

Treatment recommendations do not cover all clinical scenarios and do not replace the need for clinical judgement

RECOMMENDATIONS FOR LMWH		
Preferred administration times for twice daily dosing are 0600 and 1800. Daily thromboprophylaxis should be given in the evening		
ENOXAPARIN (Clexane®) DOSAGE		
INDICATION	DOSE AND FREQUENCY (Obese or weight >150 kg: Seek specialist advice)	
	Normal renal function*	Impaired renal function (CrCl <30 mL/min)*
VTE prophylaxis	40 mg once daily	20 mg once daily
DVT treatment	1.5 mg/kg once daily or 1 mg/kg twice daily	1 mg/kg once daily
Acute Coronary Syndromes/VTE treatment	1 mg/kg twice daily	1 mg/kg once daily
*CrCl ≈ {((140-age)*Ideal Body Weight(kg)) / Serum Creatinine(μmol/L)}*1.2 for males]		

High bleeding risk	<ul style="list-style-type: none"> Seek specialist advice for monitoring anti-factor Xa, dose modification or alternative therapeutic options.
LMWH prophylaxis and invasive procedures	<ul style="list-style-type: none"> Interventional (surgical) procedure: may commence treatment 4–6 hours after procedure. Spinal/epidural anaesthesia: do not institute anaesthesia or remove catheter within 12 hours of a dose of LMWH. Treatment may be commenced 2 hours after catheter removal. Consider longer exclusion periods in the presence of complications or high risk of bleeding.
LMWH treatment and invasive procedures	<ul style="list-style-type: none"> Interventional (surgical) procedure: withhold treatment 12–24 hours before and after procedure. Spinal/epidural anaesthesia: do not institute anaesthesia or remove catheter within 24 hours of a dose of LMWH. Treatment may be commenced 2 hours after catheter removal. Consider longer exclusion periods in the presence of complications or high risk of bleeding.
Reversing overtreatment	<ul style="list-style-type: none"> Seek specialist or senior colleague advice. As a guide: Give 1mg protamine sulphate per 1mg enoxaparin/100 units of heparin. Give half the protamine dose as slow IV push (10 minutes) and the remainder as an infusion (5% glucose or 0.9% saline) over 6–8 hours

RECOMMENDATIONS FOR WARFARIN	
Warfarin brands are not equivalent and cannot be used interchangeably.	
TARGET INR RANGE	
2.0-3.0	<ul style="list-style-type: none"> Preventing DVT: high risk patients eg hip or knee surgery Therapy for DVT or PE Preventing systemic embolisation: AF, valvular heart disease, post MI, bioprosthetic heart valves
2.5-3.5	<ul style="list-style-type: none"> Bileaflet mechanical heart valve (aortic)
3.0-4.5	<ul style="list-style-type: none"> Mechanical prosthetic valve (high risk)

(ADULT) INITIATION DOSING TARGET INR 2-3 - FOR GUIDANCE ONLY			
Day	INR	Suggested dose	
1	1.0-1.4	5 mg	<ul style="list-style-type: none"> This dosing regimen takes about 6 days to achieve therapeutic INR, longer in those under 60 years. For younger patients consider 7–10mg on day 1 and day 2. Consider smaller starting doses when the patient is elderly, has low body weight or abnormal liver function, or, is at high bleeding risk.
2	No INR	5 mg	
3	<1.8 ≥1.8	5 mg 1 mg	
4&5	<1.5 1.5-1.9 2.0-2.5 2.6-3.5 3.6-4.0 4.1-4.5 >4.5	7 mg 5mg 4mg 3mg 2mg 1mg see treatment reversal	<ul style="list-style-type: none"> Consider dose modification in the presence of interacting drugs. INR testing is recommended at morning blood round. Discontinue heparin after a minimum of 5 days therapy and when INR is therapeutic (>2) for two consecutive days.
6 onwards	Measure on alternate days until stable (daily if drug interaction or high bleeding risk)	as for days 4&5 or per clinical judgement	

DOSING WITH ONGOING WARFARIN THERAPY	
<ul style="list-style-type: none"> In acutely ill patients with ongoing warfarin therapy daily monitoring of INR may be appropriate. Monitor INR more frequently when any change in treatment involves drugs known to interact with warfarin. 	

REVERSING WARFARIN OVERTREATMENT (bleeding risk increases exponentially from INR 5 to 9. Monitor closely INR≥6)	
High bleeding risk	<ul style="list-style-type: none"> Recent surgery/trauma/bleed Advanced age Renal failure Hypertension Alcohol abuse Active GI disease Antiplatelet therapy Other relevant comorbidity
Clinical setting	Action
INR <5; no bleeding	<ul style="list-style-type: none"> Lower the dose or omit the next dose. Resume therapy at reduced dose when INR approaches therapeutic range. If INR is only minimally above therapeutic range (up to 10%), dose reduction may not be necessary.
INR 5–9; no bleeding	<ul style="list-style-type: none"> Cease warfarin; consider reasons for elevated INR and patient-specific factors. If high bleeding risk, give vitamin K (1-2 mg orally¹ or 0.5–1 mg IV²) Measure INR within 24 hours. Resume warfarin at reduced dose once INR is in therapeutic range.
INR >9; no bleeding	<ul style="list-style-type: none"> If low bleeding risk, cease warfarin, give vitamin K either (2.5-5 mg orally¹ or 1 mg IV²). Measure INR in 6–12 hours. Resume warfarin at reduced dose once INR<5. If high bleeding risk, cease warfarin, give vitamin K 1 mg IV². Consider Prothrombinex VF (25–50 units factor IX/kg)^{3,4} and 300 ml of fresh frozen plasma. Measure INR in 6–12 hours. Monitor patient, resume warfarin at reduced dose when INR<5.
Warfarin-related clinically significant bleeding.	<ul style="list-style-type: none"> Cease warfarin, give 5–10mg vitamin K IV², as well as Prothrombinex VF (25-50 units of factor IX/kg)^{3,4} and fresh frozen plasma⁴ (300mL), assess patient continuously until INR < 5, and bleeding stops. <p>OR</p> <ul style="list-style-type: none"> If fresh frozen plasma is unavailable, cease warfarin, give 5–10mg vitamin K IV², and Prothrombinex-VF (25-50 units of factor IX/kg)^{3,4}, assess patient continuously until INR < 5, and bleeding stops. <p>OR</p> <ul style="list-style-type: none"> If Prothrombinex-VF is unavailable, cease warfarin therapy, give 5–10mg vitamin K IV², and 10–15mL/kg of fresh frozen plasma⁴, assess patient continuously until INR < 5, and bleeding stops.
Seek senior advice.	
NOTES	¹ undiluted paediatric IV formulation ² undiluted as slow IV bolus over at least 30 seconds ³ at a rate of 3mL/min. 500 units of factor IX in 1 vial of Prothrombinex VF ⁴ available from transfusion service

AFFIX PATIENT IDENTIFICATION LABEL HERE & OVERLEAF

Facility logo

UR No: _____

Family Name: _____

Given Names: _____

Address: _____

DOB: _____ Sex M F

NOT A VALID PRESCRIPTION UNLESS IDENTIFIERS PRESENT

Facility/Service: _____

Ward/Unit: _____

Consultant: _____

Anticoagulation Chart No: _____ of _____

Attach ADR Sticker

1st Prescriber to Print Patient Name and Check Label Correct: _____

Patient Weight (kg) _____

Height (cm) _____

PRE-PRESCRIPTION SCREEN (First prescriber to complete and sign)

Co-existing conditions relevant to anticoagulants

Pregnancy Renal dysfunction Recent trauma Hepatic impairment Hypoalbuminaemia Recent surgery

Thyroid disorder High Vitamin K intake Recent bleeding Congestive Heart Failure Thrombocytopenia Active peptic ulcer

Anticoagulants history Allergy to warfarin Bleeding with anticoagulants Heparin Induced Thrombocytopenia

Concomitant therapy Antiplatelet therapy Other antithrombotic agent (specify) _____

Other precaution (Specify) _____

Nil known | Sign and print name _____ Date _____

ONCE ONLY AND TELEPHONE (Prescriber to sign within 24 hours of order)

Date prescribed	Medication (print generic name)	Route	Dose	Date/Time of dose	Nurse initials N1	N2	Sign	Prescriber Print name	Given by	Time given

REGULAR DOSE ORDERS

YEAR 20 _____ DAY AND MONTH → _____

Date _____ Medication (Print generic name) _____

CrCl mL/min _____ Route _____ Dose _____ Frequency NOW enter times → _____

Indication PROPHYLAXIS TREATMENT Pharmacy _____

Prescriber Sign _____ Print name _____ Contact _____ Creatinine _____ Platelets _____

Continue on discharge YES / NO
Dispense YES / NO
Duration _____ days / _____ / _____ / _____ Pharmacist _____ date / /

VARIABLE DOSE ORDERS

WARFARIN DRUG INTERACTIONS (PHARMACIST: Indicate drug, type of change (if any) and expected interaction)

Details	Sign	Date

Take as directed / 1mg qty _____ / 3mg qty _____ / 5mg qty _____ / 10mg qty _____ / 15mg qty _____ / 20mg qty _____ / 30mg qty _____ / 40mg qty _____ / 50mg qty _____ / 60mg qty _____ / 70mg qty _____ / 80mg qty _____ / 90mg qty _____ / 100mg qty _____ / 110mg qty _____ / 120mg qty _____ / 130mg qty _____ / 140mg qty _____ / 150mg qty _____ / 160mg qty _____ / 170mg qty _____ / 180mg qty _____ / 190mg qty _____ / 200mg qty _____ / 210mg qty _____ / 220mg qty _____ / 230mg qty _____ / 240mg qty _____ / 250mg qty _____ / 260mg qty _____ / 270mg qty _____ / 280mg qty _____ / 290mg qty _____ / 300mg qty _____ / 310mg qty _____ / 320mg qty _____ / 330mg qty _____ / 340mg qty _____ / 350mg qty _____ / 360mg qty _____ / 370mg qty _____ / 380mg qty _____ / 390mg qty _____ / 400mg qty _____ / 410mg qty _____ / 420mg qty _____ / 430mg qty _____ / 440mg qty _____ / 450mg qty _____ / 460mg qty _____ / 470mg qty _____ / 480mg qty _____ / 490mg qty _____ / 500mg qty _____ / 510mg qty _____ / 520mg qty _____ / 530mg qty _____ / 540mg qty _____ / 550mg qty _____ / 560mg qty _____ / 570mg qty _____ / 580mg qty _____ / 590mg qty _____ / 600mg qty _____ / 610mg qty _____ / 620mg qty _____ / 630mg qty _____ / 640mg qty _____ / 650mg qty _____ / 660mg qty _____ / 670mg qty _____ / 680mg qty _____ / 690mg qty _____ / 700mg qty _____ / 710mg qty _____ / 720mg qty _____ / 730mg qty _____ / 740mg qty _____ / 750mg qty _____ / 760mg qty _____ / 770mg qty _____ / 780mg qty _____ / 790mg qty _____ / 800mg qty _____ / 810mg qty _____ / 820mg qty _____ / 830mg qty _____ / 840mg qty _____ / 850mg qty _____ / 860mg qty _____ / 870mg qty _____ / 880mg qty _____ / 890mg qty _____ / 900mg qty _____ / 910mg qty _____ / 920mg qty _____ / 930mg qty _____ / 940mg qty _____ / 950mg qty _____ / 960mg qty _____ / 970mg qty _____ / 980mg qty _____ / 990mg qty _____ / 1000mg qty _____

HOSPITAL

YEAR 20 _____ DAY AND MONTH → _____

Dose at admission Not Applicable

Dose _____ Brand: Marevan® Coumadin® INR Result _____

Date _____ Medication (Print generic name) WARFARIN

Indication _____ Route _____ Dose Time 1600 (4pm) _____

Target INR _____ Pharmacy _____ Telephone order N1/N2 _____

Prescriber sign _____ Print name _____ Contact _____ Given by _____

Warfarin discharge plan: Dose _____ Target INR _____ Duration _____ next INR due / /

DISCHARGE PROCESS

Mandatory activity	Signature	Print name	Mandatory activity	Signature	Print name
<input type="checkbox"/> Patient has warfarin booklet			<input type="checkbox"/> Patient given treatment plan		
<input type="checkbox"/> Patient education completed			<input type="checkbox"/> GP informed		

Fax or copy this page to GP

HP 10744 Sept09 22905 - OPTION B

ANTICOAGULATION MEDICATION CHART

MR

