MAMDANI FUZZY METHOD FOR PREDICTING THE NUMBER OF BLOOD REQUIREMENTS IN DISTRICT PMI LAMONGAN

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ABSTRACT

The Blood Transfusion Unit (UTD) as the provider of regional supply is required to meet the demand for blood in their respective regions. However, in reality, the blood stock in each region does not always meet the demand for blood. So it is necessary to make predictions for production using the Mamdani fuzzy method. The purpose of this study is to determine the blood demand in UTD PMI Lamongan Regency based on the amount of demand and supply. The Fuzzy Mamdani method or often known as the Max-min method is one of the parts of the Fuzzy Inference System that is useful for drawing conclusions or the best decision in uncertain problems. Based on the results of this study, from the number of data requests as many as 1,307 bags of blood and demand data as many as 1,148 bags of blood, the total production amounted to 1,169 bags, while the amount of production (blood seen from blood donation activities) was 1,249. based on these results there are significant differences, which can be detrimental to the PMI UTD, but in this case PMI UTD must be more careful in estimating the amount of blood needed, to reduce the number of shortages and excess blood needs.

Keywords: Blood, Prediction, Fuzzy Mamdani Method.