

## The Incidence of Cardiac Arrhythmias Using Trans-Telephonic, Portable Electrocardiography Recorder, in Out-Patients Faculty of Medicine Ramathibodi Hospital

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**Abstract :** Objective: The Trans-telephonic Electrocardiography (ECG) monitoring is used to diagnose of infrequent cardiac arrhythmias and improve outcome of early detection and treatment on suspected cardiac patients. The objectives of this study were to explore incidence of cardiac arrhythmia using Trans-Telephonic and to explore time to first symptomatic episode and documented cardiac arrhythmia in outpatients. Methods: Descriptive research study was conducted between February 1, 2016, and December 31, 2016. A total of 117 patients who visited outpatient clinic were purposively selected. Research instruments in this study were the personal data questionnaire and the record form of incidence of cardiac arrhythmias using Trans-Telephonic ECG recorder. Results: A total of 117 patients aged between 15-92 years old (mean age  $52.7 \pm 17.1$  years), majority of studied sample was women (64.1%). The results revealed that 387 ECGs (Average 2.88 ECGs/person, SD = 3.55, Range 0 - 21) were sent to Cardiac Monitoring Center at Coronary Care Unit. Of these, normal sinus rhythm was found mostly 46%. Top 5 of cardiac arrhythmias were documented at the time of symptoms: sinus tachycardia 43.5%, premature atrial contraction 17.7%, premature ventricular contraction 14.3%, sinus bradycardia 11.5% and atrial fibrillation 8.6%. Presenting symptom were tachycardia 94%, palpitation 83.8%, dyspnea 51.3%, chest pain 19.6%, and syncope 14.5%. Mostly activities during symptom were no activity 64.8%, sleep 55.6% and work 25.6%. The mean time until the first symptomatic episode occurred on average after  $6.88 \pm 7.72$  days (median 3 days). The first documented cardiac arrhythmia occurred on average after  $9 \pm 7.92$  days (median 7 day). The treatments after patients known actual cardiac arrhythmias were observe themselves 68%, continue same medications 15%, got further investigations (7 patients), and corrected causes of cardiac arrhythmias via invasive cardiac procedures (5 patients). Conclusion: Trans-telephonic: portable ECGs recorder is effective in the diagnosis of suspected symptomatic cardiac arrhythmias in outpatient clinic.

**Keywords :** cardiac arrhythmias, diagnosis, outpatient clinic, trans-telephonic: portable ECG recorder

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