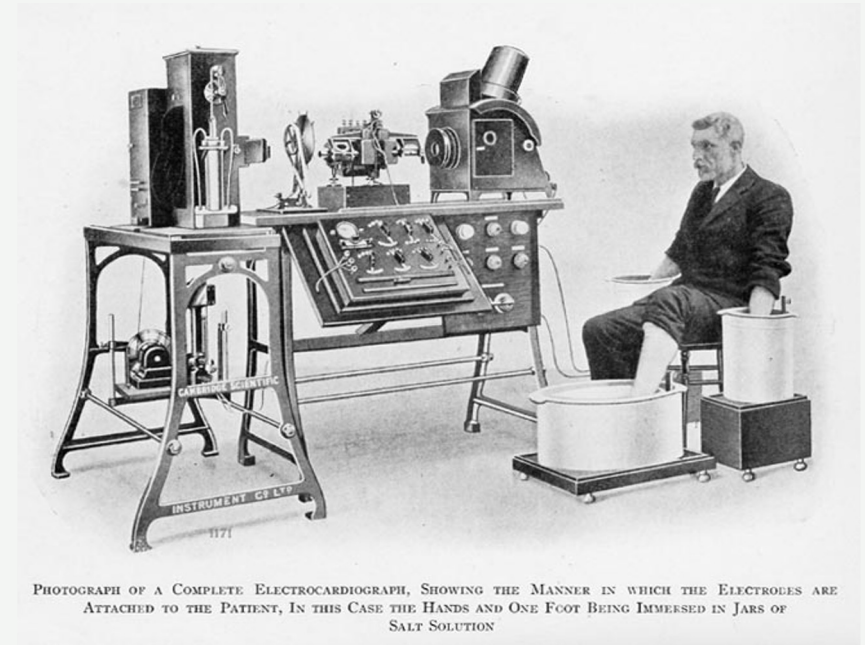
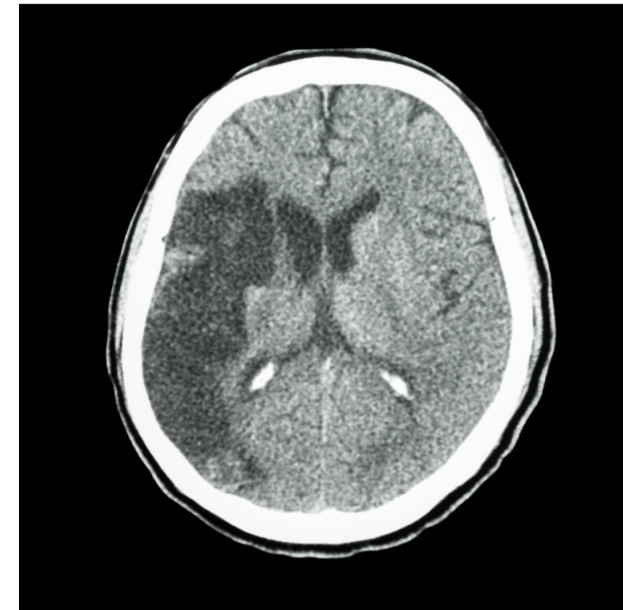
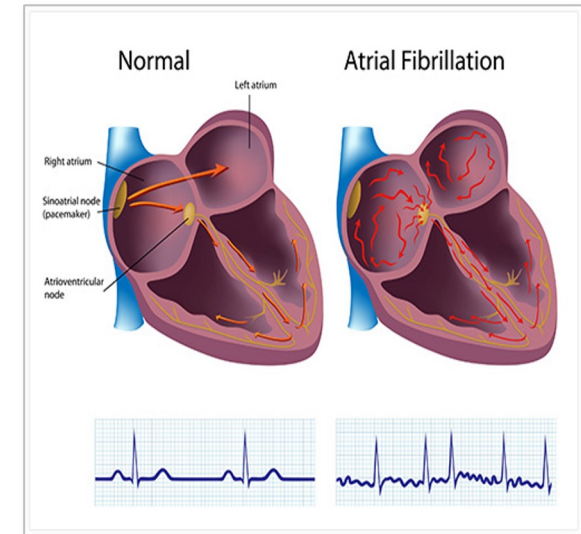


Utilising technology to tackle cardiovascular disease



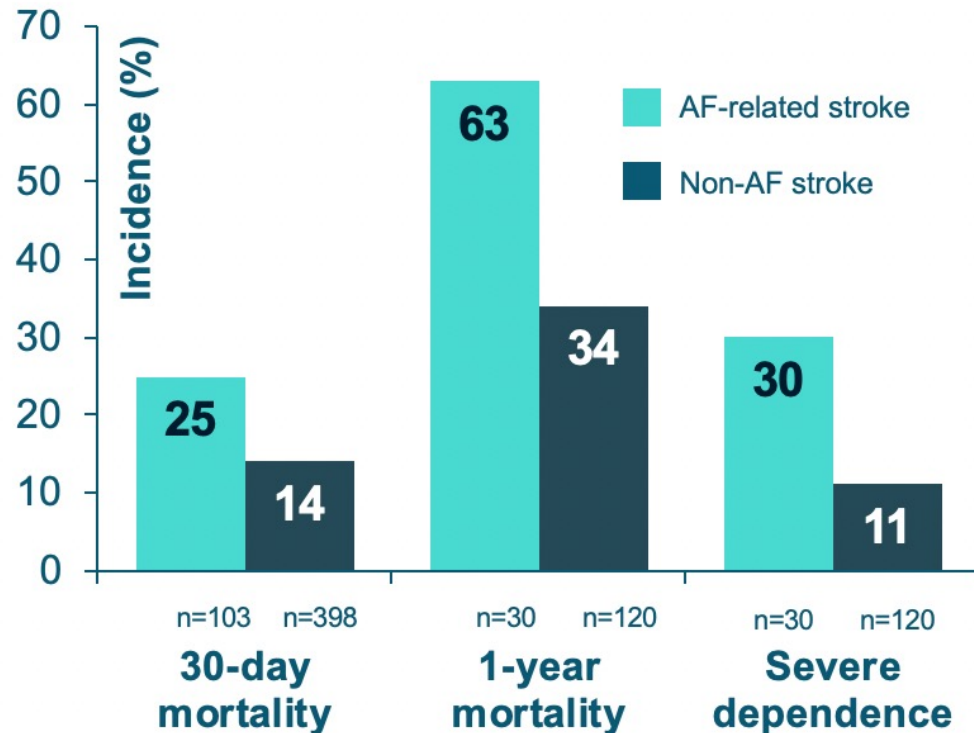
AF Challenge: Prevalence in UK

- 1.4 million people diagnosed with AF¹
- ~425k people living undiagnosed¹
- **5x** more likely to have a **stroke** with poor outcomes if AF is present²
- **20%** of all strokes caused by AF (the most common arrhythmia - often goes unnoticed or is diagnosed post-stroke as can be asymptomatic)
- **66%** risk reduction of ischaemic stroke if detected, diagnosed and intervened



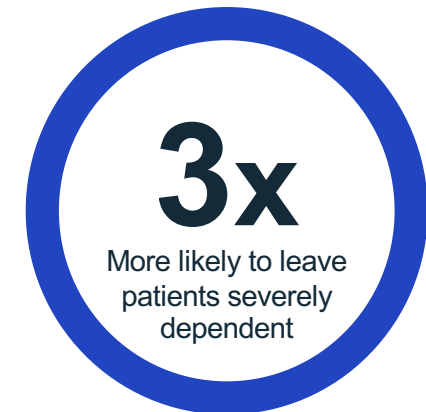
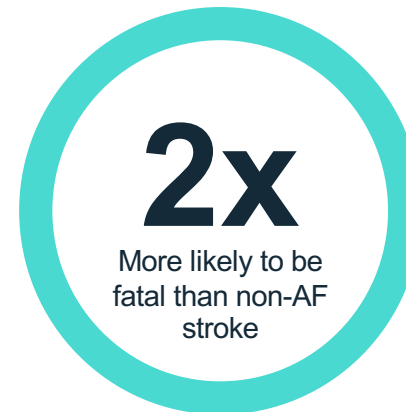
AF-related strokes are more likely to be devastating compared with non-AF strokes...

Outcomes following AF strokes vs non-AF strokes



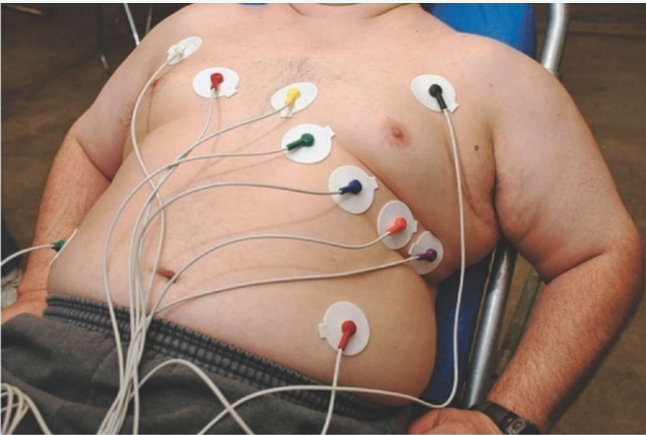
More fatalities and greater risk of severe disability

Ischaemic stroke associated with AF is:

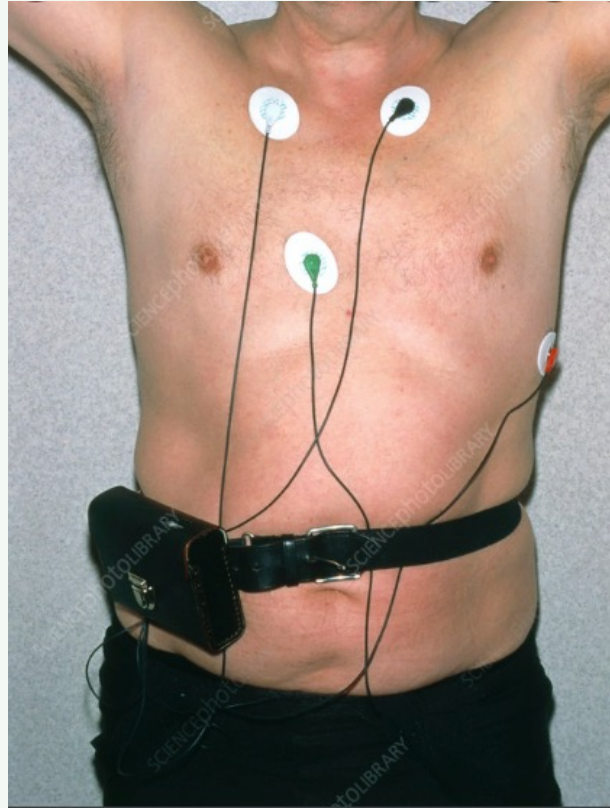


Patient options

- 12L ECG
- GP
- ED
- Paramedic



- Holter monitor

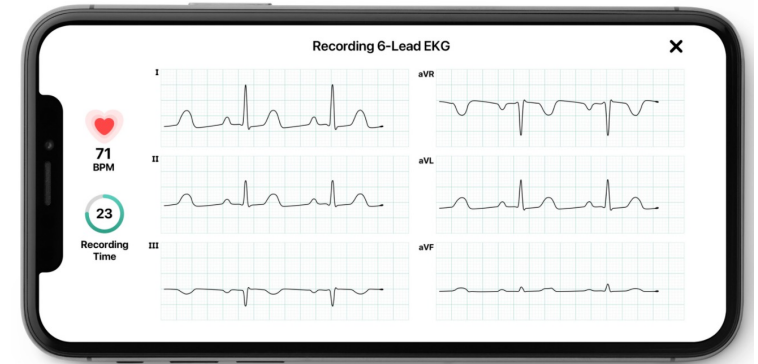


- Long term monitoring - ILR



Devices and Hardware | KardiaMobile 6L

- World's first-and-only FDA-cleared & CE mark 6-lead personal ECG
- Lead I, Lead II, Lead III, aVF, aVR, and aVL
- Captures a medical-grade 6-lead ECG in 30 seconds and detects Possible Atrial Fibrillation, Bradycardia, Tachycardia, or Normal sinus rhythm
- Increased ability to identify cardiac arrhythmias such as atrial flutter, heart block, and PVCs. Manual QT calculation authorized
- Over 140+ million ECGs recorded worldwide
- Over 15 million total active users
- Note: KardiaMobile 6L does not check for and cannot detect heart attack or stroke




NICE MTG64 | KardiaMobile for detecting atrial fibrillation

KardiaMobile is now recommended as an option for detecting atrial fibrillation (AF) for people with suspected paroxysmal AF, who present with symptoms such as palpitations and are referred for ambulatory ECG monitoring by a clinician.

- The first and only NICE recommended personal ECG device for detecting atrial fibrillation.
- [NICE MTG64](#)
- [NICE MTG64 AliveCor Press Release](#)

AF Association @AtrialFibUK · Jan 12
NICE approves home ECG smartphone device for use in NHS for first time
mol.im/a/10389965

Trudie Lobban MBE, founder of A-A & AF Association: "KardiaMobile can be used to monitor a person's heart rhythm at any time, regardless of whether or not people show symptoms of AF."



[dailymail.co.uk](https://www.dailymail.co.uk)
NICE approves home ECG smartphone device for use in NHS for first t...
AliveCor's KardiaMobile costs £99, and involves the patient placing two fingers from each hand on either side of a small monitoring device, th...

Recommendations for KardiaMobile



SHTG Recommendation
July 2022

An adaptation for NHSScotland of guidance published by the National Institute for Health and Care Excellence

KardiaMobile® for detecting atrial fibrillation

Recommendation for NHSScotland

Single-lead KardiaMobile® is recommended as an option for detecting atrial fibrillation (AF) for people with suspected paroxysmal AF, who present with symptoms such as palpitations and are referred for ambulatory electrocardiogram (ECG) monitoring by a clinician.

The Scottish Health Technology Group (SHTG) recommendation is based on [guidance produced by the National Institute for Health and Care Excellence \(NICE\) in 2022](#).¹ This guidance was considered and modified following an SHTG adaptation process. NHSScotland is required to consider SHTG recommendations.



POSITION PAPER
EHRA practical guide



All Wales clinical pathway for Atrial Fibrillation (AF) Diagnosis and management

Primary care Secondary care Primary and secondary care

New onset Atrial Fibrillation/Atrial Flutter with symptoms <48 hours or haemodynamically unstable.

Targeted AF case finding (eg chronic disease clinic) or clinical suspicion of AF

- History and examination.
- Manual pulse check.
- If irregular pulse, perform an ECG to confirm the rhythm.

Acute Medical Referral Recommended.

ECG inconclusive – AF still suspected (paroxysmal) Organise ECG monitoring for long enough to capture suspected episodes

Use a 24-hour ambulatory ECG monitor in those with suspected asymptomatic episodes or symptomatic episodes less than 24 hours apart. Use an event recorder ECG in those with symptomatic episodes more than 24 hours apart. Consider use of a commercial ambulatory ECG event-recording device such as AliveCor®.

- Cardioversion or Rate Control.
- Consider Anticoagulation.

AF confirmed

- ECG evidence of AF confirmed.

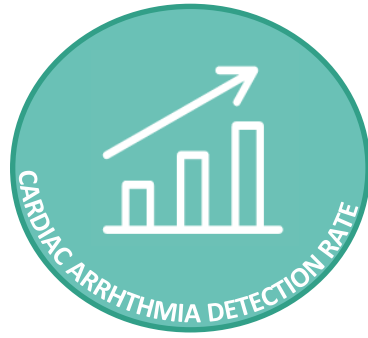
Perform an Echo

- On those for whom a baseline echocardiogram is important for long-term management.
- For whom a rhythm-control strategy that includes cardioversion (electrical or pharmacological) is being considered eg severely dilated left atrium would suggest a rate related strategy may be best.
- In whom there is a high risk or a suspicion of underlying structural/functional heart disease (such as heart failure, heart murmur or abnormal ECG).
- When the findings may influence subsequent management (for example, choice of antiarrhythmic drug or in whom

What it means for clinicians and patients



Rates and referrals



10-fold



4-fold



AF detection rates



Community use



Ease of use

1 Recommendations

1.1 KardiaMobile is recommended as an option for detecting atrial fibrillation (AF) for people with suspected paroxysmal AF, who present with symptoms such as palpitations and are referred for ambulatory electrocardiogram (ECG) monitoring by a clinician.

Why the committee made these recommendations

Detecting atrial fibrillation in people with suspected paroxysmal AF usually involves wearing a continuous ECG monitor, such as a Holter monitor. KardiaMobile is a portable ECG recorder that can help detect AF.

Clinical evidence shows that significantly more people had AF detected using the KardiaMobile single-lead device compared with a Holter monitor.

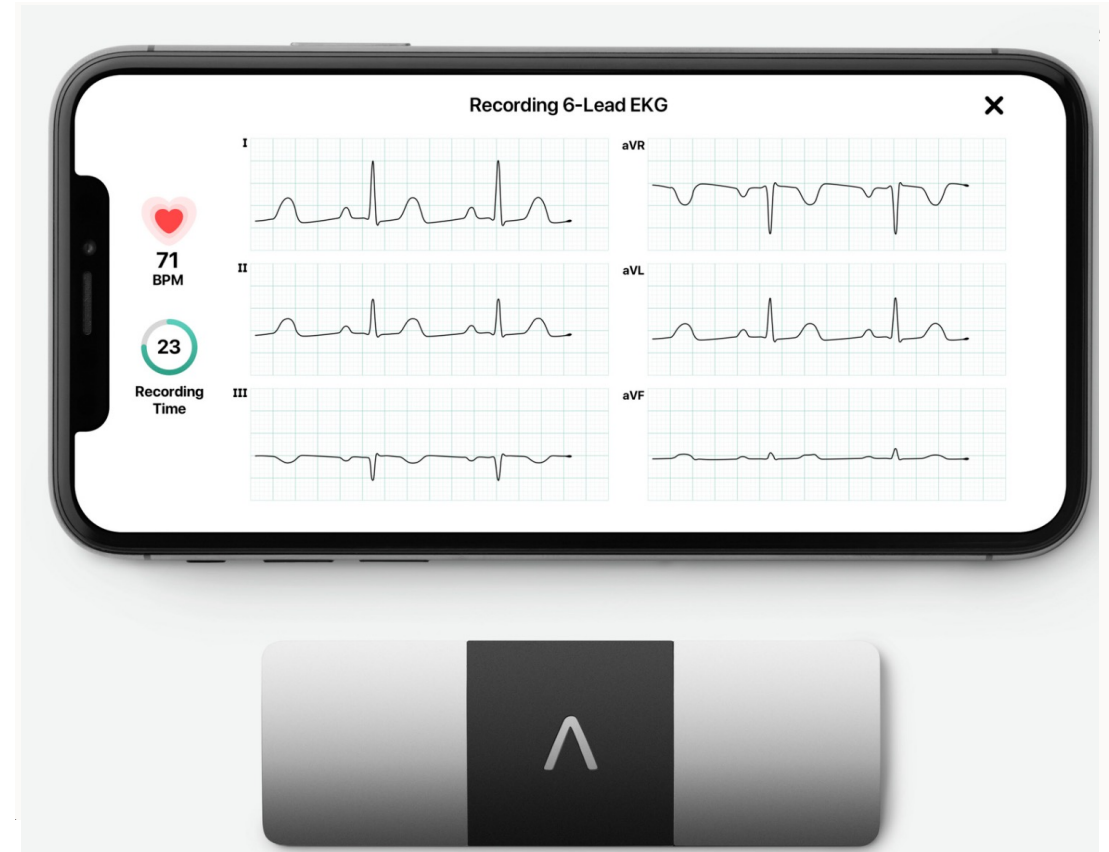
Cost modelling shows that KardiaMobile is cost saving compared with Holter monitor by an average of £13.22 per patient over 2 years in people presenting with symptoms such as palpitations. KardiaMobile is cost saving because of a reduction in diagnostic costs including the cost of the device. For more information on the cost impact to the NHS, see the NICE resource impact summary report.

NICE
National Institute for
Health and Care Excellence



QT measurement with KardiaMobile 6L

- **KardiaMobile 6L** can be used to measure QT/QTc with similar accuracy to 12L¹.
- Medical professionals have the ability to easily utilise the ECG strips to measure the QT interval and the ability to do so remotely using the **KardiaMobile 6L**.
- The uses for QT interval measurement include drug prescribing and for monitoring for long QT syndrome.



Reference 1: Mohammad Azram, et al. Clinical validation and evaluation of a novel six-lead handheld electrocardiogram recorder compared to the 12-lead electrocardiogram in unselected cardiology patients (EVALECG Cardio), *European Heart Journal - Digital Health*, Volume 2, Issue 4, December 2021, Pages 643–648, <https://doi.org/10.1093/ehjdh/ztab083>

Customized Program

CASE STUDY



SITUATION

Global pharmaceutical leader with new metastatic cancer drug

Seeking to grow share by eliminating a treatment barrier in competitive US market



TECHNOLOGY INTEGRATION

- Provided instant 6-lead ECGs within 30-seconds for oncology office screening and at-home patient monitoring (as needed) of QTcf
- Enrolled over 500 oncologists, performing more than 2,000 ECGs over 18 months
- Built optional board-certified cardiologist overread program for extra level of confidence



IMPROVED EXPERIENCE

For the Patient

Improved patient care & quality of life (Reduced copay & simplified logistics)



For the Physician & Staff

Streamlined oncologist workflow (Immediate Rx start)
Confidence in therapy selection



For the Pharma Company

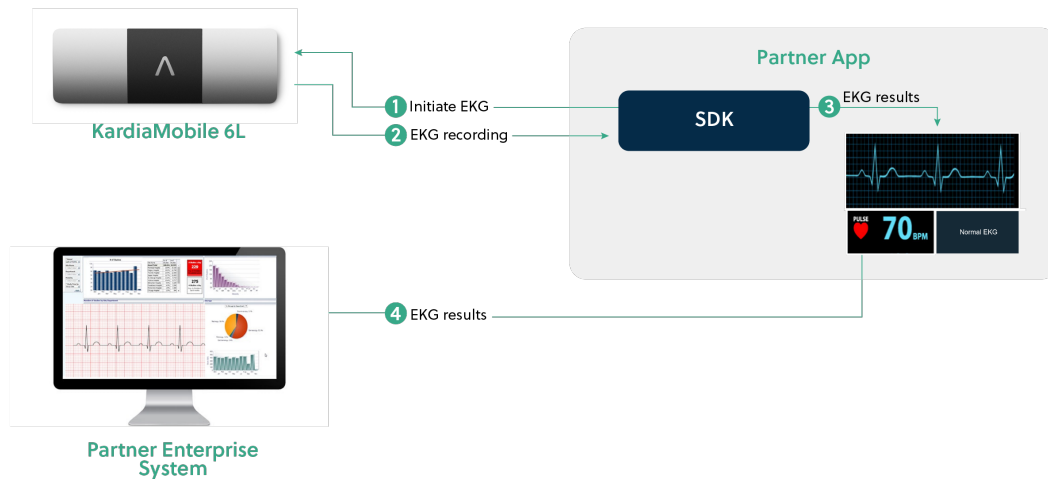
Increased worldwide adoption of drug with superior clinical profile by removing barriers to prescription



TAKEAWAYS

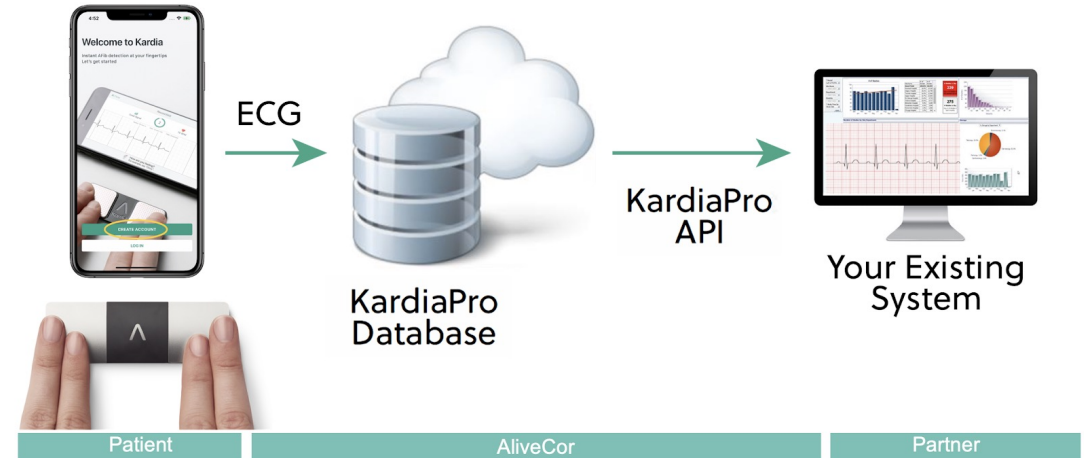
- The specialized program was successfully implemented on a tight timeframe (< 4 months) to address the drug's perceived barrier to treatment for oncologists and drove increased therapy adoption.
- Program is being scaled to other countries and the data is helping to prepare new indications and further enhance patient care.
- They company is now using AliveCor's KardiaMobile 6L device in their clinical trial programs.

Front-end and back-end integration



Front-end Integration: SDK

The Kardia app SDK enables your enterprise to incorporate the Kardia app software to access our KardiaMobile 6L device on your developed mobile app.



Back-end Integration: KardiaPro API

AliveCor's Kardia API allows access to patient data stored in the AliveCor cloud from your enterprise system, so that it can be imported into another system of analysis.

Virtual ward & Telemedicine Partners



UK Virtual ward example

Virtual ward for atrial fibrillation patients could prevent thousands of hospital admissions per year

07 June 2023 Joe Cousins

Category: [Research](#)

A new virtual ward to safely treat atrial fibrillation patients could prevent thousands of hospital admissions per year, easing NHS pressure, according to new research from the University of Leicester presented at the British Cardiovascular Society (BCS) conference in Manchester.



In the year-long study, patients with a fast heart rate due to atrial fibrillation or atrial flutter that met the necessary safety criteria were sent home with the heart rate-lowering medication they would usually get in hospital, and told to submit daily information using a smartphone app.

Their data, including ECG recordings, blood pressure, oxygen saturation and answers to an atrial fibrillation symptom questionnaire, were closely monitored by specialist doctors and nurses at Glenfield Hospital in Leicester, who made treatment decisions remotely.

The conventional arrangement involves patients being monitored for several days in hospital, adding to the ongoing pressure on the NHS.

Atrial fibrillation is the most common form of abnormal heart rhythm and is believed to contribute to one in five strokes. One in 45 people in the UK are known to be living with the

“During the single-hospital trial between January 2022 and January 2023 there were **118 virtual admissions**, 66 of which (55 per cent) were ‘step-up’, where the virtual ward was used instead of hospital admission. The other 45 per cent were ‘step-across’, where early hospital discharge was possible thanks to the virtual ward.

As well as 66 ‘step-up’ admissions, **61 re-admissions to hospital were safely stopped**, meaning that **127 unplanned hospitalisations were prevented**. This **saved an estimated 444 days in hospital for patients**.

The findings also showed the average heart rate reduced from 124 bpm at when patients were admitted to the virtual ward to 84 bpm when they were discharged. The clinical team also developed and used e-pharmacy measures to ensure they could change patients’ prescriptions quickly if needed.”

KardiaMobile – empowering patients to self-manage

Thank you for listening

Could a patchless, painless and wireless monitor offer a better solution for you and your patient?



GIG
CYMRU
NHS
WALES

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