D o your patients know how to manually check their pulse? This simple, easy-to-use diagnostic tool (two fingers placed on the wrist for 30 seconds) could save their life.

With a rising global population aged over 65, the number of people with atrial fibrillation (AF) is escalating to epidemic proportions, currently affecting at least 33 million people worldwide. Tragically, this figure is a gross underestimate since many people are not known to have AF until they develop symptoms or present with an AF-related stroke — the most debilitating and life-threatening type of stroke.

In the U.S., up to 6.1 million people have AF, with an incidence of 9% in those over age 65, causing more than 750,000 hospitalizations and contributing to an estimated 130,000 deaths each year. Similarly, figures for Europe place the number of people with AF at approximately 6 million, leading to nearly 360,000 AF-related strokes per year.

A recent meta-analysis has also shown a direct link to an increase in heart failure, kidney disease, and sudden cardiac death in patients with poorly controlled AF — greater than the risk of an AF-related stroke.

The estimated lifetime risk of developing AF is 25%. A rising prevalence is largely due to an increase in the older population, but is also connected to cardiovascular risk factors such as diabetes and hypertension.

WHY DETECTION IS CRITICAL

The prevalence of diagnosed AF in England is 1.6%. Modelled estimates suggest the real prevalence is much higher at 2.4%, indicating that a third of individuals with AF — around half a million people in England — are undiagnosed and therefore untreated. If left unmanaged, or poorly controlled, these people will have an annual 5% increased risk of suffering an AF-related stroke, which equates to 2,500 AF-related strokes per year.

For this reason, and with new evidence demonstrating the significant cardiac effects of unmanaged and symptomless AF previously perceived as ‘benign in impact’ — the AF Association and Arrhythmia Alliance are calling for the creation and uptake of commissioned national screening programs for AF in people over the age of 65.

In the UK, the AF Association is calling on the National Screening Committee to reconsider its 2014 recommendation that dismissed a national screening program in favor of targeted opportunistic case-finding. The organization believes new evidence proves this to be greatly limited in its current guise to uncover even a small proportion of the 500,000 people with undiagnosed AF and does not recognize the potential consequences of poorly controlled, asymptomatic AF.

A consensus statement from the AFSCREEN International Collaboration — consisting of over 100 international cardiologists — has recently called for global, routine screening for AF in people over 65 years of age.

EP Advocacy

Know Your Pulse: Providing Community-Wide Awareness About Atrial Fibrillation

Trudie Lobban, MBE, Founder and CEO, and Nigel Breakwell, Executive Director
Arrhythmia Alliance
Shipston-on-Stour, Stratford Upon Avon
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DETECT, PROTECT, CORRECT, AND PERFECT

Arrhythmia Alliance and its alliance partner, the AF Association, are committed to improving the holistic management of people with AF — providing information, support, and access to diagnosis and established, new, or innovative treatments. Our first Global AF Aware Week in November 2013 aimed to ‘Detect & Protect’ AF patients; this has evolved into our established ‘Detect, Protect, Correct & Perfect’ campaign:

• Detect AF by a simple pulse check;
• Protect against AF-related stroke using anticoagulation therapy (not aspirin);
• Correct AF by speaking to your doctor to discuss and access appropriate treatment options;
• Perfect the patient care pathway.

The time has come to re-evaluate recommendations in guidelines and propose consideration of widespread screening for AF in people over 65 years of age using pulse-taking or inexpensive handheld ECG devices as a strategy to detect AF.

SCREENING FOR AF IS EASY

The SAFE trial was a multicenter, randomized controlled trial of 15,000 patients across 50 UK primary care practices; the trial was designed to answer several questions on the epidemiology of AF and identify the most cost-effective method for detecting AF in a population aged >65 years. The principal conclusion was that active case findings in people >65 years, using a simple pulse check followed by ECG for those with an irregular pulse, will identify an additional third of cases of AF. Secondary analysis of the SAFE data has demonstrated that...
AF SCREENING SURVEY

A staggering 30% of those diagnosed with AF were UNDER 60 years of age

54% Male
46% Female

43% received screening following symptoms
13% experienced a TIA or stroke

Symptoms included
- Palpitations - 65%
- Fatigue - 59%
- Breathlessness - 50%
- Light-headedness - 46%
- Anxiety - 40%
- Frequent urination - 30%
- Chest pains - 18%
- Excessive sweating - 18%
- Syncope - 8%

However...

7%

had

NO SYMPTOMS

at all

patients detected through such case findings have at least as high a risk of stroke as those detected through routine care. In a systematic review that included 30 studies and over 120,000 patients, a single time point screen using either pulse palpation or an ECG detected previously undiagnosed AF in 1% of patients overall, and in 1.4% of those 65 years or older. The availability of inexpensive, handheld electrocardiographic devices that rapidly acquire a medical-quality cardiac rhythm strip make screening for AF more feasible. In a study of 1000 customers in community pharmacies using a smartphone-based electrocardiograph, 1.5% were found to have previously undiagnosed AF, and all had a CHA2DS2-VASc score of 2 or higher, which would indicate the need for anticoagulation. Devices are now available that can either display or transmit the rhythm strip, and in some cases automatically detect AF on the device. Even more AF cases (218 of 7173 participants [3.0%]) were detected with intermittent participant-activated recordings over 2 weeks.

IS OPPORTUNISTIC CASE-FINDING ENOUGH?

It is still believed that asymptomatic AF is a benign condition, which is one of the main reasons used to dismiss the call for a national screening program for AF. However, a study undertaken by the Mayo Clinic in Rochester, Minnesota challenges this belief. In this study, 25% of 4168 residents with confirmed AF were asymptomatic at the time of diagnosis, but were three times as likely to have sustained an ischemic stroke prior to diagnosis than those with symptoms, and had a similar risk of stroke and death during follow-up.
A formal national screening program.14 mine if a disease or condition requires consideration of screening to detect the stroke and death, and therefore, warrants identified through a screening program indicate that incidentally detected AF 1% and 4%, respectively. These results with warfarin (n = 2492), the adjusted 7%,13 whereas among patients treated incidentally detected asymptomatic, so it is only detected if the pulse medical attention, but often it is asymptomatic, so it is only detected if the pulse is understood; everyone got a pulse check at every people >65 years.7 AF sometimes causes the debilitating and life-threatening event of an AF-related stroke. Many of these individuals are only diagnosed after suffering a stroke — this cannot be allowed to continue, when AF is so easy to identify and diagnose.

Clinical evidence has identified a diagnosis gap of 33%, which means that: • 1 in 3 of all people with AF go undiagnosed; • Over half a million people in England alone don’t know that they have AF; • Every year a person has undiagnosed (and therefore untreated) AF, the risk of an AF-related stroke increases by 5%.

Each year, 2,500 people in England (and 360,000 people across Europe) have an AF-related stroke that should be avoided. However, people are not numbers. This year, hundreds of thousands of people and their loved ones across the world will not be so lucky. An AF-related stroke can and does destroy lives.

NOW IS THE TIME TO ACT
There is a wealth of high-quality evidence, guidance, management, and treatment already in place for people with AF — and yet, we still have an unacceptable number of people suffering the debilitating and life-threatening event of an AF-related stroke.

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For further information, go to: www.heartrhythmalliance.org

References

AF Awareness
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In a UK study of 5555 patients with incidentally detected asymptomatic AF the adjusted stroke rate among untreated patients (n = 1460) was 4% in 1.5 years and all-cause mortality was 7%,13 whereas among patients treated with warfarin (n = 2492), the adjusted stroke and death rates were just over 1% and 4%, respectively. These results indicate that incidentally detected AF identified through a screening program is not benign, it responds to anticoagulant treatment with reduction of both stroke and death, and therefore, warrants consideration of screening to detect the arrhythmia before stroke has occurred.

WE NEED TO DO MORE THAN OPPORTUNISTIC CASE-FINDING
The WHO has set criteria to determine if a disease or condition requires a formal national screening program.14 AF meets these criteria: • AF is an important health problem; • There are proven and accepted treat¬ments for the disease; • Facilities for diagnosis and treatment are available; • There is a recognizable latent or early symptomatic phase; • There is a suitable test acceptable to the population — remember when everyone got a pulse check at every primary care consultation? • The natural history of the condition is understood; • There are agreed policies on who to treat as a patient; • The cost of case-finding and treat¬ment is economically balanced in relation to total medical expenditures, and case-finding should be a continu¬ing process.

The 2016 European Guidelines on Cardiovascular Disease Prevention in Clinical Practice15 already recommend that anyone aged 65 years or older and anyone with diabetes mellitus be screened for AF by palpation followed by electrocardiogram if needed, and the updated 2016 European Guidelines on Atrial Fibrillation recommend opportunistic screening among those 65 years and older by pulse-taking during clinic or office visits.16 However, the pulse is infrequently assessed in primary care. For example, the uptake of pulse checks as listed in the NHS Health Checks guidance is very low, and in many places, non-existent — with GPs and nurses relying on blood pressure monitors, not realizing that these instruments do not measure the heart rhythm.

The time has come to re-evaluate recommendations in guidelines and propose consideration of widespread screening for AF in people over 65 years of age using pulse-taking or inexpensive handheld ECG devices as a strategy to detect AF.

AF prevalence increases sharply with age, with 80% of cases occurring in people >65 years.2 AF sometimes causes symptoms that lead individuals to seek medical attention, but often it is asymptomatic, so it is only detected if the pulse is examined.

Figure 5: The British Ambassador’s wife for Uruguay (at left), alongside the President of the Arrhythmia Alliance in Uruguay, Dr. Walter Reyes, and Trudie Lobban, MBE, with children from the poorest school in Montevideo. From this, a 9-year-old went on to detect a ‘funny pulse’ and her 46-year-old father was later diagnosed with AF.