

Anticoagulation therapy

Why is blood clotting important, yet dangerous?

Coagulation (the forming of clots) is a very important function of the body, especially when we get a cut and need to stop bleeding. However, clots forming inside blood vessels are dangerous because they can travel to the brain and cause a stroke or to the heart and cause a coronary attack.

Who is at risk of getting clots?

- people whose blood tends to clot easily (rare)
- people with hardening of the arteries
- people with heart problems such as a leaking valve or atrial fibrillation
- those who have just undergone surgery and are lying idle in bed, who are liable to develop clots (*thrombosis*) in the deep veins of the leg, which can travel to the heart
- those recovering from a heart attack (coronary)

What is anticoagulation?

This is the process of preventing clots in the blood by giving substances that tend to 'thin' the blood by neutralising one of the clotting mechanisms. These substances are called *anticoagulants*. Important types are heparin (given by injection) and warfarin (given orally).

How is anticoagulation regulated?

Thinning of the blood has to be carefully and safely done; otherwise, uncontrolled bleeding (*haemorrhaging*) could develop. The level of thinness is controlled by blood tests. The amount of medication is worked out from these blood tests. Different people require different doses, and so the dose is tailored for each patient.

How should anticoagulants be taken?

The first dose of warfarin is worked out and usually is 10 mg for the first day. The dosage each day is worked out according to a formula that relies on blood testing called the *international normalised ratio* (INR). The tablets should be taken every day at around the same time. Your doctor or laboratory will advise you about the dose.

What about missed tablets?

It is important not to miss taking your tablets, and you should develop a system of taking them at around the same time each day. If you miss a dose, *do not take a double dose*, but take your next dose when it is due.

What should you remember about the INR blood test?

1. Make sure it is done when ordered by your doctor.

2. Call your doctor or laboratory within 24 hours of the test just in case the dose needs adjusting.
3. Record the INR results in the record card provided.

What factors can affect warfarin?

- *Your diet*: It needs to be healthy and balanced.
- *Alcohol*: Use it in moderation and avoid binge drinking.
- *Other medications*: Check with your doctor.

What common medicines require special care?

Check with your doctor regarding the oral contraceptive pill, pain-killers such as aspirin, cough or cold preparations, antacids or laxatives, antibiotics and various vitamins.

What common medicines increase the effect of warfarin?

allopurinol, alcohol, amiodarone, anabolic steroids, antibiotics (most), aspirin, cimetidine, clofibrate, gemfibrozil, metronidazole, miconazole, non-steroidal anti-inflammatories, proton-pump blockers (e.g. omeprazole), phenytoin, quinine or quinidine, ranitidine, salicylates, tamoxifen, thyroxine

What common medicines decrease the effect of warfarin?

antacids, antihistamines, barbiturates, cholestyramine, diuretics, haloperidol, oestrogen, oral contraceptives, vitamin C

What signs of bleeding should you report?

black motions, blood in the urine (red or pink), easy bruising, unusual nose or gum bleeds, unusually heavy periods, unexpected bleeding after minor injury

Remember

- Keep to a consistent diet.
- Do not take aspirin or liquid paraffin.
- Always mention that you take warfarin to any doctor or dentist treating you.
- Take tablets strictly as directed without fail and have your blood tests.
- Take the tablets at the same time each day.
- Do not take a double dose.
- Advise your doctor of any illness.
- Avoid pregnancy.