

# Impact of hospital guidelines on argatroban use in patients with suspected or confirmed heparin-induced thrombocytopenia: evaluation of clinical outcomes, adverse events and cost

## The Problem

Consensus guidelines recommend argatroban for the acute management of Heparin-induced thrombocytopenia (HIT). Given its associated complexities, institutions have implemented therapeutic guidelines to promote appropriate use. In 2007, such guidelines were implemented at Beth Israel Deaconess Medical Center (BIDMC) and a utilization review was warranted.

## Aim/Goal

- Primary: Compare argatroban utilization pre and post guideline implementation
- Secondary: Evaluate the subsequent impact on argatroban use, duration of treatment, incidence of adverse effects and cost

## The Team

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## The Interventions

- **Design:** A retrospective, medical record review study
- **Patient Identification:** Pharmacy and hospital databases were used to identify eligible patients from January 2006 to January 2009
- **Inclusion criteria:** Inpatients 18 years or greater who received argatroban for a minimum of 24 hours
- **Data Analysis:** Appropriateness of argatroban initiation was assessed by patient specific 4T's risk score, documentation of hematology consult, and results of PF4-heparin dependent antibody or serotonin-release assay tests

## Lessons Learned and Next Steps

- Implementation of guidelines appears to have increased appropriate argatroban use and resulted in a decrease in total orders
- Significant cost reduction in argatroban purchases was realized despite annual increases in the cost per vial
- Continue emphasis on the use of argatroban in accordance with BIDMC guidelines
- Continue education on the proper dose and duration of argatroban, along with proper initiation of oral anticoagulation therapy
- Evaluate additional measures to optimize use of argatroban, such as automatic stop order after 72 hours of therapy, and increased oversight for use only in patients that meet strict diagnostic criteria for HIT

## Results

Figure 1. Primary Outcome: Appropriate use of argatroban

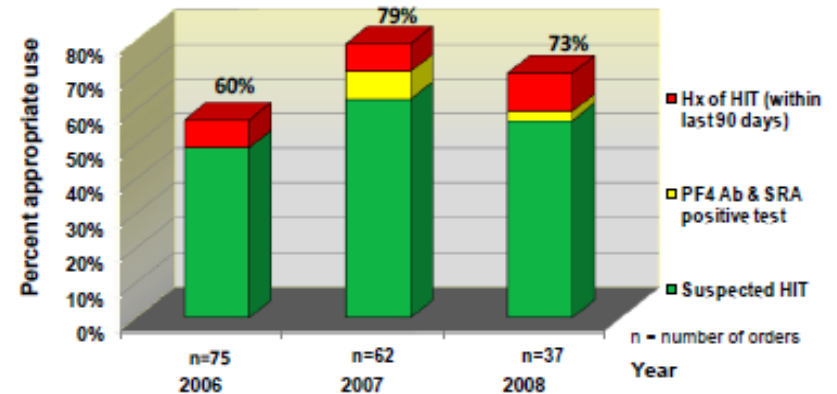
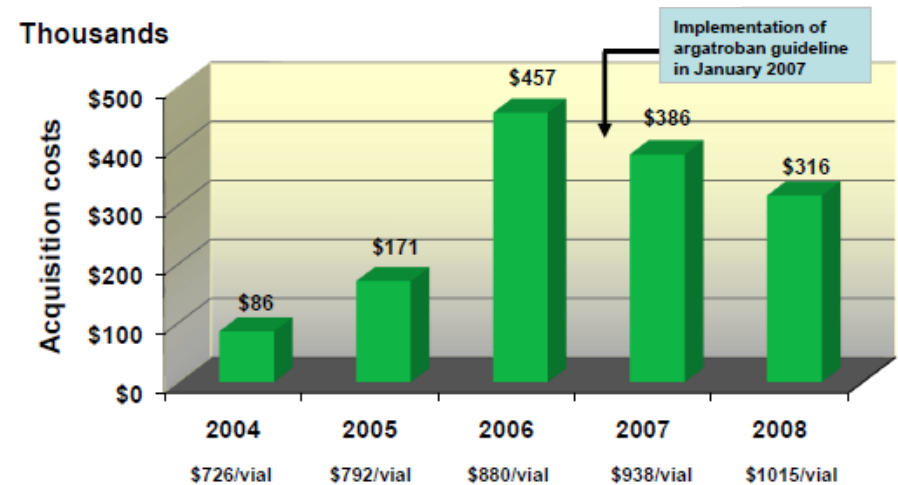


Figure 2. BIDMC Argatroban Purchases 2004-2008



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