key points

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The lifetime risk of atrial fibrillation (AF) for men and women over the age of 40 is approximately 25%. The condition affects around 800,000 people in the UK, of which it is estimated that 250,000 are undiagnosed. A rapid heart rate may result in palpitations, dyspnoea or chest tightness, whereas loss of atrial contractility may lead to fatigue and reduced exercise capacity. Half of patients with AF have associated cardiovascular disease.

There is a five-fold increased risk of ischaemic stroke, transient ischaemic attack or systemic embolism. AF strokes are larger, more disabling and have a higher mortality rate than those with other causes. The risk of stroke is not related to the presence or absence of symptoms, or whether the AF is paroxysmal or persistent.

When an irregular pulse is detected it should precipitate further assessment with a 12-lead ECG. In patients with intermittent palpitations that may represent AF, prolonged ECG monitoring can be used to increase the chance of diagnosis. In patients with a confirmed diagnosis of AF, three areas need to be considered, stroke risk, symptoms, and risk of tachycardia cardiomyopathy.

The CHA_2DS_2-VASc score is used to assess the stroke risk in patients with AF. Oral anticoagulation should be offered to those with a CHA_2DS_2-VASc score of 2 or more, and considered for men with a score of 1. The risk of severe bleeding with warfarin should also be assessed using the HAS-BLED score. A score of 3 or more indicates that caution is required when starting any anticoagulant therapy. Oral anticoagulant therapy can reduce the risk of having a stroke by approximately 50-70%. It should be started when the patient reaches the age of 65 or if he/she develops any of the risk factors for stroke.

Novel oral anticoagulants (NOACs) have been approved by NICE for prevention of stroke and systemic embolism in patients with non-valvular AF. Making the choice between warfarin and NOACs is a complex process that should take into account not only the patient's age and comorbidities but NICE guidance, patient preference and compliance. Aspirin is no longer recommended for thromboembolic stroke prevention in AF.

Rate control is currently suggested as a first-line strategy, except in patients with AF that is of new onset, has a reversible cause, or with persistence of symptoms despite good rate control. Rhythm control strives to restore and maintain sinus rhythm, preserving atrial contractility as well as a normal heart rate. It is harder to achieve, yet for many patients it is the only way to abolish all symptoms. Radiofrequency ablation is indicated in highly symptomatic patients with paroxysmal or persistent AF who have failed drug therapy and in whom a rhythm control strategy is preferred. Current techniques have a 90% success rate for paroxysmal AF and 80% for persistent AF.