

ABSTRACT

High mortality in Indonesia, caused by acute coronary syndrome, has reached 26 %. In 10 years, National housing health survey or *survei kesehatan rumah tangga nasional* (SKRTN), under health department of Republic of Indonesia, stated mortality which is caused by acute coronary syndrome has increased enormously. It can be avoided by doing early acute coronary syndrome detection like ECG recording. Anyway, some those patients rarely do ECG recoding because of expenses and time. By using Bluetooth feature on PDA (Personal Digital Assistant) or a Bluetooth dongle on computer, a Telecardiology can be done anywhere and anytime so that coronary syndrome can be detected earlier by medics.

A thesis, entitled **Telecardiology using Bluetooth communication**, used a microcontroller, a computer, and a PDA to record ECG signals. To help analyzing ECG signals, HRV (heart rate variability) methods which are based on time and frequency domains were used. By doing supine and standing activities and then analyzing R-R intervals with HRV methods, someone can be analyzed the balance of autonomic nervous systems which are a parasympathetic nervous system and a sympathetic nervous system.

Keywords:

HRV, Telecardiology, electrocardiogram, parasympathetic, sympathetic, Bluetooth, welch, autoregressive