

Atrial fibrillation and stroke: unrecognised and undertreated

When did you or your primary care physician last palpate your wrist to check for a regular heart rate? This simple action, followed by an electrocardiogram if the heart rate is irregular, might be crucial in preventing death and disability from ischaemic stroke, heart failure, or myocardial infarction. In this week's issue, we publish a clinical Series of three papers on atrial fibrillation ahead of the annual European Society of Cardiology (ESC) meeting held in Rome, Italy, Aug 27–31. Atrial fibrillation is estimated to affect 33 million people worldwide. But this figure is likely an underestimate since many people do not know that they have atrial fibrillation until they develop symptoms or present with an ischaemic thromboembolic stroke or systemic thromboembolism. The estimated lifetime risk of developing atrial fibrillation is 25%. A rising prevalence is largely due to an increase in the elderly population, but perhaps also due to a prevalence of risk factors, such as diabetes, hypertension, obesity, and alcohol consumption.

Even once diagnosed, as the first paper in our Series highlights, many people who should be on oral anticoagulation therapy for stroke prevention after appropriate risk assessment are not on any at all, are wrongly given aspirin (which is not effective), are on a suboptimum dose (especially when on the oral vitamin K antagonist warfarin), or are not adhering to the lifelong required treatment. Vitamin K antagonists have been shown to reduce stroke or systemic thromboembolism by 64% and all-cause mortality by 26%. The newer non-vitamin K antagonist oral anticoagulants, such as dabigatran, have an additional effect of 19% and 10% reduction, respectively, and might have a better adherence profile. The authors highlight the steps needed to reduce stroke burden by better recognising stroke risk, which is a continuum, and to make oral anticoagulant treatment the default unless low risk is truly shown. Once patients are deemed at low risk, they need to be regularly reviewed since their risk profile might change over time and anticoagulant therapy might then be indicated.

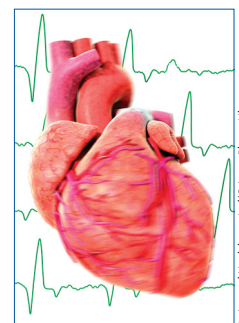
Stroke occurrence and death in patients in 47 countries 1 year after presenting to a hospital emergency department with atrial fibrillation have been assessed by Jeff Healey and colleagues, in a prospective registry study published online on Aug 8. 11% of more than 15 000 patients died within 1 year, predominantly from heart failure, and 4% had a stroke. Coexisting

hypertension varied from 42% in India to 81% in eastern Europe. And, worryingly, 32% of patients in North America, western Europe, and Australia, and up to 70% of those in China, who should have been on anticoagulant therapy according to existing guidelines, were not. To prevent heart failure in those with symptomatic atrial fibrillation, heart rate control, and in some cases rhythm control, is the approach to take. The second and third papers in our Series review existing evidence for rate and rhythm control in atrial fibrillation.

Atrial fibrillation is also one of the ten potentially modifiable risk factors associated with acute stroke identified in the INTERSTROKE study, published in today's issue. Martin O'Donnell and colleagues show that the population attributable risk of atrial fibrillation for ischaemic stroke is 17.1% in western Europe, North America, and Australia. The ten potentially modifiable risk factors (hypertension, regular physical activity, apolipoprotein [Apo] B/ApoA1 ratio, diet, waist-to-hip ratio, psychosocial factors, smoking, cardiac causes including atrial fibrillation, alcohol consumption, and diabetes mellitus) accounted for 90.7% of the population attributable risk for stroke worldwide.

Atrial fibrillation is eminently modifiable as a risk factor for stroke and relatively easy to screen for. There is also now an increasing choice of effective oral anticoagulant therapy. What is needed is an increased recognition that this is not a benign disorder and that we have good evidence-based clinical risk assessment scores for both stroke risk and bleeding risk to give physicians and patients the confidence to make the right choices. The UK's National Institute for Health and Care Excellence has just this month included new indicators to help general practitioners improve the identification and management of atrial fibrillation and, next year, 30 practices across the UK will routinely test anyone older than 65 years for atrial fibrillation.

The new 2016 European Guidelines on cardiovascular disease prevention in clinical practice already recommend that anyone aged 65 years or older and anyone with diabetes mellitus is screened for atrial fibrillation by palpation followed by electrocardiogram if needed. More specific, new ESC guidelines on atrial fibrillation will be released and presented at the Rome conference. There are no excuses to ignore this common cardiac disorder. ■ *The Lancet*



Animated Healthcare Ltd/Science Photo Library

See **Articles** page 761

See **Series** pages 806, 818, and 829

For the *Lancet* **Articles** on occurrence of death and stroke see [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(16\)30968-0/fulltext](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(16)30968-0/fulltext)