

**ARGATROBAN**  
Suggested Guidelines for Use  
University of Washington Medical Center Dept of Pharmacy

\*\*\*\*\*FOR PHYSICIAN USE ONLY\*\*\*\*\*

**This is not intended as a nurse-managed protocol**

September 2008

**BACKGROUND:**

Argatroban is a small molecule, synthetic direct thrombin inhibitor. It is used as an alternative anticoagulant in patients with heparin-induced thrombocytopenia (HIT). It has a relatively short half life of 40-50 minutes and is eliminated by hepatic metabolism and biliary secretion. There are no specific guidelines for dosing in hepatic impairment and therefore argatroban should be **avoided in patients with any degree of hepatic impairment**. Like other antithrombotic agents, the primary adverse effect of argatroban is hemorrhagic complications. Like other direct thrombin inhibitors, there is no antidote for argatroban.

Argatroban is monitored using the activated partial thromboplastin time (aPTT). The goal aPTT in seconds has been defined at UWMC/HMC as 60-80 seconds. Alternatively, it can be monitored with the direct thrombin inhibitor assay available at UWMC/HMC. This assay has a therapeutic range of 60 – 100 seconds for argatroban (different for other DTIs).

Argatroban profoundly influences the prothrombin time (PT/INR) at therapeutic doses. This complicates interpretation of test results during therapy, and can make concomitant treatment with warfarin (Coumadin) difficult to initiate and manage. Elevated INRs during concurrent warfarin/argatroban therapy should **not** be interpreted as therapeutic if they are between 2.0 –3.0, or as supratherapeutic if they are > 3.0. A valid INR can only be obtained **by holding argatroban for approximately 4 hours prior to checking INR.**

**PRIOR TO ADMINISTRATION**

*The following baseline information is required before argatroban can be administered*

- a. Baseline aPTT and PT/INR
- b. Baseline LFTs

**STARTING DOSE**

1. **typical starting dose:** **2 mcg/kg/min**
2. Recommended starting dose in patients with heart failure, multi-organ system failure, severe anasarca, or post-cardiac surgery: **0.5-1.2 mcg/kg/min**

**MONITORING**

1. first aPTT check: 2 hours after initiation of therapy
2. subsequent aPTT checks
  - qam
  - 2 hrs after any change in dose
  - immediately prior to resuming therapy if infusion has been held
  - at any time if thromboembolism or hemorrhage are suspected

**DOSING ADJUSTMENTS**

<b>APTT (primary testing)</b>	<b>DTI Assay (alternate testing)</b>	<b>Dosing Adjustment</b>	<b>Written Orders</b>
< 60	< 60	increase infusion rate by 20%	<i>The order must define the dose change in mcg/kg/min and must be calculated by the physician writing the order</i>
60-80	60 - 100	NONE	
> 80	> 100	hold infusion for 2 hours, then restart at 50% lower rate	

