Be Aware of the new European Society of Cardiology Atrial Fibrillation Guidelines during Global Atrial Fibrillation Aware Week

Atrial Fibrillation (AF) the most common cardiac arrhythmia is associated with a five-fold increased risk of stroke (Menke et al, 2010). AF-related stroke is more likely to be fatal or severely disabling compared to other types of stroke because clots that form in the heart are large and can obstruct large vessels in the brain. During November, the Atrial Fibrillation Association Global AF Aware week will focus national attention to 1) detecting AF, 2) protecting those with AF from stroke using anticoagulation therapy, 3) correcting irregular rhythms using appropriate treatments and 4) perfecting the patient pathway. Increased clinical understanding and knowledge of recent guidelines by healthcare professionals are necessary to ensure integrated care for those diagnosed or suspected of having AF.

Prevalence of AF is increasing and is predicted to double by 2050 (Schnabel et al, 2015), leading to costly and complex hospital admissions and reduced quality of life. Estimates suggest around 1.2 million people in the UK have a diagnosis of AF (Stroke Association, 2017), with a further half million people currently undiagnosed. Incidence increases with age and those ≥ 85yrs are seven times more likely to have AF compared with those <55yrs (Lane et al, 2017). Other risk factors include diabetes, ethnicity, hypertension, obesity, obstructive sleep apnoea and congestive heart failure. Although it is possible to develop AF without other health conditions, incidence is higher in complex comorbid populations.

Public Health England have declared that stroke prevention in AF is a national priority. Anticoagulation is a preventative treatment that reduces AF-related stroke risk by two-thirds. In fact, if AF were adequately identified and treated around 7000 strokes could be prevented every year, saving approximately 2000 lives (Stroke Association, 2017). AF is greatly associated with heart failure, in part because both conditions have shared mechanisms, leading to neurohormonal and proinflammatory activation, which can induce myocardial inflammation and fibrosis (Staerk et al, 2017). Equally, AF has also been shown to be an independent risk factor for cognitive decline and dementia. Symptoms such as palpitations, breathlessness and fatigue affect up to 80% of individuals (Go et al, 2001) and psychological distress is reported in 35%, potentially due to the unpredictable

nature of symptoms or fear of future thromboembolic event (Walters et al, 2018). Management is complex and attention must be given to the complete patient experience.

Updated European Society of Cardiology guidelines

In August 2020, new European Society of Cardiology (ESC) AF guidelines (Hindricks et al, 2020) were released and firstly suggest confirmation and characterisation (CC) of condition, followed by 'Atrial fibrillation Better Care' (CC-ABC) pathway to manage AF (Figure 1). This includes three elements; A-Avoid Stroke, B-Better symptom management, and C-Cardiovascular risk reduction. This approach, which is driven by a strong interdisciplinary team, is associated with reductions in all-cause hospitalisation and all-cause death (Proietti et al, 2020) equating to lower healthcare costs and better patient outcomes.

Following the new guidelines, *CONFIRMATION* helps to frame the decision to screen or not to screen. Identification (confirmation) of AF enables early treatment and potentially improves prognosis but it is unclear what screening works, for whom, and in what circumstances. Current ESC recommendations support opportunistic screening for those ≥ 65 years whilst systematic screening should be considered to detect AF in individual's ≥ 75 years, or those at high risk of stroke (Hindricks et al, 2020). Of importance, screening programmes must be linked to ongoing management pathways to be effective. *CHARACTERISATION* highlights a key change in thinking, suggesting that focus should be on structured characterisation not classification of AF. AF is widely categorised using the 3Ps (paroxysmal, persistent/long-standing persistent, and permanent AF), which describe type of AF based on the duration of the arrhythmia and its mode of termination. Labelling AF in this way fails to capture comprehensively the multifaceted, individualised lived experience of each AF case. The ESC recommends characterisation based on clinical assessment of stroke risk, symptom status, burden of AF, and evaluation of electrophysiological and structural properties of the atrium (substrate severity). Once AF has been confirmed and characterised, the next step is *AVOID STROKE* ensuring adequate anticoagulation for those at risk of stroke. All AF patients should be assessed for their stroke risk using a CHA2DS2–VASc score (Figure 2) and everyone not at low risk (CHA2DS2-VASc score = 0 in men, or 1 in women) should be offered anticoagulation. However, 34% of those with a CHA2DS2–VASc ≥ 2, have been reported not to be anticoagulated without a documented record of clinical contraindication to anticoagulation therapy or patient refusal (Cowan et al, 2013). Additionally, despite

demonstrable benefits, systematic review indicates 30% of patients are non-adherent to their prescribed anticoagulation medication (Salmasi et al, 2020). Further studies are needed to increase understanding of non-adherence patterns to improve targeting the right patients at the right time with the right intervention to increase medication adherence. Adherence will also help achieve *BETTER SYMPTOM CONTROL*. First line treatment to improve AF symptom burden is pharmaceutical rate and rhythm control. During asymptomatic periods of AF, when patients perhaps feel well, there is a risk of non-adherence to medication. Shared decision making during treatment consultations could improve patient perceptions on when and for how long they must continue treatment. The ESC guidelines recommend ongoing review of patient reported symptoms to measure treatment success and maintain patient engagement with their care plan. Finally, the guidelines highlight the importance of *CONTROL of CARDIOVACULAR RISK.* Management plans should focus on reducing cardiovascular risk factors such as hypertension, physical inactivity and obesity in those with AF. Many people diagnosed with AF are unaware of the link between unhealthy lifestyle risk factors and AF symptom severity and potential disease progression. The challenge for healthcare professionals is to design and implement AF interventions that emphasise self-management to promote patients to not only increase their adherence to medication but to take a more active role in managing their own condition.

Interventions for atrial fibrillation care

It is possible to support self-management through patient education or developing a programme that includes specific behaviour change techniques (e.g. goal setting or symptom tracking) to encourage long-lasting lifestyle changes. Nurse-led AF clinics and telehealth interventions are examples of how healthcare systems have responded to ESC recommendations that AF care must be multidisciplinary in approach. Speciality nurse led clinics reduce wait times to be seen, get diagnosed and to receive hospital based treatment. They are associated with reduced rates of hospitalisations and overall healthcare costs (Rush et al, 2019). Telehealth interventions are a now well-accepted method of delivering care remotely in a patient's own environment. In terms of AF, telehealth offers tools to educate, monitor symptoms, track medication and physiological measurements, and enable reminder functions to increase medication adherence (Kotecha et al, 2017). During the ongoing COVID-19 pandemic proactive use of telehealth could improve patient access to healthcare and support whilst also mitigating some of the negative effects from social isolation. Telecheck-AF, an international

initiative enrolling nearly 2000 patients across 37 European centres, is one such scheme. The technology is able to transform a smartphone into a rate-and-rhythm detector to provide real-time patient physiological measurements from which healthcare professionals can make informed remote clinical decisions to ensure continuity of AF care during uncertain times.

As Atrial Fibrillation Association Global AF Aware week approaches, we have the opportunity to ensure that AF services remain streamlined despite COVID-19. It is important clinicians familiarise themselves with updated guidelines and that we continue to think outside of the box to provide ongoing holistic clinical and psychological support remotely for those diagnosed or suspected of having AF.
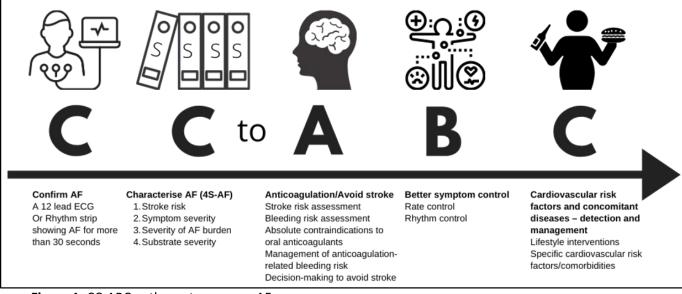

Figure 1. CC-ABC pathway to manage AF

Risk Factors	Points
Congestive heart failure	+1
Hypertension	+1
Age 75 years or older	+2
Diabetes mellitus	+1
Stroke	+2
Vascular disease	+1
Age 65-75 years	+1
Sex **C**ategory (female)	+1
	Maximum score = 9

Figure 2. CHA2DS2–VASc Score adapted from ESC 2020

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