Angiomax (Bivalirudin) Weight-based Dosing Guidelines MCT [3040001160]

Nursing

Notify Physician

☑ Angiomax: IMMEDIATELY Notify physician if bleeding develops at any time	Routine, Until discontinued, Starting today

Nursing Interventions

☑ Check PTT's - Instructions	Routine, Until discontinued, Starting today - Check PTT 3 hours after start of infusion and adjust dose - Check PTT 3 hours after each dose adjustment - After 2 consecutive PTT readings in therapeutic range (55-75), may check PTT daily

Labs

Chemistry Basic

☑ Creatinine	Once For 1 Occurrences All labs should be drawn after discontinuation of heparin products.

Hematology

☑ Platelet count	Once For 1 Occurrences All labs should be drawn after discontinuation of heparin products.

Coagulation

☑ Prothrombin Time/INR	Once For 1 Occurrences All labs should be drawn after discontinuation of heparin products.
☑ aPTT	Once For 1 Occurrences All labs should be drawn after discontinuation of heparin products.
☑ aPTT	As needed 3 hours after start of infusion and 3 hours after each dose adjustment.
☐ D-Dimer, Quantitative	Once For 1 Occurrences All labs should be drawn after discontinuation of heparin products.

Daily

☑ CBC with Automated Differential	Daily
☑ Prothrombin Time/INR	Daily Daily if on Warfarin.
☑ aPTT	Daily, Starting tomorrow After two consecutive PTT readings in therapeutic range (55-75).
☐ Basic Metabolic Panel	Daily For 3 Days
☐ Comprehensive Metabolic Panel	Daily For 3 Occurrences
☐ Magnesium	Daily For 3 Occurrences

Immunology

☑ Heparin Antibody (HIT ASSAY) RX CONSULT REQUIRED panel - place Both orders	
☑ Heparin Antibody	As needed For 1 Occurrences
☑ Consult to Pharmacy - Generic: **REQUIRED FOR HIT ASSAY**	Routine, Once For 1 Occurrences

Medications

Bivalirudin Weight based protocol

Criteria for use:

- Should be used for suspected or confirmed HIT or other intolerances to heparin in patients with indications for full anticoagulation (e.g., DVT, PE, atrial fibrillation, mechanical prosthetic valve)
- May be used in patients with renal and hepatic dysfunction
- This dosing protocol is not intended for use in PCI or other invasive procedures (vascular surgery, cardiac surgery, etc.)

Initial **STARTING RATE** (mg/kg/hr). (Contact Pharmacy for assistance with initial CrCl based rate):

CrCl (ml/min)	Starting Rate (mg/kg/hr)
GREATER than 60	0.08
30-60	0.05
LESS than or EQUAL to 29 or CRRT	0.03
Hemodialysis	0.02

Perioperative Hold Parameters

CrCL (mL/min)	Recommendations
GREATER than 60	Hold for 2-4 hr and recheck PTT
LESS than or EQUAL to 60	Hold for 4-6 hr (may need to hold longer during off-dialysis period in patients receiving hemodialysis) and recheck PTT until PTT is back to baseline

Guidelines for administration with Warfarin:

- Angiomax and warfarin should be overlapped for a minimum of 5 days
- Do not start warfarin until the platelets reach at least 150,000
- Starting warfarin dose recommended to be 5 mg per day. No loading dose recommended.
- Combination of Angiomax and warfarin results in "false elevation" of INR. This does not necessarily increase the risk of bleeding.
- Discontinue Angiomax when INR is greater than 3. An INR should be drawn 3 hr after the infusion is stopped, to confirm that the INR is within desired therapeutic range. Notify prescriber.
- If the repeat INR is less than the desired therapeutic range, the most recent infusion rate should be restarted, INR drawn the next day and this process repeated until the INR is within the desired therapeutic range.

*Discontinue argatroban when INR is greater than 4. An INR should be drawn 4-6 hours after the infusion is stopped to confirm that INR is within desired therapeutic range.

*If repeat INR is less than desired therapeutic range, the most recent infusion rate should be restarted, INR drawn in 24 hours, and this process repeated until INR is within desired therapeutic range.

Discontinue argatroban if repeat INR within desired therapeutic range.

bivalirudin (ANGIOMAX) 1 mg/mL in sodium chloride 0.9% (NS) 250 mL infusion	0.01-0.2 mg/kg/hr Continuous, Intravenous Initial STARTING RATE (mg/kg/hr). (Contact Pharmacy for assistance with initial CrCl based rate): CrCl (ml/min) Starting Rate (mg/kg/hr) GREATER than 60 0.08 30-60 0.05 LESS than or EQUAL to 29 or CRRT 0.03 Hemodialysis 0.02 Infusion Rate Adjustments (Goal PTT 55-75 seconds) PTT (sec) Recommended Rate Adjustment LESS than 40 Increase by 0.01 mg/kg/hr and recheck PTT in 3 hrs 40-54 Increase by 0.005 mg/kg/hr and recheck PTT in 3 hrs 55-75 No change (goal PTT) and recheck PTT in 3 hrs 76-90 Decrease by 0.005 mg/kg/hr and recheck PTT in 3 hrs 91-105 Hold for 2 hr, then decrease by 0.01 mg/kg/hr and recheck PTT in 3 hrs GREATER than 105 Hold and recheck PTT every 3 hr until PTT in goal range, then decrease by 0.01 mg/kg/hr After 2 consecutive PTT readings in therapeutic range (55-75), may check PTT daily. If PTT not at goal within 24 hours, pharmacist may make adjustments to protocol. Perioperative Hold Parameters CrCL (mL/min) Recommendations GREATER than 60 Hold for 2-4 hr and recheck PTT LESS than or EQUAL to 60 Hold for 4-6 hr (may need to hold longer during off-dialysis period in patients receiving hemodialysis) and recheck PTT until PTT is back to baseline

Consults

Pharmacy Consults

☐ Consult to Pharmacy to Dose Other Medication	Routine, Once For 1 Occurrences, Guidelines for administration with Warfarin: - Angiomax and warfarin should be overlapped for a minimum of 5 days - Do not start warfarin until the platelets reach at least 150,000 - Starting warfarin dose recommended to be 5 mg per day. No loading dose recommended. - Combination of Angiomax and warfarin results in "false elevation" of INR. This does necessarily increase the risk of bleeding. - Discontinue Angiomax when INR is greater than 3. An INR should be drawn 3 hr after the infusion is topped, to confirm that the INR is within desired therapeutic range. Notify prescriber. - If the repeat INR is less than the desired therapeutic range, the most recent infusion rate should be restarted, INR drawn the next day and this process repeated until the INR is within the desired therapeutic range. *Discontinue argatroban when INR is greater than 4. An INR should be drawn 4-6 hours after the infusion is stopped to confirm that INR is within desired therapeutic range. *If repeat INR is less than desired therapeutic range, the most recent infusion rate should be restarted, INR drawn in 24 hours, and this process repeated until INR is within desired therapeutic range. Discontinue argatroban if repeat INR within desired therapeutic range.