

HYWEL DDA UNIVERSITY HEALTH BOARD



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Anticoagulation Therapy: Bridging Therapy – Perioperative Management of Patients on Warfarin Anticoagulation

Policy Number:	458	Supersedes:	-	Standards For Healthcare Services No/s	7, 22
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Version No:	Date Of Review:	Reviewer Name:	Completed Action:	Approved by:	Date Approved:	New Review Date:
1			Completed	MMG	16.7.15	16.7.18
2	September 2015		Completed	MMG	16.9.15	16.7.2018
3	November 2015		Completed	Thrombosis Committee	12.11.15	16.7.2018
4	December 2015		Removal of word prophylactic	Thrombosis Committee	4.12.15	16.7.18
5	November 2016		P5/9 references to eGFR have been replaced with the text Creatinine clearance (calculated with Cockcroft & Gault formula)	Thrombosis Committee CPRG	18.11.2016 22.11.2016	16.7.2018

Brief Summary of Document:	<p>This document will form an appendix to the Health Board's Adult Anticoagulation, Thrombosis and Thromboprophylaxis Policy. The management of patients who are receiving warfarin anticoagulation and require surgery or an invasive procedure is a common clinical problem which necessitates an assessment of risk of venous or arterial thrombosis associated with cessation of warfarin. The document aims to provide standardised guidance for the optimum care of patients undergoing surgery.</p> <p>It should be noted that Endoscopy patients are managed under guidance from the British Gastroenterological Society and the Endoscopy Unit Operational Policy. For details see Scope.</p>
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To be read in conjunction with:	<ul style="list-style-type: none"> HDHB Adult Anticoagulation, Thrombosis and Thromboprophylaxis Policy and other appendices to the policy as appropriate
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Classification:	Clinical	Category:	Guideline	Freedom Of Information Status	Open
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Authorised by:		Job Title	Medical Director	Signature:	
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Responsible Officer/Author:			Job Title:	Consultant Haematologist
Contact Details:	Dept	Haematology	Base	GGH
	Tel No		E-mail:	

Scope	ORGANISATION WIDE	<input checked="" type="checkbox"/>	DIRECTORATE	<input type="checkbox"/>	DEPARTMENT ONLY	<input type="checkbox"/>	COUNTY ONLY	<input type="checkbox"/>
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Staff Group	Administrative/ Estates	<input type="checkbox"/>	Allied Health Professionals	<input checked="" type="checkbox"/>	Ancillary	<input checked="" type="checkbox"/>	Maintenance	<input checked="" type="checkbox"/>
	Medical & Dental	<input checked="" type="checkbox"/>	Nursing	<input checked="" type="checkbox"/>	Scientific & Professional	<input checked="" type="checkbox"/>	Other	<input type="checkbox"/>

CONSULTATION	Please indicate the name of the individual(s)/group(s) or committee(s) involved in the consultation process and state date agreement obtained.			
	Individual(s)	Consultant Haematologists Anticoagulant clinical nurse Specialists	Date(s)	18.7.14
	Group(s)	Thrombosis Committee	Date(s)	18.7.14
	Committee(s)	Medicines Management Group	Date(s)	16.7.14

RATIFYING AUTHORITY (in accordance with the Schedule of Delegation)	KEY		COMMENTS/ POINTS TO NOTE
NAME OF COMMITTEE	A = Approval Required	Date Approval Obtained	
	FR = Final Ratification		
Medicines Management Group		16.7.14	

Date Equality Impact Assessment Undertaken		Group completing Equality impact assessment	
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Please enter any keywords to be used in the policy search system to enable staff to locate this policy	Thrombosis, thromboprophylaxis, bridging therapy, perioperative, anticoagulation, LMWH, warfarin, atrial fibrillation
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Document Implementation Plan			
How Will This Policy Be Implemented?	Global email Dissemination to all consultant haematologists for cascade to teams Dissemination to all surgical leads for cascade to teams, including pre-assessment Dissemination to all anticoagulation nurses for cascade to teams All medically qualified doctors will be expected to be able to follow the guidance.		
Who Should Use The Document?	All healthcare professionals involved in the management and care of patients undergoing elective surgery		
What (if any) Training/Financial Implications are Associated with this document?	None. Medically qualified staff would be expected to be able to follow this guidance.		
What are the Action Plan/Timescales for implementing this policy?	Action	By Whom	By When

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1. INTRODUCTION

The management of patients who are receiving warfarin anticoagulation therapy and require surgery or an invasive procedure is a common clinical problem which necessitates an assessment of risk of venous or arterial thrombosis associated with cessation of warfarin.

2. SCOPE

This guidance on the perioperative management of anticoagulation of patients on warfarin will be used for all patients undergoing elective surgical procedures, whether under local, regional or general anaesthesia.

EXCEPTION: It should be noted that the Endoscopy Departments at all hospitals in the Health Board are required, in accordance with practice across Wales for Endoscopy, to follow guidance from the British Gastroenterological Society: see *Gut* 2008;**57**:1322-1329

<http://www.bsg.org.uk/clinical-guidelines/endoscopy/antibiotic-prophylaxis-in-gastrointestinal-endoscopy.html>. The guidance is included in the Endoscopy Unit Operational Policy, appendix 10.

3. OBJECTIVES

To provide standardised guidance to provide optimum care for patients undergoing surgery.

4. TRAINING

All medically qualified doctors would be expected to be able to follow the guidance. Training will be provided during induction.

5. MONITORING COMPLIANCE

Regular audit against this guidance should be undertaken. Number of patients undergoing surgery and any complications, bleeding events, thrombotic events.

6. PROCEDURE

It is well documented that warfarin should not be stopped for superficial procedures, e.g. dental work, ophthalmic procedures, and most upper GI endoscopy. For minor procedures it is recommended that the INR is checked 5 days prior to procedure and if within the therapeutic range the procedure can go ahead with no cessation of anticoagulation.

Prior to major elective surgery or procedures considered as high risk for haemorrhage patients taking warfarin need to be categorised into one of the following groups:

1. Low risk
2. Intermediate risk
3. High risk
4. Very high risk

The individual's risk group will determine the perioperative management of anticoagulation therapy (see flowchart on Appendix A). If it is unclear which group a patient falls into, the haematologist may be contacted for advice but all relevant information must be obtained first.

Creatinine clearance (calculated with Cockcroft & Gault formula) should be checked in the pre assessment clinic and if less than 20mls/min it is recommended that LMWH is not used. Please discuss each case with a haematologist.

Each patient should have a documented peri-operative plan (see Appendix C, below) completed in pre assessment by nursing staff or by the surgeon/clinician/anaesthetist performing the procedure. This plan should be distributed as follows to minimise confusion:

- filed in the patient's notes
- provided to the relevant anticoagulant clinics

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- given to the patient
- sent to patient's GP
- sent to the district nurses

The timing of INR testing will vary according to individual patient and their risk group. This should be documented in Appendix C.

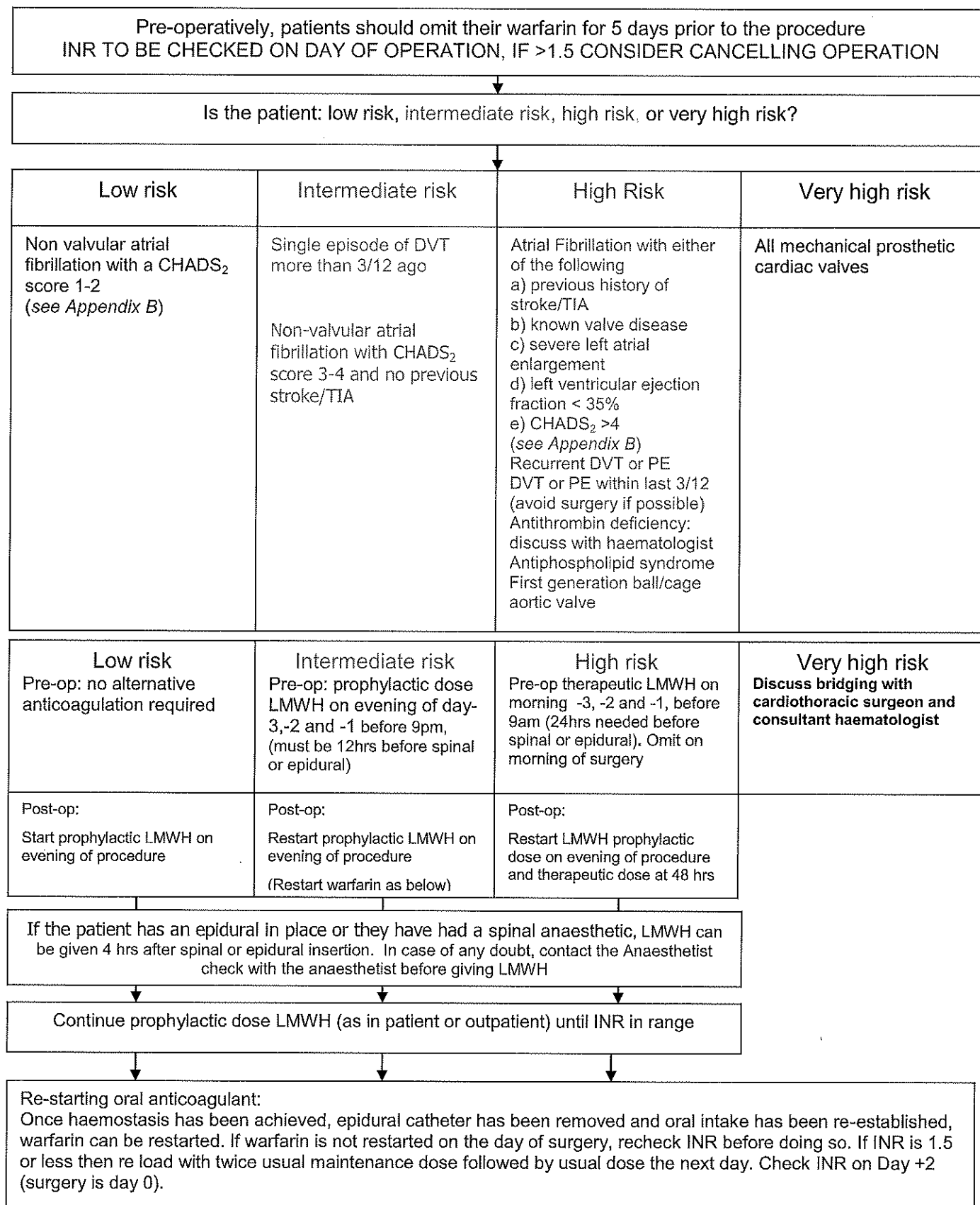
LMWH injections are to be supplied from the hospital pharmacy via a prescription signed by a hospital clinician. This needs to be made clear to the patient who needs to collect the injections from pharmacy before leaving the hospital (see Appendix C).

If emergency surgery is required in an anticoagulated patient, a haematologist must be contacted, via switchboard.

Please refer to separate guidance for the management of oral antiplatelet agents prior to invasive procedures.

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APPENDIX A: PERIOPERATIVE MANAGEMENT OF ANTICOAGULATION THERAPY – FLOWCHART



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APPENDIX B: CHADS₂ SCORING SYSTEM

Risk factor		Score
None		0
C	Heart failure	1
H	Hypertension	1
A	Age ≥ 75	1
D	Diabetes mellitus	1
S ₂	Stroke/transient ischaemic attack	2

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APPENDIX C: PLAN FOR PERIOPERATIVE MANAGEMENT OF ANTICOAGULATION

Name of patient:

Hospital number:

Address:

D.O.B:

Indication for anticoagulation:

Procedure to be performed:

Provisional date for procedure:

Responsible clinician:

If the patient is having major elective surgery, assess patient's risk of thrombosis (see flowchart) as this determines treatment regime peri-operatively.

Risk Group:

Creatinine clearance (calculated with Cockcroft & Gault formula):

Treatment plan for patients:

In order for you to proceed with the above surgical procedure you are not required/required (*delete as appropriate*) to discontinue your warfarin therapy 5 days before your procedure.

As you are at a low/intermediate/high risk of thrombosis (*delete as appropriate*) it has been decided that you do not need/need (*delete as appropriate*) low molecular weight heparin injection to be started 3 days before the procedure.

If you are having low molecular weight heparin, you will be given a prescription for the injections at the hospital. You should take the prescription to the hospital pharmacy so that you can collect the injections before you leave the hospital. Arrangements will be made for a district nurse to administer the injections if you require this.

Name:

Position:

Date:

Signature: