North Country Hospital
Where caring runs deep.

Affix Patient Label Here

Heparin Weight-Based Protocol

Instructions: Orders with boxes ☐ valid only if marked **X**. Orders with ● are activated unless a line is drawn through the order and initialed.

Date:	**Time:**
Patient Weight (kg):	**Allergies:**

Discontinue any previous anticoagulation orders [heparin, low molecular heparin (Lovenox), warfarin, oral Xa inhibitors (apixaban/ELIQUIS, rivaroxaban/XARELTO) and direct thrombin inhibitors (dabigatran/PRADAXA]. When an oral anticoagulant (warfarin, oral factor Xa inhibitor or direct-acting anticoagulant) is to be begun in patients already receiving heparin sodium, baseline and subsequent tests of prothrombin activity must be determined at a time when heparin activity is too low to affect the prothrombin time. This is about 5 hours after the last intravenous (IV) bolus and 24 hours after the last subcutaneous dose. If continuous IV heparin infusion is used, prothrombin time can usually be measured at any time. Caution with use of concurrent antiplatelet therapies (aspirin, clopidogrel (Plavix), aspirin/dipyridamole (Aggrenox), NSAIDs).

Unfractionated heparin standard concentration: Heparin 25,000 units/250 mL D5W

- Before starting heparin, obtain aPTT, CBC, patient weight.
- Check CBC every 3 days.
- PTT 6 hours after initiating Heparin and PTT 6 hours after any heparin dosage change
- Must have two (2) PTT resulting in no rate change before initiating PTT every morning.
- PT every AM if on Heparin
- CBC and stool Guaiac daily for 3 days. Notify MD for any bleeding symptoms.
- All calculations are based on *actual* patient body weight in kilograms (kg). Weight should be re-measured any time adjustments to heparin dosing are needed.
- Choose the initial dosing strategy and use the nomogram below for maintenance infusion adjustments.

INITIAL DOSING:

Acute Coronary Syndrome/MI or Other:

Initial Bolus (Round to the nearest 500 units of heparin):

☐ Heparin **60 units/kg IV** once (**max 5000 units or 4000 units** if patient also receiving reteplase, alteplase or tenecteplase)

☐ Half bolus: Heparin **30 units/kg IV** once

☐ No Bolus Dose

Initial Infusion (Round to the nearest 100 units of heparin):

☐ Heparin Continuous IV infusion: **12 units/kg/hr, (max 1000 units/hr)**

DVT/PE/Atrial Fibrillation or Other:

Initial Bolus (Round to the nearest 500 units of heparin):

☐ Heparin **80 units/kg IV** once **(max 10,000 units)**

☐ Half bolus: Heparin **40 units/kg IV** once

☐ No Bolus Dose

Initial Infusion (Round to the nearest 100 units of heparin):

☐ Heparin Continuous IV infusion: **18 units/kg/hr, (max 2250 units/hr)**

MAINTENANCE INFUSION (check one):

☐ **Low Risk Internal Cranial Hemorrhage: Heparin Adjustment Nomogram (Round to the nearest 100 units of heparin): Do not use for patients with a CVA within last 3 months. (No Age Adjustment)**

aPTT Result (seconds)	Adjustment	Repeat aPTT Draw
<35	Rebolus (Use Initial Bolus Dose) **AND** increase infusion by 4 units/kg/hr (max 400 unit/hr increase) (Calculate using Current Weight)	6 hours
35-39	Rebolus with Half Initial Bolus Dose **AND** increase infusion by 2 units/kg/hr (max 200 unit/hr increase) (Calculate using Current Weight)	6 hours
40-75	No change (Therapeutic Range)	6 hours x 2, then Q AM
76-95	Decrease infusion by 1 unit/kg/hr	6 hours
96-115	Decrease infusion by 2 units/kg/hr	6 hours
116-135	Hold infusion for 30 minutes **AND** decrease infusion by 3 units/kg/hr	6 hours
>135	Hold infusion for 60 minutes **AND** decrease infusion by infusion by 3 units/kg/hr	6 hours

☐ **High Risk Internal Cranial Hemorrhage: Heparin adjustment Nomogram (Round to the nearest 100 units of**

heparin): Use for patient with a CVA within the last 3 months. (No Age Adjustment)

aPTT Result (seconds)	Adjustment	Repeat aPTT Draw
<35	Bolus with 35 unit/kg **AND** increase infusion by 3 units/kg/hr	6 hours
35-39	Increase infusion by 2 units/kg/hr	6 hours
40-75	No change (Therapeutic Range)	6 hours x 2, then Q AM
76-95	Decrease infusion by 2 units/kg/hr	6 hours
96-115	Hold infusion for 30 minutes **AND** decrease infusion by 3 units/kg/hr	6 hours
>115	Hold infusion for 60 minutes **AND** decrease infusion by 3 units/kg/hr	6 hours

Warfarin (Coumadin®):

Daily warfarin orders to be written by ☐ physician or ☐ clinical pharmacist.

- Obtain baseline INR, CBC, CMP before initiation. Daily morning PT/INR.
- Check CBC every 3 days.
- INR Goal 2-3 or _____
- Nutrition consult

☐ Warfarin _____ mg PO today at 1700.

Physician's Signature: _____

Revised: 10/21