# **Anticoagulant Treatment Chart**

When prescribing anticoagulant therapy write 'heparin, warfarin as per treatment chart' in the patient's main prescription chart so that nursing staff will be aware these drugs are to be given on each drug round. Having done that all instructions are then given on this anticoagulant treatment chart and no other prescribing documentation is required.

If **discharging** a patient on warfarin, complete a yellow warfarin prescription book and inform the anticoagulation nurses on XXXXX–XXXXXX.

SURNAME	Hospital Number	Condition requiring an	nticoagulation:
First name(s)	Date of birth Sex	If on warfarin, target I	NR:
Consultant	Ward	Treatment start date:	Stop date:

# **WARFARIN** — MAINTENANCE

(for loading see back page)

For patients that have completed the 4-day loading procedure (see back page) or who are already on established warfarin therapy.

Date	INR	INR	Warfarin	Doctor	Comment	Nurse	Nurse
	ordered	result	dose (mg)	prescribed		signed	signed

Patients on maintenance warfarin DO NOT require daily INR. Recommend once or twice weekly INR.

# STANDARD (UNFRACTIONATED) HEPARIN

Measure APTT at start of therapy and at least daily thereafter, whilst patient on standard heparin. If loading warfarin, stop heparin after 4 days if INR>2; if INR<2 continue until INR>2.

# Standard heparin infusion schedule

IV loading dose — 5000 units bolus injection.

IV infusion — dilute 25,000 units of heparin with saline, to give a total volume of 50 ml (final concentration of 500 units/ml).

Check APTT 6 to 12 hours after start and then at least once daily. Adjust according to APTT as follows:

Start infusion at	:
Bodyweight	Dose
50 kg	1.8 ml/hr
60 kg	2.2 ml/hr
70 kg	2.5 ml/hr
80 kg	2.9 ml/hr
90 kg	3.2 ml/hr
100 kg	3.6 ml/hr

APTT ratio	Continue infusion at:
<1.2	Increase by 0.8 ml/hr; check APTT 4 hrs later
1.2 - 1.4	Increase by 0.4 ml/hr
1.5 - 2.5	No change
2.6 - 3.0	Reduce by 0.1 ml/hr
3.1 - 4.0	Reduce by 0.2 ml/hr
4.1 - 5.0	Reduce by 0.6 ml/hr; check APTT 4 hrs later
5.1 - 7.0	Reduce by 1.0 ml/hr; check APTT 4 hrs later
>7.0	Stop for 30 min and reduce by 1.0 ml/hr; check
	APTT 4 hrs later

# **Prescription**

Date	Infusion dose	<b>Doctor prescribed</b>	Nurse signed	Nurse signed
	5000 units (bolus)			
	25,000 units in 50 ml saline			
	25,000 units in 50 ml saline			
	25,000 units in 50 ml saline			
	25,000 units in 50 ml saline			
	25,000 units in 50 ml saline			
	25,000 units in 50 ml saline			

# Infusion table (rate adjustment)

Date	APTT ordered	APTT ratio result	Heparin dose (ml/hr)	Doctor prescribed	Nurse signed	Nurse signed	Other events/ instructions

# TINZAPARIN (Innohep®) — For PE and/or DVT treatment

Do not measure APTT on admission or during treatment with tinzaparin. It does not require monitoring. Dose: 175 anti-factor Xa units/kg ONCE per day. Use 20,000 units/ml (40,000 units in 2 ml vial).

## Tinzaparin schedule

#### Subcutaneous dose **Bodyweight** $0.35 \, \text{ml}$ 40 kg $0.39 \, \text{ml}$ 45 kg 50 kg 0.44 ml 55 kg $0.48 \, \text{ml}$ 60 kg $0.53 \, \mathrm{ml}$ 65 kg $0.57 \, \mathrm{ml}$ 0.61 ml 70 kg $0.66 \, \text{ml}$ 75 kg 80 kg $0.70 \, \text{ml}$ 85 kg $0.74 \, \mathrm{ml}$ 90 kg 0.79 ml 95 kg $0.83 \, \text{ml}$ 100 kg $0.88 \, \text{ml}$ Patient's weight: ..... kg ..... ml

## Tinzaparin dose

Date	Dose (ml)	Doctor prescribed	Nurse signed

# ENOXAPARIN (Clexane®) — For unstable angina

Do not measure APTT on admission or during treatment with enoxaparin. It does not require monitoring. Dose: 1 mg/kg TWICE a day (every 12 hours). Use 100 mg/ml pre-filled syringe.

# **Enoxaparin schedule**

Bodyweight	Subcutan	eous dose
40 kg	0.40 ml	
45 kg	0.45  ml	Use 60mg
50 kg	0.50  ml	syringe
55 kg	0.55  ml	
60 kg	$0.60  \mathrm{ml}$	
65 kg	0.65 ml	
70 kg	0.70 ml	Use 80mg
75 kg	0.75 ml	syringe
80 kg	0.80  ml	
85 kg	0.85 ml	
90 kg	0.90 ml	Use 100mg
95 kg	0.95 ml	syringe
100 kg	1.00 ml	
Patient's weig	ght:	. kg
Dose:		. ml

# **Enoxaparin dose — REVIEW AFTER 48 HOURS**

Date	Dose	Doctor	Nurse	Time
	(ml)	prescribed	signed	

# WARFARIN — LOADING

Measure INR on admission or commencement of therapy. This is the first of the daily INR readings. At 18:00 (6 pm) give warfarin as for first day INR reading (see chart below). Measure INR next morning (this is the second day INR). Measure INR on 3<sup>rd</sup> and 4<sup>th</sup> day and follow chart.

In the elderly, consider loading 5–5–? rather than 10–10–? (this chart is then not valid).

#### Warfarin schedule

Day	y 1	Da	y 2	Da	y 3	Ι	Day 3
INR (8–11 am)	Warfarin dose	INR (8–11 am)	Warfarin dose	INR (8–11 am)	Warfarin dose	INR (8–11 am)	Predicted maintenance
(o 11 am)	(5–7 pm)	(O II uiii)	(5–7 pm)	(O II uiii)	(5–7 pm)	(0 11 um)	dose
<1.4	10 mg	<1.8	10 mg	<2.0	10 mg	<1.4	>8 mg
		1.8	1 mg	2.0 - 2.1	5 mg	1.4	8 mg
		>1.8	0.5 mg	2.2 - 2.3	4.5 mg	1.5	7.5 mg
				2.4 - 2.5	4 mg	1.6 - 1.7	7 mg
				2.6 - 2.7	3.5 mg	1.8	6.5 mg
				2.8 - 2.9	3 mg	1.9	6 mg
				3.0 - 3.1	2.5 mg	2.0 - 2.1	5.5 mg
				3.2 - 3.3	2 mg	2.2 - 2.3	5 mg
				3.4	1.5 mg	2.4 - 2.6	4.5 mg
				3.5	1 mg	2.7 - 3.0	4 mg
				3.6 - 4.0	0.5 mg	3.1 - 3.5	3.5 mg
				>4.0	0	3.6 - 4.0	3 mg
						4.1 – 4.5	Miss out next day's dose then give 2 mg
						>4.5	Miss out 2 days' doses then give 1 mg

### Warfarin dose — LOADING ONLY

(for maintenance see front page)

Day	Date	INR ordered	INR result	Warfarin dose (mg)	Doctor prescribed	Nurse signed	Nurse signed
1st							
2nd							
3rd							
4th							

The warfarin schedule is only valid for the first 4 days, then continue at the doctor's discretion.

After 4 days, loading is complete; please record warfarin dosing after 4th day on the *Maintenance* chart on the front page of this chart.

Once a patient is established on warfarin, a daily INR is not needed.