed by pharmacologists. The year 1946 delimits the beginning of the era that marked the development of modern chemotherapy for the treatment of malignant tumors. Currently, ACs are drugs used in the treatment of several types of cancer.²

AC has become one of the most important and promising ways to fight cancer; however, it can be associated with occupational risk for health professionals. Reconstitution and manipulation of AC—in accordance with resolution CFF 288/1996 of the Federal Pharmacy Council—is established as an activity exclusive to pharmacists, but its administration is an activity exclusive to nurses, in accordance to the resolution COFEN 257/2001 of the Federal Nursing Council. Depending on the activity performed, the risk has a multifactorial etiology. In this instance, there is the importance of analyzing these risks for nurses.³⁴

Nurses are often exposed to chemical risk in everyday healthcare. This can be generated by the handling of a variety of substances and also by the administration of medicines. Exposure to chemical risk is related to the area of worker's expertise, the kind of chemical, and contact time, in addition to the concentration of the product.⁴

Occupational hazard is the probability of an event occurring in a well defined manner in space or time, which causes damage to health and operating units, and/or economic damage. Occupational chemical risk exists upon the occurrence of a defined event of contamination or even by professionals stay in their working environment, without the need of the occurrence of an accident. When a risky medicine is prepared, each of the steps of this process must be performed under safe conditions and use practices, with a view to promoting a safe and salubrious working environment to workers.⁵

Studies carried out in hospital units showed detectable levels of cytotoxic agents in the air, surfaces, gloves, and in different parts of the body. Biological monitoring methods were developed in order to detect occupational exposure to antineoplastic agents. The presence of these drugs in the urine of hospital staffs (pharmacists and nurses) has been widely studied. This has led organizations to develop guidelines or recommendations with the purpose of improving safety when handling antineoplastic drugs and therefore reducing the risk of contamination at the workplace.⁶⁻⁷

Nurses can be exposed to antineoplastic chemotherapy during handling and administration, accidents and spills, and handling of patient's excreta such as sweat, vomit, feces and urine. Although there are instructions concerning the risks of exposure, the detectable levels of antineoplastic agents are still reported in the urine of professionals that handle them, which would indicate occupational exposure.⁸

Within the framework of health professionals' working practices, risk and vulnerability issues are still present, since these professionals expose themselves routinely to multiple risks. In terms of vulnerability, what causes an accident by occupational risk is determined by a set of individual and institutional conditions. In health research, the terms 'vulnerability' and 'vulnerable' are commonly used to designate people's susceptibility to health problems and damages.⁹⁻¹⁰

OBJECTIVES

- To investigate nurses' knowledge, attitudes and practices (KAP) in chemotherapy units (CTUs) with respect to measures to prevent exposure to chemical risk;
activities in the scenarios mentioned with the purpose of testing the instrument. It was possible to observe its acceptance by the responsiveness and agility of the responses without having caused doubts when filling out the questionnaire.

EXPECTED RESULTS

It is believed that the research results will bring contributions to the practice of nurses who work with chemotherapy, so that the knowledge in that area can be expanded and subsidize strategies for workers’ safety, in particular with respect to chemical risk in the working environment.

REFERENCES


METHOD

This study consists of a KAP survey with a quantitative and qualitative approach. It will be held with the target population of nurses engaged in working activities at two chemotherapy units of the José Alencar Gomes da Silva National Cancer Institute (INCA), located at Cancer Hospital I and Cancer Hospital II, comprising approximately 35 nurses.

The criteria for inclusion will consider nurses who work in direct assistance to customers. The following professionals will be excluded from the study: pregnant women; those who exclusively carry out administrative or bureaucratic activities; and resident nurses, because during their two-year internship they collaborate by taking turns in the various sectors of the hospital without working fulltime in the CTUs.

Data collection will be carried out with a self-administered questionnaire without subjects’ identification, followed by the technique of participant observation. The instrument was structured with questions using Likert-type response scales. Quantitative data will be processed using the 2011 Statistical Package for Social Science (SPSS) software (version 17).

A script in checklist format plus a field diary will be used for the observation technique. The qualitative analysis will be conducted using the thematic categories extracted from the interviews and records of participant observation supported by content analysis guidelines.11

Ethical considerations

This is a master’s thesis project of the Professional Master’s Degree Program in Health Education of Gama Filho University. In compliance with Resolution 196/96 of the National Health Council, the authorization of the General Coordination of Healthcare Management of INCA was requested for carrying out the research and the project was submitted to the Research Ethics Committee. After the approval, under CAAE Opinion No. 12361613.4.00005274, the pre-test of the data collection instrument was performed with the nursing residents who have exercised their...
Knowledge, attitudes and practices of nurses...


