**ABSTRACT** 

Blockage of the hose infuse due to blood clot is very dangerous to health. This case has

the potential to be a stroke called embolic stroke. This blockage is due to the hose infuse nurse

negligence in monitoring the smooth flow of infusion. Another case is almost similar increase in

blood due to intravenous fluid that is up but not replaced on time. It also causes the patient to

bleed out. Existing medical instrumentation currently very expensive, as well as data

communications still use the cable. So that patients who use this instrumentation only patients in

the ICU.

In this final project developed a tool capable of detecting the flow rate and volume of

fluid in the infusion. There is a sensor that can detect the presence of droplets using light analog

value changes. The amendment strengthened and converted into a digital signal by the ADC on

the microcontroller features. The digital signal is converted into the amount received by the

microcontroller unit drops per minute. Then microcontroller is connected directly to the serial to

wifi module. Data will be received through the access point and the PC is connected directly to

the display on the PC application.

In this final project has created a tool that is able to detect the speed of hose infuse drip

with the average error in unit conversion value of 1.23%.

Keyword: Infusion, Microcontroller, ADC, wifi