Ablation
A procedure for destroying heart tissue that is creating abnormal electrical impulses.

Accessory pathway
A collection of muscle fibres that bypass the normal pathway for electrical impulses going from the atria to the ventricles through the atrioventricular (AV) node.

ACE inhibitor
A pharmaceutical drug that inhibits the enzyme which converts angiotensin I to angiotensin II.

Acetylcholine
The neurotransmitter released at parasympathetic (vagus) nerve endings.

Acidosis
A condition in which the blood is excessively acidic (pH below 7.38). It is caused by an imbalance in the bicarbonate-carbonic acid buffer system that keeps the pH of blood within a very narrow range.

Acute
Of rapid onset, severe symptoms and short duration.

Adenoma
A benign tumour of epithelial origin.

Adrenaline
See epinephrine.

Adrenergic
Pertaining to the sympathetic branch of the autonomic nervous system.

Adrenergic LAF
Lone atrial fibrillation triggered by excessive sympathetic stimulation.

Adrenergic tone
The strength or vigour of the sympathetic branch of the autonomic nervous system.
**ADP (adenosine diphosphate)**
A compound involved in energy transfer within cells. It consists of adenine, ribose and two phosphate groups.

**Afferent**
Pertaining to nerves or neurons that carry impulses (information) from an organ to the brain or spinal cord (See also efferent).

**Alkalosis**
A condition in which the blood is excessively alkaline (pH above 7.44). It is caused by an imbalance in the bicarbonate-carbonic acid buffer system that keeps the pH of blood within a very narrow range.

**Aneurysm**
A bulge formed by dilation of the wall of the heart or blood vessel.

**Angina pectoris**
Pain in the center of the chest, which is induced by exercise and relieved by rest. Angina occurs when the demand for blood exceeds the supply and is usually caused by atherosclerosis of the coronary arteries.

**Antiarrhythmic**
Pharmaceutical drug designed to prevent abnormal heart rhythms or to convert abnormal rhythms to normal sinus rhythm.

**Anticoagulant**
Pharmaceutical drug designed to prevent blood clotting.

**APC (Activated protein-C resistance)**
A condition caused by the presence of a mutation of blood coagulation factor V (factor V Leiden). APC is associated with an increased risk of venous thromboembolism.

**Apoptosis**
Self-destruction (suicide) of individual cells to avoid a threat to the survival of the organism as a whole.

**Arrhythmia**
An abnormal heart rhythm.

**Atherosclerosis**
The development of fatty plaque and scar tissue on the inner wall of the arteries – eventually leading to obstruction of blood flow and an increased risk of thrombosis.

**Artery**
A blood vessel that carries blood away from the heart.

**Atria**
The two upper chambers of the heart. The right atrium receives returning blood from the body and the left atrium receives oxygenated blood from the lungs.

**Atrial appendages**
Small pouches connected to the right and left atria. The left atrial appendage (LAA) is associated with the generation of blood clots during atrial fibrillation.
**Atrial fibrillation**
A chaotic movement of electrical impulses across the atria leading to a loss of synchrony between the atria and the ventricles.

**Atrial flutter**
An abnormal, sustained, rapid contraction of the atria. The rhythm is rapid, but regular as opposed to atrial fibrillation where it is rapid and irregular.

**Atrial mapping**
See Electrophysiology study

**Atrial natriuretic peptide [ANP]**
A hormone formed in the atria. ANP is involved in regulating blood pressure and salt and water balance in body fluids.

**Atrial refractory period [ARP]**
See Refractory period

**Atrial thrombus**
A blood clot formed in the atrium.

**Atrioventricular (AV) node**
A set of specialized heart cells that conducts the normal electrical impulses from the atria to the ventricles.

**Auscultation**
The act of listening for sounds in the body to ascertain the functioning of the heart, lungs, abdomen and other organs (usually done with a stethoscope).

**Autonomic nervous system [ANS]**
The part of the central nervous system that is not under conscious control (involuntary). It controls the body’s internal organs including the heart and digestive system and is responsible for regulating blood pressure.

**AV node ablation**
Full or partial destruction (by ablation) of the AV node’s ability to conduct signals between the atria and ventricles. A permanent pacemaker is required after AV node ablation.

**B**

**Baroreceptors**
Specialized muscle cells located in the walls of the heart and major arteries. They “measure” blood pressure by stretching or relaxing as blood flows past them.

**Beta-blocker**
A pharmaceutical drug which blocks the receptor sites for the neurotransmitters (catecholamines) used by the sympathetic (adrenergic) branch of the autonomous nervous system.

**Bigeminy**
An abnormal heart rhythm in which a normal heartbeat (originating from the SA node) is followed by an ectopic beat (originating outside the SA node) in rapid succession.
**Biopsy**
The removal of a small piece of living tissue from the body for microscopic examination. Biopsy is often carried out with a special hollow needle (needle biopsy) to minimize invasiveness and discomfort.

**BMI (Body mass index)**
Equals a person’s weight (in kilograms) divided by height in meters squared (BMI= kg/m²). A BMI between 18.5 and 24.9 is ideal; above 25 is overweight and above 30 is obese.

**Bradyarrhythmia**
A slow and irregular heart rhythm.

**Bradycardia**
An abnormally slow heart beat.

**Brain Natriuretic Peptide [BNP]**
A hormone released almost exclusively from the ventricular myocardium. Elevated levels may indicate heart failure.

**Bundle of His**
A small bundle of specialized cardiac muscle fibres connecting the AV node with the upper part of the ventricles.

**C**

**Calcium-channel blocker**
A pharmaceutical drug that inhibits the flow of calcium ions through or across cell membranes. It decreases heart rate and workload and is used in the treatment of stroke and certain heart conditions.

**Carcinoma**
A malignant tumour of epithelial origin.

**Cardiac catheterization**
A procedure used to aid in the diagnosis of heart disease. It involves the insertion of a thin, flexible catheter in a vein in the leg, groin or arm and guiding it into the heart. A contrast medium (x-ray dye) is injected through the catheter to help in visualizing the heart chambers, arteries and valves on x-rays.

**Cardiogenic**
Originating in the heart.

**Cardiogenic emboli**
Blood clots originating in the heart.

**Cardiomyopathy**
Any disease of the heart muscle that results in diminished pumping capacity.

**Cardioversion**
The conversion of an irregular heart rhythm to normal sinus rhythm. Cardioversion can be done with drugs or through an electric shock administered to the chest area.
**Carotid artery**  
The artery that carries blood from the heart to the brain. It is situated in the front of the neck.

**Catecholamines**  
A group of chemical compounds (amines) derived from tyramine and tyrosine. The group includes epinephrine (adrenaline), norepinephrine (noradrenaline) and dopamine.

**Catheter**  
A tube designed to be inserted into a narrow opening or hollow organ such as the urinary bladder or a vein. The catheter is used to drain fluids or to allow the insertion of special instruments used for imaging or ablation.

**Catheter ablation**  
Destruction of tissue by the application of electrical current, usually at radio frequencies, via a catheter threaded through a vein to reach the area to be ablated (AV node, pulmonary veins, “hot spots” in the atria).

**Cerebrovascular event**  
See Stroke.

**Chronic**  
Persisting over a long period of time.

**Circumferential Pulmonary Vein Isolation [CPVI]**  
An ablation procedure involving the creation of two rings of lesions in the left atrium; one completely enclosing the left pulmonary veins and another completely enclosing the right pulmonary veins; the two rings are usually joined by a linear lesion. Also known as the Pappone method.

**Coagulation (of blood)**  
Process whereby blood is converted from a liquid to a solid state.

**Comorbidity**  
A disease condition accompanied by one or more unrelated disease conditions.

**Congestive heart failure [CHF]**  
Failure of the heart to pump sufficiently strongly to prevent the accumulation of fluid in the lungs. Symptoms include fatigue, shortness of breath and edema.

**Coronary arteries**  
The arteries that supply the heart itself with oxygenated blood.

**Coronary artery bypass procedure**  
A surgical procedure aimed at restoring blood flow in the coronary arteries by bypassing blockages using an artery or vein taken from somewhere else in the body (usually a vein from the leg).

**Cortex**  
The outer part of the adrenal gland. Aldosterone, cortisol and DHEA (dehydroepiandrosterone) are synthesized here.

**Couplet**  
An abnormal heart rhythm involving two ectopic beats in a row.
D

**Deep vein thrombosis [DVT]**
A condition where a blood clot is formed in a deep vein, usually in the legs.

**Defibrillator**
A device (often part of a pacemaker) used to terminate atrial arrhythmias by the delivery of small, precisely-timed shocks to the heart.

**Depolarization**
The sudden surge of ions across heart cell membranes that initiates the contraction of the heart.

**Diastolic**
Pertaining to the time period between fillings of the ventricles. The diastolic pressure is the lower of the two readings reported when measuring blood pressure.

**Diuretic**
An agent that increases the excretion of urine.

**Docosahexaenoic Acid [DHA]**
A main component of fish oils.

E

**Echocardiogram**
An ultrasound picture of the heart as it beats.

**Ectopic beat**
A heart beat that is initiated at a location other than the sinoatrial node. The junction between the left atrium and the pulmonary veins is a primary spawning ground for ectopic beats.

**Edema**
Swelling caused by an abnormal accumulation of fluid in body tissues.

**Efferent**
Pertaining to nerves or neurons that carry impulses (instructions for action) from the brain or spinal cord to a target organ or muscle.

**Ejection fraction**
The proportion of the blood volume in the left ventricle that is actually pumped out in each heartbeat. The proportion for a healthy heart is 50-60 per cent. A value of 40 per cent or below indicates ventricular dysfunction.

**Electrical (activation) mapping**
A type of electrophysiology study that makes use of a reference electrode (usually placed as a patch between the patient’s shoulder blades) and a movable electrode (catheter). By measuring the impedance (resistance) between these two electrodes it is possible to obtain an image of the atrium based on electrical potentials.

**Electroanatomical mapping**
A type of electrophysiology study aimed at creating a 3-dimensional real-time image of the anatomical features of the atrium. It consists of an external ultra-low magnetic field emitter (location pad placed beneath the operating table), a miniature passive
magnetic field sensor housed in the tip of a movable catheter, and a computer processing unit and video screen. Also known as the CARTO system.

**Electrocardiogram [ECG]**
A recording of the electrical activity of the heart during contraction.

**Electrolyte imbalance**
An imbalance in the blood or intracellular concentrations of sodium, potassium, calcium and magnesium.

**Electrolytes**
Chemical substances that dissociate into two or more ions when dissolved in water.

**Electrophysiologist (EP)**
A cardiologist specializing in heart rhythm disturbances.

**Electrophysiology study**
A study of the electrical and anatomical structure of the inside of the heart.

**Embolic stroke**
See Stroke

**Embolism**
A condition in which a blood clot becomes lodged in an artery and obstructs the flow of blood [embolic].

**Endarterectomy**
Surgical removal of the inner lining of an artery that is clogged with atherosclerotic build-up.

**Endogenous**
Originating from within an organism, cell or tissue.

**Endothelium**
The single layer of cells that line the heart, blood vessels and lymphatic vessels [endothelial].

**Enzyme**
A protein-based substance (catalyst) that speeds up the rate of a biological reaction without being consumed in the process.

**Epidemiology**
Dealing with the study of the causes, distribution and control of diseases in populations [epidemiologic].

**Eicosapentaenoic Acid [EPA]**
A main component of fish oils

**Epithelium**
Membranous tissue that covers most internal and external surfaces of the body and its organs [epithelial].

**Etiology**
The cause of a disease or condition.

**Exogenous**
Derived or developed from outside the body, originating externally.
Epinephrine
A hormone secreted by the medulla of the adrenal gland. Also known as adrenaline.

F

Factor V Leiden
A mutation in blood coagulation factor V that results in an increased tendency to blood clotting – especially deep vein thrombosis.

Familial atrial fibrillation
Atrial fibrillation that runs in families and is linked to a genetic defect.

Fibrillation
Rapid and chaotic beating of the heart.

Fibrinolysis
The process by which blood clots are removed from the circulation. It involves digestion of insoluble fibrin by the endogenous enzyme plasmin (fibrinolytic).

Focal Ablation
The original radio frequency ablation procedure in which specific active foci of aberrant impulses are located and ablated.

Foramen ovale
An opening in the interatrial septum that normally (but not always) closes after birth.

Framingham Heart Study
A large epidemiologic study begun in 1948 with the purpose of discovering the causes of heart disease and stroke. The study now involves thousands of men and women and their offspring from the town of Framingham in Massachusetts.

G

Gastrointestinal
Relating to the stomach and intestines (gastrointestinal tract).

Glucose tolerance test
A test used in the diagnosis of diabetes and impaired glucose tolerance. It measures how well the body deals with sugar (glucose).

Glycemic index
A measure of how much and how quickly glucose is released and absorbed from a carbohydrate food. Pure glucose has a value of 100.

H

Heart block
A condition in which the electrical impulses from the atria are not conducted properly to the ventricles.

Heart failure
See Congestive heart failure.
**Heart rate variability (HRV)**
A measure of the beat-to-beat variability in heart rate.

**Hematoma**
A localized swelling of blood resulting from a break in a blood vessel.

**Hemorrhagic stroke**
See Stroke

**Holter monitor**
A portable device for measuring heart rhythm over a 24-hour period.

**Homocysteine**
A sulphur-containing amino acid used by the body in cellular metabolism and the manufacture of proteins.

**Hyperhomocysteinemia**
An elevated blood level of homocysteine.

**Hyperlipidemia**
An excess of fats or lipids in the blood.

**Hypertension**
A blood pressure that is persistently above the upper limit of the reference range (140/90).

**Hyperthyroidism**
An overactive thyroid gland. The condition is characterized by increased metabolic rate, high blood pressure and a rapid heartbeat.

**Hypertrophic cardiomyopathy**
Thickening of the heart walls interfering with normal heart function and causing reduced pumping capacity.

**Hypocalcemia**
An abnormally low blood level of calcium.

**Hypoglycemia**
A lack of glucose in the blood stream. The condition can cause sweating, mental confusion, atrial fibrillation and muscle weakness.

**Hypokalemia**
An abnormally low blood level of potassium.

**Hypomagnesemia**
An abnormally low blood level of magnesium.

**Hyponatremia**
An abnormally low blood level of sodium.

**Hypotension**
An abnormally low blood pressure.

**Hypothyroidism**
An underactive thyroid gland. The condition is characterized by fatigue, hair loss, feeling cold, constipation and skin pallor.
ICD
Implantable cardioverter-defibrillator.

Idiopathic
Of no known cause.

Idiopathic atrial fibrillation
Atrial fibrillation of no known cause.

Incidence
The extent or frequency of occurrence.

Infarction
Localized cell death (necrosis) resulting from obstruction of the blood supply.

INR
International Normalized Ratio. A measure of the blood’s tendency to coagulate (form clots) when on warfarin (Coumadin). A normal INR is 1.0. Warfarin dose is usually adjusted to give an INR between 2.0 and 3.0.

Interatrial septum
A thin, muscular wall separating the right and left sides of the atrium. This wall is breached during ablation procedures involving the left atrium.

Intermittent claudication
Muscle pain, usually in the calf muscles, that is brought on by exercise and relieved by rest. It is usually caused by atherosclerosis of the arteries feeding the affected limb.

Intracardiac Echocardiography [ICE]
An ultrasound technique for visualizing the inside of heart chambers.

Intracellular
Situated or occurring inside a cell.

Intracranial
Within the head.

Ion
An electrically charged atom or molecule.

Ion channel
A pore in a cell’s membrane that provides a channel for ions to cross the membrane.

Ischemia
Inadequate blood flow to the heart or other body parts [ischemic].

Ischemic stroke
See Stroke
Left atrial appendage
See Atrial appendages.

Left ventricular dysfunction
Inadequate pumping capacity of the left ventricle. Characterized by a left ventricular ejection fraction below 40 per cent.

Lone atrial fibrillation [LAF]
Atrial fibrillation not associated with structural heart disease.

Macrophages
Large scavenger cells found in connective tissue and in many major organs and tissues including the liver, lymph nodes, spleen, bone marrow and central nervous system.

Mast cells
Large cells in connective tissue that release heparin, histamine and serotonin in response to inflammation or allergens.

Maze procedure
A surgical procedure that involves the creation of a pattern of scar tissue to contain and channel the heart’s electrical impulses and thereby prevent atrial fibrillation.

Medulla
The inner part of the adrenal gland. Epinephrine and norepinephrine are synthesized here.

Mini-maze procedure
A minimally invasive surgical procedure for electrically isolating the pulmonary veins from the left atrium thereby preventing atrial fibrillation. The mini-maze is distinguished from the original maze procedure by the fact that it does not involve open heart surgery or the use of a heart/lung machine. Catheters and a small camera are introduced into the breast cavity through mini-incisions between the ribs.

Mitral stenosis
A narrowing of the opening of the mitral valve. Usually caused by leaflet adhesion or scarring.

Mitral valve
A valve that allows blood to flow between the left atrium and the left ventricle while preventing back flow.

Mitral valve prolapse [MVP]
A usually benign abnormality of the mitral valve resulting in regurgitation (back flow) of blood from the left ventricle to the left atrium.

Monocyte
A variety of white blood cells whose purpose is to ingest foreign particles such as bacteria and tissue debris.
**Mortality**
Incidences of death in a given period.

**Myocardial infarction [Heart attack]**
Destruction of heart tissue resulting from obstruction of the blood supply to the heart muscle.

**Myocarditis**
An acute or chronic inflammation of the heart muscle.

**Myocardium**
The middle of the three layers that form the wall of the heart. It is composed of muscle fibres.

**Myocyte**
A muscle cell.

**Myxoma**
Benign gelatinous tumour of connective tissue. Atrial myxoma most commonly involves a tumour in the left atrium.

**N**

**Necrosis**
Death of cells through injury, disease or obstruction of blood supply.

**Neutropenia**
Decrease in the number of neutrophils (a type of white blood cell) resulting in an increased susceptibility to infection.

**Nitric oxide [NO]**
A colourless gas produced in cellular metabolism. It is involved in oxygen transport to tissues, the transmission of nerve impulses and the relaxation of blood vessel walls.

**Non-valvular atrial fibrillation**
Atrial fibrillation that is not caused by malfunctioning or damaged heart valves.

**Norepinephrine**
The neurotransmitter released at sympathetic (adrenergic) nerve endings. Also known as noradrenaline.

**Normal sinus rhythm [NSR]**
The normal rhythm of the heart when beats are initiated only at the sinoatrial node.

**O**

**Ostial PVI**
A pulmonary vein isolation procedure where the ablation lesions are placed in the left atrium around the openings of the pulmonary veins rather than inside the pulmonary veins. The ostial procedure eliminates or sharply reduces the risk of pulmonary vein stenosis.
On-Demand-Approach
A method of self-terminating atrial fibrillation episodes. It involves taking propafenone or flecainide immediately following the start of the episode. Also known as the pill-in-the-pocket approach.

Oxidative stress
A condition that occurs when the body’s natural antioxidant defences are overwhelmed by reactive oxygen species and other free radicals.

P

Pacemaker
An implanted device meant to provide small electric shocks to the heart to initiate heartbeats (contractions) at a predetermined rate. Mostly used in the form of a dual-lead pacemaker which paces both the atria and the ventricles.

Palpitation
A sensation of a rapid, irregular heart beat.

Parasympathetic
Pertaining to the parasympathetic branch of the autonomic nervous system.

Parasympathetic tone
See vagal tone.

Paroxysmal
Occurring at intervals (intermittent).

P cells [Pole cells]
The pacemaker cells of the heart. Normally found only in the SA and AV nodes, but may also occur in the pulmonary veins.

Peripheral arterial disease [PAD]
Atherosclerosis in arteries other than the coronary arteries. Intermittent claudication may occur if the atherosclerotic deposits are blocking the arteries feeding the legs.

Permanent LAF
Continuous lone atrial fibrillation that does not respond to cardioversion.

Persistent LAF
Lone atrial fibrillation episodes lasting more than seven days, but amenable to cardioversion.

Pheochromocytoma
A tumour of the adrenal gland that produces epinephrine and norepinephrine.

Platelet
Blood cell involved in the initiation of blood clotting [thrombocyte].

Platelet inhibitor
A drug that prevents the aggregation of platelets.

Plaque
A build-up of cholesterol and fatty substances on the inner lining of arteries.
Postprandial
Occurring after a meal, especially dinner.

Premature atrial complex [PAC]
A premature heart beat originating in the atrium other than at the sinoatrial node.

Premature ventricular complex [PVC]
A premature heart beat originating below the atrioventricular node, often in the ventricular muscle itself.

Prevalence
The total number of cases of a disease in a given population at a specific time.

Proarrhythmic
Capable of inducing arrhythmia.

Prophylaxis
Action taken to prevent disease [prophylactic].

Prostaglandin
A hormonelike compound synthesized in the body from 20-carbon unsaturated fatty acids, notably arachidonic acid. Prostaglandins are involved in a wide range of physiological functions including control of blood pressure, contraction of smooth muscle and modulation of inflammation.

Prothrombin time
A measure of the blood’s tendency to clot when medicated with warfarin. See INR.

PUFA
Polyunsaturated fatty acid.

Pulmonary embolism
A blood clot lodged in the pulmonary artery.

Pulmonary vein ablation [PVA]
Ablation of sources of ectopic heartbeats located at the junction of the left atrium and the pulmonary veins.

Pulmonary vein isolation [PVI]
Isolation of the pulmonary veins from the left atrium by ablating (generating lesions) a ring around each pulmonary vein.

Pulmonary veins
The veins draining oxygenated blood from the lungs to the left atrium.

Purkinje fibres
A group of specialized heart cells that conduct electrical impulses in the ventricles.

P wave
A small wave observed on an electrocardiogram indicating that atrial contraction has begun.
QRS complex
The principal deflection of an electrocardiogram produced by depolarization (contraction) of the ventricles.

QT Interval
The duration of the activation and recovery of the ventricular myocardium. A prolonged QT interval is associated with ventricular arrhythmias.

Refractory period
The rest period following a contraction of the heart muscle. The cell does not respond to stimulation during this period.

Reperfusion
The restoration of blood flow to an organ or tissue that has had its blood supply cut off due to a stroke or heart attack. Reperfusion is associated with increased free radical activity.

Repolarization
The recharging of the heart’s muscle cells in preparation for the next depolarization (contraction).

Rheumatic heart disease
Heart damage caused by rheumatic fever.

R-R interval
The interval between the peak of one QRS complex and the next.

Run
An abnormal heart rhythm characterized by four or more ectopic beats in a row.

Segmental pulmonary vein isolation
An ablation procedure in which electrophysiological mapping (using a multipolar Lasso catheter) is used to locate the pathways taken by aberrant impulses from the pulmonary veins. The pathways are eliminated by radiofrequency ablation around the veins approximately 5 to 10 mm from the ostia of the veins. Also known as the Haissaguerre method.

Sick sinus syndrome
A disorder in which the sinus node (the heart’s natural pacemaker) malfunctions and causes arrhythmias, usually bradycardia.

Sinoatrial (sinus) node
The specialized (pacemaker) tissue that initiates a heart beat. It is located near the top of the right atrium.

Sinus rhythm
See Normal sinus rhythm.
**Stasis**
Stagnation or cessation of flow; for example, of blood or lymph fluid.

**Stenosis**
A constriction or narrowing of a duct or passage; for example, pulmonary vein stenosis.

**Stroke**
An event that damages nerve cells in the brain. It is caused by an interruption of the oxygen supply to the brain due to a blood clot (ischemic stroke) or a burst blood vessel (hemorrhagic stroke).

**Subcutaneous**
Beneath the skin.

**Supraventricular**
Located above the ventricles, that is in the atria or atrioventricular node.

**Supraventricular tachycardia (SVT)**
A rapid, but regular heart rate caused by a fault in the conduction system around the atrioventricular node.

**Suture**
The closure of a wound or incision with material such as silk or catgut. The term is also used to describe the material used in closing the wound or incision.

**Sympathetic**
Pertaining to the sympathetic branch of the autonomic nervous system.

**Syncope**
A brief loss of consciousness (fainting or dizziness) caused by an insufficient supply of oxygenated blood to the brain.

**Systemic**
Relating to or affecting the body as a whole.

**Systolic**
Pertaining to the time at which the ventricles contract. The systolic pressure is the higher of the two readings reported when measuring blood pressure.

**T**

**T-cells**
A specialized kind of white blood cells (lymphocytes) that help identify foreign cells and antigens so that killer cells can dispose of them.

**Tachycardia**
A rapid, but regular heart beat usually in excess of 100 bpm.

**Tamponade**
Compression of the heart caused by the build-up of fluid or blood in the space between the sac (pericardium) surrounding the heart and the heart muscle (myocardium) itself.

**Thallium stress test**
A test used to assess the blood flow through the coronary arteries before and after exercise.
**Thromboembolism**
A condition in which a blood clot or fragment of a clot breaks off in one part of the body and blocks a blood vessel in another part of the body.

**Thrombosis**
A condition in which blood changes from a liquid to a solid state, i.e. forms a clot [thrombotic].

**Thrombus**
A blood clot.

**Thrombolysis**
The dissolution of a blood clot by the infusion of an enzyme, such as streptokinase, into the blood [thrombolytic].

**Thyrotoxicosis**
A serious condition resulting from an excess of thyroid hormones.

**Transesophageal**
Through or across the esophagus. The term is often applied to a special form of echocardiography used to check for blood clots in the left atrial appendage.

**Torsade de Pointes**
A distinctive form of ventricular tachycardia associated with a prolonged QT interval.

**Transient ischemic attacks (TIAs)**
A sudden, temporary loss of neurological function caused by blockage of small arteries supplying blood to the brain (mini-stroke). Typical symptoms are dizziness, vision disturbances, numbness or unconsciousness. Symptoms subside within 24 hours.

**Transthoracic**
Through or across the chest. The term applies to the standard form of echocardiography.

**Tricuspid valve**
A valve that allows blood to pass between the right atrium and the right ventricle.

**Trigeminy**
An abnormal heart rhythm in which every third beat is ectopic (originating outside the SA node).

**Triplet**
An abnormal heart rhythm involving three ectopic beats in a row.

**V-W**

**Vagal**
Pertaining to the parasympathetic branch of the autonomic nervous system.

**Vagal LAF**
Lone atrial fibrillation triggered by excessive parasympathetic stimulation.
Vagal tone
The strength or vigour of the parasympathetic branch of the autonomic nervous system.

Vasodilatation
An increase in the diameter of blood vessels, especially arteries. It is brought about by a relaxation of vessel walls mediated, for example, by nitric oxide.

Vagus nerve
The tenth cranial nerve originating in the brain stem. It enervates the heart, gastrointestinal tract and larynx (voice box).

Valsalva manoeuvre
A manoeuvre that increases vagal tone. It is performed by attempting to forcibly exhale while keeping the mouth and nose closed for about 15-30 seconds. It may sometimes help to abort an episode of supraventricular tachycardia or adrenergic LAF.

Vein
A blood vessel that carries blood towards the heart.

Vena cava
The large vein(s) that returns blood from the body to the heart (right atrium).

Ventricles
The two lower chambers of the heart.

Ventricular fibrillation
An often-fatal cardiac arrhythmia characterized by rapid, irregular fibrillation of the ventricles. Ventricular fibrillation is the main cause of sudden cardiac death (cardiac arrest).

Wavelet
A small circular pattern of electrical activity observed in the atrium as a prelude to or during rhythm disturbances.

### PHARMACEUTICAL DRUGS FOR LAF

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<th>Trade Names</th>
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<tr>
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# Antiarrhythmics with beta-blocking effects

<table>
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# Antiarrhythmics with no beta-blocking effects

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<thead>
<tr>
<th>Drug</th>
<th>Trade Names</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disopyramide</td>
<td>Norpace, Rythmodan</td>
<td>IA</td>
</tr>
<tr>
<td>Dofetilide</td>
<td>Tikosyn</td>
<td>III</td>
</tr>
<tr>
<td>Flecainide</td>
<td>Tambocor</td>
<td>IC</td>
</tr>
<tr>
<td>Ibutilide*</td>
<td>Covert</td>
<td>III</td>
</tr>
<tr>
<td>Procainamide</td>
<td>Procan</td>
<td>IA</td>
</tr>
<tr>
<td>Quinidine</td>
<td>Quinaglute, Biquin</td>
<td>1A</td>
</tr>
</tbody>
</table>

# Calcium channel blockers

<table>
<thead>
<tr>
<th>Drug</th>
<th>Trade Names</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diltiazem</td>
<td>Cardizem, Tiazac</td>
<td>IV</td>
</tr>
<tr>
<td>Verapamil</td>
<td>Veramil, Veralan, Calan</td>
<td>IV</td>
</tr>
</tbody>
</table>

* Used only in intravenous form for conversion to normal sinus rhythm

## DRUGS FOR STROKE PREVENTION

### Generic Name

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Trade Names</th>
</tr>
</thead>
</table>

### Antiplatelet Agents

- **Aspirin, ASA**
- **NO-ASA**
- **Plavix**
- **Ticlid**
- **Persantine**
- **Not available in the US**
- **Abciximab, Tirofiban**

### Anticoagulants

- **Coumadin**
- **Exanta**
- **Lovenox**
- **Fraxiparine**

### Thrombolytic Agents

- **tPA**
- **tPA**
- **Abbokinase**
- **Streptase**
### Statin Drugs
- Atorvastatin: Lipitor
- Lovastatin: Mevacor
- Pravastatin: Pravachol
- Simvastatin: Zocor

### ACE inhibitors
- Captopril: Capoten
- Perindopril: Aceon
- Ramipril: Altace