

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**40279**

**BIOEQUIVALENCY REVIEW(S)**

1/1  
S.M.R.G.

BIOEQUIVALENCY COMMENTS

ANDA: 40-279

APPLICANT: Fujisawa

DRUG PRODUCT: Fluorouracil Injection 50 mg/mL in 10 mL and 20 mL Vials.

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,



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

FEB 11 1998

**FLUOROURACIL**

Injection solution, 50 mg/mL (in 10 mL and 20 mL vials)

Reviewer: Gur J.P. Singh

ANDA #40-279

File # 40279W.097

**FUJISAWA**

Three Parkway North

Deerfield, IL 60015

Submission Date:

October 3, 1997

**REVIEW OF A WAIVER REQUEST**

**BACKGROUND:** The firm is seeking waiver of *in vivo* bioequivalence study requirements for its fluorouracil 50 mg/mL injection solution to be marketed in 10 mL and 20 mL vials. The reference product Fluorouracil (Roche, NDA #12209) is marketed as injection solution (50 mg/mL) in 10 mL vials, each vial containing 500 mg of the drug.

Sponsor's request for approval of its 20 mL vials (1000 mg fluorouracil/vial) is based on the following:

- I. Its application for fluorouracil injection solution in 10 mL vials (500 mg of the drug in each vial), same as the reference product.
- II. Approval of a petitions by the Agency, pursuant to section 505(j)(2)(c) of FD&C Act ( 21 U.S.C. 355) and CFR 314.93, grating permission to market 50 mg/mL in 20 mL vials (1000 mg fluorouracil/vial,

**COMMENTS:**

1. Formulations of test and the reference products are identical based on the amount of drug per mL (See table 1). The test product does not contain any substance that is known to affect the bioavailability of the active ingredient (fluorouracil). Therefore the test product is eligible for a waiver of *in vivo* bioequivalence study requirements pursuant to 21 CFR 320.22 (1) because:
  - a. It is a parenteral solution intended solely for i.v. injection.
  - b. It contains the same active ingredient and inactive ingredients in the same concentration as a drug product that is subject of an approved full new drug application.
2. The Agency has previously granted permission to market fluorouracil injection solution in 20 mL vials.

**RECOMMENDATION :** The Division of Bioequivalence agrees that the information submitted by Fujisawa demonstrates that the fluorouracil 50 mg/mL Injection solution falls under 21 CFR Section 320.22 (1) of Bioavailability/Bioequivalence Regulations. The waiver of *in vivo* bioequivalence study requirements for of fluorouracil 50 mg/mL solution of the test product in 10 mL and 20 mL vials is granted. From the Bioequivalence point of view, the Division of Bioequivalence deems the test formulation to be bioequivalent to Fluorouracil 50 mg/mL injection solution manufactured by Roche.

Gur J.P. Singh, Ph.D.  
Division of Bioequivalence  
Review Branch II.

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2/6/1998

CONCUR:

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Date: 2/11/98

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