TIME FOR ACTION ON ATRIAL FIBRILLATION

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The incidence of atrial fibrillation, a common and treatable risk factor for ischaemic stroke, is predicted to increase in the coming decades, elevating the status of this arrhythmia to that of a public health priority. The growing importance of this condition is reflected by the publication in July, 2015, of two documents: the research report for the Future of Anticoagulation Initiative on the future of atrial fibrillation management in Europe; and the UK National Institute for Health and Care Excellence (NICE) Quality Standard on the treatment and management of atrial fibrillation. Both aim to further raise awareness of atrial fibrillation among physicians and policy makers, but should the imperative now move away from raising awareness and on to the formulation of an international action plan to circumvent this burgeoning crisis?

Without intervention, the burden associated with atrial fibrillation is set to spiral. According to the most recent estimates of 50-year trends, the age-adjusted prevalence of atrial fibrillation has quadrupled (from 20.4 to 96.2 cases per 1000 person years in men and from 13.7 to 49.4 cases per 1000 person-years in women). Although age is a strong predictor of atrial fibrillation (prevalence increases from 0.5% at 50–59 years to 10% in those ≥80 years), the occurrence seems to be increasing over and above the effect of overall population ageing, possibly due to the aggregate effects of greater awareness and detection, and longer survival. People with atrial fibrillation have fivefold greater risk of stroke, and as more people now live into their 70s and 80s the predictions of risk of stroke in people in this age range are alarming: atrial fibrillation-related incident strokes have trebled in people of ≥80 years in the past 25 years and are set to treble again by 2050.

At the population level, the Future of Anticoagulation Initiative recommends simple measures such as opportunistic screening for irregular heart rhythms at routine appointments with primary health care providers to identify patients with overt atrial fibrillation. Older patients and those at high risk, such as those identified through the Framingham Heart Study algorithm, could be prospectively invited for more complex screening. But it is those who have had a stroke or transient ischaemic attack who are most vulnerable; as many as a quarter may have atrial fibrillation, placing them at risk of a recurrent stroke. Although detection of atrial fibrillation after stroke is a function of the length of monitoring, there is no gold-standard for the length or type of monitoring in patients after incident ischaemic events and little evidence linking the length of runs of atrial fibrillation to prognosis. The current American Heart Association/American Stroke Association guidelines recommend at least 24 h of ECG monitoring; extended monitoring of up to 30 days in patients with cryptogenic stroke improves the detection rate. However, because runs of atrial fibrillation can vary in length and can be paroxysmal and asymptomatic in this patient group even this extended monitoring period might still prove insufficient to pick up sporadic or
short runs of atrial fibrillation. A recent systematic review and meta-analysis showed that **sequential cardiac monitoring** with a combination of invasive and non-invasive methods at different intervals after stroke may increase the detection rate, but translation to the clinic of the optimum screening protocol might still be years away.

On the treatment front, the diagnosis of atrial fibrillation remains the gateway to primary and secondary preventive stroke treatment with anticoagulants (antiplatelets are recommended in the absence of such a diagnosis), but there is still reticence to the prescribing of warfarin, particularly in healthy older patients with atrial fibrillation. To address this, in the Quality Standard NICE ratifies newer non-vitamin K antagonist oral anticoagulants (NOACS), such as apixaban, dabigatran, and rivaroxaban, as well as vitamin K antagonists for the prevention of atrial fibrillation in adults with non-valvular atrial fibrillation and a **CHA2DS2-VASc** stroke risk score of 2 or above. The recommendations also make in-roads to eradicating any reference to aspirin in the preventive treatment pathway.

The management of atrial fibrillation is changing, both for primary and secondary prevention of stroke. But given the current estimates of the scale of the impending public health impact, is it not time to push this up the priority list? There are several precedents for how the galvanisation of parties with an interest in neurological disease can implement change, not least the recent Ministerial Conference on Global Action Against Dementia. With respect to atrial fibrillation, much of the groundwork might already be in place.