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Title	Cardiac Arrhythmia Triage using Electrocardiogram
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### Abstract

Telehealth has become a favorable method for receiving medical care during the COVID-19 pandemic. It reduces physical contact and also benefits those who live a distance from hospitals. In this paper we present a triage for cardiac arrhythmia using electrocardiogram (ECG). The system consists of a diagnostic algorithm for arrhythmias and an Android application. The diagnostic algorithm can detect five types of cardiac problems-arrhythmia, bradycardia, tachycardia, bradyarrhythmia, and tachyarrhythmia. The Android application is the main communication channel between patients and healthcare providers. The user uploads their ECG and receives a preliminary diagnosis of their heart health via the application. The system notifies the user if it detects any abnormalities. The user can then make an appointment online for further examination at the hospital. The capability of the proposed system is evaluated using four databases from PhysioNet-MIT-BIH Normal Sinus Rhythm Database, MIT-BIH Arrhythmia Database, MIT-BIH Atrial Fibrillation Database, and CU Ventricular Tachyarrhythmia Database. It is found that the algorithm is able to detect abnormal ECG signals with an average accuracy of 82.1%.