

## “Mind the Gap”

# Reducing the detection gap for Atrial Fibrillation (AF) in Mental Health using Quality Improvement and Innovation Methodology

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### BACKGROUND

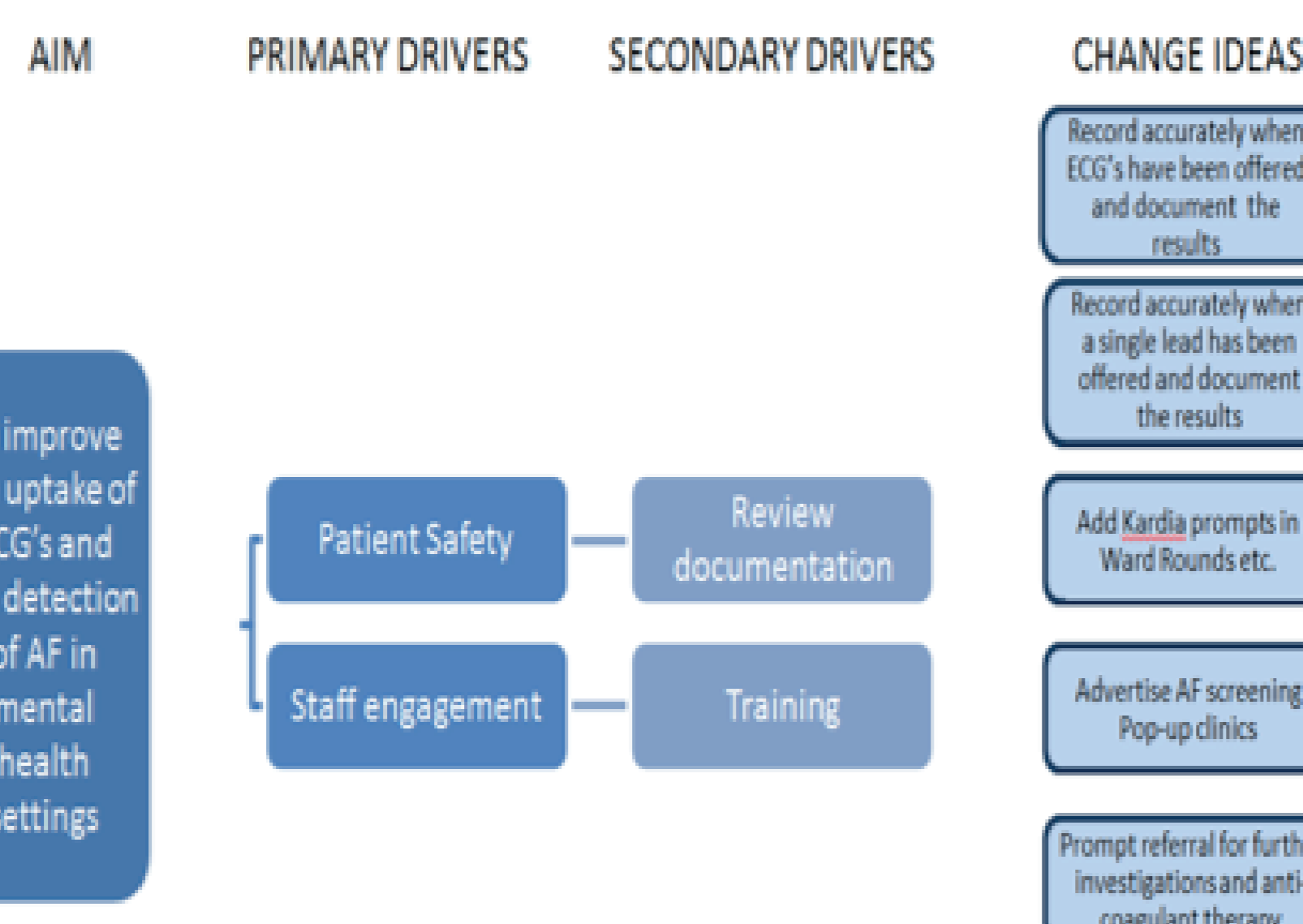
In the UK, someone suffers an Atrial Fibrillation (AF) related stroke every 18 minutes. Mental health users often do not access physical health checks or lifestyle support, leaving a vulnerable population. People with a Severe Mental Illness (SMI) have a shorter life expectancy by 15-20 years than the average person. Many psychiatric patients are at risk of a stroke due to risk factors such as age, smoking, cholesterol, lack of exercise, poor diet, family history, psychotropic medication etc. This project looks at how we can use digital innovations, providing a timely and proactive approach.



- The risk of developing AF is 1 in 4, with the risks increasing with age.
- In London, at least 1 in 4 people diagnosed with AF are not receiving appropriate anticoagulation therapy.

### AIM

SWLSTG Mental Health Trust were fortunate to be offered the KARDIA mobile ECG devices to test in mental health settings. Whilst the device screens for AF it also generates the ECG reading, which will allow clinicians to calculate a QTC interval. This is of vital importance as some psychiatric medications are known to prolong the QTC interval, and best practice is to offer ECG monitoring. However, many patients find the traditional 12 lead ECG too invasive or may be too unwell to engage. The single lead KARDIA device will be offered as an alternative if patients refuse a 12 lead ECG.



### LOCATING THE PROBLEM?

On admission every patient is offered a 12 lead ECG as part of their physical health assessment. However, there is no automatic screening for AF. We were unable to obtain accurate information on the uptake but a manual search (2019) was completed on one in-patient mental health ward to provide some baseline data (see Table below).

Month	Number of admissions	Number of ECG's refused	Number of ECG's accepted	Discharged with no ECG completed
July	21	6	4	2
August	14	4	1	3
September	16	4	2	2
October	30	8	1	7
November	22	9	1	8
December	31	12	7	5
January	DATA NOT AVAILABLE			
February	12	5	5	2

### PLAN

#### PHASE 1

- Test KARDIA machine in 1 in-patient mental health ward using PDSA cycles
- Embed KARDIA in 8 in-patient and 2 Older Adults mental health wards, offering screening for patients who refuse 12 lead ECGs
- Measure uptake and number of patients who refuse 12 lead ECGs
- Test interest for pop-up clinics and suitable locations

#### PHASE 2

- Roll-out KARDIA machines to community services e.g. Clozapine clinics and Older Adults CMHTs

#### PHASE 3

- Pop-up clinics for staff, service users, relatives and members of the public have proved successful

#### PHASE 4

- Analyse data and disseminate findings both within SWLSTG and wider through publications, etc.

### SAME PROBLEM, DIFFERENT APPROACH?

Traditional approaches to physical health care has not provided good results and a QII approach allows an agile, iterative style of testing, measuring and evaluating before rolling out the interventions to other areas.

Whilst the KARDIA devices were provided at no cost to the Trust, the paired device of a phone or tablet were not included. The project required inventive solutions to this problem:

- The QII Team were successful in securing funding for 2 iPads via the Internal Dragon's Den part of the Making Life Better Together programme. Two Teams are now using these for physical health screening.
- Collaborating with IT Department to upcycle returned or unused phones, and resulted in 7 devices to be distributed to teams

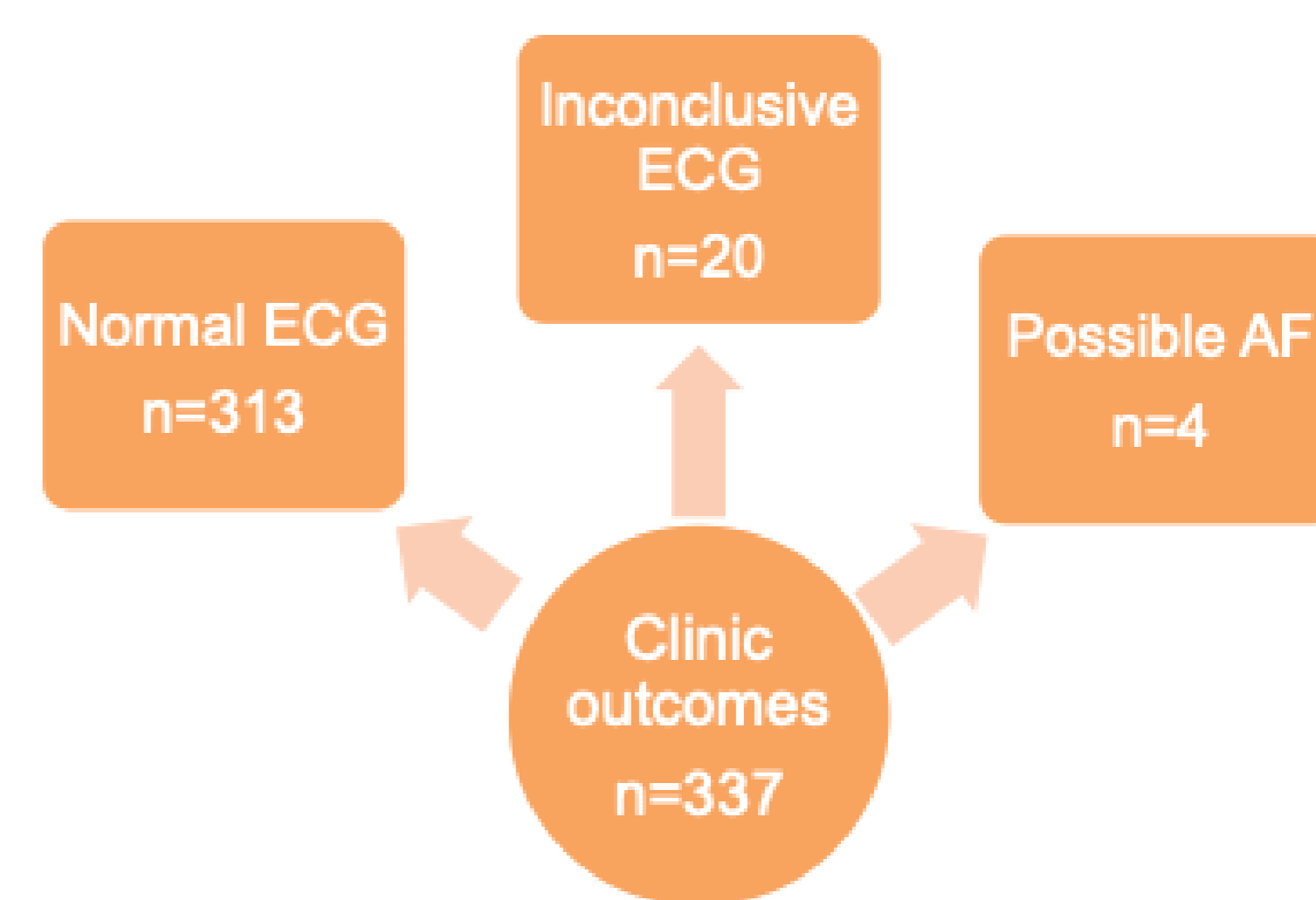
### CURRENT TEST AREAS

The devices are currently located in the following areas and the results so far:

- Exercise Therapists – embedded in their physical health screens before an exercise programme is commenced
- Older Persons CHMT – AF screening on admission to service
- Home Treatment Team – QI project to set-up a physical health clinic
- Medical Devices – a 'floating' device in the Trust
- Adult Mental Health Ward – this will ensure patients who refuse a 12-lead ECG will have another opportunity for an ECG

### POP-UP CLINICS

As this is a new innovation and we were unsure of uptake it was important to 'test' the device before we implemented it into daily practice. Helpful feedback was given from those attending about the need to increase awareness of physical health issues and find imaginative and opportunistic solutions to the current problem.



### REFLECTIONS

- Entering physical health data in patient records accurately was highlighted as an area for further development and was unexpected by the project team.
- Embracing Digital technologies in mental health will help reduce the inequalities but will require significant investments. Potential progress was hindered from a lack of resources.
- The project was able to discover new insights by using in a mental health setting. Some of our deaf staff attended the clinic and some hearing aids interfere with recordings.

### FUTURE IDEAS

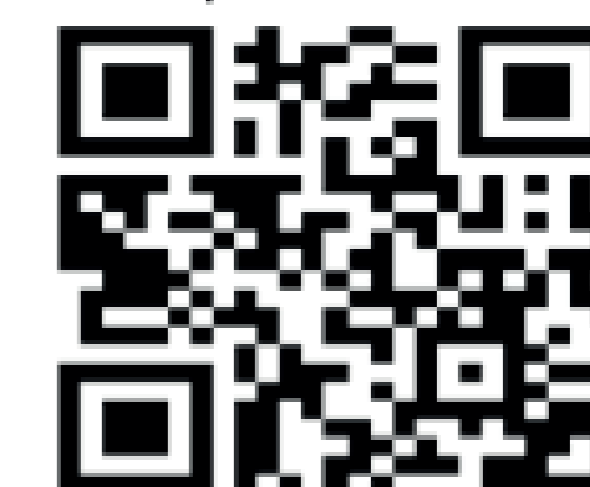
- Embrace the enthusiasm of the AF screening by offering more pop-up clinics, reducing burden on staff by using a rota system.
- Popular Trust events such as the annual BBQ and Sports Day would help reach a wide audience.
- Service users involvement has been sought and we are awaiting involvement. It is hoped that future pop-up clinics could be co-produced between staff and service users/carers.
- In order to reach as many staff as possible, it would be beneficial to include AF screening at monthly staff inductions and during the flu campaign.

### SUCCESSES

The project team have been commended on the work to screen and treat AF, in addition to safer prescribing of antipsychotics:

- Team of the Year awarded by Arrhythmia Alliance.
- Case Study in AF Association Health Care Pioneers Report.
- Shortlisted in internal Quality Awards

Additionally, the QII Team are supporting a local Hospice to develop a KARDIA protocol and staff training workshops.



Scan the QR Code with your smart phone and send us an email for further information.