

Documents

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There is an urgent need to adopt a pull-flow logic for the supply of RBCs to meet patients' needs: A single center study

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Abstract

Background: Despite major demographic changes, several decisions and initiatives, among which Patient Blood Management, have led to a significant reduction in the transfusion of packed red blood cells (RBCs) in Belgium, as it has been observed in many countries. Unfortunately, not all blood groups were proportionately impacted and shortage in O D-negative RBCs is regularly or chronically observed. The goal of this study was to examine how to optimize the use and the supply of O D-negative blood in our academic hospital. Methodology: All blood transfusions performed at Cliniques universitaires Saint-Luc between January 1, 2019 and December 31, 2021 were reviewed. The blood group of the patients was compared with the blood group of the RBCs actually supplied and transfused. Results: 49.823 RBCs transfusions were analyzed. The patients' needs didn't reflect those of a Caucasian population, with an increase of O (47.9%) and B (10.3%) for the ABO blood group, and a quite high proportion of R0r (8.6%) for the Rh blood group. Only two thirds of O D-negative RBCs were transfused to O rr or R0r patients. Conclusion: The application of PBM and the ethnic imbalance between blood donor and patient populations are two important risk factors for chronic shortages of O D-negative blood. To adapt blood component resources, it is essential to have a complete picture of the real needs of patients according to their blood group profile. Blood donor centers must adapt to the evolving needs of hospitals in order to plan future supplies in a "pull-flow" approach. © 2023 Société française de transfusion sanguine (SFTS)

Author Keywords

Balance need/supply; O D-negative; Pull-flow strategy; R0r; Red blood cells (RBCs)

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