CENTER FOR DRUG EVALUATION AND RESEARCH

Application Number 21-271

MICROBIOLOGY REVIEW(S)

REVIEW FOR HFD-180

OFFICE OF NEW DRUG CHEMISTRY
MICROBIOLOGY STAFF HFD-805
Microbiologist's Review #1 of NDA 21-271

February 22, 2001

A. 1. **APPLICATION NUMBER:** 21-271

APPLICANT: Aventis Pharmaceuticals
P.O. Box 5096
500 Arcola Road
Collegeville, PA 19426
(T) 610-454-2656
(F) 610-454-5299

2. **PRODUCT NAME:** [redacted]

3. **DOSAGE FORM AND ROUTE OF ADMINISTRATION:** [redacted] is supplied as sterile, lyophilized desirudin (15 mg) in single dose vials for subcutaneous injection. *Solvent for* [redacted] (in glass ampules) contains 0.5 mL Mannitol (3%) in WFI.

4. **METHODS OF STERILIZATION:** [redacted] *Solvent for* [redacted]

5. **PHARMALOGICAL CATAGORY and/or PRINCIPLE INDICATION:** Indicated for the [redacted]

6. **DRUG PRIORITY CLASSIFICATION:** Standard

B. 1. **DATE OF INITIAL SUBMISSION:** 06/28/00

2. **DATE OF CONSULT:** 07/21/00

3. **ASSIGNED FOR REVIEW:** 08/08/00

C. **REMARKS:** Desirudin was granted marketing authorization on 7/9/97 for the European Union through the European Centralized Procedure under the trade name REVASC for the indication of prevention of deep vein thrombosis in patients undergoing elective hip and knee replacement surgery. The alternate proprietary name [redacted] is being proposed with NDA 21-271. The FDA has determined that the [redacted] sounded or looked similar to a number of currently marketed products.

APPEARS THIS WAY
ON ORIGINAL

D. CONCLUSIONS:

The submission is approvable pending resolution of issues concerning sterility assurance. Specific comments are provided in "E. Review Notes" and "List of Microbiology Comments and Deficiencies".

APPEARS THIS WAY
ON ORIGINAL

Neal Sweeney, Ph.D.

cc: NDA 21-271
HFD-180/Division File
HFD-180/DuBeau/Kowblansky
HFD-805/Consult File/N. Sweeney

Drafted by: N. Sweeney, February 22, 2001
R/D initialed by P. Cooney, February 22, 2001

APPEARS THIS WAY
ON ORIGINAL

/s/

Neal Sweeney
3/29/01 01:34:05 PM
MICROBIOLOGIST

Peter Cooney
3/29/01 02:47:38 PM
MICROBIOLOGIST

APPEARS THIS WAY
ON ORIGINAL

(I)

THIS SECTION WAS DETERMINED NOT TO BE RELEASABLE

(11)

Product Quality Microbiology Review

Review for HFD-180

03 March 2003

NDA: NDA 21-271 N000 B2

Drug Product Name
Proprietary: Iprivask (previously [redacted])
Non-proprietary: desirudin
Drug Product Classification: Anticoagulant

Review Number: 2

Subject of this Review
Submission Date: 03 October 2002
Receipt Date: 04 October 2002
Consult Date: 25 February 2003
Date Assigned for Review: 26 February 2003

Submission History (for amendments only)
Date(s) of Previous Submission(s): 28 June 2000
Date(s) of Previous Micro Review(s): 22 February 2001

Applicant/Sponsor
Name: Aventis Pharmaceuticals
Address: 10236 Marion Park Drive, P.O. Box 9708, Kansas City, MO 64134-0708
Representative: Tracy Atherton
Telephone: (816)767-6685

Name of Reviewer: Paul Stinavage

Conclusion: The application is recommended for approval on the basis of sterility assurance.

Product Quality Microbiology Data Sheet

A. 1. **TYPE OF SUPPLEMENT:** N/A

2. **SUPPLEMENT PROVIDES FOR:** N/A

3. **MANUFACTURING SITE:** [redacted]

4. **DOSAGE FORM, ROUTE OF ADMINISTRATION AND STRENGTH/POTENCY:** *Iprivask*™ is supplied as sterile, lyophilized desirudin (15 mg) in single dose vials for subcutaneous injection. *Solvent for Iprivask*™ (in glass ampules) contains [redacted] (3%) in WFI.

5. **METHOD(S) OF STERILIZATION:** Active drug portion – [redacted] Processing; Diluent portion – [redacted]

6. **PHARMACOLOGICAL CATEGORY:** Anticoagulant

B. **SUPPORTING/RELATED DOCUMENTS:**

C. **REMARKS:** Dr. Neal Sweeney originally reviewed this New Drug Application. This submission addresses deficiencies identified by Dr. Sweeney in his review.

filename: N21271r2.doc

APPEARS THIS WAY
ON ORIGINAL

APPEARS THIS WAY
ON ORIGINAL

Executive Summary

I. Recommendations

A. Recommendation on Approvability – The submission is recommended for approval on the basis of sterility assurance.

B. Recommendations on Phase 4 Commitments and/or Agreements, if Approvable -

II. Summary of Microbiology Assesments

A. Brief Description of the Manufacturing Processes that relate to Product Quality Microbiology – — and r

B. Brief Description of Microbiology Deficiencies -

C. Assessment of Risk Due to Microbiology Deficiencies -

III. Administrative

A. Reviewer's Signature _____

B. Endorsement Block
Paul Stinavage
Peter H. Cooney

C. CC Block
cc: A. Kacuba, L. Zhou, M. Kowblansky
Original NDA 21-271
HFD-180/Division File/NDA 21-271

This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.

/s/

Paul Stinavage
3/3/03 08:58:26 AM
MICROBIOLOGIST
Review of Neal Sweeney's deficiencies.

Peter Cooney
3/3/03 09:54:37 AM
MICROBIOLOGIST

(J)

THIS SECTION WAS DETERMINED **NOT** TO BE RELEASABLE

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