

# WARFARIN THERAPY TREATMENT GUIDE



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## INR CLINIC INFORMATION

### Bloemfontein

Monday to Friday: .....08:00 - 17:00  
Tel: .....051 400 0700

### Cape Town

Monday to Saturday:  
Bloods to be drawn .....08:00 - 12:00  
Closed on Sundays and public holidays  
Tel: .....021 596 5197

### East London

Monday to Friday: .....08:00 – 17:00  
Saturdays for emergencies ..043 703 4300/1  
Tel: .....043 711 9470/74/75

### Johannesburg

Monday to Friday: .....08:00 - 17:00  
Closed on weekends and public holidays  
Tel: .....011 704 9615  
After hours: .....011 929 9800

### Kroonstad

Monday to Friday: .....08:00 - 17:00  
Tel: .....056 212 9571

### Port Elizabeth

Monday to Friday: .....08:00 – 17:00  
Saturdays for emergencies  
Tel: .....041 396 9527/9041

### Pretoria

Monday to Friday: .....07:00 – 21:00  
Saturdays: .....08:00 – 16:00  
Sundays and public holidays: 08:00 – 14:00  
Tel: .....012 484 6506/7  
After hours: .....012 484 6520/22

### Welkom

Monday to Friday: .....08:00 - 17:00  
Tel: .....057 916 0620

### Westridge (KwaZulu Natal)

Monday to Friday: .....08:00 – 17:00  
Tel: .....031 270 0609/10/11

Should you not be able to reach your INR Clinic,  
contact the Ampath facility nearest you for  
assistance.

## WHAT IS WARFARIN (COUMADIN)?

Warfarin, also known as Coumadin, is a drug that prevents blood clotting/thrombosis by reducing the levels of vitamin K. The levels of warfarin are easily affected by a number of other medications, diet and individual metabolism. Therefore, the frequency of testing can vary from patient to patient especially at the beginning of therapy.

## WHY IS WARFARIN PRESCRIBED?

To prevent clot formation:

- Certain types of irregular heartbeat (e.g. atrial fibrillation) can cause clotting in heart chambers and therefore increase risk of stroke
- After heart valve replacement surgery
- Orthopaedic surgery such as a hip and knee replacement
- Trauma e.g. fractured femur

For the following medical conditions:

- Deep vein thrombosis (DVT) - clot in deep veins of the body, mostly in the legs
- Pulmonary embolism – clot in lung vein

## ROLE OF THE LABORATORY

- The laboratory is responsible for determining your blood clotting time, which is expressed as a ratio known as the INR (International Normalised Ratio).
- Your INR result is then relayed to a pathologist, who decides on an appropriate warfarin dosage by utilising your current INR result, your target INR value and previous INR records.
- Your target INR value (as specified by your medical practitioner) will generally have a range of 2.0 - 3.5 (occasionally more or less).
- The laboratory will assist you in obtaining your new dosage schedule.
- When starting with warfarin therapy, INR testing may be performed frequently e.g. every 2 to 3 days.
- INR testing should be done 3 to 4 days after starting any new medication (inform your INR Clinic once you start with new medication).
- If you are travelling nationally, contact the INR Clinic nearest you for continued monitoring.
- Patients who have not attended the INR Clinic for three months or longer will need a consultation with their referring doctor to provide the INR Clinic with a new requisition form for testing.
- Should you change your medical practitioner, please inform your new doctor that you are currently on warfarin. Inform the INR Clinic of your new medical practitioner's details for delivery of results.

**All levels above normal requiring urgent intervention are communicated to the medical practitioner for specific management and the patient is informed of the process. As laboratory staff we are not**

**allowed to manage any further than stopping of the warfarin. Depending on the circumstances, you may be referred immediately to nearest emergency department for urgent care.**

## DURATION OF WARFARIN THERAPY

- Depending on the underlying condition, the duration of therapy may vary from a few months to indefinitely and will be specified by your medical practitioner together with your INR target range.

## HOW TO TAKE WARFARIN

- Take exactly as instructed by your medical practitioner.
- Warfarin is taken once a day and usually in the evening. This allows for the dosage to be changed after testing the next morning, if needed.
- You should take your dose at the same time each day.
- Do not stop with taking your dose unless advised by your medical practitioner.
- Do not take any over the counter, herbal, homeopathic preparations or supplements whilst on warfarin, unless cleared by your medical practitioner.
- Store warfarin in a dry place, at room temperature away from children.

If your warfarin tablets are finished, your medical practitioner must prescribe more warfarin. INR Clinic staff cannot provide you with a new prescription.

## MISSED OR EXTRA DOSES

### MISSED DOSE

If you forget to take your dose of warfarin in the evening, the general advice is as follows:

- If you remember before midnight on the same day, then the missed dose can be taken. If not, it is probably best to not take that dose.
- Make a note in your warfarin therapy book that you have missed a dose and take your normal dose the next day at the usual time.
- Do not take a double dose to account for the missed dose.
- If you are not sure what to do if you have missed a dose, contact your medical practitioner or INR Clinic for advice.
- Immediately inform your medical practitioner or INR Clinic if two or more doses have been missed.

## EXTRA DOSES OR WRONG DOSES

Contact the INR Clinic if you accidentally take the wrong dose of warfarin or need to query any possible dose discrepancies.

## MISSED APPOINTMENT

If you missed your appointment and you are unsure what to do, contact your INR Clinic for advice.

## TRAVEL

Alert your INR Clinic if you are intending to travel either nationally or internationally. Staff will provide guidance regarding continuity of monitoring and care.

## SIDE EFFECTS

**Inform your responsible care giver or family of the following side effects.**

The most serious side effect of warfarin is bleeding. You must seek medical attention and have an urgent blood test if you experience any of the following:

- Passing blood in your urine or stool
- Passing black stool
- Severe bruising
- Prolonged nosebleeds (lasting longer than 10 minutes)
- Vomiting blood
- Coughing up blood
- Red spots on skin
- Bleeding from ears
- Unusually heavy menstrual bleeding
- Unusual pain or swelling of joints
- Unusual headaches

Prompt treatment is critical to reduce complications related to bleeding.

You must seek immediate medical attention if you:

- Are involved in major trauma (accident)
- Experience a significant blow to the head
- Are unable to stop any form of bleeding

Less common side effects of warfarin include:

- Rashes
- Nausea
- Vomiting
- Diarrhoea

## INTERACTIONS

### ALCOHOL

It is dangerous to “binge drink” or overindulge while taking warfarin as this may increase the effect of warfarin and so increase the risk of bleeding.

You should only drink small amounts of alcohol when taking warfarin. Do not exceed three units of alcohol a day for men or two units a day for women. It is not safe to “save up” units to have on a weekend or special occasion. One unit is roughly equivalent to half a pint of beer or lager, a single measure (25 ml) of a spirit such as vodka or whisky or a small glass (125 ml) of wine. People who have liver disease and are taking warfarin should not drink alcohol.

### FOOD

It is important to eat a well-balanced diet while taking warfarin. You should avoid drinking cranberry juice while taking warfarin as it can affect warfarin levels in the body.

Foods that are rich in vitamin K (e.g. any green food including leafy vegetables and avocado, liver, mature cheese) can also affect your INR test result and should be taken in moderation.

### OTHER MEDICATION

Warfarin can interact with many other medicines. Some of the more commonly known interactions with warfarin are listed below (however, this is not a complete list).

If you want to check that your medicines are safe to take with warfarin, consult your medical practitioner. You should also read the patient information leaflet that comes with your medicine.

Several herbal medicines and supplements can interact with warfarin.

The following medicines may increase the effects of warfarin and your warfarin dose may need to be reduced by your medical practitioner or attending INR Clinic:

- Antibiotics
- Antidepressants
- Aspirin and clopidogrel
- Chemotherapy and tamoxifen regimes
- Non-steroidal anti-inflammatory medicines (NSAIDs, e.g. azapropazone, diclofenac, ibuprofen, ketorolac)
- Statins (cholesterol-lowering medicines, e.g. fluvastatin, simvastatin, rosuvastatin)
- Thyroid hormones

- Ulcer medicines (e.g. esomeprazole, omeprazole, pantoprazole, cimetidine)
- Valproate (sodium valproate)

The following medicines may reduce the effects of warfarin and your warfarin dose may need to be increased by your medical practitioner or INR Clinic:

- Acitretin
- Barbiturates (e.g. phenobarbitone, primidone)
- Carbamazepine
- Griseofulvin
- Oestrogens
- Progesterones
- Rifampicin
- St. John's wort (Hypericum)
- Vitamins containing vitamin K

The following medicines can both increase or reduce the effects of warfarin. Your medical practitioner or INR Clinic will need to monitor you carefully if you take these medicines with warfarin:

- Antivirals (e.g. amprenavir, atazanavir, nevirapine, ritonavir, saquinavir)
- Cholestyramine
- Corticosteroids
- Phenytoin

## SPECIAL CONSIDERATIONS

Warfarin should be avoided if you have:

- Severe uncontrolled hypertension (high blood pressure)
- Peptic ulceration
- Bacterial endocarditis (infection of the heart lining and heart valves)

Warfarin should be taken with caution in the following situations:

- Bleeding problems (e.g. haemophilia)
- Liver disease
- Kidney disease
- Recent surgery
- Frail elderly

Warfarin use in pregnancy:

Warfarin can affect the development of a baby in early pregnancy. It is not routinely used during pregnancy. If you are already taking warfarin

and suspect you may be pregnant, contact your medical practitioner urgently.

Warfarin use when breast-feeding:

You can usually take warfarin when you are breast-feeding. However, this should be discussed with your medical practitioner.

## MEDIC ALERT MEMBERSHIP AND BRACELET

We strongly advise that all patients who are on warfarin wear a Medic Alert bracelet at all times in case of an emergency. Application forms for Medic Alert membership are available at most pharmacies or from your medical practitioner.

## PROCEDURE FOR OBTAINING YOUR NEW DOSAGE SCHEDULE

We will contact you in the following circumstances:

- When your INR result requires contacting you urgently.
- To clarify possible dosage discrepancies. It therefore follows that you should at all times make it possible for the laboratory to contact you. Verify your contact number AT EACH VISIT.

**If your blood is drawn after 15:00 your dosage may only be available the following morning if INR levels is within range.** If you do not hear from Ampath by 18:00, preferably phone in to obtain the new dosage. Alternatively take your dose as scheduled and phone the next morning.

## IN CONCLUSION

By working closely with your medical practitioner and/or pathologist, you can prevent unnecessary risks and contribute to a well-controlled INR value. Your understanding of the instructions you have been given is essential in your management. Follow them as strictly as possible. If you have any questions regarding your management, contact your medical practitioner or pathologist at your local laboratory. The information contained in this guide is a basic guideline obtained from the literature.

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