



**INNOVATION AGENCY**  
Academic Health Science Network  
for the North West Coast

## Preventing AF-related strokes

Our ongoing work to identify atrial fibrillation led to more than 10,000 screenings and more than 250 potential strokes being avoided, saving around £5.6m in NHS resources, from 2014 to early 2017.

At the current rate of deployment of portable ECG monitors, we are screening around 900 people in our region each month, which equates to about 23 patients being identified with AF, preventing a predicted one stroke per month.

### THE CHALLENGE

Atrial fibrillation is a condition which is under diagnosed and undertreated in the North West Coast. We estimate that in our region there are over 10,000 people who have the condition but are either not identified or not well managed on treatment - as many as 40 per cent may not be managed according to NICE guidelines. Subsequently, we have some of the highest AF related stroke rates in the country, many of which could be avoided.



Heart specialist nurse Linda Hilton with patient Albert Edwards, in Liverpool.

Each stroke costs around £24,000 to the NHS and social care in the first year alone. AF related strokes are more severe and have higher mortality and morbidity than other types of stroke; yet is highly amenable to treatment and has been identified by Public Health England as offering many opportunities to avoid strokes through correct medication.

## ACTIONS TAKEN

We have:

- Run two public pulse check campaigns - detecting 60 abnormal pulses
- Introduced portable ECG devices to GPs, pharmacies and adult social care – AliveCor's Kardia, Cardiocity and MyDiagnostick
- Secured funding to introduce and evaluate genotype guided dosing in several warfarin clinics which is estimated to save at least two extra clinic visits per person per year
- Secured funding to improve the warfarin pathway
- Developed a North West Coast AF Collaborative to recruit 'beacon' GP practices which will be given detection devices as well as improvement and innovation support
- Supported the development of a dashboard which brings together AF related databases to support CCGs with business planning
- Supported the development of the AF pathway and the Commissioning tool-kit

**For further information:**

Dr Julia Reynolds

julia.reynolds@innovationagencyncw.nhs.uk

07852 562791

## OUTCOMES

More than 60 people with abnormal pulses detected during our campaigns are now being treated, preventing potential strokes.

We estimate that the devices we have introduced in our region are being used to screen around 900 people each month, which equates to about 23 patients being identified with AF, preventing a predicted one stroke per month and saving £480,000 per year in health and care costs.

We have secured £250,000 of matched investment from pharma and device partners including LGC, Bayer PLC, Boehringer Ingelheim, Bristol-Myers Squibb and Pfizer Alliance and Daiichi Sankyo.

And we have established more than 25 partnerships with charities, clinicians and industry in developing this programme of work.

## TESTIMONIAL:

GP Dr Chris Mimmagh said:

"I use the AliveCor Kardia practically every day.

"This device will not replace the ECG department, but it will make it quicker. The fact that the device worked first time, was easy to use and required no training meant that from the start it looked like a winner."

## PLANS FOR THE FUTURE

- Rolling out genotype guided dosing in anti-coagulation clinics
- Developing the AF Collaborative to include more GP practices
- Helping to introduce self-monitoring for people taking warfarin
- Supporting the development of the AF pathway through modelling
- Developing a tool for CCGs to review their outcome measures
- Developing digital tools to support patient information needs

**April 2017**

innovationagencyncw.nhs.uk

 @innovationncw

 Like us on Facebook:  
InnovationNWC