Peri-procedural bridging anticoagulation prescription chart for patients at STANDARD RISK of thrombosis

Serial No.

Sheffield Teaching Hospitals NHS
NHS Foundation Trust

who are normally prescribed warfarin or low molecular weight heparin (LMWH).
For management of patients who are normally prescribed acenocoumarol (Sinthrome®), rivaroxaban, dabigatran, apixaban or edoxaban, please refer to the Trust guideline.
See overleaf for high risk patients. Cross through the side which is not in use.

(Affix addressograph label here)

FAMILY NAME

FIRST NAMES

Hospital No

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Use this treatment plan for the following groups of patients: (tick whichever is applicable)

- ❑ **Previous VTE (greater than 3 months ago) and now on long term anticoagulation therapy (target INR 2.5)**
- ❑ **Pulmonary hypertension with CTEPH** (chronic thromboembolic pulmonary hypertension)
- ❑ Atrial fibrillation without prior stroke/TIA. These patients do not require enoxaparin on discharge except if extended thromboprophylaxis is indicated.
- ❑ Patients with bileaflet aortic valves (>3 months old) and no other risk factors for stroke.
- ❑ **Pulmonary hypertension with IVC filter in situ**

All patients should continue prophylactic enoxaparin until INR greater or equal to 2 except patients with AF without prior TIA/stroke.

If there is any uncertainty as to which category a patient should be assigned: discuss with the cardiothoracic team (mechanical valve patients), cardiology/relevant medical team (AF and risk factors for stroke) or haematology/relevant medical team (venous thromboembolic disease patients) prior to admission.

Patient's weight _____ **kg**

Date taken _____ / _____ / _____

Date of procedure _____ / _____ / _____

eGFR (pre-procedure) _____ ml/min/1.73m²

Date taken _____ / _____ / _____

The following patients should be discussed with haematology before bridging treatment is commenced:

- ❑ **patients with antithrombin deficiency** (some patients may require antithrombin replacement)
- ❑ **patients on therapeutic dose LMWH**

The following patients do not require bridging and should be managed according to the STH Guidelines for the Prevention of Venous Thromboembolic Disease:

- Patients with previous VTE who are no longer on oral anticoagulation.

Emergency patients

Emergency reversal of anticoagulation may be required. Follow the advice on the back of the Warfarin Prescription Chart (PRC001/06rev3). Seek advice from a haematologist if necessary.

Spinal / Epidural anaesthesia for Standard risk patients

Spinal/epidural catheters must only be inserted or removed at least 12 hours after the last dose of enoxaparin. The next dose of enoxaparin must be given at least 4 hours after inserting or removing a spinal epidural catheter.
Patients on twice daily enoxaparin: delay the next dose of enoxaparin to allow removal of the spinal /epidural catheter.

If surgery is delayed or cancelled refer to the full guideline for management. Avoid delaying surgery by more than 7 days if possible.

Monitoring for Heparin-Induced Thrombocytopenia (HIT) is only required on discharge if the patient has had cardiothoracic surgery or received unfractioned heparin within the last 100 days.

Do not escalate and consider stopping enoxaparin if there is concern about bleeding. Stop in overt bleeding.

Maintain **hydration** and encourage **early mobilisation.**

On discharge

Patients registered with a Sheffield GP:	**Patients registered with a non-Sheffield GP:**
• Can be discharged before INR is therapeutic if they are medically fit • Must be referred to STH Anticoagulation Clinic for outpatient bridging management. • Prescribe 10 days supply of enoxaparin on TTO. • Train patient/relative to self-administer enoxaparin, or refer to District Nurse. • Provide a sharps bin from the ward.	• Should remain in hospital until INR greater than 2.0 or • Discuss with patient's usual anticoagulation provider on an individual basis, particularly: ❑ monitoring requirements ❑ dosing of warfarin and enoxaparin ❑ prescription of both warfarin and enoxaparin

If INR greater than 2.0 at discharge patients can be referred back to their usual anticoagulation provider using the STH Anticoagulation Referral Form

ENOXAPARIN DOSES & TREATMENT PLAN FOR STANDARD RISK PATIENTS with eGFR 30ml/min/1.73m2 or greater

Day	Weight less than 45kg	Weight 45-99kg	Weight 100-149kg	Weight 150kg or greater
-5	Last dose of warfarin today – ensure patient has clear instructions on peri-operative bridging plan			
-4/ -3/ -2	No warfarin			
-1	**Check INR:** if greater than 1.5 give phytomenadione (vitamin K) 1mg orally stat and re-check on day 0 Start enoxaparin if INR less than 2.0 (give last dose at least 12 hours before procedure)			
	Enoxaparin 20mg **once daily (pm)**	Enoxaparin 40mg **once daily (pm)**	Enoxaparin 40mg **twice daily**	Enoxaparin 60mg **twice daily**
0 (day of procedure)	Re-check INR if phytomenadione was required on day -1			
	Enoxaparin 20mg 6-8 hours post-op	Enoxaparin 40mg 6-8 hours post-op	Enoxaparin 40mg 6-8 hours post-op	Enoxaparin 60mg 6-8 hours post-op
+1 onwards	Enoxaparin 20mg **once daily (pm)**	Enoxaparin 40mg **once daily (pm)**	Enoxaparin 40mg **twice daily**	Enoxaparin 60mg **twice daily**
	Restart warfarin at patient's usual dose on day +1. Prescribe on Warfarin prescription & monitoring chart with a placeholder on the EPR. Continue enoxaparin as per day +1 until INR is greater than 2.0. Proceed with bridging only if there are no concerns with bleeding and review daily.			

PRESCRIPTION CHART FOR ENOXAPARIN AND PHYTOMENADIONE

Day	Date	INR	Approved name of medicine	Dose	Route	Time	Prescriber's signature & bleep no.	Administered	Additional instructions
-5									Last dose of warfarin
-4									No warfarin
-3									
-2									
			PHYTOMENADIONE	1mg	ORAL				Only if INR greater than 1.5
-1			ENOXAPARIN (if patient over 100kg)	mg	SC	08:00			No warfarin
			ENOXAPARIN	mg	SC	20:00			
0 (procedure)			ENOXAPARIN	mg	SC				
+1			ENOXAPARIN (if patient over 100kg)	mg	SC	08:00			Restart warfarin at patient's usual dose. It may take up to 2 weeks for INR to become therapeutic: loading or boost doses are not recommended. AF patients without prior stroke/TIA may be discharged from hospital on their usual dose of warfarin **without enoxaparin unless extended prophylaxis is indicated.**
			ENOXAPARIN	mg	SC	20:00			
+2			ENOXAPARIN (if patient over 100kg)	mg	SC	08:00			
			ENOXAPARIN	mg	SC	20:00			
+3			ENOXAPARIN (if patient over 100kg)	mg	SC	08:00			
			ENOXAPARIN	mg	SC	20:00			
+4			ENOXAPARIN (if patient over 100kg)	mg	SC	08:00			
			ENOXAPARIN	mg	SC	20:00			
+5 onwards			Continue ENOXAPARIN at same dose until INR is greater than 2.0. If inpatient treatment needs to continue, prescribe enoxaparin on the EPR and annotate "until INR over 2.0"						

SH019158 PD13110v3 HRC053/11_Rev1 Issued July 2026 Review July 2029

Patient name: _____ Hospital number: _____

Peri-procedural bridging anticoagulation prescription chart for patients at HIGH RISK of thrombosis

Serial No.

Sheffield Teaching Hospitals NHS
NHS Foundation Trust

who are normally prescribed warfarin or low molecular weight heparin (LMWH).
For management of patients who are normally prescribed acenocoumarol (Sinthrome®), rivaroxaban, dabigatran, apixaban or edoxaban, please refer to the Trust guideline.
See overleaf for standard risk patients. Cross through the side which is not in use.

(Affix addressograph label here)

FAMILY NAME

FIRST NAMES

Hospital No

DOB ☐☐☐☐☐☐☐☐
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Use this treatment plan for the following groups of patients: (tick whichever is applicable)

- ❑ **Recent stroke or TIA (within 6 months) -** discuss with senior clinician and anaesthetist
- ❑ **Atrial fibrillation with previous stroke/TIA**
- ❑ **Atrial fibrillation with rheumatic valvular heart disease**
- ❑ **Recent episode of VTE (within 3 months) -** discuss with senior clinician and anaesthetist: consider postponing surgery or placing an IVC filter
- ❑ **Antiphospholipid syndrome with a history of venous or arterial thrombosis**
- ❑ **Recurrence of VTE on oral anticoagulation** (target INR 3.5)
- ❑ **Any prosthetic mitral valve**
- ❑ **Caged ball or tilting disc aortic valve**
- ❑ **Mechanical valve within 3 months of implantation**
- ❑ **Bileaflet aortic valve and one or more of the following stroke risk factors:**
  - ❑ chronic atrial fibrillation
  - ❑ age over 75 yrs
  - ❑ left ventricular dysfunction
  - ❑ diabetes
  - ❑ prior stroke or TIA
  - ❑ Hypertension

If there is any uncertainty as to which category a patient should be assigned: discuss with the cardiothoracic team (mechanical valve patients), cardiology/relevant medical team (AF and risk factors for stroke) or haematology/relevant medical team (venous thromboembolic disease patients) prior to admission.

Patient's weight _____ **kg**

Date taken _____ / _____ / _____

Date of procedure _____ / _____ / _____

Creatinine (pre-procedure) _____ micromol/L

Date taken _____ / _____ / _____

The following patients should be discussed with haematology before bridging treatment is commenced:

- ❑ **patients with antithrombin deficiency** (some patients may require antithrombin replacement)
- ❑ **patients on therapeutic dose LMWH**

Creatinine clearance calculation:

$$\frac{(140 - \text{age } \_\_\_) \times \text{weight } \_\_\_ \text{ (kg)}}{\text{Serum Creatinine (micromol/L) } \_\_\_\_} \times \begin{cases} 1.04 \text{ (female)} \\ 1.23 \text{ (male)} \end{cases} = \_\_\_\_\_ \text{ (mL/min)}$$

If creatinine clearance less than 30ml/min, discuss with a haematologist

Spinal / Epidural anaesthesia for High risk patients

If expected to require spinal/epidural analgesia for more than 48 hrs post-op, an alternative route of analgesia should be considered.
Spinal/epidural catheters must only be inserted or removed at least 12 hours after the last dose of low-dose enoxaparin. The next dose of enoxaparin must be given at least 4 hours after inserting or removing a spinal epidural catheter.
Days 0-2 post-op: remove catheter at least 12 hours after last dose of enoxaparin and at least 4 hours before next dose.
Day 3 onwards: Seek advice from haematologist and anaesthetist regarding management.
High dose enoxaparin is incompatible with safe removal of spinal/epidural catheters.
In patients with an epidural catheter, escalation of enoxaparin dose should be avoided. Alternative pain control should be considered to enable escalating the enoxaparin dose.

Emergency patients

Emergency reversal of anticoagulation may be required. Follow the advice on the back of the Warfarin Prescription Chart (PRC001/06rev3). Seek advice from a haematologist if necessary.

On discharge: refer to same discharge guidance for standard risk patients (see overleaf)

If surgery is delayed or cancelled refer to the full guideline for management. Avoid delaying surgery by more than 7 days if possible.

Monitoring for Heparin-Induced Thrombocytopenia (HIT) is only required on discharge if the patient has had cardiothoracic surgery or received unfractioned heparin within the last 100 days.

Do not escalate and consider stopping enoxaparin if there is concern about bleeding. Stop in overt bleeding.

Maintain **hydration** and encourage **early mobilisation.**

*For patients who weigh 200kg or more, please contact haematology for advice

ENOXAPARIN DOSES & TREATMENT PLAN FOR HIGH-RISK PATIENTS with calculated Creatinine Clearance 30mls/min or greater							
Day	**Less than 48kg**	**48-73kg**	**74-88kg**	**89-109kg**	**110-130kg**	**131-159kg**	**160-199kg***
-5	Last dose of warfarin today – ensure patient has clear instructions on peri-operative bridging plan						
-4/ -3	No warfarin						
-2	**Check INR:** if greater than 1.5 give phytomenadione (vitamin K) 1mg orally stat and re-check on day-1 Start twice-daily enoxaparin if INR less than 2.0						
	40mg BD	60mg BD	80mg BD	100mg BD	120mg BD	150mg BD	180mg BD
-1	40mg OM	60mg OM	80mg OM	100mg OM	120mg OM	150mg OM	180mg OM
0 (Day of procedure)	Enoxaparin 20mg 6-8 hours post-op	Enoxaparin 40mg 6-8 hours post-op	Enoxaparin 40mg 6-8 hours post-op	Enoxaparin 40mg 6-8 hours post-op	Enoxaparin 60mg 6-8 hours post-op	Enoxaparin 60mg 6-8 hours post-op	Enoxaparin 80mg 6-8 hours post-op
+1	Restart warfarin at patient's usual dose on day +1. Prescribe on Warfarin prescription & monitoring chart with a placeholder on the EPR. Proceed with bridging only if there are no concerns with bleeding and review daily. After procedures with a low bleeding risk full-dose (day +5) enoxaparin can be considered at earliest 24 hours post-procedure.						
	20mg OD (pm)	40mg OD (pm)	40mg OD (pm)	40mg OD (pm)	60mg OD (pm)	60mg OD (pm)	80mg OD (pm)
+2	20mg OD (pm)	40mg OD (pm)	40mg OD (pm)	40mg OD (pm)	60mg OD (pm)	60mg OD (pm)	80mg OD (pm)
+3	20mg BD	20mg am 40mg pm	40mg BD	40mg am 60mg pm	60mg BD	80mg BD	80mg am 100mg pm
+4							
+5 onwards	40mg BD	60mg BD	80mg BD	100mg BD	120mg BD	150mg BD	180mg BD

PRESCRIPTION CHART FOR ENOXAPARIN AND PHYTOMENADIONE										
Day	**Date**	**INR**	**Approved name of medicine**	**Dose**	**Route**	**Time**	**Prescriber's signature & bleep no.**	**Administered**	**Additional instructions**	
-5									Last dose of warfarin	
-4									No warfarin	
-3										
			PHYTOMENADIONE	1mg	ORAL				Only if INR greater than 1.5	
-2			ENOXAPARIN	mg	SC	08:00			No warfarin	
			ENOXAPARIN	mg	SC	20:00				
-1			ENOXAPARIN	mg	SC	08:00				
0 (procedure)			ENOXAPARIN	mg	SC					
+1			ENOXAPARIN	mg	SC	20:00			Remove spinal/epidural	Restart warfarin at patient's usual dose. It may take up to 2 weeks for INR to become therapeutic: loading or boost doses are not recommended.
+2			ENOXAPARIN	mg	SC	20:00				
+3			ENOXAPARIN	mg	SC	08:00			Seek haematology advice if spinal/epidural still in situ	
			ENOXAPARIN	mg	SC	20:00				
+4			ENOXAPARIN	mg	SC	08:00				
			ENOXAPARIN	mg	SC	20:00				
+5			ENOXAPARIN	mg	SC	08:00				
			ENOXAPARIN	mg	SC	20:00				
+6 onwards			Continue ENOXAPARIN at same dose until INR is greater than 2.0. If inpatient treatment needs to continue, prescribe enoxaparin on the EPR and annotate "until INR over 2.0"							

Patient name _____ **Hospital number** _____