

## **Late Breaking results from the European Society of Cardiology Meeting in Barcelona – brought to by Circulation: Arrhythmia and Electrophysiology**

REHEARSE-AF Trial: AF diagnosis increased with regular ECG recordings with remote analysis

The Assessment of REmote HEArt Rhythm Sampling using the AliveCor heart monitor to scrEen for Atrial Fibrillation (REHEARSE-AF) trial examined whether regular ECG recordings with remote analysis can increase the diagnosis of atrial fibrillation (AF) in patients at increased risk of stroke. In this study 1003 patients were randomized to have routine primary care visits or to make a 30 second ECG rhythm recording twice weekly using an AliveCor Kardia Mobile heart monitor. Patients also transmitted during symptoms such as palpitation and the recordings were sent via WiFi so that they could be interpreted by trained investigators. During the 12 month study period, 19 patients in the

rhythm recording group were diagnosed with AF compared to 5 in the usual care group (hazard ratio 3.9, 95% confidence interval 1.4–10.4,  $p = 0.007$ ). All patients in the study were 65 years of age or older and had a score of 2 or more using the CHA<sub>2</sub>DS<sub>2</sub>-VASc risk scoring system. Health economic modelling demonstrated that cost of each diagnosis of atrial fibrillation was £8,255. Analysis of the patient experience demonstrated that patients using the ECG recordings did not feel anxious or restricted while the usual care patients were slightly more anxious about the risk of heart rhythm abnormalities.

This study is appealing since it employs an easy-to-use commercially available hand-held ECG recording system and remote expert analysis for accurate AF diagnosis. Future studies can determine the patient population in which widespread application of this system is cost-effective in reducing the risk of stroke.