

**Sistem Peramalan Jumlah Permintaan Darah dengan Menggunakan Metode
Least Square (Studi Kasus : UTD PMI Kabupaten Probolinggo)**

*Forecasting System for Blood Demand using Least Square Method
(Case Study : UTD PMI Kabupaten Probolinggo)*

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ABSTRACT

Blood Transfusion Unit as the provider of blood supply is required to fulfill blood demand. However, there are difficulties in controlling the blood supply. Availability of blood stock depends on donors who voluntarily donate blood, so it often causes the blood stock to run out. This will lead to unfulfilled blood needs for the community. Conversely, if blood stock is too excessive, it will result in losses, because blood has an expiration date. If blood has expired, then blood should not be used for transfusion and must be discarded. This research aims to create a system that is able to estimate how much blood demand is needed, that is with a forecasting system. Based on these problems, the author applies the Least Square method to predict the amount of blood demand in the coming period. The results showed that the Least Square method was used to calculate the forecast value of the amount of blood demand. From the calculation results, it is found that the forecast for blood demand with the smallest MAPE value is blood component of PRC blood type A with a value of 16%. Then the largest MAPE value is 36% for blood component of WB blood type A.

Key words : Blood, forecast, least square