

Best care practices during apheresis platelet donation: a scoping review protocol*

Melhores práticas no cuidado durante a doação de plaquetas por aférese: protocolo de revisão de escopo

Mejores prácticas de atención durante la donación de plaquetas por aféresis: un protocolo de scoping review

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ABSTRACT

Objective: to map, in the scientific literature, the best care practices during platelet donation by apheresis. **Method:** this scoping review will follow the Joanna Briggs Institute's framework, guided by the research question: What are the best care practices during platelet donation by apheresis? Original articles will be considered, regardless of the study design, in Portuguese, English, French, and Spanish, published from 2017 to 2021, with full text available. As exclusion criteria: studies related to platelet apheresis therapy or animal research. After selecting the descriptors, a previous search will be conducted in MEDLINE via PubMed and CINAHL. Studies selected for review will be displayed in the PRISMA flowchart for scoping reviews.

Descriptors: Nursing Care; Plateletpheresis; Health Management.

RESUMO

Objetivo: mapear, na literatura científica, as melhores práticas na gestão do cuidado, durante o processo de doação de plaquetas por aférese. **Método:** esta revisão de escopo seguirá a metodologia proposta pelo Joanna Briggs, sendo norteada pela questão de pesquisa: Quais as melhores práticas na gestão do cuidado durante o processo de doação de plaquetas por aférese? Serão considerados artigos originais, independente do desenho do estudo; em português, inglês, francês e espanhol; entre os anos 2017 e 2021; que forneçam texto completo. Como critérios de exclusão: estudos relacionados à terapêutica de aférese plaquetária ou pesquisas que envolvam animais. Após seleção dos descritores, será realizada busca prévia nas bases MEDLINE, via PubMed, e CINAHL. Os dados selecionados para revisão serão exibidos no fluxograma PRISMA para revisões de escopo.

Descritores: Cuidados de Enfermagem; Plaquetofereze; Gestão em Saúde.

RESUMEN

Objetivo: mapear, en la literatura científica, las mejores prácticas de atención durante la donación de plaquetas por aféresis. **Método:** esta *scoping review* seguirá el marco del Joanna Briggs Institute, guiada por la pregunta de investigación: ¿Cuáles son las mejores prácticas de atención durante la donación de plaquetas por aféresis? Se considerarán artículos originales, independientemente del diseño del estudio, en portugués, inglés, francés y español, publicados entre 2017 y 2021, con texto completo disponible. Como criterios de exclusión: estudios relacionados con terapia de aféresis plaquetaria o investigación con animales. Tras seleccionar los descriptors, se realizará una búsqueda previa en MEDLINE vía PubMed y CINAHL. Los estudios seleccionados para revisión se mostrarán en el diagrama de flujo PRISMA para *scoping reviews*.

Descritores: Atención de Enfermería; Plaquetoferesis; Gestión en Salud.

INTRODUCTION

The therapeutic use of blood and its components is registered in the scientific literature as an efficient and effective method for the treatment and recovery of patients with established hematological disorders. Modern hemotherapy has based its evolution on the principle of performing transfusions carefully, providing what the patient needs^(1,2).

Blood centers are highly specific and complex services that make it possible to use such components, being regulated by Ordinance of Consolidation no. 5⁽³⁾, of September 28, 2017, which deals with the consolidation of norms, actions, and health services of the Unified Health System, under the principles and guidelines of the National Policy on Blood, Components, and Derivatives⁽²⁻³⁾. In hemotherapy services, it is possible to obtain blood components from centrifugation and freezing physical processes, separating whole blood into erythrocyte, plasma, and platelets, or through a more specific and complex method: collection through apheresis⁽⁴⁾.

In apheresis donation, using peripheral venous access, the donor's blood is collected and centrifuged in automated equipment, in which the desired blood component is separated, and, from that, the collected blood is returned to the donor for a new cycle of collection. Platelet donation by this method, called platelet apheresis or plateletpheresis, is the most performed apheresis procedure globally⁽³⁻⁴⁾.

According to the World Health Organization⁽⁵⁾, multidisciplinary teams working in hemotherapy must be properly trained to identify and resolve possible complications at each stage of the donation process under the guidelines of the National Policy on Blood, Components, and Derivatives, thus promoting uniformity in standards of quality and safety^(3,5,6).

In this sense, with a view to continuous improvements in the care provided, health care management is conceptualized as a strategic, operational process that requires permanent evaluation directly articulated with decision-making based on best practices⁽⁷⁾.

Concerning hemotherapy, care management comprises a set of actions that cover care and technological practices of direct and indirect care, boosting research, feedback, and the managerial attributions of the process to provide services and products, safety to donors, patients, and the multidisciplinary team, and quality concerning the production of blood components⁽³⁻⁸⁾.

When considering the high multi-professional complexity of the processes performed in hemo-

therapy services, the nurse emerges as a care manager, respecting safety and quality standards, in line with the current Brazilian hemotherapy legislation⁽⁹⁾. Then, the incessant need for new knowledge and skills contributes to planning improvements throughout the process.

Furthermore, as established in the Resolution 629 (2020) of the Brazilian Federal Council of Nursing (COFEN), it is the responsibility of the nurse in the hemotherapy service: to plan, implement, coordinate, supervise, and evaluate hemotherapy procedures at all stages of the blood cycle, as well as developing actions to guarantee the achievement of quality parameters minimizing risks⁽⁹⁾.

Given the topic's relevance, a scoping review on the best practices during platelet donation by apheresis can be used to support care management during this process, identifying gaps in the theme. A preliminary search was carried out in JBI Evidence Synthesis, Cochrane Database of Systematic Reviews, Capes Portal of Journals, and PROSPERO, and no current and ongoing scoping and systematic reviews on the theme were found. Given the above, this scoping review aims to map, in the scientific literature, the best care practices during platelet donation by apheresis.

METHOD

This scoping review will follow the Joanna Briggs Institute's (JBI) framework⁽¹⁰⁾. Registration of this protocol was performed in the Open Science Framework (OSF): <https://osf.io/tg8xf>.

Review question

What are the best care practices during platelet donation by apheresis?

Inclusion criteria

Problem

The research problem is the management of care during the platelet donation process by apheresis, including the procedure itself, the planning phase, and the monitoring of the donor during this process.

Concept

Studies that address care management will be included.

Context

Studies will be considered exploring best care practices complying with quality and safety

standards during outpatient platelet donation by apheresis.

Types of sources

This scoping review will include original studies (quantitative or qualitative), regardless of the study design and material from the gray literature. Thus, to obtain current data on the best practices on the subject of interest, we set the time frame from 2017 to 2021 (the last five years). The searches will be conducted in the Virtual Health Library, CINAHL, MEDLINE via PubMed, Web of Science, SciELO, and Scopus.

Search strategy

The review is divided into three stages. First, an initial search was carried out in June 2021 in the Medical Literature Analysis and Retrieval System Online (MEDLINE) via PubMed and Cumulative Index to Nursing and Allied Health Literature (CINAHL), and the titles and abstracts of the articles selected were analyzed. The descriptors were delimited according to the controlled vocabularies from the health area: MeSH (Medical Subject Headings), developed by the US National Library of Medicine, and DeCS (Descriptors in Health Sciences), developed by BIREME (Regional Library of Medicine). The descriptors used were "Plateletpheresis", "Blood Plateletpheresis", "Thrombocytopenesis", "Platelets", "Thrombocytes", "Patient Care Management", and "Nurs*" in Portuguese, English, Spanish and French, combined by the Boolean operators AND, OR, and NOT, through the "advanced search" feature. Figures 1 and 2 present the complete search strategies performed in MEDLINE via PubMed and CINAHL. Subsequently, a secondary search will be carried out in the other databases selected for the scoping review, using descriptors and specific strategies of the initial search. A third literature search will be performed to identify additional studies that meet the inclusion criteria.

Selection of evidence

This step will be carried out by two researchers independently, aiming to list the studies following the eligibility criteria, using the Rayyan reference manager, using the following strategies: step 1: exclusion of duplicate studies; step 2: reading

the titles for a new selection; step 3: reading the abstracts; step 4: reading the full texts of all the remaining studies. In cases of discrepancies between the two researchers concerning the eligibility of studies, an evaluation will be carried out by a third researcher. Exclusion criteria will be studies related to the therapeutic use of plateletpheresis (the use of this method to treat diseases), studies without a full text, and studies involving animals.

Data extraction

The process of extracting data from eligible studies will be conducted using an instrument proposed by JBI (Figure 3) and adapted to guide the logical and descriptive summary of the results. Eligible studies will be exported to a Microsoft Excel 2010 spreadsheet. A third researcher will be called for a final decision if disagreements occur between researchers.

Data analysis and presentation

The data will be displayed in a table created by the authors, adapted from the instrument proposed by the JBI, with information regarding the identification of the article, such as title, year of publication, main author, study design, country, objective/purpose, sample, methodology, main conclusions, results, and improvement in the investigation process. A descriptive data analysis will be conducted to categorically expose the main findings based on the PCC framework of the study correlated to the objective proposed.

*Paper extracted from the master thesis "Development of an instrument for the management of care in the process of platelet donation by apheresis: a methodological study" presented to the Fluminense Federal University, Niterói, RJ, Brazil.

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CONFLICT OF INTEREST

The authors have declared that there is no conflict of interest.

Databases	Search strategy	Retrieved articles
PUBMED	"Plateletpheresis OR Plateletphereses OR Thrombocytopheresis OR Thrombocytophereses OR Thrombocytopheresis OR Thrombocytophereses OR "Blood Plateletpheresis" OR "Blood Plateletphereses" AND "Blood Platelets" OR "Blood Platelet" OR Thrombocytes OR Thrombocyte OR Platelets OR Platelet OR Plaquettes OR "Plaquettes sanguines" OR Thrombocyte OR Thrombocytes AND Nurs*[MeSH Terms]) OR ("Patient Care Management"[Title/Abstract] OR Nurs*[Title/Abstract]) AND NOT Plasm* OR Therapeut* OR Stora*	33

Figure 1 - Search strategy performed in the PUBMED database. Niterói, RJ, Brazil, 2021

Source: Prepared by the authors, 2021.

Databases	Search strategy	Retrieved articles
CINAHL	"Plateletpheresis OR Plateletphereses OR Thrombocytopheresis OR Thrombocytophereses OR Thrombocytopheresis OR Thrombocytophereses OR "Blood Plateletpheresis" OR "Blood Plateletphereses" AND "Blood Platelets" OR "Blood Platelet" OR Thrombocytes OR Thrombocyte OR Platelets OR Platelet OR Plaquettes OR "Plaquettes sanguines" OR Thrombocyte OR Thrombocytes" AND "Patient Care Management" OR Nurs* AND NOT Plasm* OR Therapeut* OR Stora*	2

Figure 2 - Search strategy performed in the CINAHL database. Niterói, RJ, Brazil, 2021

Source: Prepared by the authors, 2021.

Study Identification	Data and Information Extracted
Title	
Year of publication	
Main author	
Study design	
Country	
Purpose	
Sample	
Methodology	
Analysis / Main conclusions / Synthesis of contents	
Results extracted from the studies	
Improvement in the investigation process	

Figure 3 - Data extraction tool. Niterói, RJ, Brazil, 2021

Source: Prepared by the authors, 2021.

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