FORECASTING THE AMOUNT OF PARACETAMOL AND AMOXICILLIN IN 500 MG DOSAGE DISTRIBUTED BY DINKES SURABAYA

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ABSTRACT

Medicine is one of the most important element in health for recovering illness. Its importance makes the medicine should be distributed in exact amount and in exact times to prevent the shortage or the surplus in stock. Paracetamol and amoxicillin, especially in 500 mg dosage, are the most common use medicine in Surabaya. These two medicines is distributed by Dinkes Surabaya through Gudang Farmasi Kesehatan. Forecasting result from the amount of paracetamol and amoxicillin distributed can be used by Dinas Kesehatan to provide the medicine for next period. The most suitable forecasting model to forecast the amount of paracetamol and amoxicillin is ARIMA model. The data used in this research is the data that shows the amount of paracetamol and amoxicillin in 500 mg dosage distributed by Dinkes Surabaya during 2007 – 2011. The analysis resulting that ARIMA (1,1,0) is the model that can forecast the amount of paracetamol distributed in next period while ARIMA (2,1,0) is the model that can forecast the amount of amoxicillin distributed in next period. From those two ARIMA models, the forecast value of the amount of paracetamol and amoxicillin for next period can be obtained.

Keywords : Medicine, Forecasting, Paracetamol, Amoxicillin, ARIMA