

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*  
**21-258**

**MICROBIOLOGY REVIEW(S)**

# Product Quality Microbiology Review

6 Sept. 2002

Review for HFD 580

**NDA:** 21-258

**Drug Product Name**

**Proprietary:** Climara-Pro  
**Non-proprietary:** Estradiol/levorgestrel

**Drug Product Classification:**

**Review Number:** 2

**Subject of this Review**

**Submission Date:** June 22, 2002  
**Receipt Date:**  
**Consult Date:** August 20, 2002  
**Date Assigned for Review:** August 23, 2002

**Submission History (for amendments only)**

**Date(s) of Previous Submission(s):** June 16, 2000  
**Date(s) of Previous Micro Review(s):** May 14, 2001

**Applicant/Sponsor**

**Name:** Berlex Laboratories Inc.  
**Address:** P.O. Box 1000  
Montville, NJ 07450-1000

**Representative:** Geoffery Millington  
**Telephone:**

**Name of Reviewer:** Stephen E. Langille, Ph.D.

**Conclusion:** Approvable pending revision of DMF

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## Product Quality Microbiology Data Sheet

- A.**
- 1. TYPE OF SUPPLEMENT:** N/A
  - 2. SUPPLEMENT PROVIDES FOR:** N/A
  - 3. MANUFACTURING SITE:** 3M Pharmaceuticals  
19901 Nordhoff  
Northridge, CA 91328
  - 4. DOSAGE FORM, ROUTE OF ADMINISTRATION AND STRENGTH/POTENCY:** Transdermal Patch  
22 cm<sup>2</sup> or 30 cm<sup>2</sup>
  - 5. METHOD(S) OF STERILIZATION:** Non-sterile drug product
  - 6. PHARMACOLOGICAL CATEGORY:** treatment of vasomotor symptoms
- B. SUPPORTING/RELATED DOCUMENTS:** DMF
- C. REMARKS:** DMF — contains the CMC information for this drug product and has been found to be deficient. The DMF holder will be informed of the microbiological deficiencies to the DMF.

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**Executive Summary**

**I. Recommendations**

- A. Recommendation on Approvability -**  
NDA 21-258 is approvable pending revision of DMF
- B. Recommendations on Phase 4 Commitments and/or Agreements, if Approvable -**

**II. Summary of Microbiology Assessments**

- A. Brief Description of the Manufacturing Processes that relate to Product Quality Microbiology -**  
Refer to the review of DMF —
- B. Brief Description of Microbiology Deficiencies -**  
Refer to the review of DMF —
- C. Assessment of Risk Due to Microbiology Deficiencies -**  
Refer to the review of DMF →

**III. Administrative**

- A. Reviewer's Signature** \_\_\_\_\_
- B. Endorsement Block**  
In DFS
- C. CC Block**  
In DFS

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/s/

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Stephen Langille  
9/6/02 02:57:21 PM  
MICROBIOLOGIST

Peter Cooney  
9/6/02 03:13:46 PM  
MICROBIOLOGIST

**REVIEW TO HFD 580**  
**OFFICE OF NEW DRUG CHEMISTRY**  
Microbiology Staff, HFD-805  
Microbiologist's Review #1 of NDA  
**April 25, 2001**

- A. 1. NDA 21-258
2. APPLICANT/SPONSOR: Berlex Laboratories and  
3M Laboratories  
3M Center  
Building 270-3A-08  
St. Paul, MN 55144-1000

Contact for — DMF: —

3. MANUFACTURING SITE: 3M Pharmaceuticals  
19901 Nordhoff  
Northridge, CA 91328
4. DRUG PRODUCT NAME  
Proprietary: ClimaraPro  
Nonproprietary: estradiol/levonorgestrel  
transdermal system  
Drug Priority Classification: Standard
5. DOSAGE FORM, ROUTE OF ADMINISTRATION AND STRENGTH/POTENCY:  
  - Transdermal patch
  - 22 cm<sup>2</sup> and 30 cm<sup>2</sup>
6. METHOD(S) OF STERILIZATION: Non-Sterile Drug Product
7. PHARMACOLOGICAL CATEGORY AND/OR PRINCIPLE INDICATION:  
Treatment of vasomotor symptoms

- B. 1. DOCUMENT/LETTER DATE: June 16, 2000
2. RECEIPT DATE: June 19, 2000
3. CONSULT DATE: February 12, 2000
4. DATE OF AMMENDMENT:
5. ASSIGNED FOR REVIEW: February 2, 2000
6. SUPPORTING/RELATED DOCUMENTS:

— has submitted a Type II Drug Master File in support of  
NDA 21-258.

- C. REMARKS: **Berlex Laboratories has outsourced the production of Climarapro to 3M laboratories. — submitted a DMF describing the manufacture of this drug product. The patch is applied to the skin of the abdomen for a period of seven days.**
- D. CONCLUSIONS: **The submission is approvable pending resolution of microbiological deficiencies. Specific comments regarding the — tests are provided in "E. Review Notes" and "List of Microbiology Deficiencies and Comments" of DMF**

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Stephen E. Langille, Ph. D.

cc: Original **NDA 21-258**  
HFD-580/Division File  
HFD-580/Diane Moore  
HFD 805/Consult File/Langille  
Drafted by S. Langille c:reviews/21-258  
Initialed by P. Cooney

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/s/

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Stephen Langille  
5/14/01 01:19:53 PM  
MICROBIOLOGIST

Peter Cooney  
5/14/01 02:11:08 PM  
MICROBIOLOGIST

NDA 21-258

Climara Pro™ transdermal system

(estradiol/levonorgestrel) 0.045/0.015, 0.045/0.030, and 0.045/0.040 mg/day

Berlex laboratories, Inc.

### **Facilities Inspection**

No facilities were inspected for this review cycle 2.

NDA 21-258

Climara Pro™ transdermal system

(estradiol/levonorgestrel) 0.045/0.015, 0.045/0.030, and 0.045/0.040 mg/day

Berlex laboratories, Inc.

### **Methods Validation**

Methods validation is pending for this review cycle 2.

NDA 21-258

Climarapro™ (estradiol transdermal system) estradiol/levonorgestrel 0.045/0.015, 0.045/0.030  
and 0.045/0.040 mg per day

Berlex laboratories, Inc.

**Methods Validation**

Methods validation are pending.

*Diane Moore 6/11/01*

14 Page(s) Withheld

§ 552(b)(4) Trade Secret / Confidential

§ 552(b)(5) Deliberative Process

§ 552(b)(4) Draft Labeling