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Disclaimer
The information contained in this brochure has been produced as a guide only. it is not intended to be comprehensive and does not take the place of your doctor’s or professional medical advice.
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About this book
The WA Medication Safety Group (WAMSG) is a committee of the WA Therapeutics Advisory Group, consisting of nurses, doctors, pharmacists, consumers and health professionals committed to improving medication safety. We believe that you, the patient, are the most important person to help improve safety and prevent mistakes. You can do this by understanding your medications well. For all your medications you should know what they are called, how much to take, when to take them and what they are for. Working with your own doctor and pharmacist will also help you get the best result from your treatment.
Warfarin is a useful medicine that helps many patients. It can be dangerous when not used correctly or without proper medical attention. WAMSG has written this book to help you take your warfarin correctly and minimise unwanted side effects. It has all the important information you need to take warfarin correctly and safely. Please read it carefully. It is important to know about:

- Taking warfarin
  - Why you are taking warfarin and how long you need to take it. Which brand of warfarin you are taking, the tablet strengths and colours and, how to use the tablets to make the correct dose.
  - The time of day to take warfarin. What to do if you miss a dose.
- The need for regular blood tests
  - Your target INR level.
  - How to get your blood tests.
  - What happens after each blood test.
  - How you can help keep your INR in the target range.
- Your increased risk of bleeding
  - Signs of bleeding to watch for.
  - What to do if you notice bleeding.
  - How to reduce the risk of bleeding.
- When you need to see the doctor
  - The importance of not taking new medicines before telling your doctor or pharmacist.

After you have read the book, talk with the doctor, pharmacist or nurse if you have any further questions about warfarin. Doing this will give you the best start to begin sharing responsibility for taking warfarin correctly and to work in partnership with your doctor.

This book is yours to keep. Feel free to make notes on the pages. You should keep this book for future reference.
What is special about warfarin?
Warfarin is a common drug taken by thousands of Australians every day. However, there are a few things about warfarin that make it different from most other drugs. These are:

- the need for regular blood tests to monitor the effect of warfarin
- the need for frequent dose changes
- an increased risk of bleeding.

What is warfarin?
Warfarin lowers the risk of blood clots forming in your body.
There are two brands of warfarin. These are not the same, so don’t change brands.

What does warfarin do?
Warfarin is an anticoagulant. You might have heard it called a blood thinner. Warfarin does not actually thin the blood. It lowers the risk of blood clots forming by increasing the time it takes for blood to clot.

Blood clots can cause stroke, heart attack, or other serious conditions such as blood clots in the legs or lungs.

Why take warfarin?
Common conditions treated with warfarin include:

- Pulmonary Embolism (PE) – blood clots in the lungs.
- Deep Vein Thrombosis (DVT) – blood clots in veins in the legs.
- Atrial Fibrillation (AF) – a rapid heartbeat increasing the risk of blood clots and stroke.
- Artificial heart valves – mechanical valves increasing the risk of blood clots and stroke.

Warfarin may also be used to reduce the risk of blood clot related complications after some types of heart attacks or surgery.

If your condition is not on this list or you are not sure, ask your doctor why you need warfarin.

The length of time warfarin therapy is needed depends on the condition being treated and your individual risk factors. Your doctor should discuss this with you.
The tablets
There are two brands of warfarin available. The brands are called Marevan®, and Coumadin®. They come in different tablet strengths and colours. There are several ways to make up a correct dose using these tablets.

Marevan® and Coumadin® brands are not the same. Always use the same brand unless your doctor specifically tells you to change. Check your tablets when you collect your prescription to make sure you have the right brand and strength, especially when you have your prescription filled outside of Western Australia.

MAREVAN brand warfarin tablets:
- 1 mg tablet (brown)
- 3 mg tablet (blue)
- 5 mg tablet (pink).

Coumadin brand warfarin tablets:
- 1 mg tablet (light tan)
- 2 mg tablet (lavender)
- 5 mg tablet (green).

Blood tests
Blood tests are needed to monitor the effect of warfarin.

Why do I need blood tests?
To slow down the clotting process safely and effectively, a check must be kept on the time it takes your blood to clot.

The measure of how long your blood takes to clot is called the International Normalised Ratio (INR). In a person not taking an anticoagulant the INR is about one. The higher the INR, the longer it takes the blood to clot.

The INR needed depends on the condition being treated. The doctor will try to keep the INR within a range. This is called the target INR range. For most patients, the target INR range is 2 to 3. An INR in the right range will prevent blood clots and reduce the risk of bleeding. If the INR is too high, there is an increased risk of bleeding. If the INR is too low, there is an increased risk of blood clots forming.
How often do I need blood tests?
Initially, you will need a blood test daily or every second day until the right dose for you is identified. It takes about one week to find the right dose for most people. Once this happens a blood test is usually only needed every few weeks. The frequency of tests is different for everybody.

After your blood test your dose of warfarin may be changed to keep the INR within the target range for your condition.

Bleeding

Bleeding is the most common side effect of warfarin.

Your chances of bleeding increases if your INR rises. Keeping your INR within your target range will reduce this risk.

Getting started

The dose of warfarin is changed based on your blood test results.

What dose of warfarin do I need?
The dose of warfarin needed is different for every patient. Your doctor will start with one dose and then make changes based on the blood test result (INR). The dose is often changed in the first few days.

When does warfarin start working?
Warfarin takes four to five days to reach the target INR. During this time, you may be given injections of another anticoagulant that works immediately. These injections will stop when your target INR is reached. If you need these injections, make sure you know:

- what time to give yourself the injection
- how to give yourself the injection, or know who is going to give the injection
- make sure you have enough doses.

Your treatment plan
You need to know:

- why you are taking warfarin
- your target INR
- the dose you need to take
- the date of your next blood test, and how to get the blood test.

Fill out your treatment plan on the warfarin treatment card.
Taking warfarin safely at home

Safe warfarin use means reducing the risk of a blood clot forming your body without increasing the risk of bleeding. To do this your INR needs to be within the target range.

Your doctor will try to keep your INR within the target range by ordering regular blood tests and by making changes to the warfarin dose.

There are also a number of things you can do to keep your INR within the target range. These include:

- taking your warfarin exactly as prescribed
- having regular blood tests exactly as ordered
- making dose changes exactly as instructed
- not stopping or starting any medicines without talking with your doctor
- not making any major changes to your diet
- limiting your alcohol consumption to 1 to 2 standard drinks per day
- seeing your doctor if you become ill.

How should I take warfarin?

Take your warfarin exactly as prescribed by your doctor. Take warfarin once each day, the evening is recommended.

When should I take warfarin?

Take your warfarin exactly as prescribed by your doctor. That means taking the exact dose once a day at about the same time.

Warfarin can be taken before, with or after a meal. The time you take warfarin needs to fit into your daily routine. Taking the dose with the evening meal is a good idea. If an evening dose doesn’t suit you, talk to your doctor.

Warfarin dose

Always take exactly the right dose. If you accidentally take too much warfarin, contact your doctor.

Warfarin brands come in different strength tablets. Your doctor may give you a prescription for more than one tablet strength to make up the right dose. The tablets are colour coded to help identify different strengths. Always check the label and the tablet colour so you have the right brand and tablet strength.

If you are unsure of the dose or which strength and colour tablets to use ask your doctor or pharmacist.
Missed doses

You should never skip a dose or take a double dose of warfarin. Make sure you always have enough tablets.

It is very important to take your warfarin every day. To help you remember, mark off your dose in your diary, calendar or warfarin treatment card after you take it. Special dose aids like Dosette boxes or Webster packs can help. Ask your pharmacist about dose aids.

Make sure you plan ahead:
- If you run out of tablets and can’t reach your doctor, visit the nearest doctor or hospital
- Before you travel consider having an extra prescription filled or ask your doctor for a spare prescription to take with you

What if I only just missed taking my warfarin?
If it is only a few hours since you missed your warfarin dose then you should take your usual dose at once. If you take your warfarin with your evening meal and miss a dose, the missed dose can be taken any time before you go to sleep.

What if I missed my warfarin yesterday?
If it is more than a few hours since the missed dose (for example the next day), then don’t take the missed dose. Take the next dose instead at the usual time.

Do not change the dose. Doubling up the dose is dangerous.

Make a note that you have missed that dose and tell your doctor at the time of your next blood test.

What if I miss more than one dose?
If you miss your warfarin for more than one day, talk to your doctor for more advice.

Monitoring your warfarin treatment

You need to have regular blood tests. After each test, the doctor will tell you what dose to take each day and when your next blood test is due.

You must have regular blood tests to check the INR. If the INR is not within your target range the doctor may change your warfarin dose.

Have the INR test as instructed. If a laboratory tests your blood, have the test in the morning. The result will be available the same day. Find out your INR result and the warfarin dose to take before your next dose is due. You should also ask for the date of your next blood test.
Illness

Illness may change the effect of warfarin.

Contact your doctor if you experience:

- vomiting or diarrhoea
- fever or infection
- loss of appetite jaundice
- any other illness.

You should have a blood test at least once a month, but sometimes you will need to have them more often.

Write down the dose and test results for your records. Most patients keep a record on a card or in a special booklet. A Warfarin Treatment Card is provided with this book.

Warfarin and other medicines

Warfarin is affected by many other medicines.

You need to talk to your doctor before making any changes in your medicines.

How do other medicines affect warfarin?
Warfarin is affected by many other medicines. They can change your INR and therefore affect the dose of warfarin you need. You may need to have extra blood tests. Changes to your medicines include starting a new medicine, stopping a medicine or changing the dose of a medicine.

ALL types of medicines can affect (interact with) warfarin:

- prescription medicines
- over-the-counter pharmacy medicines (OTC)
- vitamins, minerals, herbal medications and dietary supplements.

What should I do with my other medicines?
To minimise the risk of complications with warfarin, let your doctor or pharmacist know:

- if your regular medicines change
- before starting any new medicines
- before taking vitamins, minerals, herbal or natural therapies, including Chinese medicines or OTC medicines.

If you visit a different doctor make sure you tell them you are taking warfarin.
Common medicines that interact with warfarin

<table>
<thead>
<tr>
<th>Medicine type</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescription</td>
<td>antibiotics, anti-inflammatories, heart medicines, ulcer and reflux medicines</td>
</tr>
<tr>
<td>Over-the-counter</td>
<td>pain relievers, aspirin, ibuprofen, naproxen, diclofenac, cough and cold medicines</td>
</tr>
<tr>
<td>Vitamins</td>
<td>vitamin C, vitamin E, vitamin K</td>
</tr>
<tr>
<td>Herbal/Natural</td>
<td>garlic supplements, ginger supplements, ginseng, Ginkgo Bilbao, green tea, glucosamine, St John’s Wort</td>
</tr>
</tbody>
</table>

There are many more medicines that can affect warfarin that are not listed here. It is important that your doctor and pharmacist know which medicines you are taking.

Can I take Aspirin?
Aspirin also affects blood clotting and small doses (e.g. Cartia®, Cardiprin®, and Astrix®) are used to prevent heart attacks and strokes. If you are taking aspirin check with your doctor whether you need to keep taking it.

Using aspirin as a treatment for pains and fevers should be avoided while taking warfarin. For pain or fever, paracetamol (for example Panadol® or Panamax®) is safer than aspirin as long as it is used at the recommended dose. Check with your doctor if you need treatment for long-term pain.

Your lifestyle choices with warfarin
Along with other medication some of your lifestyle choices may affect your INR, which may affect your warfarin dose.
Diet

Some foods interact with warfarin and affect your treatment and dose. Maintain a regular balanced diet. Small amounts (1-2 standard drinks per day) of alcohol should not cause problems.

Do certain foods affect warfarin?
Some foods can interact with and affect warfarin. Foods high in vitamin K are the most important to be aware of because the body uses vitamin K to help clotting. Vitamin K is not the same as Potassium (which is called K or K+ in foods and vitamins).

What foods are high in vitamin K?
Foods high in vitamin K include dark green leafy vegetables (e.g. spinach), broccoli, cabbage, brussel sprouts and some offal such as liver.

Do I need to avoid vitamin K?
Don’t avoid foods high in vitamin K as you need it for a healthy diet. You should:
- have a healthy balanced diet with lots of different types of food
- eat about the same amount of dark leafy green vegetables and other food high in vitamin K weekly
- consult your doctor before you make any major changes.

What happens if I change my diet?
You may need blood tests if you make any big changes to your diet. Contact your doctor if your diet has changed.

Alcohol
Avoid heavy or binge drinking while on warfarin as drinking alcohol can affect the way warfarin works. Drinking small amounts of alcohol (1-2 standard drinks per day) is unlikely to cause problems.

- ONE standard drink is equal to: ONE small glass of wine
- ONE nip of spirits
- ONE middy of normal strength beer.
Warfarin and the risk of bleeding

Bleeding is the most common side effect of warfarin. Keeping your INR within the target range reduces your risk of bleeding. Things you need to do to reduce the risk of harm from bleeding include:

- know what to do if bleeding starts
- telling your doctor or dentist that you take warfarin well before any planned procedure or surgery
- avoid activities and sport that might cause serious injuries.

Signs and symptoms

Contact your doctor right away if you have any signs or symptoms of unusual bleeding.

Signs and symptoms of unusual bleeding:

- bleeding that takes a long time to stop. This includes nose bleeds, bleeding from your gums, bleeding from cuts and scrapes, and menstrual periods.
- severe unexplained bruising or bruising that gets bigger red or dark urine
- red or black bowel motions coughing blood
- dark or blood stained vomit severe headache or dizziness
- new pain, swelling or discomfort.

What will my doctor do?

Depending on your symptoms your doctor will do one or more of the following:

- order a blood test
- reduce the dose of warfarin
- stop your warfarin for a few days
- give a vitamin K injection to slow down the bleeding.
Medical and dental procedures

Tell your doctor or dentist about warfarin before any medical or dental procedures.

Bleeding from medical or dental procedures may be increased with warfarin. For some procedures you will need to stop your warfarin temporarily.

Tell your doctor or dentist that you take warfarin well before any planned procedure (including operations in hospital, minor procedures at the doctor’s surgery and some dental work). Your warfarin therapy will be considered in the planning of your operation or procedure. Do not stop taking warfarin unless told by your doctor.

Avoiding injuries

Contact your doctor for advice before starting any activity that may cause injury.

When taking warfarin you can perform all your normal daily activities but you are at risk of excess bleeding if you are injured.

What can I do?

It is best to avoid activities that might cause injuries associated with bleeding. These include contact sports (for example football, rugby, and boxing) as well as other activities where there is a risk of severe knocks, bumps or bruises.

If you are unsure which sports and activities are safe for you, ask your doctor.

You should also be aware of the risk of falls and take steps to minimise your risk. Falls may lead to significant head injury and increased risk of bleeding into or around the brain.

Remember, you might not see any visible signs of bleeding from an internal injury. Report to your doctor any:

- falls
- blows to the head or body
- other major injuries.

You may also consider using an electric razor instead of a blade.

Remember to clean and treat minor cuts and scrapes immediately. Tell your doctor about any bleeding that is hard to stop or if pain and swelling develops.
For emergencies

Carry identification with you that states you take warfarin.

If you have an accident or become very ill, ambulance and hospital staff need to know that you take warfarin. It is important that you carry identification that mentions warfarin. This might be a Warfarin Treatment Card or Medic Alert. It is also a good idea to carry an up-to-date-list of all your medicines.

Medic alert
Patients on long-term warfarin should consider joining Medic Alert. Your doctor can help you do this.

Joining Medic Alert involves providing personal details and medical history including warfarin therapy. This vital patient information can then be accessed by medical and emergency workers during emergencies.

You are provided with a personalised engraved bracelet (or pendant) and a wallet card that shows you take warfarin.

Pregnancy and breastfeeding

If you plan to become pregnant or think you are pregnant, talk to your doctor.

Pregnancy
Warfarin is NOT safe to take during pregnancy. It may harm your unborn baby.

- If you are able to become pregnant talk to your doctor about birth control options before starting warfarin.
- If you plan to become pregnant talk to your doctor who will discuss the treatment options.
- If you think you are pregnant, contact your doctor.

Breastfeeding
Current evidence suggests that women may breastfeed while taking warfarin. Trace amounts of warfarin have been found in breast milk however the amounts are too small to reduce the blood clotting in the baby. Make sure that the baby’s doctor knows that you take warfarin.
Stopping warfarin

Your doctor will tell you how long you need to take warfarin, and when you can stop. Make sure you know who is going to tell you when to stop and when to see them. This could be your specialist or GP. After stopping warfarin your blood will return to normal in a few days.

Don’t stop taking warfarin unless told by your doctor. If you stop taking warfarin before it is safe you are at risk of having clots forming in your blood.

If you can’t take your warfarin for any reason (such as illness) tell your doctor – you may need to have extra blood tests.

Important points about all your medicines

- Don’t stop taking your medicines or change the dose unless told to by your doctor.
- Your medicines are yours alone. Don’t share your medicines with anyone else.
- Store ALL medicines out of reach of children. Keep them securely in one place, away from light, heat and moisture.
- Keep medicines in their original packets (with all the labels and instructions).
- Ask your pharmacist for help with containers and dosage aids. Check expiry dates often. Do not take out-of-date medicines. Take these to the pharmacist for safe disposal.
- Keep an up-to-date list of ALL your medications.
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See your doctor if you become ill. Illness may change the effect of warfarin.

Illness:
- Alcohol: Small amounts (1–2 standard drinks per day) of alcohol are unlikely to cause problems.

Alcohol:
- Small amounts (1–2 standard drinks per day) of alcohol are unlikely to cause problems.

Diet:
- Contact your doctor if you can't eat your usual diet.
- Maintain a regular balanced diet.
- Some foods interact with warfarin and affect your treatment and dose. Maintain a regular balanced diet.

Other medications:
- Contact your doctor before you start or stop any medicines.
- Talk to your doctor or pharmacist before you start or stop any medicines.

Warfarin: What is it and how do I take it?
- Warfarin lowers the risk of blood clots forming in your body.

- There are two brands of warfarin. These are not the same, so don't change brands.

- Take your warfarin exactly as prescribed. Warfarin is taken once each day, the evening is recommended.

- You should not skip a dose or take a double dose.

- Make sure you always have enough tablets.

- Carry identification with you that states you take warfarin.

Pregnancy: if you plan to become pregnant or think you are pregnant, talk to your doctor.

Warfarin and Blood Tests
- You need to have regular blood tests. Blood tests are needed to monitor the effect of warfarin. The dose of warfarin is changed based on the blood test (INR) results.

- After each test, the doctor will tell you what dose to take each day and when to have your next test.

- Record your INR, warfarin dose and date of next test on the other side of this card.

Warfarin and Bleeding
- Bleeding is the most common side effect of warfarin.

- Contact your doctor right away if you have:
  - any bleeding that is hard to stop
  - severe unexplained bruising, or bruising that gets bigger
  - red or black bowel motions
  - dark or blood stained vomiting
  - red or dark urine
  - coughing up blood
  - severe headache or dizziness
  - new pain, swelling or discomfort

- Talk to your doctor before starting any activity that may cause injury.

- Tell your doctor or dentist about warfarin, before any medical or dental procedures.

Things that affect warfarin
- Other medications: Warfarin is affected by many medicines. This includes prescription and non-prescription medicines, vitamins, minerals, herbal medications and dietary supplements. Talk to your doctor or pharmacist before you start or stop any medicines.

- Diet: Some foods interact with warfarin and affect your treatment and dose. Maintain a regular balanced diet.

- Contact your doctor if you can't eat your usual diet.

- Alcohol: Small amounts (1–2 standard drinks per day) of alcohol are unlikely to cause problems.

- Illness: Illness may change the effect of warfarin.

- See your doctor if you become ill.
Useful contacts

- **St John Ambulance/Medic Alert**
  For more information on medic alert bracelets:
  Telephone: 1800 882 222

- **NPS Adverse Medicines Events (AME) line**
  For reporting adverse experiences with medicines
  Telephone: 1300 134 237

- **NPS MedicineWise – Medicines Line**
  For information about warfarin and other medicines
  Telephone: 1300 633 424 (1300 MEDICINE)

- **Poisons information line**
  Immediate specialist advice for overdoses or poisoning:
  Telephone: 131 126

- **healthdirect Australia**
  For free immediate health advice from experienced nurses:
  Telephone: 1800 022 222

- **WA Medication Safety Group (WAMSG)**
  Website: [www.watag.org.au/wamsg](http://www.watag.org.au/wamsg)

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