

HEPARIN TITRATION PROTOCOL

Give initial bolus directly into the LIMB BEING USED TO ACCESS BLOOD, immediately prior to starting the blood pump (first blood that hits filter is heparinized). Administer subsequent boluses directly into the preblood pump sampling port (RED sampling port). Measure systemic PTT daily and post-filter PTT Q6H (blue sampling port).

Consider the patient anticoagulated regardless of systemic PTT value. If a patient who is receiving heparin via the CRRT circuit requires an invasive procedure, stop the PBP heparin infusion at least 2 hours before, and hang PrismaSOL solution on the PBP at 2 L/hour to maintain filter anticoagulation. You can also do this if they begin to bleed. Review with team to determine if/when you can resume heparin.

If patient is receiving heparin via CRRT circuit, continue with daily prophylactic anticoagulation as per order. Do not run heparin on the CRRT circuit if the patient is receiving therapeutic systemic anticoagulation. Wait 6 hours before measuring PTT for purpose of infusion reduction.

Post-Filter PTT	Pre-Filter Heparin Bolus	Preblood Pump (PBP) Heparin Dose Standard Concentration: 5,000 units heparin/1 L NaCl = 5 units per mL 1,000 units per hour = 200 mL hour. A dose change by 200 units per hour = 40 mL/h*
Greater than 150 seconds	None	<ul style="list-style-type: none"> • Stop infusion for one hour • Decrease infusion by 200 units/hour (40 ml/hr) • Repeat PTT in 6 hours • If repeat PTT > 150, notify provider
Greater than 100 seconds	None	<ul style="list-style-type: none"> • Stop infusion for one hour • Decrease infusion by 200 units/hour (40 ml/hr) • Repeat PTT in 6 hours
80 to 100 seconds	None	Decrease infusion by 200 units/hour (40 ml/hr)
60 to 79 seconds	None	No change
50 to 59 seconds	None	Increase infusion by 200 units/hour (40 ml/hr)
40 to 49 seconds*	1000 units	Increase infusion by 200 units/hours (40 ml/hr)
30 to 39 seconds	2000 units	Increase infusion by 400 units/hour (80 ml/hr)
Less than 30 seconds	5000 units	<ul style="list-style-type: none"> • Increase infusion by 400 units/hour (80 ml/hr) • If repeat PTT < 30, notify provider

Perform independent double check for all heparin administration/rate adjustments (PBP).

The PBP does not provide the same degree of volume precision as a syringe pump. If smaller dose adjustments are required to stay in target, you may change the concentration to 2,500 u heparin per 1L of NaCl (2.5 units per mL). This provides 2.5 units per mL. At this concentration, a rate of 200 mL per hour would = 500 units per hour. A dose change of 40 mL/hr would = 100 units per hour.

