

Warfarin therapy

Information for adults

Warfarin therapy

This leaflet provides information about the anticoagulant medication warfarin. If you are unsure why you have been prescribed warfarin or have other concerns, please discuss this with the clinician who recommended the treatment.

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You will also be given a yellow **Warfarin Anticoagulant Therapy Package** which includes:

- An anticoagulant alert card that you should carry with you. This is important if you are involved in an accident, as it will allow medical staff to identify that you are taking warfarin.
- An information leaflet with further details on warfarin.
- A yellow record book to record your INR results and warfarin dose if you would like. Otherwise, you may be given a letter or text message with your dose that you can keep.

Section A:

What is anticoagulation?

An anticoagulant medicine reduces the risk of blood clots forming in your blood vessels, and treats existing blood clots, by making your blood take longer to clot. They are sometimes called “blood thinners”.

Why are anticoagulants used?

There are several reasons. You may have already had a blood clot, for example a deep vein thrombosis, or you may have a condition that makes it more likely that a clot will develop in the future, for example atrial fibrillation or a replacement heart valve.

There are many different types of anticoagulants available. The type prescribed for you will be based on your individual clinical requirements.

How long will I be on warfarin?

Your clinician will advise how long you need to take warfarin. Some people only need a short course of treatment, for example up to 3 months. Others will need to take warfarin for the rest of their life, like those with a mechanical heart valve.

You must not stop taking warfarin unless you are explicitly told to stop by a clinician. If you are waiting for a specialist team to review how long you will be taking warfarin, please continue taking it until you have been seen by the clinician. If you have any queries, please contact your warfarin clinic or GP for advice.

Warfarin tablets

There are 4 strengths of warfarin tablets available in the UK:

- 500 micrograms (0.5mg) (white).
- 1mg (brown).
- 3mg (blue).
- 5mg (pink).

If you know the strength of the tablets you have, you can use any combination to make up the right dose. Please speak to whoever advises you on your warfarin dose if you are not sure how to make up a dose e.g. your GP or warfarin clinic.

How to take your warfarin

Swallow the tablets with a full glass of water. Take the tablets at the same time each day, ideally in the evening (around 18:00). This allows the warfarin clinic or GP to contact you before you take that day's dose if your INR result is high.

If this is inconvenient, warfarin can be taken another time, as long as it is roughly the same time each day.

If you forget your dose, you can take it up to 6 hours late (for example if you usually take it at 18:00 and forget, you can take it by midnight). If your dose is more than 6 hours late, **miss this dose** and make a note. Then contact whoever advises you on your warfarin dose (e.g. GP or warfarin clinic) as soon as you can the next **working** day.

If you have difficulty remembering whether you have taken tablets, or are taking different doses on different days, you can use a calendar to record that you have taken your tablets. Put a line through each date on the calendar as soon as you have taken the tablets.

Always make sure that you have at least a week's supply of warfarin tablets, so you do not run out. We advise you keep a supply of tablets of different strength in case your dose is altered. When your warfarin prescription is ordered or collected from a pharmacy, they may ask for details of your INR and warfarin dose.

Blood test monitoring (INR results)

Unlike many other tablets there is not standard dose of warfarin.

Instead, the dose needed depends on the effect it has on slowing of the clotting in your blood.

This is measured in the laboratory by a blood test called the INR (International Normalised Ratio). The INR result for someone not taking warfarin is around 1. Your target INR result will have been set by the clinician who started you on warfarin.

A common target INR is 2.5 (range 2.0-3.0), which means that your blood will take just over twice as long as normal to clot.

Many factors can affect your INR test results, including your general health, diet, and any other medications that you take.

Your INR results will vary and fluctuate naturally, even if your warfarin dose and lifestyle don't change. The aim is to keep your blood test within 0.5 of your target INR. For example, if your target is 2.5, your INR result should ideally be within the range 2.0-3.0.

- If your INR is too high, you are at higher risk of bleeding.
- If your INR is too low, you are at a higher risk of blood clotting.
- For all INR results you will be contacted by the clinic/GP for review.

In specific situations, some patients may need additional blood thinning injections into the abdomen (tummy) for a short time whilst their INR is low. This covers the period of higher clotting risk.

At the start of treatments, you will need INR tests more frequently to find the right warfarin dose for you. Once your dose has been stabilized, your tests will become less frequent. The maximum time between blood tests is up to 12 weeks. It is not possible to tell you at the beginning of treatment how frequently you will need INR tests, but whoever advises on your warfarin dose e.g. GP or warfarin clinic, will guide you.

The first time you need an INR blood test an appointment will be made for you by your GP or hospital (whoever arranged for you to start warfarin). It is important you know when your next blood test is due.

After the first INR blood test, you should be contacted by your clinic/GP. If you have not heard from them by the end of the following day with the result, or are unsure of your warfarin dose, please contact your whoever advises on your warfarin dose e.g. GP or warfarin clinic.

Is warfarin affected by other medicines I take?

Warfarin can be affected by many medicines, including antibiotics, cholesterol medication, epilepsy medicines, some painkillers, and some heart tablets.

Paracetamol is safe to take but other painkillers should be checked with a doctor or pharmacist. **Do not** take aspirin, things containing aspirin, or anti-inflammatory painkillers (like ibuprofen or naproxen) unless a healthcare professional who knows you take warfarin advises you to.

Before starting new prescribed medicine or buying medicine (including herbal remedies and vitamins), please remind the doctor or pharmacist that you take warfarin. If your medicines have changed (especially antibiotics), please inform your warfarin clinic as an INR test may be needed sooner.

Can I drink alcohol whilst taking warfarin?

It is recommended to drink no more than 14 units of alcohol a week, which should be spread evenly across the week. This is a maximum of 2 units of alcohol a day, as in no more than 1 pint of beer or 1 medium glass of wine per day.

It is dangerous to 'binge drink' while taking warfarin as it can lead to a high INR result and an increased risk of bleeding.

- Normal strength lager/beer/cider (3-4%): 1 pint = 2 units.
- Wine (11-14%): 175ml glass (standard/medium) = 2 units.
- Spirits (around 40%): single measure (25ml) = 1 unit.

Diet and warfarin

Vitamin K is important for a healthy balanced diet, but it can affect your INR. You do not have to cut these foods completely out from your diet, but increasing your intake of foods rich in vitamin K can lower your INR. These include:

- Green leafy vegetables like cabbage, kale, spinach, broccoli, and lettuce.
- Liver.
- Cereals containing wheat bran and oats.
- Plant derived oils.

Try to eat similar amounts of these foods each week. Avoid sudden changes such as crash diets. Speak to your clinician or warfarin clinic if you want to change your diet whilst taking warfarin.

You should not consume **cranberry/grapefruit/pomegranate juice** or products containing these whilst taking warfarin as they can put you at higher risk of bleeding.

Injury

Where possible, avoid risks from falls and injury as you may bleed more from these. Do not take part in contact sports like rugby and try to minimise the risk of harm from manual work injury.

Try to protect yourself from injury where able, for example consider using a soft toothbrush, an electric razor, and gloves and long-sleeved clothes when gardening.

Side effects

Most patients do not have side effects whilst taking warfarin. However, a small number of patients may develop 1 of the following: rash, hair thinning, diarrhoea, nausea, or vomiting.

You should contact whoever advises you on your warfarin dose e.g. GP or warfarin clinic, if you think you are having any of these side effects from your warfarin therapy.

Bleeding

It is common to bruise more easily whilst taking warfarin. Cuts may also take longer to stop bleeding. Nosebleeds or bleeding from cuts usually stops after applying pressure for around 5 minutes.

If you develop any of the following, you should seek medical advice and have your INR checked immediately:

- Prolonged nosebleeds.
- Bleeding gums.
- Blood in vomit (may look like ground coffee).
- Passing blood in your urine, or black or red stools (poo).
- Headache that is unusually severe or doesn't go away.
- Unexplained, severe bruising.
- Feeling exceptionally tired, dizzy, pale, or weak.
- Unexplained swelling.
- For women, increased bleeding during periods (or other vaginal bleeding).

Seek urgent medical attention (phone 999) if you:

- Are unable to stop bleeding.
- Suffer a significant blow to the head.
- Are involved in a major trauma (accident).

If your warfarin control is within your target range and you have unexplained bruising or bleeding, the symptoms should be investigated. If your INR is higher than expected, you may be advised to miss warfarin doses and/or receive some vitamin K to reverse the effects of warfarin.

The most significant risk from taking warfarin is bleeding. It is essential you take the correct dose and go regularly for INR tests as advised.

What about operations?

You can have surgery whilst taking warfarin, but the dose may need to be adjusted. Your clinician or the pre-operative assessment clinic (POAC) might advise you to stop your warfarin for several days before an operation or procedure, or they might require your INR to be below a certain level.

Please follow their advice and let whoever advises on your warfarin dose e.g. GP or warfarin clinic know that you have surgery scheduled so your warfarin dose can be adjusted in advance if needed.

You must tell your surgeon that you take warfarin. They will need to know your warfarin dose, target INR, and recent INR results.

Never assume that the surgeon knows or remembers you are taking warfarin.

If your operation or procedure is cancelled, please contact your clinician or the POAC for advice on restarting warfarin.

Dental appointments

Most dental treatment can go ahead without changing your warfarin dose. However, make sure your dentist knows you take warfarin - your INR may need to be checked a few days before a procedure.

Women's health

Periods

Women may have heavier periods whilst they are taking warfarin and may wish to discuss this with whoever advises on their warfarin dose e.g. GP or warfarin clinic. You should be provided with an information leaflet with more detail about what is considered “abnormal” bleeding whilst taking anticoagulants.

Pregnancy

Women who take warfarin should use reliable contraceptives and discuss plans for future pregnancy with their doctor before trying to conceive. Women who think they are pregnant whilst taking warfarin should take a pregnancy test as soon as possible and if this is positive, make an urgent appointment with a doctor to discuss the next steps.

Breastfeeding

Warfarin is the best oral anticoagulant for breastfeeding women.

What about holidays or going away?

If your warfarin management is well controlled and stable, there is no problem with you going away. Please contact whoever advises you on your warfarin dose e.g. GP or warfarin clinic, if you have a holiday coming up or are leaving home for a long time.

For short periods you won't need to have an INR test while you are away, and you can carry on as normal. If you develop any complications like unexplained bleeding or bruising or become very unwell you must seek medical help locally.

If you are going away for a longer period (for example over a month) you may need an INR test while you are away. Contact whoever advises you on your warfarin dose e.g. GP or warfarin clinic for advice before you go away.

- In the UK, you may be able to register as a temporary patient at a GP surgery.
- If you are abroad, you should go to a local medical centre or hospital.

Remember that if you require medical attention or need to have blood tests abroad it may be very expensive unless you have appropriate insurance. Please make sure you have purchased travel insurance before your holiday.

It is also important to try to avoid significant changes in your diet or alcohol consumption while you are away as this could affect your INR and put you at risk.

The next sections are for patients who are dosed by the warfarin clinics at:

- **Southmead Hospital: section B.**
- **Bristol Royal Infirmary: section C.**

Section B: Anticoagulation monitoring at Southmead Hospital (North Bristol NHS Trust)

- The INR test is ideally taken in the morning usually at your GP practice, or sometimes at home. The INR test results will come to the warfarin clinic who will advise you on your ongoing dose and next test date.
- After the first blood test (and subsequent tests) you will be sent a yellow slip in the post with information on how much warfarin to take, and when you should have your next INR test in the post.
- **It is your responsibility to book in the next INR test with your GP surgery.** If you struggle to book the test on the recommended date, please contact the warfarin clinic.
- There is space in the bottom section of the slip to write important information about your health that could affect the warfarin. For example, changes to medication, recent illness, or missed dose. Please complete this and bring it to your next INR test. Part of this section is removed to send with the blood sample and identify you. Be careful to avoid ripping the tear-off slip.
- Once your INR test has been reviewed by the clinic, a new yellow slip will be posted to you. Your GP practice will also receive an electronic copy of your warfarin dosing instructions.

We will contact you by phone if your INR is very low or high, or we need to speak to you. It is important we have up to date contact phone number(s) so we can get information to you or your family/carer quickly.

- If you care for someone who takes warfarin, but you know that they would not be able to receive/understand a phone call from us, please let us know how we can contact you instead.
- We can also send the INR test result and dosing information to you/your carer by email.

How to get help

- We are available Monday to Friday, 10:00 to 17:00 on **0117 414 8405**
- If possible, please make any calls before 16:00. If your call is not answered, leave a message and you will usually be called back the same day.
- **Please do not routinely contact the helpdesk to find out your result and dose unless there is a very urgent need.** For example, a result not received before going on holiday, result needed before dental/surgical procedure, or more than 4 working days since your INR blood test. Your GP also has the results.

Section C: Anticoagulation monitoring at Bristol Royal Infirmary

- The first time you need an INR blood test, an appointment will be made for you by the GP or hospital (whoever arrange for you to start warfarin). It is important that you know when your next blood test is due.
- The INR blood test is ideally taken in the morning, usually at your GP practice, but sometimes at home or at the BRI blood room. The INR test results will come to the BRI warfarin clinic, who will contact you to advise you on your ongoing warfarin dose and the next test date.
- We will contact you by phone if your INR is very low or high, or if we need to speak to you. It is important we have up to date contact phone number(s) so we can get information to you or your family/carers quickly.
- You can choose to receive **letters or text messages** with your dosing information for your records. Your GP practice also has your INR result and will receive an electronic copy of your warfarin dosing instructions.
- If you need advice or have not heard from us/received a letter or text within 3 working days of your INR test, please contact us on:
0117 342 3874
- We are available Monday to Friday, 09:00 to 17:00. If we do not answer the phone, please leave a message and we will get back to you as soon as possible, usually the same day.

- It is **your responsibility to book your INR tests** with your GP practice. If you struggle to book the test on the recommended date, please contact the warfarin clinic.
- If you care for someone who takes warfarin, but you know that they would not be able to receive/understand a phone call from us, please let us know how we can contact you instead.

References and further information

The Let's Talk Clots app shares information about blood clots including reducing risk, signs and symptoms, diagnosis and treatments. It also has guidance and support on recovering after a blood clot.

<https://thrombosisuk.org/patient-information/lets-talk-clots-app>



British Committee for Standards in Haematology (BSCH) (2011) Guidelines on oral anticoagulation with warfarin - 4th edition. British Journal of Haematology 154 (3), pp. 311-324. Available from: <https://b-s-h.org.uk/guidelines/guidelines/oral-anticoagulation-with-warfarin-4th-edition>) [Accessed December 2024].

Joint Formulary Committee. British National Formulary [online] London: BMJ Publishing Group Ltd and Royal Pharmaceutical Society. Available from: <http://www.bnf.nice.org.uk> [Accessed May 2024].

NPSA alert 18. Actions that can make anticoagulant therapy safer. 2007. Available from: <https://webarchive.nationalarchives.gov.uk/ukgwa/20171030131022/http://www.nrls.npsa.nhs.uk/resources/type/alerts/?entryid45=59814&p=3> [Accessed December 2024].

Poller L et al (1998) Multicentre randomised study of computerised anticoagulant dosage. European Concerted Action on anticoagulation Lancet 352 (9139),150

