

OVERVIEW OF AGGLUTINATION DEGREES IN BLOOD GROUP TESTING USING THE TUBE METHOD ON DONOR BLOOD BAG SAMPLES AT DIFFERENT STORAGE PERIODS AT THE UDD PMI OF JOMBANG REGENCY

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ABSTRACT

Background: Blood typing is a procedure to determine the blood type of donors and patients. Blood typing results can be affected by the length of storage of donor blood. This study aims to determine the degree of agglutination in donor blood typing using the tube method at various storage periods. **Methods:** The study design was descriptive, using 40 samples from Whole Blood (WB) and Packed Red Cell (PRC) blood components. The data used were primary data from cell grouping and serum grouping tests using the tube method conducted at the Indonesian Red Cross (PMI) UDD in Jombang Regency. **Results:** cell grouping results showed a degree of agglutination of 4+ (100%) at all storage periods. Serum grouping results remained dominated by strong agglutination levels of 4+ (40-60%) and 3+ (30-50%), however, the emergence of a 2+ reaction (10-20%) on days 7 to 21 indicated a tendency for agglutination strength to decrease with increasing storage period. **Conclusion:** The storage period does not affect the degree of agglutination in cell grouping, whereas in serum grouping there is a tendency for a decrease in the degree of agglutination as the storage period increases.

Key words: storage period, cell grouping, serum grouping