

BLOOD COMPONENT REQUIREMENTS FOR ANEMIC PATIENTS AT THE SURABAYA PMI BLOOD TRANSFUSION UNIT

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ABSTRACT

Anemia is a global health problem with a prevalence of approximately one-third of the world's population. The prevalence of anemia in adolescents aged 15-24 years is 32%, meaning that an estimated 3-4 adolescents out of every 10 adolescents suffer from anemia (Indonesian Ministry of Health, 2018). The availability of PRC is an important factor in supporting health services for patients with anemia. This study used a quantitative descriptive method with a retrospective approach. The research instrument was a checklist compiled based on secondary data obtained from the Blood Donor Management Information System during the period January–December 2024. The research sample was taken using total sampling and analyzed descriptively based on monthly trends, age, gender, ABO blood type, and rhesus factor. The results showed that the total need for PRC in anemia patients during 2024 was 17,945 bags, with the highest demand in May (2,155 bags) and the lowest in November (1,167 bags). The highest demand for PRC came from female patients (11,330 bags), the 40–60 age group (6,686 bags), and blood type O+ (7,389 bags), while rhesus negative showed a very small proportion with a total percentage of less than 0.2% each. The demand for PRC blood components in anemic patients varies based on patient characteristics, so blood supply planning needs to be adjusted to the demand pattern to ensure optimal blood availability.

Keywords: Anemia, PRC, Blood Requirements, UDD PMI