Atrial fibrillation (also referred to as AF) is an abnormality in the rhythm of the heart (arrhythmia). It involves the upper chambers of the heart, the atria, beating irregularly. As the atria control the normal (sinus) rhythm of the heart, this means that your pulse becomes irregular.

Atrial fibrillation is the most common form of arrhythmia, affecting four out of every 100 people over the age of 65. A patient may not feel any symptoms when the heart rate changes from normal sinus rhythm to atrial fibrillation, and so it is often only detected by your doctor when you attend for other reasons. However, some patients may present with palpitations (being able to feel the increased and irregular heart rate), shortness of breath or chest pains.

Some patients with AF may spontaneously return to normal (sinus) rhythm after a short period of time. However, others may find they alternate between these two rhythms. This is called paroxysmal atrial fibrillation. Others may remain in AF, called permanent AF.

There are many different causes of atrial fibrillation. These include lung disease such as chronic bronchitis and pneumonia, disease of the heart valves, hypertension, heart failure, valvular disease, atherosclerosis, high blood pressure, an overactive thyroid gland or too much alcohol. However, these are not the only causes, and for some there may appear to be no obvious reason.

Atrial fibrillation can increase the risk of stroke. The irregular heart rhythm causes the blood to pool and this may cause a blood clot to form in the heart chambers which can then be carried to the small blood vessels in the brain where it blocks the blood flow and causes a stroke. To reduce the risk of stroke, your doctor will assess your risk factors and decide whether to start you on an anticoagulant. Antiplatelet drugs (aspirin and clopidogrel) are no longer prescribed for AF unless you have had other conditions in the past such a heart attack.

There are various ways to treat atrial fibrillation and these can be summarised into two groups.

1. Some patients will require rate controlling therapy. This is using medical treatments to slow the speed of the pulse. For this the doctor may prescribe a betablocker (such as bisoprolol), or a calcium channel blocker (such as diltiazem) or digoxin.

2. Some patients will require rhythm control and attempts may be made to return the heart to sinus rhythm. This technique is called medical cardioversion when medicine therapy such as amiodarone, flecainide or betablockers is used. Sometimes an electrical cardioversion may be attempted, using an electrical current under general anaesthetic. For some patients who are symptomatic, catheter ablation or surgical ablation may be appropriate options.

Assessment by a specialist is required to consider which approach is most suitable for an individual.

For further information on therapies and treatments mentioned, please contact AF Association.

Acknowledgements: AF Association would like to thank all those who helped in the development and review of this publication. Particular thanks are given to Dr Matthew Fay and Dr Charlotte D’Souza.