Improving nursing practices related to the peripheral venous catheterization of oncology patients: an action research study in Portugal

Paulo Santos-Costa¹,², Filipe Santos³, Anabela Salgueiro-Oliveira², Pedro Parreira², Margarida Vieira⁴, & João Graveto²

¹ PhD Student – Nursing, Universidade Católica Portuguesa - Instituto de Ciências da Saúde, 4169-00 Porto, Portugal; ² Unidade de Investigação Ciências da Saúde: Enfermagem da Escola Superior de Enfermagem de Coimbra, 3046-851 Coimbra, Portugal; ³ Instituto Português de Oncologia de Coimbra Francisco Gentil, E.P.E., Aptd. 2005 Coimbra, Portugal; ⁴ Centro de Investigação Interdisciplinar em Saúde, Universidade Católica Portuguesa, 4169-00 Porto, Portugal;

Introduction

Obtaining peripheral intravenous access is one of the pillars of contemporary healthcare (Chopra et al., 2015). However, the insertion/maintenance of a peripheral intravenous catheter (PIVC) is not risk-free and there is evidence of recurrent local and systemic complications in up to 90% of the devices (Alexandrou et al., 2018).

Although PIVC-related complications have been systematically studied across different clinical cohorts, there is an evident gap in the literature regarding its incidence and impact in oncology patients (Takashima et al., 2015).

Objectives

In Portugal, nurses are responsible for PIVC-related care. Thus, the research team intends to identify current clinical practices and technologies in use during the peripheral catheterization of oncology patients. Based on the initial findings, the research team will develop/implement a multimodal intervention, and assess its effectiveness in reducing associated complications.

Methodology

Through Action Research method (Kuhne and Quigley, 1997), three major phases of activities will be carried: i) Planning phase, where the current nursing practices and technologies used will be identified, as well as the most frequent PIVC-related complications; ii) Action phase, in which a multimodal intervention will be implemented to standardize and align nurses' PIVC-related practices to the latest scientific evidence and available technology; iii) Reflection phase, discussing the project’s results with the nursing team and the Institution’s Board.

Results
Integrated in the activities stipulated for the first phase (Planning), formal authorization was obtained for study conduction by the Instituto Português de Oncologia Coimbra’s Administration Board. The research team held several meetings with the nursing team from one surgical ward. After consultation with a panel of experts on vascular access, data collection instruments were created to be used in the project’s succeeding activities. Currently, an Observational Prospective study is being carried with the support of the nursing team and ward manager.

Conclusions

The multimodal intervention to be developed is expected to substantiate the provision of higher quality and safe nursing care and constitute a good clinical practice with potential for replication in other clinical settings.

Keywords

Catheterization, peripheral; oncology nursing; action-research

References


Financing entities

This project is financed by the Fundação para a Ciência e Tecnologia through POPH/FSE funding (SFRH/BD/136487/2018).