THE MANAGEMENT OF LEUKODEPLETED PACKED RED CELL (PRC) BLOOD COMPONENT PROCESSING AT UDD PMI SURABAYA CITY IN 2025

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ABSTRACT

Blood transfusion services require safe and high-quality blood products, one of which is achieved through the implementation of *leukodepleted* packed red cells (PRC *Leukodepleted*). However, not all Indonesian Red Cross Blood Donation Units routinely perform PRC *Leukodepleted* processing, highlighting the need to describe its implementation in practice. This study aimed to describe the management of PRC *Leukodepleted* blood component processing at the Blood Donation Unit of the Indonesian Red Cross (UDD PMI) in Surabaya. A descriptive qualitative method was applied through observations and interviews with two blood component processing officers. The results showed that *leukodepletion* was performed using both *pre-storage* and *post-storage* methods with an *inline leukocyte filter* integrated into a closed blood bag system. The management process of PRC *Leukodepleted* processing, including staff preparation, equipment and material preparation, *leukocyte* filtration, *post-filtration* procedures and documentation, storage, and distribution, was carried out systematically. Overall, the management of PRC *Leukodepleted* blood component processing at UDD PMI Surabaya has complied with quality principles and blood transfusion service standards as stipulated in the Regulation of the Minister of Health of the Republic of Indonesia Number 91 of 2015. This study is expected to be further developed with a broader scope to quantitatively assess the quality of PRC *Leukodepleted* products.

Keywords: *Leukodepleted* Packed Red Cells, *Leukodepletion*, Blood Transfusion Service