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ARTIGO RECOMENDADO DO MÊS

# Comentário sobre «Avaliação remota do ritmo cardíaco com o uso do monitor cardíaco AliveCor para rastreio de fibrilhação auricular: Estudo Rehearse-AF»

## Comment on ''Assessment of remote heart rhythm sampling using the AliveCor heart monitor to screen for atrial fibrillation: The REHEARSE-AF Study''

Julian P.J. Halcox, Kathie Wareham, Antonia Cardew, Mark Gilmore, James P. Barry, Ceri Phillips, Michael B. Gravenor. Assessment of Remote Heart Rhythm Sampling Using the AliveCor Heart Monitor to Screen for Atrial Fibrillation: The REHEARSE-AF Study. Circulation. 2017;CIRCULATIONAHA.117.030583.

## Abstract

***Background:*** Asymptomatic atrial fibrillation (AF) is increasingly common in the aging population and implicated in many ischemic strokes. Earlier identification of AF with appropriate anticoagulation may decrease stroke morbidity and mortality.

***Methods:*** We conducted a randomized controlled trial of AF screening using an AliveCor Kardia monitor attached to a WiFi-enabled iPod to obtain ECGs (iECGs) in ambulatory patients. Patients ≥65 years of age with a CHADS-VASc score ≥2 free from AF were randomized to the iECG arm or routine care (RC). iECG participants acquired iECGs twice weekly over 12 months (plus additional iECGs if symptomatic) onto a secure study server with overread by an automated AF detection algorithm and by a cardiac physiologist and/or consultant cardiologist. Time to diagnosis of AF was the primary outcome measure. The overall cost of the devices, ECG interpretation, and patient management were captured and used to generate the cost per AF diagnosis in iECG patients. Clinical events and patient attitudes/experience were also evaluated.

***Results:*** We studied 1001 patients (500 iECG, 501 RC) who were 72.6±5.4 years of age; 534 were female. Mean CHADS-VASc score was 3.0 (heart failure, 1.4%; hypertension, 54%; diabetes mellitus, 30%; prior stroke/transient ischemic attack, 6.5%; arterial disease, 15.9%; all CHADS-VASc risk factors were evenly distributed between groups). Nineteen patients in the iECG group were diagnosed with AF over the 12-month study period versus 5 in the RC arm (hazard ratio, 3.9; 95% confidence interval=1.4-10.4; P=0.007) at a cost per AF diagnosis of $10780 (£8255). There was a similar number of stroke/transient ischemic attack/systemic embolic events (6 versus 10, iECG versus RC; hazard ratio=0.61; 95% confidence interval=0.22-1.69; P=0.34). The majority of iECG patients were satisfied with the device, finding it easy to use without restricting activities or causing anxiety.

***Conclusion:*** Screening with twice-weekly single-lead iECG with remote interpretation in ambulatory patients ≥65 years of age at increased risk of stroke is significantly more likely to identify incident AF than RC over a 12-month period. This approach is also highly acceptable to this group of patients, supporting further evaluation in an appropriately powered, event-driven clinical trial.

Clinical Trial Registration – URL: https://www.isrctn.com. Unique identifier: ISRCTN10709813.

## Comentário

O estudo Rehearse-AF,[1] apresentado no Congresso Europeu de Cardiologia 2017 e simultaneamente publicado na revista *Circulation*, mostrou que o uso do *smartphone* com uma derivação de ECG duas vezes por semana, por doentes idosos com fatores de risco para FA, detecta mais casos de fibrilhação auricular assintomática comparativamente com o seguimento clínico convencional.

Era já do nosso conhecimento que a probabilidade de detecção de FA aumenta com a intensidade da procura, contudo a prova de capacidade diagnóstica com o simples e cômodo uso de um *smartphone* de forma intermitente é altamente inovador e faz-nos refletir sobre as potencialidades desses dispositivos para a melhoria da prática clínica e eventualmente *outcomes* dos nossos doentes. Esse estudo não foi desenhado com poder suficiente para avaliar

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*outcomes* e claramente são necessários estudos adicionais para justificar os custos associados e clarificar o impacto clínico do uso deste tipo de dispositivo para detecao de FA.

## Conflitos de interesse

A autora declara não haver conflitos de interesse.

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