



Anticoagulation UK

GLOSSARY OF TERMS

A

Acquired: Not genetic, produced by influences such as illness, treatment, and lifestyle.

Activated partial thromboplastin time (aPTT): A test to measure inhibition of coagulation, specifically, of thrombin (Factor IIa).

Acute myocardial infarction: Blockage of blood flow to the region of the heart, resulting in insufficient supply of oxygen to and death of the affected heart cells; also called a heart attack.

Acute vascular occlusion: Sudden blockage of an artery, usually with a blood clot.

Aggregation: Stage of clot formation when platelets clump together.

Angiography: X-ray examination of arteries after injection of a contrast agent.

Angioplasty: Surgical procedure in which a balloon-tipped catheter (thin tube) is inserted into a diseased, narrowed blood vessel; inflation of the balloon stretches the vessel open, improving blood flow through it. Also called balloon angioplasty, coronary angioplasty, and percutaneous transluminal coronary angioplasty (PTCA).

Anticoagulant: A medicine that decreases blood's ability to clot..

Antiplatelet agent: A drug that helps to stop blood clots from forming, such as aspirin.

Antithrombin III: A naturally occurring protein that is an important inhibitor of blood clot formation; also called AT III.

Antithrombotic: Preventing or interfering with clot formation.

Aorta: Main artery in the body, which carries blood from the heart to all parts of the body, except the lungs.

Apixaban: A direct factor Xa thrombin inhibitor oral anticoagulant which can be used to treat Atrial Fibrillation, prevention of clots in total knee and hip replacement surgery

Arterial embolism: Sudden blockage of an artery by a blood clot or atherosclerotic plaque, which the blood carried from another location.

Arteries: Thick-walled vessels (canal or hollow tube) that carry oxygen-rich blood away from the heart (the pulmonary artery is the only exception).

Arterioles: Small branches of arteries.

Arteriosclerosis: Disease characterized by thickening and loss of elasticity (sclerosis) of the walls of smaller arteries (arterioles).

Artificial heart valve: A synthetic or pigskin (porcine) valve surgically placed into the heart to replace a defective valve; most often used to replace aortic and mitral valves.

Asymptomatic: Showing no symptoms of an underlying problem.

AT III: See Antithrombin III.

Atherectomy: Removal of atherosclerotic plaques from an artery; requires introduction of rotary cutter into artery through a special catheter (thin tube).

Atheroma: Plaque containing cholesterol, blood products, calcium and connective tissue.

Atherosclerosis: Progressive, degenerative (loss of function or structure) disease in which plaques containing cholesterol build up in the walls of larger arteries; causes narrowing of blood vessels and decreased blood flow.

Atria: Two thin-walled chambers of the heart that pump blood into the ventricles; consists of right atrium and left atrium.

Atrial Fibrillation: Atrial fibrillation (AF or A-fib) is the most common abnormal heart rhythm. It may cause no symptoms, but is often associated with palpitations, fainting, chest pain, or congestive heart failure. The cause of an individual's AF may not be identified.

B

Blood cells: The solid elements of the blood. Red blood cells carry oxygen to the tissues; white blood cells combat disease-causing agents by destroying them, or by stimulating the body's natural defence systems; platelets contribute to clotting.

Blood clot: A firm mass composed of blood cells, fibrin, and platelets.

Blood pressure: Force or pressure that circulating blood exerts on the walls of the arteries; divided into systolic (during heart contraction) and diastolic (during heart relaxation) pressures.

Blood vessels: The hollow tubes that carry blood throughout the body. The blood vessels include arteries, veins, arterioles, venules, and capillaries.

C

CAD: See Coronary artery disease.

Calcification: Depositing of calcium; in atherosclerosis, calcification of plaques results in hard, brittle arterial walls.

Capillaries: Tiny vessels that connect arterioles and venules; the exchange of nutrients and fluids between the tissues and blood occurs through the walls of these vessels.

Cardiac catheterization: Passage of a small tube (catheter) through a vein in the arm, leg, or neck into the heart.

Cardiac imaging study: Diagnostic technique that provides images of heart structure and function; includes chest X-ray films, coronary angiography, thallium 201 imaging, acute infarct scintigraphy, radionuclide ventriculography, and echocardiography.

Cardiovascular: Pertaining to the heart and blood vessels.

Cardiovascular disease: Any disorder that affects the heart muscle or the blood vessels of the heart. It includes any condition that impacts the blood vessels, such as poor circulation due to blockage.

Catheter: A hollow, cylindrical medical device used for diagnosis and for treatment.

Cholesterol: A fatty substance found in cell membranes; plays an important role in essential body functions.

Chronic venous insufficiency: Condition in which veins do not channel the flow of blood adequately. Most often seen in the legs. Symptoms include swelling, pain, itching, pigmentation and ulceration.

Clotting: The process by which fluid blood changes to a solid.

Clotting cascade: The series of cellular and molecular reactions among blood clotting factors that cause clotting; also called coagulation cascade.

Clotting factors: A group of chemicals in the blood (Factors I to XIII) that interact to make blood clot.

Coagulation: Blood clotting; formation of a blood clot.

Coarctation: Narrowing of a blood vessel, such as the congenital condition coarctation of the aorta.

Complication: Consequences of a condition.

Compression stocking: Usually worn to help maintain circulation and reduce the risk of DVT; stockings to prevent DVT in hospital are also called TED or thromboembolic deterrent stockings.

Coronary angiography: Heart imaging study that shows the shape of the coronary arteries and areas that are narrowed or blocked.

Coronary arteries: Arteries that supply oxygen and nutrient-rich blood to the tissues of the heart itself.

Coronary artery disease (CAD): Disease characterized by atherosclerosis of the coronary arteries; may cause angina pectoris and myocardial infarction.

D

D-dimer: produced by break-down of fibrin; elevated levels in the blood indicate thrombosis.

Dabigatran etexilate: A direct thrombin inhibitor oral anticoagulant which can be used to treat Atrial Fibrillation, prevention of clots in total knee and hip replacement surgery and prevention of venous thromboembolism (VTE)

Deep vein thrombosis: Formation of blood clots in the deep veins of the body; also called DVT. Occurs when the clotting mechanism goes wrong and creates a clot within a blood vessel that has not been cut.

Deep veins: Veins located deep within the muscles.

Distal DVT: DVT in a vein below the knee.

DVT: See Deep vein thrombosis.

Dyspnoea (also spelt dyspnea): Difficulty breathing; often results in shortness of breath.

E

Echocardiography: Cardiac imaging study that uses sound waves to create images of the heart; shows heart's motion and size of its chambers. Oedema (sometimes spelt edema):* Swelling caused by an excess of fluid accumulation.

Edoxaban (Lixiana®): Edoxaban is an oral anticoagulant, a factor Xa inhibitor. It has been recommended by The National Institute for Health and Care Excellence and recommended by The Scottish Medicine Consortium for use in prevention of stroke in adults with non-valvular atrial fibrillation; for treatment of and prevention of deep vein thrombosis and pulmonary embolism

Electrocardiogram: Graphic recording of the electrical activity of the heart; detects and records the electrical potential of the heart during contraction; also called ECG or EKG.

Embolisation: The process of formation of an embolus.

Embolism: Sudden blockage of an artery by a clot or foreign material carried and deposited by the blood.

Embolus: Piece(s) of a blood clot that break off, travel around the body and block a smaller artery. Plural:* emboli.

Exercise stress test: Non-invasive diagnostic procedure in which a patient exercises while undergoing ECG monitoring; can detect exercise-induced ischemia (lack of blood supply).

F

Factor II (prothrombin): When prothrombin is activated to Factor IIa (thrombin) by the prothrombinase complex (Factor Xa, Factor Va, and phospholipid), Factor II converts fibrinogen to fibrin.

Factor VII: When activated by tissue factor, Factor VII converts Factor X to its activated form, Factor Xa.

Factor X: When activated by the Factor VII/tissue factor complex, Factor X forms part of the prothrombinase complex which converts Factor II (prothrombin) to Factor IIa (thrombin).

Fibrin: A protein necessary for blood clotting; fibrin forms a web-like mesh that traps platelets and red blood cells and holds a clot together.

Fibrinogen: Protein in the blood that is converted into fibrin by the action of thrombin, leading to coagulation.

Fibrinolysis: Process that separates fibrin and breaks down clots.

G

Genetic: Describes a characteristic that is inherited.

Graduated compression stocking: See Compression stocking.

H

Haemoglobin: Oxygen-transporting component of red blood cells.

Haemostasis: Stopping of bleeding through natural (clot formation, constriction of blood vessels), artificial (compression, ligation), or surgical means.

Heart: The hollow muscular organ that pumps blood throughout the body.

Heart attack: Heart cell death due to prolonged lack of oxygen; also called Myocardial infarction or MI.

Heart failure: Disease state caused by impaired pumping of the heart.

Heparin: A natural polymer widely used as an injectable anticoagulant.

Heparinoids: Agents having anti-clotting activity resembling that of a heparin.

Holter monitor: Developed to continuously record 24 hours or more of ECG data to find problems that may not be seen in a few minutes in the clinic.

Hypertension: Persistently high blood pressure; may have no known cause (essential or idiopathic) or result from other primary diseases (secondary). It is a risk factor for heart disease, peripheral vascular disease, stroke, and kidney disease.

Hypotension: Abnormally low blood pressure.

I

Idiopathic: Of unknown cause.

Infarction: Cell death due to insufficient supply of oxygen.

International normalised ratio: Standardised measurement of intensity of anticoagulation; ratio of prothrombin time in patient's blood to that in a control test using standardised agents.

Ischaemia: Insufficient supply of blood and oxygen to a part of the body; often results from constriction or obstruction of a blood vessel.

Ischaemic heart disease (IHD): Disturbance of heart function resulting from inadequate supply of oxygen to the heart muscle; also called coronary artery disease (CAD).

M

Marder score: Used to assess size of DVTs on the basis of their venographic appearance.

Myocardial infarction (MI): Heart cell death due to prolonged lack of oxygen; also called heart attack.

Myocardium: Middle and thickest layer of the heart wall.

O

Orthostatic hypotension: Drop in blood pressure brought on by changes in body position, such as rising from a chair or bed.

P

Patency: Condition of arteries, stents or bypass grafts being open.

Percutaneous transluminal coronary angioplasty (PTCA): procedure to open a blocked artery using an inflated balloon introduced through an artery.

Phlebitis: inflammation of a vein.

Plaque: Build-up of cholesterol and fatty material within an artery wall occurring in atherosclerotic disease; also called atherosclerotic plaque.

Plasma: Liquid portion of the blood; remains after cells have been removed.

Plasmin: An enzyme that separates fibrin, thereby destroying a clot.

Plasminogen: The precursor of plasmin.

Platelets: Oval cells found in the blood and involved in clotting; also called thrombocytes.

Post-phlebitic syndrome: The complications that may follow DVT; may include persistent oedema (swelling), pain, purpura (bleeding into the skin), increased skin pigmentation, eczema-like dermatitis, itchiness, ulceration, and cellulitis (bacterial infection just below the skin); also called post-thrombotic syndrome.

Post-thrombotic syndrome: See Post-phlebitic syndrome.

Prothrombin: See Factor II.

Prothrombin time: Time required for blood to clot after thromboplastin and calcium are added.

Proximal DVT: DVT in a vein above the knee.

PTCA: See Percutaneous transluminal coronary angioplasty.

Pulmonary artery: Artery that carries deoxygenated blood from the right ventricle of the heart to the lungs.

Pulmonary embolism: Lodging of a blood clot in the lumen (open cavity) of a pulmonary artery, causing a severe dysfunction in respiratory function. Pulmonary emboli often originate in the deep leg veins and travel to the lungs through blood circulation. Symptoms include sudden shortness of breath, chest pain (worse with breathing), and rapid heart and respiratory rates.

Pulmonary oedema: Severe state of increased fluid within the lung, leading to flooding of the alveoli; often result of ineffective pump function of the heart, but non-cardiac causes also exist.

Pulmonary stenosis**Pulmonary stenosis:** A congenital (present at birth) or acquired heart valve defect, characterized by abnormal narrowing and

ineffective opening of the pulmonary valve. Symptoms include cyanosis (bluish discoloration of the skin) and difficulty breathing.

R

Renal artery stenosis: Narrowing of the renal artery or one of its main branches.

Rivaroxaban: A direct factor Xa thrombin inhibitor oral anticoagulant which can be used to treat Atrial Fibrillation, prevention of clots in total knee and hip replacement surgery and treatment and prevention of venous thromboembolism (VTE)

S

Silent: A medical condition with no obvious signs or symptoms.

Spasm: Abnormal contraction of vascular smooth muscle that causes narrowing of blood vessels. Abnormal contraction of vascular smooth muscle that causes narrowing of blood vessels.

Stasis: The slowing of blood flow.

Stenosis: Narrowing of the inside of a blood vessel.

Stent: A device inserted into a tubular structure (such as a coronary artery) to prevent it closing.

Stroke: Death of tissue within the central nervous system resulting from a clot blocking a blood vessel in the brain or from bleeding from a ruptured blood vessel on the surface of or within the brain.

Subcutaneous: Given or occurring under the skin.

Superficial veins: Veins lying close to the surface of the skin.

Systolic blood pressure: Pressure exerted on the walls of the arteries during the contraction phase of the heartbeat; varies with age, gender, size, and physical condition.

T

Tachycardia: Excessively rapid heart rate, usually above 100 beats per minute.

Thallium heart scan: Diagnostic test that involves the introduction of a radioactive tracer into the bloodstream to determine blood flow.

Thallium stress test: Diagnostic test used to assess coronary blood flow before and after strenuous exercise. A radioactive tracer is introduced into the bloodstream and measured with a special camera.

Thrombin: Enzyme in the blood that converts fibrinogen to fibrin; essential for coagulation. (Also see Factor II).

Thrombin time (TT): time to formation of fibrin from fibrinogen after addition of a known amount of thrombin; prolonged when thrombin is inhibited.

Thrombocytopenia: A condition in which there is an abnormally small number of platelets in the circulating blood; usually associated with bleeding conditions.

Thromboembolic deterrent stockings (TED stockings): See Compression stockings.

Thromboembolic stroke: Stroke resulting from emboli in the arteries in the brain.

Thromboembolism: Obstruction of a blood vessel with material deposited by the bloodstream.

Thrombolysis: Process that breaks down clots.

Thrombophilia: Abnormal tendency to form clots.

Thromboprophylaxis: The use of drugs or other protective therapies to prevent thrombosis.

Thrombosis: Formation of thrombus (blood clot) within the lumen (open cavity) of the blood vessels or heart.

Thrombus: Blood clot formed from platelets and other elements; may obstruct a blood vessel at its point of formation or travel to other areas of the body. Plural:* thrombi.

Tissue factor: A protein released from damaged tissue that triggers the clotting cascade.

Tissue plasminogen activator (t-PA): Enzyme that converts plasminogen to plasmin; also used as a thrombolytic agent.

U

Unstable plaque: Plaque that is prone to rupture, causing release of fat from within the plaque into the inside of the artery.

V

Valves: Cup-like folds inside a vein that prevent backward flow of blood. Valves open as blood moves through them and close under the weight of blood collecting in the vein due to low pressure and gravity.

Varicose: Unnaturally and permanently distended; usually refers to veins.

Varicose vein: Dilated, tortuous, elongated superficial veins.

Vascular endothelium: Layer of cells that lines the blood vessels and is in direct contact with blood.

Veins: Thin-walled vessels that carry deoxygenated blood to the heart (the pulmonary vein is the only exception).

Venostasis: Abnormally slow blood flow through veins.

Venous insufficiency: A condition in which the veins do not channel the flow of blood adequately; most often seen in the lower extremities.

Venous thromboembolism (VTE): Term covering both DVT and pulmonary embolism.

Venous thrombosis (VTE): See Venous thromboembolism.

Ventricles: Two lower chambers of the heart.

Venules: Small veins.

VTE: See Venous thromboembolism.

W

Warfarin: An anticoagulant that is administered orally or, very rarely, by injection. Its activity has to be monitored by frequent blood testing for the international normalized ratio (INR). It is also used as a pesticide against rats and mice.

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