

Project Review

Opportunistic Pulse Rhythm Checks to Detect AF during COVID-19 vaccine clinics in West Suffolk

Introduction

Upon the announcement on 8 December 2020 that the Medicines and Healthcare products Regulatory Agency (MHRA) had approved the Pfizer-BioNTech vaccine, shortly followed by the Oxford Astra-Zeneca vaccine, the Joint Committee on Vaccination and Immunisation (JCVI) gave a clear directive to the priority groups to be called to receive vaccination. Upon seeing 91-year-old Margaret Keenan receive her vaccine, AF Association immediately saw there was a prime opportunity to work alongside the COVID-19 vaccine clinics to offer pulse rhythm checks to help detect atrial fibrillation (AF) without hindering or delaying the vaccine deployment process. With many patients required to wait in vaccine clinics for 15-minutes post vaccination, it became apparent that we could use this time to offer opportunistic pulse checks to people using the AliveCor Kardia single-lead mobile ECG device, and to provide information, education on AF and to raise greater awareness of AF.

Concept

The AF Association Ambassador for West Suffolk, together with our regional medical advisor in the area, worked collaboratively with two GP surgeries in West Suffolk. AF Association structured the concept fluently to attract support from clinicians with the following pathway:

- After the vaccine had been administered, people were offered a pulse rhythm check. Consent was obtained from the person for an opportunistic pulse rhythm check using a one-lead mobile ECG.
- The AF Association Ambassador explained the use of the Kardia mobile ECG and provided AF Association resources for those who expressed an interest.
- Once the 30-second result was provided, people in normal reading were provided with the AF Association "Know Your Pulse" leaflet, which explains the importance of "Knowing Your Pulse to Know Your Heart Rhythm – It Could Save Your Life" and encourages people to regularly check and be aware of their heart rhythm and what to do should they note an irregular rhythm. They were also offered an "What Is AF?" information leaflet.
- People who were found to have "possible AF" were informed of the result and asked if they would like this result shared with the clinician who had invited them to have the opportunistic pulse check. Upon receiving this additional consent, the person's details were added to an AF Association information letter and, where possible, a copy of their AliveCor one-lead ECG were included in the letter. These were sent to the person's GP surgery for further review/follow-ups scheduled in accordance with the GP surgery's care navigation pathway.

AF Association® Registered Charity Number: 1122442
15 Warwick Road, Stratford upon Avon, Warwickshire, CV37 6YW

☎+44 (0) 1789 867502

@ info@afa.org.uk

🌐www.afa.org.uk

🌐www.afa-international.org

Providing information, support and access to established, new or innovative treatments for atrial fibrillation

- Between each pulse rhythm check, the device, chair and table were sanitised in accordance with COVID-19 guidance.

Pilot

To test the efficacy of the concept, we were initially invited to undertake opportunistic pulse checks during the vaccination of a cohort of 60–64 year olds and any clinically vulnerable patients who had not yet received their first dose of immunisation. We complied fully with “COVID-19 safe” requirements and after each pulse check, the device was sanitised.

A total of 100 people were checked using a one-lead ECG following the concept pathway. At no point were there any more than two people waiting, ensuring a seamless transition throughout the vaccination process. During this pilot, two patients were found to have “possible AF” — including a 60-year old woman who volunteered that she had felt “lethargic” for some time. Both people have since been reviewed by their GPs.

Roll-Out Deployment

Having successfully piloted and receiving no negative feedback, we were invited to expand our service to two GP surgeries during the COVID-19 vaccine roll-out. The subsequent cohort of people were 80 plus year olds and clinically vulnerable patients (receiving their second dose of vaccine) following the same concept pathway. It is regarded that this has been a ground-breaking concept offering opportunistic pulse rhythm checks with trained volunteers undertaking this during the GP-led COVID-19 vaccination clinics.

Evidence from the first three sessions is as follows:

Number of Opportunistic Pulse Rhythm Checks undertaken using AliveCor Kardia one-lead mobile ECG	817
Total number of patients in “possible” AF	73 (8.9% prevalence)
Total number of patients with no previous diagnosis or history of AF	47 (5.75% prevalence)

Despite the large number of patients having pulse checks undertaken, it is believed the number of patients in “possible AF” would have been higher considering the challenge in detecting paroxysmal atrial fibrillation. The youngest person found to be in “possible AF” and with a heart rate of 122bpm was a 61-year-old woman who voluntarily advised she had previously suffered a mild stroke and had a history of cardiovascular disease. The oldest person was a 92-year-old woman with an existing diagnosis of paroxysmal atrial fibrillation who was found to be in “possible AF” and voluntarily informed that she had been prescribed aspirin. Following this, we suggested a further discussion with her GP to discuss alternative anticoagulation therapy options.



Providing information, support and access to established, new or innovative treatments for atrial fibrillation

All people detected with no known diagnosis or history of AF were immediately followed up by a GP who were either undertaking further diagnostics or using the ECG obtained from the AliveCor Kardia device. This was either done the same day or within 48 hours in line with most care navigation pathways. All those detected as having "possible AF" were provided with information on AF, how to avoid an AF-related stroke, including the use of anticoagulation therapies, and information on treatments for correcting the irregular heart rhythm (arrhythmia). They were also encouraged to discuss best options, for them, with their GP.

Conclusion

The COVID-19 pandemic has meant that many opportunities to DETECT AF have disappeared, both in the healthcare and non-healthcare setting. Consequently, number of people diagnosed with AF may decrease (there are signs that this happened in Denmark) and the number of AF-related strokes could increase — because people are not receiving appropriate therapies such as anticoagulation. Therefore, a programme of opportunistic pulse rhythm checks at COVID-19 vaccine centres could help to address the challenge of detecting AF during the current situation.

AF Association believes that the concept pathway, trialled in the pilot, could be upscaled and rolled out in other vaccine clinics nationwide. A similar programme, part of West Suffolk CCG Transformation Project, was successfully undertaken during seasonal flu vaccine clinics without delaying the vaccination process. The programme could make substantial inroads into reducing the increasing number of people with undiagnosed atrial fibrillation while providing supporting evidence for the evaluation on the current position of a national screening programme.

AF Association® Registered Charity Number: 1122442
15 Warwick Road, Stratford upon Avon, Warwickshire, CV37 6YW

☎ +44 (0) 1789 867502

@ info@afa.org.uk

🌐 www.afa.org.uk

🌐 www.afa-international.org