

**Intravenous Low Intensity Heparin Nomogram:
Cardiology and Vascular Interventional Procedures & Ischemic Stroke**

CARDIOLOGY & VASCULAR PROCEDURES INCLUDE: Atrial Fibrillation, Acute Myocardial Infarction, Unstable Angina, S/P Pacemaker/AICD Insertion, Acute Thrombosis of Peripheral Arteries and Grafts

- PT, PTT, CBC & other baseline labs per MD/LIP order prior to initiation of therapy. Baseline labs such as PTT should not be used for infusion rate adjustments per nomogram.
- PTT 6 hours after Heparin is instituted, then per nomogram until PTT is in target range
- PTT daily once PTT is in target range (for duration of Heparin infusion)
- CBC every other day while on Heparin
- Pt body weight: per MD/LIP: _____kg (use initial total body weight throughout Heparin therapy)

RN Signature: _____ Date: _____ Time: _____

INITIAL BOLUS: Per MD/LIP order. Heparin bolus IV Push x1, followed by initial infusion

Usual Bolus Dose	Maximum Initial Bolus	No Initial Bolus Indications
70 units/kg rounded to the nearest 50 units	5,000 units	A bolus should not be ordered for pacer/AICD insertion, acute thrombosis of arteries and grafts or ischemic stroke. If a bolus is ordered with pacer/AICD, call MD/LIP to verify before administration.

INITIAL INFUSION: Per MD/LIP order. Heparin 25,000 units/500 ml D5W (= 50 units/ml)

Indication	Usual Starting Dose	Maximum Initial Rate	Comments
Ischemic Stroke	10 units/kg/hr	NO maximum initial rate	
Cardiac and Vascular Indications	12 units/kg/hr	1,000 units/hr (20mL/hr)	Once therapy is initiated, subsequent dose may exceed maximum initial rate, as needed to reach therapeutic PTT

NOMOGRAM RATE ADJUSTMENT: LOW INTENSITY HEPARIN with Goal PTT: 50-70 secs

PRN boluses per nomogram below require an MD/LIP order.

*Round PTT to the nearest whole number (If < 0.5 round down, if ≥ 0.5 round up)

PTT (in secs)*	Bolus	Bolus	Stop Infusion	Rate of Infusion	Check PTT
	Ischemic Stroke	CV/Vascular			
≤ 30 secs	0	2000 units	0 min	Increase by 3 units/kg/hr	6 hrs
31 – 39 secs	0	1000 units	0 min	Increase by 2 units/kg/hr	6 hrs
40 – 49 secs	0	0	0 min	Increase by 1 unit/kg/hr	6 hrs
50 – 70 secs (goal)	0	0	0 min	No Change	Next AM
71 – 85 secs	0	0	0 min	Decrease by 1 unit/kg/hr	6 hrs
86 – 100 secs	0	0	0 min	Decrease by 2 units/kg/hr	6 hrs
> 100 secs	0	0	60 min	Decrease by 3 units/kg/hr	6 hrs after restarted

RN to document bolus doses / rate changes in MAK / MAR per **Medications: Double Check** policy (Nursing Practice Manual).

Formula to calculate Heparin Infusion Rate: $\frac{\text{Total Units (in IV bag)}}{\text{Total Volume (ml)}} = \frac{\text{Units/hour (per patient's weight above)}}{\text{X (ml/hour)}}$