CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER: 75-684

BIOEQUIVALENCE REVIEW(S)

OFFICE OF GENERIC DRUGS
DIVISION OF BIOEQUIVALENCE

ANDA # 75-684 SPONSOR : Bedford Laboratories

DRUG AND DOSAGE FORM : **Famotidine Injection**

STRENGTH(S) : 10 mg/mL, 50 mL per vial Pharmacy Bulk

TYPES OF STUDIES : N/A

CLINICAL STUDY SITE(S) : N/A

ANALYTICAL SITE(S) : N/A

STUDY SUMMARY : The formulation is acceptable based on CFR 320.24 (b)(6)

DISSOLUTION : N/A

DSI INSPECTION STATUS

Inspection needed: YES / (NO)	Inspection status:	Inspection results:
First Generic _____	Inspection requested: (date)	
New facility _____	Inspection completed: (date)	
For cause _____		
Other _____		

PRIMARY REVIEWER : Moheb H. Makary, Ph.D. BRANCH : III

INITIAL : _____ DATE : 10/13/99

TEAM LEADER : Barbara M. Davit, Ph.D. BRANCH : III

INITIAL : _____ DATE : 10/13/99

DIRECTOR, DIVISION OF BIOEQUIVALENCE : DALE P. CONNER, Pharm. D.

for INITIAL : _____ DATE : 11/16/99

BIOEQUIVALENCY COMMENTS TO BE PROVIDED TO THE APPLICANT

ANDA: 75-684 APPLICANT: Bedford Laboratories

DRUG PRODUCT: Famotidine Injection, 10 mg/mL, 50 mL per vial Pharmacy Bulk

The Division of Bioequivalence has completed its review and has no further questions at this time.

Please note that the bioequivalency comments provided in this communication are preliminary. These comments are subject to revision after review of the entire application, upon consideration of the chemistry, manufacturing and controls, microbiology, labeling, or other scientific or regulatory issues. Please be advised that these reviews may result in the need for additional bioequivalency information and/or studies, or may result in a conclusion that the proposed formulation is not approvable.

Sincerely yours,

/S/

for Dale P. Conner, Pharm. D.
Director
Division of Bioequivalence
Office of Generic Drugs
Center for Drug Evaluation and Research

Famotidine Injection, 10 mg/mL
50 mL Pharmacy Bulk Package Vial
ANDA #75-684
Reviewer: Moheb H. Makary
W 75684W.799

Bedford Laboratories
Bedford, Ohio
Submission Date:
July 30, 1999

Review of a Waiver Request

I. Objective:

The firm has requested a waiver of bioequivalence study requirements for its product Famotidine Injection, 10 mg/mL; 50 Pharmacy Bulk Package Vial. Famotidine Injection is a histamine H_2-receptor antagonist. It is indicated in some hospitalized patients with pathological hypersecretory conditions or intractable ulcers, or as an alternative to the oral dosage forms for short term use in patients who are unable to take oral medication. The innovator product is Pepcid^R Injection 10 mg/mL; 4 mL and 20 mL Multiple Dose Vials, manufactured by Merck. Pepcid^R (famotidine) Injection is supplied as a sterile concentrated solution for intravenous injection.

This application is based on the ANDA suitability petition #97P-0011/CP1 for Famotidine Injection, 10 mg/mL, 500 mg/50 mL (Pharmacy Bulk Package Vial) submitted by Marsam Pharmaceuticals to FDA on January 3, 1997. The petition was approved by the Agency on June 10, 1997. Currently the listed product, Pepcid^R(Famotidine) Injection, 10 mg/mL, is available in 2 mL single dose vial (unpreserved formulation), and in 4 mL and 20 mL vials (preserved formulation).

II. Formulation: **(Not to be released under FOI)**

The formulations of Bedford Laboratories' Famotidine Injection, 10 mg/mL; 50 mL Pharmacy Bulk Package Vial and Merck's Pepcid^R Injection, 10 mg/mL; 4 mL and 20 mL Multiple Dose Vials are shown below.

Ingredient	Bedford Laboratories Famotidine Injection 10 mg/mL 50 mL Pharmacy Bulk Package Vial	Merck Pepcid^R Injection 10 mg/mL 4 mL and 20 mL Multiple Dose Vials

	Amount per mL	Amount per mL
Famotidine, USP	10 mg	10 mg
L-Aspartic Acid	4 mg	4 mg
Benzyl Alcohol	9 mg	0.9% (9.4 mg/mL)
Mannitol, USP	20 mg	20 mg
Water	QS	QS

III. Comments:

1. The Pharmacy Bulk Package subject of this application, contains 50 mL of the formulation of Famotidine Injection identical to that of the listed product, Pepcid^{R} Injection 10 mg/mL; 10 mg/mL; 4 mL and 20 mL Multiple Dose Vials, manufactured by Merck.

2. The formulation of the test product contains 9 mg/mL of benzyl alcohol (a preservative), whereas the reference product formulation contains 9.4 mg/mL. The benzyl alcohol concentration for the test product is within ± 5% of the concentration of the RLD and should not affect the safety of the proposed test product.

3. The application is acceptable based on 21 CFR 320.24(b)(6). The proposed formulation is acceptable under 21 CFR 314.94 (a)(9)(iii).

4. The Labeling reviewer should note that 9 mg/mL benzyl alcohol in Bedford's Famotidine Injection, 10 mg/mL, does not correspond to 0.9% benzyl alcohol on a v/v basis.

IV. Recommendation:

The Division of Bioequivalence agrees that the information submitted by Bedford Laboratories, demonstrates that Famotidine Injection, 10 mg/mL; 50 mL Pharmacy Bulk Package Vial falls under 21 CFR 320.24 (b)(6). From the bioavailability point of view, the Division of Bioequivalence deems the test injectable formulation 10 mg/mL; 50 mL Pharmacy Bulk Package Vial to be bioequivalent to Pepcid^{R} Injectable, 10 mg/mL; 4 mL and 20 mL Multiple Dose Vials, manufactured by Merck.

The firm should be informed of the above recommendation.

1-S1

Moheb H. Makary, Ph.D.
Division of Bioequivalence
Review Branch III

10/12/99

RD INITIALLED BDAVIT
FT INITIALLED BDAVIT _____ Date: 10/13/99

Concur: 1S1 Date: 11/16/99

for Dale P. Conner, Pharm.D.
Director
Division of Bioequivalence

MMakary, 9-30-99, 10-13-99, 75684W.799
cc: ANDA #75-684, original, HFD-658 (Makary), Drug File, Division File.

BIOEQUIVALENCY COMMENTS TO BE PROVIDED TO THE APPLICANT

ANDA: 75-684 APPLICANT: Bedford Laboratories

DRUG PRODUCT: Famotidine Injection, 10 mg/mL, 50 mL per vial Pharmacy Bulk

The Division of Bioequivalence has completed its review and has no further questions at this time.

Please note that the bioequivalency comments provided in this communication are preliminary. These comments are subject to revision after review of the entire application, upon consideration of the chemistry, manufacturing and controls, microbiology, labeling, or other scientific or regulatory issues. Please be advised that these reviews may result in the need for additional bioequivalency information and/or studies, or may result in a conclusion that the proposed formulation is not approvable.

Sincerely yours,

/S/

for Dale P. Conner, Pharm. D.
Director
Division of Bioequivalence
Office of Generic Drugs
Center for Drug Evaluation and Research

CC: ANDA #75-684
ANDA DUPLICATE
DIVISION FILE
HFD-651/ Bio Drug File
HFD-650/ Reviewer
HFD-658/ Bio team Leader B. Davit

V:\FIRMSAM\BEDFORD\LTRS&REV\75684w.799
Printed in final on 10/13/1999

Endorsements: (Final with Dates)
HFD-658/ Reviewer M. Makary
HFD-658/ Bio team Leader B. Davit
HFD-650/ D. Conner 7/16/99

BIOEQUIVALENCY - ACCEPTABLE **submission date: July 30, 1999**

1. **WAIVER (WAI)** **Strengths:**
Outcome: AC

Outcome Decisions: AC - Acceptable