

# Warfarin – Counselling Checklist and List of Interactions

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## 1. Overview

### Purpose

This document has been designed as a tool to guide pharmacists, nurses and doctors when counselling patients commenced on warfarin therapy or when patients have taken warfarin previously and require further education.

### Scope

This document applies to pharmacists, nurses and medical staff working within Waitemata District Health Board.

### Responsibility

It is the responsibility of the health professional counselling the patient about warfarin therapy to ensure that all relevant points in the checklist are discussed with the patient.

### Counselling Methodology

- Warfarin Counselling checklist (*refer to Section 4*).
  - This should be printed and each item ticked off as discussed with the patient.
  - When completed the form should be signed and left in the patient's notes. Any problems or issues raised during the counselling should be documented in the patient's notes along with the actions taken or required to resolve them.
- Warfarin patient evaluation tool (*refer to Section 5*)
  - An optional checklist designed to ensure that patients have understood the information given about warfarin.
  - This tool can be used immediately after education is given and again at follow up (for example if being seen at an Outpatient Clinic one week after discharge). It is suggested that the questions are presented in a different order when asked during the follow-up visit.

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### 2. Warfarin - Interactions with Medicines

#### KEY

#### Severity of interaction

++ The interaction may be life-threatening and/or require medical intervention to minimise or prevent serious adverse effects; or the drugs are contra-indicated for concurrent use

+ The interaction may result in an exacerbation of the patient's condition and/or require an alteration in therapy

#### Level of evidence

**A** Controlled studies have clearly established the existence of the interaction

**B** Documentation strongly suggests the interaction exists, but well-controlled studies are lacking

**C** Available documentation is poor, but pharmacologic considerations lead clinicians to suspect the interaction exists; or documentation is good for a pharmacologically similar drug

Interacting Medicine	↑ Risk of bleeding	↓ Effect of Warfarin	Level of evidence
Allopurinol	+		<b>B</b>
Amiodarone	++		<b>A</b>
Antifungals <ul style="list-style-type: none"> <li>• Fluconazole</li> <li>• Voriconazole</li> <li>• Itraconazole, ketoconazole, miconazole (including gel)</li> </ul>	++ ++ +		<b>A</b> <b>B</b> <b>B</b>
Antithyroid agents e.g. carbimazole, propylthiouracil		+	<b>B</b>
Aprepitant		++	<b>B</b>
Azathioprine/mercaptopurine		++	<b>B</b>
Benzbromarone	+		<b>B</b>
Bezafibrate	+		<b>B</b>
Carbamazepine		+	<b>B</b>
Cephalosporins e.g. cephazolin	+		<b>B</b>
Cholestyramine		+	<b>B</b>
COX-2 inhibitors e.g. celecoxib	++		<b>B</b>
Cyclosporin		+	<b>B</b>
Doxycycline	++		<b>C</b>
Fluoroquinolones <ul style="list-style-type: none"> <li>• Moxifloxacin</li> <li>• Ciprofloxacin, norfloxacin</li> </ul>	++ +		<b>A</b> <b>B</b>
5-Fluorouracil	+		<b>B</b>
Gemfibrozil	+		<b>B</b>
H <sub>2</sub> -antagonists e.g. cimetidine, ranitidine	+		<b>B</b>
Imatinib	++		<b>B</b>
Ibrutinib	++		<b>A</b>
Infliximab		++	<b>C</b>
Influenza vaccine	++		<b>B</b>
Isoniazid	+		<b>B</b>
Leflunomide	++		<b>B</b>
Levothyroxine	+		<b>B</b>

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Macrolides e.g. azithromycin, clarithromycin, erythromycin, roxithromycin	++		<b>B</b>
Methotrexate	++		<b>B</b>
Metronidazole	++		<b>B</b>
Paracetamol (within 1-2 weeks at 2-4g per day)	+		<b>A</b>
Penicillins e.g. amoxicillin ± clavulanic acid (except flucloxacillin which decreases effect of warfarin)	+		<b>B</b>
Phenytoin	+ (initially)	+ (long-term)	<b>C</b>
Proton pump inhibitors e.g. omeprazole, lansoprazole, pantoprazole	+		<b>B</b>
Quetiapine	+		<b>B</b>
Quinine	+		<b>C</b>
Rifabutin, rifampicin		+	<b>B</b>
Ropinirole	++		<b>B</b>
Salicylates (topical) e.g. methyl salicylate	++		<b>B</b>
Sodium valproate	++		<b>B</b>
Simvastatin	++		<b>A</b>
Rosuvastatin	+		<b>B</b>
SSRIs e.g. citalopram, escitalopram, fluoxetine, sertraline, paroxetine	++		<b>B</b>
Sulfamethoxazole i.e. in co-trimoxazole	++		<b>A</b>
Sulfasalazine	+		<b>B</b>
Tamoxifen	++		<b>B</b>
TCA's e.g. amitriptyline, doxepin, nortriptyline	+		<b>B</b>
Testosterone	++		<b>B</b>
Tramadol	+		<b>B</b>
Vancomycin	+		<b>B</b>
Venlafaxine	++		<b>B</b>

**Note:** This table has been adapted from the Queensland Government Guidelines for Warfarin Management in the Community and is not comprehensive or exhaustive. **Refer to the [NZ Formulary interactions checker](#) for more details or if medication not listed above.**

Other medications which can increase the risk of bleeding include:

- **Anticoagulants and antiplatelets:**  
e.g. aspirin, prasugrel, **ticagrelor**, rivaroxaban, abciximab, clopidogrel, dabigatran, dipyridamole, low molecular weight heparin (enoxaparin), tirofiban, heparin
- **Non-steroidal Anti-inflammatory Drugs (NSAIDs):**  
e.g. ibuprofen, naproxen, diclofenac
- **Antithrombotic agents:**  
e.g. tenecteplase, alteplase

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Note that a change in risk of bleeding may not be reflected in the INR (e.g. aspirin increases the risk of bleeding however does not affect the INR).

### 3. Warfarin - Interactions with Complementary Medicines

Interacting Complementary Medicine	↑ Effect of Warfarin/Risk of Bleeding	↓ Effect of Warfarin
Celery seed oil	✓	
Chinese wolfberry	✓	
Co-enzyme Q10		✓
Cranberries*	✓	
Danshen / Tan Shen <i>Salvia miltiorrhiza</i>	✓	
Devil's claw <i>Harpagophytum</i>	✓	
Dong Quai <i>Angelica sinensis</i>	✓	
Echinacea purpurea	✓	
Fenugreek*	✓	
Feverfew	✓	
Fish oils	✓	
Garlic <i>Allium sativum</i>	✓	
Ginger*	✓	
Ginkgo <i>Ginkgo biloba</i>	✓	
Ginseng		✓
Glucosamine +/- chondroitin	✓	
Goji berries <i>Lycium barbarum</i>	✓	
Grapefruit juice	✓	
Ginseng (oriental) <i>Panax ginseng</i>		✓
Green Tea <i>Camellia sinensis</i> *		✓
Horse chestnut	✓	
Kava Kava	✓	
Papain (Papaya extract) <i>Carica papaya</i>	✓	
Quinine/Cinchona	✓	
St John's Wort <i>Hypericum perforatum</i>		✓
Vitamin A, Vitamin E	✓	
Vitamin K		✓
Willow	✓	

**Note:** This list is not comprehensive or exhaustive.  
\* This list only refers to oral supplement with higher doses - lower doses (i.e. in herbal teas) are unlikely to affect INR

Large variations in diet can affect the INR due to vitamin K levels contained in different foods  
See "[Warfarin – Food and Nutrition Advice](#)" for more information

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### 4. Warfarin Counselling Checklist (to be filed in Clinical Notes)

Affix patient sticker here

<p>Is this the patients first time on warfarin?</p> <input type="checkbox"/> Yes <input type="checkbox"/> No	<p>Interpreter required?</p> <input type="checkbox"/> Yes, language spoken _____ <input type="checkbox"/> No
<p>Indication?</p> <input type="checkbox"/> Atrial Fibrillation <input type="checkbox"/> Treatment of DVT/PE <input type="checkbox"/> Mechanical heart valves <input type="checkbox"/> Other _____	<p>Who will monitor INR?</p> <input type="checkbox"/> Anticoagulation nurse <input type="checkbox"/> GP (ensure patient has a GP) <input type="checkbox"/> Pharmacy* <input type="checkbox"/> Dialysis Unit  <small>*Available at some community pharmacies with accredited pharmacists – see <a href="#">Coagucheck website for up-to-date list of pharmacies offering this service</a>          Note: Some patients may manage monitor their own INRs at home using CoaguChek®</small>
<p>Target INR?</p> <input type="checkbox"/> 2-3 <input type="checkbox"/> Other _____	<p>Does a family member/caregiver require education?</p> <input type="checkbox"/> Yes _____ <input type="checkbox"/> No
<p>Proposed duration?</p> <input type="checkbox"/> Indefinite <input type="checkbox"/> Other _____	<p>Can patient get transport to the lab?</p> <input type="checkbox"/> Yes <input type="checkbox"/> No – arrange house calls

- Information on warfarin: (Tick each square as each item is discussed with the patient)
  - Red warfarin booklet and appropriate handouts given. The warfarin video/DVD or picture flipchart may be used to aid counselling.
  - Purpose of warfarin for this patient.
  - Warfarin is an anticoagulant which slows the clotting mechanism of the blood to reduce the risk of clots forming.
  - Warfarin is the generic drug name and comes in two different brands Marevan® (preferred brand) and Coumadin®. The two brands come in different strengths and colours and are not interchangeable.
  - Anticipated length of treatment (3-6 months minimum for most DVT/PE, lifelong for recurrent idiopathic DVT/PE, AF and mechanical heart valves). If the patient is awaiting cardioversion, warfarin may be used for a short period, prior to and following this procedure.
  - Importance of monitoring how well warfarin is working by having regular blood tests to measure the INR. Explain what INR means and the INR range that the patient should be aiming for.
  - Warfarin is teratogenic - for women of child-bearing age the risk to the foetus and importance of contraception and avoiding unplanned pregnancies should be discussed. Warfarin is safe to take while breastfeeding.
- How to take warfarin:
  - Take warfarin once a day at the same time each day (*We suggest that the patient take the warfarin in the evening and have their blood test to check the INR in the morning*). Discuss frequency of monitoring and who will be arranging the monitoring.

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- Compliance aids such as marking off on a calendar as the patient takes their dose. The tables in the red warfarin booklet can be used for recording doses, INR and when to have laboratory tests.
  - What to do if the patient misses a dose. If a dose is forgotten, it should be taken as soon as remembered. If it is not remembered until the next day, the patient should not double up on doses and should advise their GP practice.
  - Avoid high fat diets and large changes to eating habits. Discuss vitamin K and vitamin K rich foods. Keep daily intake of green leafy vegetables consistent. (*Refer to WDHB dietitian info*).
  - Alcohol consumption. Avoid binge drinking. One to two units of alcohol per day is unlikely to cause a problem.
  - Do not change doses without discussing first with the health practitioner monitoring INR and managing doses. It is important to have enough stock of tablets, especially if travelling.
  - If you are ill or not eating properly extra blood tests may be required; doses may need to be adjusted.
  - Store medicines safely at home. Keep out of reach of children.
  - Avoid contact sports or activities where there is a high risk of injury such as deep tissue massage or tattoos.
  - Suggest a MedicAlert bracelet if on warfarin lifelong.
3. Adverse effects and interacting medicines/vitamins/herbal remedies:
- Patient may notice that they bruise more easily and take longer to stop bleeding if they cut themselves. This is normal and expected when on warfarin therapy.
  - Abnormal bleeding (e.g. nose bleeds, blood in urine or stools, bleeding that does not stop) may be a sign that the INR is above the recommended level. The patient needs to contact their doctor immediately.
  - Other side effects (e.g. rash, purple toes) are rare. Contact the doctor if any abnormal effects occur.
  - Interactions with other medicines (*refer to Section 2*)
  - Interactions with over-the-counter and herbal/complementary medicines. For example avoid NSAID's such as ibuprofen for pain relief, and recommend paracetamol instead (*refer to Section 2 and 3 for other examples*). Always check with a health professional when starting or stopping medicines (including complementary medicines).
  - Inform all healthcare professionals, including physiotherapists, dentists, chiropractors and massage therapists prior to treatment.
4. Check patient understanding of warfarin
- Name of their medicine
  - Why they are taking it
  - Expected duration of therapy
  - Who is monitoring their INR and what INR range they should be aiming for
5. Checklist prior to discharge
- Warfarin book
  - Discharge prescription
  - Laboratory form for blood test and knows when due
  - Knows what dose of warfarin to take until next blood test
  - If bridging therapy with Clexane is required, administration has been arranged (by educating the patient/carer or organising a district nurse)

Education given by: \_\_\_\_\_ Pharmacist / Nurse / Doctor

Date: \_\_\_\_\_ Signature: \_\_\_\_\_ Locator: \_\_\_\_\_

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### 5. Warfarin - Patient Evaluation Tool

Date:...../..../.....

*Affix patient sticker here*

	Immediately After Education		Follow Up One Week Later	
	✓	✗	✓	✗
1. What is the name of the medicine?				
2. What does it do?				
3. Why are you taking warfarin?				
4. How long can you expect to be on warfarin for?				
5. What dose of warfarin are you currently taking?				
6. What is the ideal INR (blood test result) for you?				
7. When should you/do you take warfarin?				
8. What side effects should you watch out for while on warfarin?				
9. What will you do if you have any of these side effects?				
10. What can happen if you take: <ul style="list-style-type: none"> <li>- Less than your prescribed dose of warfarin?</li> <li>- More than the prescribed dose of warfarin?</li> </ul>				
11. What must you do before you buy any over the counter or herbal/complementary medicine?				
12. What must you do before you go to the dentist or have any medical/surgical treatment?				
13. What are important issues to remember about: - food? -alcohol?				

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### 6. References

1	Baxter K. Stockley's Drug Interactions 9 <sup>th</sup> edition. Pharmaceutical Press, London, 2010.
2	Martin J, Mehta, D (eds) British National Formulary 57 March 2009 BMJ Publishing Group Tavistock Square, London UK and RPS Publishing 1 Lambeth High Street, London UK.
3	Armstrong LL, Goldman MP, Lance LL (eds), Drug Information Handbook 10th edition. Lexi-Comp, Cleveland, 2002
4	Health Services Support Agency. Guidelines for warfarin management in the community. Queensland government guidelines. Version 2.0. 18/04/16
5	New Zealand Formulary. Release 10 – 1 Apr 2013. ISSN: 2253-5446NZ
6	Ramsay NA, Kenny MW, Davies G, Patel JP. Complimentary and alternative medicine use among patients starting warfarin. <i>BJH</i> 2005;130:777-780.
7	Truven Health Analytics Inc. Micromedex 2.0. 2013.

### 7. Associated documents

Type	Title/Description
WDHB Policy	Warfarin Management
WDHB Policy	Medicine Management & Administration
Legislation	Medicines Act 1981

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