



## Primary Eye Care Support for Stroke Prevention in Cheshire

---

### At a glance

#### Challenge

Atrial Fibrillation (AF) is the most common cause of an irregular heartbeat and early identification is essential. AF often has no symptoms and those with the condition are five times more likely to suffer a stroke.

#### Objectives

The aim of the study was to identify undiagnosed AF patients and prevent related stroke and associated mortality with early identification and management.

#### Solution

A 12-month trial involving optometric practices, funded by NHS England in conjunction with Cheshire East ICP and Cheshire LOC, to reduce rates of stroke across East Cheshire.

#### Results

Thus far 329 patients have been screened with 31 identified with "Suspect AF".

---

### Introduction

It had been recognised that better diagnosis and treatment of AF would have a positive impact on health and wellbeing of the population. There would also be a significant saving to NHS and social care if rates of severe strokes reduced. Initially the commissioner had run a screening event at a large supermarket, however it was decided that optometric practices offered a more appropriate setting, easily accessible with the appropriate skills and infrastructure. A significant proportion of people presenting for a sight test are over 60 years old; this age group are more likely to have eye problems, usually wear spectacles and are encouraged to maintain regular health checks with their optometrist through their entitlement to a NHS funded sight test. Although AF can affect adults of any age, around 10% of over 65s have the condition.

Stroke is the 4th largest cause of death in the UK. AF is the most powerful single risk factor for suffering a deadly or debilitating stroke. Ischaemic strokes make up around 85%, and are generally the most severe, with AF being a significant risk factor. It is believed at around 1.2M people in the UK suffer with AF which can be treated easily with anticoagulants, reducing the risk of stroke by up to two thirds.

The trial started in November 2020 with 5 practices in Cheshire East and a change of practice involvement, encompassed the wider region. The screening is non-invasive and involves the patient placing their fingers on a sensor for 30s before an immediate result is given of normal/ suspect AF or unreadable.

The response has been very positive from the perspective of both practices and patients.



## Approach

Each of the practices received a Kardia Mobile heart monitor. It works with a compatible mobile device running the Kardia app, which detects the ECG and assesses the risk of AF and if the patient then requires a visit to their GP for a full assessment.

It is very easy to use with the patient sitting relaxed and placing two fingers from each hand on the sensor for 30 seconds with the results available immediately. There are three possible results, suspected AF, normal or unreadable. The results which appear unreadable are repeated three times. Those with a result of AF suspect were given some printed information and advised to see their GP for further investigation. All the GPs in the area had been made aware of the service and were very supportive.

The service is not suitable for patients under 60, or those with a pacemaker, or diagnosed cardiovascular disease.

For the initial trial period it was agreed that 5 practices would run this programme for a period of 12 months launching during National Atrial Fibrillation week in November 2020 to raise awareness. A one-off payment was given for practice participation in the trial. Cheshire East ICP and the LOC has regularly checked in with the participating practices and offered support where required.

Various approaches have been taken to best fit the screening into a busy clinic, the most successful process using dispensing opticians following a sight test. They are usually sitting with the patient at a table discussing the outcome of the sight test and the patient is relaxed with the posture required for an accurate screening. Testers have found the patients are really engaged with the process and often test partners or relatives of the person attending for a sight test. Presently the results are being recorded manually with only DOB, sex and result being required. These are then collated by the individual practices and uploaded centrally. The participating practices report it takes around 3 minutes to explain, test and record results for each patient.

---

## Outcomes

31 patients have been referred for further investigation at their GP following a suspect AF result, 9 had unreadable results and a total of 329 people were tested. A point to note is the patients already aware of their AF also had this confirmed (12 in total). The patients can be screened at a time and place which is convenient and familiar for them. It fits with the NHS long term plan aims to deliver care closer to home and also of making every contact count. The flexibility of the programme allows for other visitors to the practice to be easily screened as well for example spouses/ carers or those just popping in for a spectacle repair.

Screening patients in optometric practices eases the burden on GP surgeries. This is especially important during the pandemic when GP provision is under enormous pressure.

Decreasing the number of severe strokes suffered saves the NHS thousands per patient whilst ultimately benefitting patients with AF by decreasing their likelihood of debilitating long-term effects or even death.



The average cost of NHS and Personal Social Services care in the first year following a severe stroke is almost double that of a minor stroke (£24,003 vs £12,869). The societal cost of stroke per person is £45,409 per person in the first 12 months following incident stroke plus £24,778 in subsequent years. The cost for 19 severe strokes in the first year is £862,771. There is potentially a huge saving to be made here as well as the obvious benefits to the patient and their wider circle. ([Current, future and avoidable costs of stroke in the UK, 2020](#))

*"I reluctantly visited the GP and was immediately put on medication with lots of tests ordered by the GP. I had a telephone appointment with the hospital consultant who confirmed the GP's diagnosis. I would never have gone to the GP if I hadn't been screened. Thank you."*

#### **An early Patient**

*"During Covid, GP's visits have been restrictive for the public, so taking the opportunity to check the AF of patients over 60 years of age whilst attending for an eye care appointment is a great way of providing additional support. Of the 100 patients tested at our practice 12 were found to have abnormalities this highlights the great importance of this process.*

*For me, providing this quick and easy service and possibly preventing patients from having a stroke is amazing. The patients have been very grateful for the extra care provided and the local GP's have been very supportive.*

*I just wish I had been more aware of Atrial Fibrillation a few years ago, as this may have prevented my husband's heart problems."*

**Jill Umpleby, CET Officer, Cheshire LOC**

---

## **Conclusion**

The AF trial has been really well supported by general practice, Optometry teams and the people who have been screened. The patients are delighted to be made aware of a potentially fatal problem with a non-invasive test which takes a few moments while they are already attending a health appointment. Optometry teams are enthusiastic about providing a potentially lifesaving service to patients. The cost of a screening programme rolled out across all optometry practices would be negligible when compared to the ongoing costs to both health and social care following a severe stroke.