

ABSTRAC

Oxygen therapy delivery in patients who have the risk for hypoxia or already have hypoxia case must be monitored in time to time, the purpose of this monitoring is to make sure that the patients has already have the right dose of oxygen therapy delivery due to the presentage of patients Spo2. the purpose of this research is to simplefy nurse's job to monitoring the Spo2 patient and automaticly control the opening of oxygen flow meter valve for oxygen therapy delivery. The contribuition of this reaserch is to make a system that can monitor the presentage of Spo2 patients and automaticly control the opening the valve of oxygen flow meter due to the presentage of Spo2 patients.

In order to control the valve of oxygen flow meter based on Spo2 patients the researcher make a mechanical system that can automaticly contorl the opening of the valve that directly conencted with Spo2 sensor. sensor fingertip that placed to patients will read the Spo2 presentage, and the presentage's will automaticly determain how much the valve is open.

In 89% - 92% Spo2 readings the valve will open at 2 LPM, in 88% below the valve wil open at 6 LPM, and if the presentage is 92% or above the valve will close gradually. the result of this research showed that the opening of the valve when the presentage is in 92% - 88% below have an 1% - 2% error.

Kata kunci: Oxygen, Oxygen Therapy, Pulse Oximetry