

key points

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Atrial fibrillation (AF) is the most common sustained heart rhythm disturbance. Estimates suggest an AF prevalence as high as 2% in adults with an exponential relationship with increasing age. There are strong relationships with hypertension, heart failure, coronary artery disease (CAD), valvular heart disease, obesity, diabetes mellitus, COPD, obstructive sleep apnoea, chronic kidney disease and lifestyle factors such as increased alcohol intake, strenuous physical exercise and smoking. AF is associated with a 1.5-2 fold increased risk of death, and is responsible for 20-30% of all strokes.

Assessment should include physical examination (blood pressure measurement, cardiovascular examination to look for valvular heart disease or heart failure and lung examination looking for signs of lung disease or pulmonary oedema), blood tests, including urea and electrolytes, liver function tests, full blood count, blood glucose and thyroid function tests. Signs of haemodynamic instability or severe symptoms (unstable angina, evolving TIA or stroke, heart failure or severe bradycardia) should be promptly identified and lead to urgent referral of the patient to specialist care.

The CHA₂DS₂-VASc risk stratification score is recommended to assess stroke risk in patients with AF. Oral anticoagulation should be offered to patients with a CHA₂DS₂-VASc score ≥ 2 , and considered for men with a score of 1 and women with a score of 2. Risk of severe bleeding with warfarin should also be assessed using the HAS-BLED score.

Oral anticoagulation should be used in all patients with increased stroke risk because it can prevent the majority of ischaemic strokes in AF patients (up to two-thirds) and can reduce mortality by one quarter. Making the choice between warfarin and the different NOACs is a complex process that should take into account not only the patient's age and comorbidities, but also NICE guidance based on trial entry criteria, patient preference and compliance. Aspirin is not an option for thromboembolic stroke prevention in AF. It is not as effective as anticoagulants at preventing stroke, and in the very old has a similar rate of intracranial bleeding as warfarin.

Rate control is an integral part of the management of AF to prevent tachycardia cardiomyopathy in persistent AF and it may be sufficient to improve AF-related symptoms. It should be adopted as a first-line strategy, aiming for a target resting heart rate of < 100 bpm. A rhythm control strategy should be strongly considered when symptoms persist despite good rate control, especially for newly diagnosed AF and in the case of a reversible cause. Options for rhythm control include electrical cardioversion if the AF is persistent, plus antiarrhythmic drugs and catheter ablation. Only 20-30% of patients are still in sinus rhythm one year after cardioversion.