

## **Oxford AHSN case study**

**Date:** Q4 2018/19

**Programme/Theme:** Clinical Innovation Adoption

**Title:** Improving detection and management of atrial fibrillation (AF)

### **Overview summary**

Oxford AHSN has developed and implemented a comprehensive collaborative work programme bringing together expertise from the NHS and industry to reduce morbidity and mortality related to stroke caused by atrial fibrillation (AF). Innovative improvements in the detection and management of AF are reducing the numbers of AF-related stroke, preventing disability and reducing NHS costs.

### **Challenge identified**

Atrial fibrillation (AF) is the most common cardiac arrhythmia, estimated to affect around 2.5% of the population (58,000 people in the Oxford AHSN region). AF is a major cause of stroke, responsible for around 20% of all strokes in the UK. Strokes caused by AF tend to be more severe than other strokes; the mortality rate is higher and people are more likely to be left with severe impairments that require long-term care. Stroke can have a devastating effect on patients and their families as well as costing the NHS over £13,000<sup>1</sup> in the first year alone.

Many people who have AF are unaware that they have the condition. Nationally, there is an impetus to detect more cases of AF through simple pulse checking and the use of new mobile ECG technology. It is estimated that around 11,500 people in the Oxford AHSN region are unaware that they have AF.

Oral anticoagulation therapy with warfarin or a direct oral anticoagulant (DOAC) can reduce the relative risk of stroke in patients with AF by up to 66%. However, not all people who are at risk of an AF stroke are receiving the appropriate anticoagulation therapy. It is estimated that around 5,400 people in the Oxford AHSN region who are diagnosed with AF and have an elevated risk of stroke are not currently receiving anticoagulation therapy.

### **Actions taken**

In 2018/19 the Oxford AHSN completed and evaluated three projects aimed at identifying patients with AF who are not being anticoagulated or whose current anticoagulation is not optimised.

Projects included:

- 1) Pharmacist-led primary care anticoagulation initiation service

- 2) 'Excellence in AF'
- 3) Oxfordshire Anticoagulation Optimisation

These projects differed in terms of focus and methodology but have a commonality in that they all drew on the skills of secondary care specialist pharmacists supporting improvement in primary care.

During this past year the Oxford AHSN also continued work on the national programme to increase AF detection, along with all other AHSNs in England.

In addition, the Oxford AHSN was successful in securing industry funding for two further projects which will be delivered in 2019/20. These projects are:

- 1) AF Champions – delivering AF improvements across an integrated care system
- 2) AF detection for house-bound patients

## Impacts/outcomes

### *Pharmacist-led primary care anticoagulation initiation service*

Oxford AHSN piloted and evaluated a novel model of anticoagulation initiation, within the primary care setting, harnessing the specific expertise of specialist pharmacists to counsel patients, assess bleeding and stroke risk and use shared decision-making techniques to decide on appropriate anticoagulation. This project closed at the end of Q3 2018/19 and was evaluated in Q4. Over 1,000 patients received a 'desk-top' review – e.g. a review by a specialist pharmacist to ensure their anticoagulation was optimised. A total of 465 patients received a consultation with a specialist anticoagulation pharmacist.

- 176 patients were 'anticoagulation-naïve' at the time of consultation - 112 (64%) of these patients were initiated on anticoagulation
- 262 patients were on warfarin with poor time in therapeutic range (TTR) at the time of consultation, with 140 (53%) of these being transitioned onto a DOAC
- 178 patients on a DOAC were reviewed to check correct dosing. 29 DOAC doses were found to be incorrect or contraindicated (19 too low, six too high, four contraindicated) and these were corrected
- **We estimate that up to 13 strokes per annum have been prevented** as a result of the programme and that a further ten patients have been protected from medication-related harm as a result of prescribing errors.

### *Excellence in AF*

The Excellence in AF project brought together the skills and expertise of all the partners to deliver impressive and sustained improvements for patients with AF. It was designed collaboratively by Buckinghamshire CCG, Oxford AHSN and Bayer and identified patients at high stroke risk who were not receiving oral anticoagulation therapy. They were then invited for stroke risk counselling at their GP surgery and offered oral anticoagulation therapy where clinically appropriate.

Twenty-eight GP practices in Buckinghamshire took part in the first phase of the project, with 4,400 of their patients having a detailed review. As a result, an additional 266 patients are now receiving oral anticoagulation, 227 of whom have a high risk of stroke.

**This equates to up to 17 fewer strokes per annum avoiding approximately £230,000 in stroke care costs annually.** Practices were also supported to carry out a quality improvement project to identify areas for sustainable improvement in AF care. Anticoagulation rates were already relatively high in Bucks so the benefits in other regions could be even more significant. The project generated both qualitative and quantitative feedback which helped the CCG develop ongoing initiatives to support GP practices.

*“You have helped us embed the change. You have made us focus on AF and discuss our processes and make changes. Now we want to check them regularly to see how we are doing.”* – GP feedback

This project was a finalist in the ‘Best Pharmaceutical Partnership with the NHS’ category of the HSI Partnership Awards 2019. Read more [here](#) .

### ***Oxfordshire Anticoagulation Optimisation***

This project, which was commissioned substantively in 2018/19, demonstrated that an outreach education and support service led by specialist anticoagulation pharmacists, with consultant haematologist backing, can increase the skills of GPs and help improve safe and optimal anticoagulation management in the community. Compared to a centralised initiation and review service, this is a low-cost approach promoting safe anticoagulation closer to home.

This initiative was a collaboration between Oxford University Hospitals, Oxfordshire Clinical Commissioning Group (CCG) and the Oxford AHSN. It was supported by educational grants from Pfizer and Daiichi-Sankyo. The project aimed to increase the skills of both GPs and community pharmacists and improve management of patients with AF who have poor TTR on warfarin. Two specialist anticoagulation pharmacists (1 whole time equivalent), with haematology consultant support, provided:

- email and telephone advice
- educational sessions and note-based reviews in GP practices
- education sessions for community pharmacists to help effectively deliver the New Medicines Service and Medicines Use Reviews to patients on anticoagulants.

Data shows an improving trend in the number of patients on warfarin with poor TTR. An NHS service based on this project has now been commissioned locally. Nationally, different projects are underway to optimise anticoagulation.

The project won an AF Association Healthcare Pioneer Award: ‘Showcasing Best Practice in AF’ and a [research paper](#) was published in the British Journal of Haematology in March 2019.

### **Detection programme**

In common with other AHSNs across the country, the Oxford AHSN has accessed NHS England funding to acquire a range of digital devices that can support clinicians in detecting AF. We are working with CCGs across our region to take these devices into primary care and to evaluate their impact in increasing detection rates.

### **Future plans**

- Evaluate project delivery and facilitate spread to other CCGs
- Develop the AF detection programme in line with national priorities

### *AF champions programme, Berkshire West*

Oxford AHSN, Wokingham GP Alliance and the Royal Berkshire NHS Foundation Trust were successful in securing £149,000 from the Pfizer-BMS alliance to develop a local anticoagulation champions programme across Berkshire West and to pilot a virtual multi-disciplinary team for anticoagulation to support GPs in dealing with the most complex patients. A series of educational tools is being developed to support this work.

### **National priorities addressed**

- Care and Quality
- Funding and Efficiency
- Health and Well Being
- Driving Economic Growth

### **AHSN priorities covered**

- Cardiovascular
- Long-term conditions
- Medicines optimisation
- Patient safety

### **Start and end dates**

2015-ongoing

**Contact** Hannah Oatley, Clinical Innovation Adoption Manager [hannah.oatley@oxfordahsn.org](mailto:hannah.oatley@oxfordahsn.org)

---

<sup>i</sup>National Audit Office: Progress in improving stroke care, Report on the findings from our modelling of stroke care provision (Feb 2010)