

## Heparin Algorithms for Renal Replacement Therapy

These are the heparin infusion guides to be followed when administering heparin for the purpose of maintaining a dialysis circuit during renal replacement therapy.

They are not to be used when treating a patient with a heparin infusion for anticoagulation.

### Loading doses and initial infusion rates

Weight in kg	IV bolus dose (40units/kg)	Initial infusion rate (10units/kg/hour)	Initial infusion rate (ml/hour)
50	2000	500	0.5
55	2200	500	0.5
60	2400	600	0.6
65	2600	600	0.6
70	2800	700	0.7
75	3000	700	0.7
80	3200	800	0.8
85	3400	800	0.8
90	3600	900	0.9
95	3800	900	0.9
100+	4000	1000	1.0

### Management of maintenance infusion

First APTT to be checked 4 hours after starting infusion, then 4 hours after every rate change or every 6 hours if stable.

APTT ratio	Infusion rate change
Less than 1.2	Repeat IV bolus dose as above and increase rate by 0.4ml/hour. Repeat APTT after 4 hours.
1.2 – 1.4	Increase rate by 0.2ml/hour
1.5 – 2.0	Increase rate by 0.1ml/hour
2.0 – 2.5	No Change
2.6 – 3.0	Reduce rate by 0.1ml/hour
3.1 – 4.0	Reduce rate by 0.2ml/hour
4.1 – 5.0	Reduce rate by 0.3ml/hour
Over 5	Stop for one hour and reduce rate by 0.5ml/hour. Repeat APTT after 4 hours.

## APPENDIX J: PRISMAX QUICK REFERENCE CHART (FOR SYSTEMIC ANTICOAGULATION)

Standard filter set: **ST150** Surface area of approximately 1.5 m<sup>2</sup>

*Initial pump settings:*

Blood Flow	50-100	ml/minute
PBP	0	ml/minute
Dialysate	0	ml/minute
Replacement	0	ml/minute
Pre-Post	Post	
Patient Fluid removal	0	ml/minute

Fluid "Exchange Rate" settings: (once blood flow > 150 ml/minute, preferably higher):

Standard (25 ml/kg/hr)	Pre-Blood Pump	8	ml/kg/hr
	Dialysis	0	ml/kg/hr
	Replacement	17	ml/kg/hr
	Pre-post setting	Post	
High Flow (40 ml/kg/hr)	Pre-Blood Pump	13	ml/kg/hr
	Dialysis	0	ml/kg/hr
	Replacement	27	ml/kg/hr
	Pre-post setting	Post	
Low Flow (15 ml/kg/hr)	Pre-Blood Pump	5	ml/kg/hr
	Dialysis	0	ml/kg/hr
	Replacement	10	ml/kg/hr
	Pre-post setting	Post	