Adult Argatroban Drip Protocol

This protocol reflects current evidence based clinical practice.
It is not a substitute for appropriate clinical evaluation and does not supersede clinical judgment.

Exclusion Criteria:

1. Argatroban is not for use in patients with moderate to severe hepatic insufficiency.
2. No anticoagulation within 24 hours of therapeutic tPA for ischemic stroke.
3. No concurrent epidural analgesia, spinal, or lumbar puncture while anticoagulated.
4. If patient's PTT is greater than 100 or INR greater than 2.5 do NOT start Argatroban and notify attending physician.

Initiating Argatroban Therapy:

1. Only to be administered in ICU, DOU, or Telemetry per Adult IV Administration Guidelines.
2. Obtain a HIT antibody with Reflex Serotonin Assay to confirm HIT diagnosis (PLTHATR is Meditech code).
3. Obtain baseline labs: PT, PTT, CBC and CMP.
4. Discontinue all Heparin products: heparin infusion, SQ heparin, LMWH (enoxaparin) and heparin flushes.
5. If patient was on Heparin infusion wait 3 hours prior to initiating Argatroban. If patient is on LMWH wait 8 hours except in the case that the patient has an active clot while on these medications. Obtain Hematology Consult to consider earlier initiation of Argatroban.
6. **IF ON Warfarin AT TIME OF INITIATION:** Reverse the warfarin using Vitamin K 5mg PO X1 after Argatroban has started; call attending if patient is unable to take oral medications.
7. Discontinue Warfarin and fondaparinux.
8. Discontinue Aspirin > 162mg daily.
9. For patients with an acute MI or ACS obtain Hematology and Cardiology Consults.
10. Verify patient's total body weight in kilograms.
11. Start a dedicated IV line for Argatroban infusion.
12. Discontinue all IM injections.
13. Use approved Adult Argatroban Drip Order Form.
14. Consider ordering Hematology Consult.

Dosing:

1. Standard Argatroban Infusion is 250mg in Normal Saline 250mL, yielding a concentration of 1 mg/mL or 1000 mcg/mL.
2. Therapeutic Goal Range for PTT is 55-100.
3. Initial infusion rate:
    a. 0.5 mcg/kg/min for patients with CHF, mild hepatic insufficiency, and critical illness.
    b. 1.2 mcg/kg/min for non-hepatically compromised patients.
4. Maximum rate of infusion is 10 mcg/kg/min
5. Adjust infusion rate based on PTT values as shown in the following table. Use Argatroban Anticoagulation Flow Sheet for documentation of rate and changes. Two RNs to perform independent calculations and document all dose changes on the Argatroban Flow Sheet.

PTT	Rate Adjustment	Recheck PTT from time of dose change	
		Normal Hepatic Function	Impaired Hepatic Function /Critically Ill
≤ 34	↑ rate by 50% (**multiply rate by 1.5**)	2 hours	4 hours
35-54	↑ rate by 25% (**multiply rate by 1.25**)	2 hours	4 hours
GOAL 55-100	**NONE**	Continue every 2 hours until therapeutic x 2 then recheck every AM	Continue every 4 hours until therapeutic x 2 then recheck every AM
101-110	↓ by 25% (**multiply rate by 0.75**)	2 hours	4 hours
111-120	↓ rate by 50% (**multiply rate by 0.5**)	2 hours	4 hours
≥121	Stop infusion. Notify MD. Stat PTT every 2 hours until between 55 and 100. Restart at 50% of previous rate (**multiply rate by 0.5**)	2 hours	4 hours

Monitoring:

1. Obtain PTT at 2 hours after initiation and after the time of all dose changes in patients with normal hepatic function; in patients with impaired hepatic function and critically ill patients, obtain PTT at 4 hours after initiation and after the time of all dose changes
2. Repeat PTT every 2 hours (4 hours for patients with impaired hepatic function or critically ill) until therapeutic x 2.
3. Obtain a liver panel every 3 days or more frequently if indicated.
4. Obtain PT, PTT and CBC daily.
5. **Call physician immediately for any of the following:** unexplained drop in blood pressure, unexplained tachycardia, the development of hematoma, drop in hemoglobin of >1g/dl, any signs of bleeding or gross hematuria.

Conversion to Oral Anticoagulation and Discontinuation of Argatroban:

See accompanying flow chart to determine timing of initiation of Warfarin therapy and discontinuation of the Argatroban infusion.

Conversion of Argatroban back to Heparin:

1. If the patient is determined NOT to have HIT, may convert back to heparin infusion WITHOUT BOLUS, 2 hours after discontinuing Argatroban in consultation with attending physician.

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