ABSTRACT

Trisni Octaria Mulyani Winata (2025). Characteristics of the Examination of Rhesus Antigen Phenotype in Donors at the Indonesian Red Cross Blood Donation Unit in 2024. Scientific Writing, D3 Blood Bank Technology Study Program, Department of Pharmacy and Food Analysis, Supervisor Dr. Roni Yuliwar, S.Kp., Ns., M.Ked.

This study discusses an overview of the Rhesus antigen phenotype examination in donors at the Indonesian Red Cross Blood Donation Unit in November-December 2024. The objective of this research is to understand the profile of Rh antigen phenotype examination based on gender, 4 age categories, blood type ABO, Rh and variations in Rh antigen phenotype at the Indonesian Red Cross Blood Donation Unit in 2024. The research method used in this study is descriptive with a quantitative approach, utilizing secondary data from Rhesus antigen phenotype examinations. The results of the study conducted at the Indonesian Red Cross Blood Donation Unit in November-December 2024 on 150 donors to examine the Rhesus antigen phenotype profile showed that the majority (63.33%) were 95 male donors, a big portion (58,00%) 87 donors in the age category of 26-44 years, almost half (44%) 66 donors with blood type O, all (100%) 150 rhesus-positive donors and the majority (99.33%) 149 donors have the e antigen, with the most common phenotype being DCCee (DCe/DCe) at 66.67% (n=100) and the rarest being DccEE (DcE/DcE) at 0.67% (n=1). The conclusion of this study is that the results of the Rh antigen phenotype examination on donors at the PMI UDD Pusat can serve as a basis for more targeted blood stock management, particularly to meet the needs of patients requiring repeated transfusions. This data is also expected to support the establishment of a donor antigen database that meets the transfusion needs of patients.

Keywords: donor, Rhesus antigen phenotype.