1 WHAT IS ATRIAL FIBRILLATION (AF)?
Atrial Fibrillation is a disorder of the rhythm of the heart. It is due to fast, irregular contraction of the upper chambers of the heart (the atria) resulting in a very fast and irregular heart beat.

2 HOW COMMON IS AF?
AF is the most common type of irregular rhythm, occurring in about 0.5% - 1% of the population. The prevalence increases with age, from 0.1% in patients less than 55 years old to 10% in patients who are 80 yrs old and above.

3 WHAT ARE THE SYMPTOMS?
If you have AF, you may suffer from:
- irregular heart beat or palpitations
- chest pain
- shortness of breath
- feeling tired easily
- lightheadedness and in rare cases, fainting.
Some of you may show complications of AF such as heart failure or stroke. Others may have no symptoms and the AF is detected only when you see a doctor.

4 WHO GETS AF?
AF occurs more commonly with ageing and typically occurs if you have underlying heart disease. The most common causes are:
- long standing high blood pressure
- ischaemic heart disease (blockages in the arteries serving the heart muscle)
- heart valve abnormalities
• abnormalities of the heart's pumping function (heart failure)
• sick sinus syndrome (electrical disorder of the heart resulting in a very slow or very rapid heart beat).

However, some of you may have just AF alone without any detectable heart disease.

5 WHAT ARE THE COMPLICATIONS ASSOCIATED WITH AF?

Stroke

In AF, the muscular walls of the atria quiver instead of contracting forcefully. This makes it more likely for blood clots to form. If a blood clot breaks free, travels to the brain and blocks the blood supply to part of the brain, the result is a stroke. You are more likely to form blood clots if you have the following risk factors:

• age older than 65 years
• high blood pressure (hypertension)
• diabetes
• previous stroke
• enlarged upper heart chamber (atrial enlargement)
• weakened lower heart chamber (ventricle) or heart failure
• heart valve abnormalities or had heart valve replacement surgery.

Warning signs of stroke include sudden onset of any of the following symptoms:

• numbness or weakness of the face, arm or leg, especially on one side of the body
• confusion, difficulty in speaking or understanding

• blindness in one or both eyes
• dizziness, loss of balance or coordination
• severe headache with no known cause.

If a blood clot blocks an artery to other parts of the body (for e.g. a kidney or a limb), it can also cause damage to that particular region.

Cardiomyopathy

As AF results in a fast heart rate and inefficient function of the heart muscle, weakening of the heart muscle or cardiomyopathy may result. This may eventually lead to heart failure. Symptoms of heart failure include shortness of breath, weakness, tiredness and reduced exercise tolerance.

While most of you with AF will not develop blood clots or cardiomyopathy, your lives may be affected by the uncomfortable palpitations, tiredness and shortness of breath caused by AF.

6 HOW IS AF DIAGNOSED?

AF may be diagnosed from a recording of your heart's electrical activity called an electrocardiogram (ECG). A thorough medical evaluation by a cardiologist is important. Other diagnostic tests that may be done include:

• blood and urine tests
• chest X-ray
• echocardiography (using ultrasound to image the heart to detect any abnormal heart function or structure).
HOW IS AF MANAGED?

AF seldom causes serious or life-threatening problems if it is treated appropriately.

The goals of treating AF include:

• slowing the heart rate (rate control)
• preventing blood clot formation (anticoagulation)
• restoring a normal heart rhythm (rhythm control).

Control of heart rate together with anticoagulation is recommended for most patients with AF. Control of heart rhythm may be appropriate if you have symptoms and especially if you have no significant underlying heart disease.

Rhythm control may be achieved by electrical shock or drug treatment. Newer treatments for rhythm control include:

• insertion of a pacemaker
• removal of the area of the heart discharging abnormal signals using a special wire
• removal of the area giving out the abnormal signals through open heart surgery.

Your doctor will discuss the specific risks and benefits of different treatments with you.

Anticoagulants

If you have AF, you should be checked for risk of stroke. If you are found to be at risk, you will be given appropriate medication to prevent blood clot formation. Aspirin, Clopidogrel (Plavix), Ticlopidine (Ticlid) or Warfarin (Coumadin, Marevan) are some drugs which are used for this purpose.

Warfarin is the most effective anticoagulant but it also has the most side effects. It should not be used if you have with bleeding problems or ulcers. Blood tests are required to establish the correct dosage of warfarin needed to keep abnormal blood clots from forming, while keeping the risk of bleeding low. If you are on warfarin you should:

• know the dosage you are taking
• be aware of warning signs of potential side effects
• inform your doctor and dentist that you are on warfarin
• inform the doctor immediately if you notice bleeding or bruising anywhere
• discuss any intention of pregnancy with your doctor
• keep your eating habits similar as sudden changes can affect the effect of warfarin.

A treatment strategy that works for one person may not work for another. Each person's situation is unique. If you suffer from atrial fibrillation, discuss your treatment options with your doctor.