ABSTRACT

Infusion Pump and Syringe Pump is a medical device to insert a liquid into the patient's body constantly for a certain period of time. Occlusion is a blockage of flow in infusion pump and syringe pump if left can cause swelling or the occurrence of plebitis in patients. Then it takes a tool to calibrate. The purpose of this study was to Design Infusion Device Analyzer with LCD TFT Display Graph (Occlusion). In this design to detect occlusion is a water pressure sensor. The sensor detects the pressure obtained through the 3 solenoid valves to simulate obstacles. then processed by arduino. Displayed on the LCD TFT 4.3 ich in the form of graphics and stored on the SD Card. The module has been tested at a flow rate setting of 100mL / hour using a Syringe pump and infusion pump with 2 infusion sets and 2 different syringes that obtain an average value for the Syringe Pump tool 10,778 Psi using spuit A and spuit B of 9.31 Psi. The average value obtained in infusion pump using infusion set A is 14,190 Psi and infusion set B is 5,617 Psi. when compared to the Standard Infusion Device Analyzer tool obtained relative Error value on syringe pump measurement of 0.108% with syringe A and Spuit B of 0.78125%. For Infusion Pump tool has a relative error value of 0.603 % with Infusion Set A and 2.205% using Infusion Set B.

***Key Word** : Infusion pump, Syringe Pump, Occlusion, kalibrasi*