

Standing Order for Primary Health Care

(Insert Practice Name/Logo)

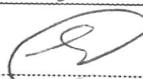
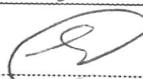
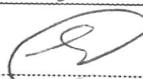
DMC

Warfarin-INR Dose Adjustment Standing Order

Medicine standing order Rationale	INR Management/ Warfarin Sodium To improve the safety of warfarin management, by providing anticoagulant control through a nurse-led service, to patients.												
Scope of use (the condition and patient group)	i. Patients who are on long-term warfarin monitoring programme ii. Patients who have a determined therapeutic range i.e. lower INR- 1.5 to upper INR 4.0 unless otherwise specified by the medical practitioner and documented in the FOLLOWING: (<i>delete which is NOT APPLICABLE</i>) <ul style="list-style-type: none">* PMS* or where relevant, the PATIENTS WARFARIN MONITORING CHART iii. Patients who have been initiated on warfarin for the following conditions: <ul style="list-style-type: none">* Atrial Fibrillation* Mechanical Heart Valve* Pulmonary embolism* Transient ischaemic attack* Mural thrombus* Deep Vein thrombosis* Patients with high risk of thrombosis												
Medicine(s)	Warfarin sodium (tablet) Caution: There are two brands of Warfarin Sodium that can be prescribed. The dosages of each medication are different and NOT interchangeable. The two brands are: <ul style="list-style-type: none">* Marevan™ (1mg, 3mg and 5mg) which is the more common medication dispensed* Coumadin™ (1mg, 2mg, 5mg)												
Dosage range/ instructions	Dose Adjustment: <ul style="list-style-type: none">* Changes in warfarin dosage may take several days to affect an INR. Therefore, frequent dosage adjustment (<4-5 days' interval) is NOT recommended.* Older people are more likely to have a slower response to a dose adjustment.												
	<table border="1"><thead><tr><th>INR</th><th>INR</th><th>Dosage Adjustment</th></tr></thead><tbody><tr><td>2.0</td><td>2.5</td><td></td></tr><tr><td>-</td><td>-</td><td></td></tr><tr><td>3.0</td><td>3.5</td><td></td></tr></tbody></table>	INR	INR	Dosage Adjustment	2.0	2.5		-	-		3.0	3.5	
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Monitoring Countersign	<ul style="list-style-type: none"> ▪ Training includes the attendance of informal/ formal education session on the INR monitoring and warfarin dose adjustments (e.g. INR testing, over-coagulation) <p>The Issuer of the Standing Order is required to determine whether this standing order will be countersigned or audited (please refer to the MOH 2016 Standing Order Guidelines https://www.health.govt.nz/publication/standing-order-guidelines)</p> <p>Delete the option which is not applicable.</p>										
	<p>Option 1: Countersign</p> <p>If countersigning is the preferred option, the Issuer of the Standing Order is to specify the period which is required to be shorter than a month, e.g:</p> <p>This standing order is to be countersigned by the Issuer of the Standing Order within [timeframe to be determined by the issuer e.g. 48 hours, 72 hours, 3 working days, 5 working days]</p>										
	<p>Option 2: Audit</p> <p>If auditing of the Standing Order is the preferred option, then the audit sample size as a minimum is to be used. The audit sample size as a minimum:</p> <ul style="list-style-type: none"> ▪ 50 per cent of administration and/or supply records if there are 20 or fewer in total ▪ 20- 30 per cent of administration and/or supply records if they are in range of 21-100 ▪ 15- 20 per cent of administration and/or supply records if there are over 100 <p>If any administration and/or supply records found to be non-compliant with the standing order, then the sample size is to be doubled.</p> <p>The audit result is documented, along with any required changes or improvements in relation to the Standing Order documentation, processes or training undertaken.</p>										
Documentation and additional information	<p>Under the Standing Order, the notifying RN documents in the PMS the following:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">▪ Current INR</td> <td style="width: 50%;">▪ Dosage currently taken</td> </tr> <tr> <td>▪ Health status</td> <td>▪ Changed dose</td> </tr> <tr> <td>▪ Changes to other medications</td> <td>▪ Adverse effects</td> </tr> <tr> <td>▪ Date/time for next test</td> <td></td> </tr> <tr> <td>▪ Other e.g. patient education, home visit arranged</td> <td></td> </tr> </table>	▪ Current INR	▪ Dosage currently taken	▪ Health status	▪ Changed dose	▪ Changes to other medications	▪ Adverse effects	▪ Date/time for next test		▪ Other e.g. patient education, home visit arranged	
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Definition of terms used	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">BLS</td> <td>Basic Life Support</td> </tr> <tr> <td>CPR</td> <td>Cardio-Pulmonary Resuscitation</td> </tr> <tr> <td>SO</td> <td>Standing Order</td> </tr> <tr> <td>RN</td> <td>Registered Nurse</td> </tr> <tr> <td>INR</td> <td>International Normalised Ratio: The test used to monitor</td> </tr> </table>	BLS	Basic Life Support	CPR	Cardio-Pulmonary Resuscitation	SO	Standing Order	RN	Registered Nurse	INR	International Normalised Ratio: The test used to monitor
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	< 1.5	< 2.0	Increase weekly dose by 20% and give one time top-up additional amount equal to 20% of weekly dose Consider concomitant Clexane for those with recent DVT/PE (within last 4 weeks)
	1.5-1.9	2.0-2.4	Increase weekly dose by 10%
	2.0-3.0	2.5-3.5	No change
	3.1-3.9	3.6-4.4	No change – recheck in one week. If persistent, decrease weekly dose by 10-20%
	4.0-5.0	4.5-5.0	Omit 1 dose; decrease weekly dose by 10-20% and recheck in 2-5 days
	>5.0	>5.0	Patients with an INR higher than the therapeutic range i.e. < 5 (without bleeding) are to be discussed with a medical practitioner Refer to https://aucklandregion.healthpathways.org.nz/18972.htm
Route of administration Exclusions/ contraindications and precautions for using this medication	<p>Per Oral</p> <p>Contraindication:</p> <ul style="list-style-type: none"> * Where the hazard of haemorrhage might be greater than the potential clinical benefits of anticoagulation. * Pregnancy (<u>Teratogenic</u>) <p>Exclusions: (patients with the following are to be referred to medical practitioner for management)</p> <ul style="list-style-type: none"> * Hypersensitivity to warfarin * Clinically significant bleeding e.g. haematemesis, melena, hematochezia * High risk of haemorrhage, active ulceration * Patients started on warfarin, yet still require Clexane to reach a therapeutic range * Within 72 hours of major surgery with risk of severe bleeding * Younger than 18 years * Breast feeding * Indications of severe renal or hepatic disease * Patient on any interacting medications (Refer to https://www.nzf.org.nz/) 		
Persons authorised to administer this standing order	<p>An authorised Registered Nurse (RN), working within <i>(insert PRACTICE NAME)</i>, who is able to demonstrate a competency in working with this Standing Order.</p> <p style="text-align: right;"><i>DMC</i></p>		
Competency and training for the authorised person(s)	<p>Prior to administering Warfarin under this Standing Order, RN staff are required to have:</p> <ul style="list-style-type: none"> * Attended a relevant education session on the use of Standing Order * A current BLS/ CPR certificate. * An annual review of competency in administration of this Standing Order by the Issuer. * Training includes the attendance at formal education session on the medical conditions and rationale for using warfarin 		

	Warfarin anticoagulant therapy. The INR is a standardised Prothrombin Ratio calibrated so that INR results from one laboratory are directly comparable with those from another.										
Reference	Warfarin Sodium vitamin K antagonist, which acts by reducing levels of Factors II (Prothrombin) VII, IX and X. PMS Practice Management System										
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Document Control	This standing order is valid until it is due to be reviewed OR Is replaced by a new Standing Order OR Cancelled by the issuer	
	1/11/2019	1/11/2020
	Issue Date: 29/10/2018	Review Date: 29/10/2019
	Classification: 0001/1	