

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**022485Orig1s000**

**SUMMARY REVIEW**

## Summary Review for Regulatory Action

<b>Date</b>	(electronic stamp)
<b>From</b>	Ann. T. Farrell, M.D., Acting Division Director
<b>Subject</b>	Division Director Summary Review
<b>NDA/BLA #</b>	22485
<b>Supplement #</b>	
<b>Applicant Name</b>	Sandoz Canada, Inc.
<b>Date of Submission</b>	April 21, 2011
<b>PDUFA Goal Date</b>	June 21, 2011
<b>Proprietary Name / Established (USAN) Name</b>	Argatroban Injection in Sodium Chloride
<b>Dosage Forms / Strength</b>	1 mg/mL
<b>Proposed Indication(s)</b>	Indicated for prophylaxis or treatment of thrombosis in adult patients with heparin-induced thrombocytopenia (HIT), and as an anticoagulant in adult patients with or at risk for HIT undergoing percutaneous coronary intervention (PCI).
<b>Action/Recommended Action for NME:</b>	<b>Full Approval</b>

<b>Material Reviewed/Consulted</b>	
OND Action Package, including:	
Medical Officer Review	Firoozeh Alvandi, M.D./ Virginia Kwitkowski, RNP
Statistical Review	
Pharmacology Toxicology Review	Shwu Luan Lee Ph.D./ Haleh Saber, Ph.D.
CMC Review/OBP Review	Ravindra Kasliwal, Ph.D./Janice Brown, Ph.D./Sarah Pope Miksinski, Ph.D.
Microbiology Review	Stephen Langille, Ph.D.
Clinical Pharmacology Review	Hua Zhang, Ph.D./ Julie Bullock, Pharm.D.
DDMAC	
DSI	N/A
CDTL Review	Same as this memo
OSE/DMEPA	Yelena Maslov, Pharm. D./ Carol Holquist, R. Ph.
OSE/DDRE	
OSE/DSRCS	
Other	

OND=Office of New Drugs  
 DDMAC=Division of Drug Marketing, Advertising and Communication  
 OSE= Office of Surveillance and Epidemiology  
 DMETS=Division of Medication Errors and Technical Support  
 DSI=Division of Scientific Investigations  
 DDRE= Division of Drug Risk Evaluation  
 DSRCS=Division of Surveillance, Research, and Communication Support  
 CDTL=Cross-Discipline Team Leader

# Signatory Authority Review Template

## 1. Introduction

NDA 22485 is a 505 b2 application for argatroban which was initially submitted to the Agency on March 16, 2010. The Agency filed the application and granted a standard review and due to Waxman-Hatch exclusivity granted a tentative approval on January 13, 2011. On April 21, 2011, Sandoz submitted their complete response to the tentative approval. In their complete response letter, they informed the Agency that there had been no changes to their application since the original submission which received a tentative approval.

## 2. Background

The Reference Listed Drug (RLD) for this submission is Argatroban Injection (NDA 20-883), which is currently marketed by Pfizer. This NDA was approved on June 30, 2000. THE RLD has Waxman-Hatch Exclusivity which does not expire until May 5, 2011.

## 3. CMC/Device

There were no issues identified that preclude approval. Both the primary reviewer and the CDTL noted that the product should not be kept in the freezer as argatroban may precipitate out from solution.

From the original CMC CDTL memo:

*Based on the stability data provided, a 24-month expiration dating period is granted for room temperature storage conditions.*

## 4. Nonclinical Pharmacology/Toxicology

There were no new nonclinical pharmacology/toxicology studies provided in this submission. The pharmacology/toxicology review team reviewed the submission and participated in labeling review. No issues that would preclude approval were identified.

## **5. Clinical Pharmacology/Biopharmaceutics**

No issues that would preclude approval were identified. The only information submitted for review was data to support bridging between this 505 b2 product and the RLD.

## **6. Clinical Microbiology**

This argatroban product is (b) (4). There are no outstanding microbiology issues related to the manufacturing process and/or overall sterility assurance. No issues that would preclude approval were identified.

## **7. Clinical/Statistical-Efficacy**

No new clinical data was submitted. Dr. Alvandi and Ms. Kwitkowski reviewed the labeling.

## **8. Safety**

No new safety issues have been identified.

## **9. Advisory Committee Meeting**

This product is not a NME.

## **10. Pediatrics**

This product is not a NME.

## **11. Other Relevant Regulatory Issues**

None

## **12. Labeling**

All disciplines made recommendations for labeling which were incorporated.

### **13. Decision/Action/Risk Benefit Assessment**

- - Recommended regulatory action  
Full Approval
  - Risk Benefit Assessment  
N/A
  - Recommendation for Post marketing Risk Management Activities  
None
  - Recommendation for other Post marketing Study Requirements/  
Commitments

None

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/s/  
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ANN T FARRELL  
05/09/2011