

## Adult Heparin Protocols at the Downstate Health Sciences University

### Heparin for Adult Medical/Surgical Patients – Target aPTT 60-90 seconds

(NOT for Stroke or Cardiac Surgery Patients)

**Table 1. Initiation of IV Heparin Infusion**

**LOW Dose Protocol:** acute coronary syndrome, atrial fibrillation, concomitant thrombolytic therapy, or therapeutic anticoagulation desired, but the patient is at a high risk of bleeding due to an acute condition, previous history of bleeding

Initial Bolus Dose (Optional)	Initial Infusion Dose
60 units/kg - Round to the closest 100 units - Maximum bolus dose of 5,000 units - Bolus dose administered over 3 minutes	12 units/kg/hr - Round to the closest 50 units/hr - Maximum initial dose 1,000 units/hr - Order defaults to duration of 24 hours

**HIGH Dose Protocol:** DVT, PE, mechanical valve replacement

Initial Bolus Dose (Optional)	Initial Infusion Dose
80 units/kg - Round to the closest 100 units - Maximum bolus dose of 10,000 units - Bolus dose administered over 3 minutes	18 units/kg/hr - Round to the closest 50 units/hr. - Maximum <u>initial</u> rate of 2,000 units/hr - Order defaults to a duration of 24 hours

**Table 2. Maintenance Dose Adjustments Based on aPTT Results **\*\*For Non-Critical Care\*\*****

aPTT (sec)	Re-Bolus	Maintenance Infusion Dosage Change	Next aPTT After Change
<45	40 units/kg* <i>*Refer table 3 below for bolus dose adjustment</i>	Increase rate by 3 units/kg/hr	6 hours
45-60	NONE	Increase rate by 2 units/kg/hr	6 hours
<b>60-90 (Goal)</b>	<b>NONE</b>	<b>NO CHANGE</b>	<b>6 hours until therapeutic x 2 consecutive values, then q24h</b>
91-99	NONE	Decrease rate by 3 units/kg/hr	6 hours
≥ 100	NONE	<b>STOP</b> infusion for 2 hours, Then, decrease the rate by 3 units/kg/hr	2 hours after infusion resumed

**Table 3. Bolus Dose Adjustment (40 units/kg) **\*\*For Non-Critical Care\*\*****

Patient Weight (kg)	<60 kg	60-85 kg	85-110 kg	>110 kg
Dose	2,000 units	3,000 units	4,000 units	5,000 units Maximum

**Table 4. Maintenance Dose Adjustment Heparin IV Nomogram **\*\*For Critical Care\*\*****

Adult IV Heparin Order Form

MAINTENANCE IV HEPARIN ORDERS: Adjust IV Dose Based on Subsequent aPTT As Per Table.							
aPTT (sec)	RE-BOLUS (Round to nearest 100 units)	Dosage Change	Dosage Change Based on Weight* (Round Doses to Nearest 50 units/hr)				NEXT aPTT After Change
			40-59 kg	60-69 kg	70-79 kg	>80 kg	
< 35	60 units/kg = _____ units	+ 3 units/kg/hr	↑ by 150 units/hr	↑ by 200 units/hr	↑ by 250 units/hr	↑ by 300 units/hr	6 hours
35-44	30 units/kg = _____ units	+ 2 units/kg/hr	↑ by 100 units/hr	↑ by 150 units/hr	↑ by 150 units/hr	↑ by 200 units/hr	6 hours
45-59	NONE	+ 2 units/kg/hr	↑ by 100 units/hr	↑ by 150 units/hr	↑ by 150 units/hr	↑ by 200 units/hr	6 hours
<b>60-90 (Goal)</b>	<b>NONE</b>	<b>NO CHANGE</b>	<b>NO CHANGE</b>				<b>12 hours</b>
91-99	NONE	- 2 units/kg/hr	↓ by 100 units/hr	↓ by 150 units/hr	↓ by 150 units/hr	↓ by 200 units/hr	6 hours
≥ 100	NONE	<b>STOP x 1 hour; Restart at - 3 units/kg/hr</b>	↓ by 150 units/hr	↓ by 200 units/hr	↓ by 250 units/hr	↓ by 300 units/hr	6 hours