Adult Heparin Protocols at the Downstate Health Sciences University
Updated JANUARY 2026

Disclaimer: This protocol is not meant to substitute professional medical judgment. Clinician may deviate from the protocol to meet the individual patient's specific condition and health care needs.

Heparin Protocol for Adult Patients

Table 1. Initiation of IV Heparin Infusion **For ALL Patient Care Areas**

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

Initial Bolus Dose (Optional)	Initial Infusion Dose
60 units/kg - Round to closest 100 units - Maximum bolus dose of 5,000 units - Bolus dose administered over 3 minutes	12 units/kg/hr - Round to 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 closest 100 units - Maximum bolus dose of 10,000 units - Bolus dose administered over 3 minutes	18 units/kg/hr - Round to closest 50 units/hr. - Maximum initial rate of 2,000 units/hr - Order defaults to a duration of 24 hours

Table 2. Maintenance Dose Adjustments Based on aPTT Results (Target aPTT 60-80 seconds) **For NON-Intensive Care Units**

aPTT (sec)	Bolus	Maintenance Infusion Dosage Change	Next aPTT After Change
<45	40 units/kg* ***Refer table 3 below for bolus dose adjustment***	Increase rate by 3 units/kg/hr	6 hours
45-59	NONE	Increase rate by 2 units/kg/hr	6 hours
60-80 (Goal)	NONE	NO CHANGE	6 hours until therapeutic x 2 consecutive values, then q24h
81-90	NONE	Decrease rate by 3 units/kg/hr	6 hours
> 90	NONE	**STOP** infusion for 2 hours, Then, decrease rate by 3 units/kg/hr	2 hours after infusion resumed

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

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

Appendix A: Adult Heparin Protocols at the Downstate Health Sciences University
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Table 4. Maintenance Dose Adjustment Heparin IV Nomogram **For Intensive Care Units**
(Target aPTT 60-80 seconds)

MAINTENANCE IV HEPARIN ORDERS: Adjust IV Dose Based on Subsequent aPTT As Per Table.							
aPTT (sec)	**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
60-80 (Goal)	NONE	NO CHANGE	NO CHANGE				12 hours
81-95	NONE	- 2 units/kg/hr	↓ by 100 units/hr	↓by 150 units/hr	↓ by 150 units/hr	↓ by 200 units/hr	6 hours
> 95	NONE	**STOP x 1 hour; Restart at** - 3 units/kg/hr	↓ by 150 units/hr	↓ by 200 units/hr	↓ by 250 units/hr	↓ by 300 units/hr	6 hours