

**CENTER FOR DRUG  
EVALUATION AND  
RESEARCH**

**Approval Package for:**

**APPLICATION NUMBER:**

**83-526**

Generic Name: Folic Acid Tablets, 1.0mg

Sponsor: McKesson Laboratories

Approval Date: November 13, 1973

# CENTER FOR DRUG EVALUATION AND RESEARCH

**APPLICATION NUMBER:**

**83-526**

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**CENTER FOR DRUG  
EVALUATION AND  
RESEARCH**

**APPLICATION NUMBER:**

**83-526**

**APPROVAL LETTER**

NDA 83-526  
AF 12-965

McKesson Laboratories  
Division of Foremost-McKesson Inc.  
Attention: Dr. Joseph W. Deutsch  
424 Grasmere Avenue  
Fairfield, CT 06430

NOV 13 1973

Gentlemen:

Reference is made to your abbreviated new drug application submitted pursuant to Section 505(b) of the Federal Food, Drug, and Cosmetic Act for Folic Acid Tablets, 1.0 mg.

Reference is also made to your communication dated October 15, 1973, enclosing printed labeling.

We have completed the review of this abbreviated new drug application and have concluded that the drug is safe and effective for use as recommended in the submitted labeling. Accordingly, the application is approved.

Any significant change in the conditions outlined in this abbreviated new drug application requires an approved supplemental application before the change may be made, except for changes made in conformance with other provisions of Section 130.9 of the new drug regulations.

This Administration should be advised of any change in the marketing status of this drug.

The enclosures summarize the conditions relating to the approval of this application.

Dup  
BD-69 BD-66 BD-106 BD-242 BD-100  
OMCarroll/JMeyer/MJarski  
R/D initl by MSeife 11-1-73  
Final typing/wlb/11-2-73  
Approved

*OM Carroll 11/9/73*

*JMeyer 11/9/73*

Sincerely yours,

*Paul A. Bryan, M.D. 11/12/73*

Paul A. Bryan, M.D.  
Deputy Director for Medical  
Activities  
Office of Scientific Evaluation  
Bureau of Drugs

Enclosures:

Conditions of Approval of a New Drug Application  
Records and Reports Requirements

cc:  
BOS-DO

*M Seife 11/12/73*

**CENTER FOR DRUG  
EVALUATION AND  
RESEARCH**

**APPLICATION NUMBER:**

**83-526**

**FINAL PRINTED LABELING**

# FOLIC ACID TABLETS

APPROVED NOV 7 1968  
ORAL

## DESCRIPTION

Folic Acid, N-[p-[[[2-Amino-4-hydroxy-6-pteridiny]-methyl]amino]benzoic acid, is a complex organic compound present in liver, yeast, and other substances, and which may be prepared synthetically.

## Tablets

1 mg. Folic Acid

## ACTIONS

In man, an exogenous source of folate is required for nucleoprotein synthesis and the maintenance of normal erythropoiesis. Folic Acid, whether given by mouth or parenterally, stimulates specifically the production of red blood cells, white blood cells, and platelets in persons suffering from certain megaloblastic anemias.

## INDICATIONS

Folic Acid is effective in the treatment of megaloblastic anemias due to a deficiency of folic acid as may be seen in tropical or non-tropical sprue, in anemias of nutritional origin, pregnancy, infancy, or childhood.

## WARNINGS

Folic Acid alone is improper therapy in the treatment of pernicious anemia and other megaloblastic anemias where vitamin B<sub>12</sub> is deficient.

## PRECAUTIONS

Folic Acid especially in doses above 1.0 mg. daily may obscure pernicious ane-

mia, in that hematologic remission may occur while neurological manifestations remain progressive.

**ADVERSE REACTIONS**

Allergic sensitization has been reported following both oral and parenteral administration of Folic Acid.

**DOSAGE AND ADMINISTRATION**

Oral administration: Folic Acid is well absorbed and may be administered orally with satisfactory results except in severe instances of intestinal malabsorption.

Usual therapeutic dosage: In adults: 0.25 mg. to 1.0 mg. daily. In children: (regardless of age): 0.25 mg. to 1.0 mg. daily. Resistant cases may require larger doses.

Maintenance dosage: When clinical symptoms have subsided and the blood picture has become normal, a maintenance dose of 0.1 mg. to 0.25 mg. daily should be used, but never less than 0.1 mg. per day. Patients should be kept under close supervision and adjustment of maintenance dose made if relapse appears imminent.

In the presence of alcoholism, pregnancy, hemolytic anemia, anti-convulsant therapy, or chronic infection, the maintenance dose should be at least doubled.

**HOW SUPPLIED**

Tablets — 1 mg.  
Bottles of 100 and 1000

**McKesson Laboratories**  
DIV OF FOREMOST-McKESSON INC.  
FAIRFIELD, CONN. U.S.A. 06430

#3109D

McKesson  
**FOLIC ACID**  
U.S.P.

1000 TABLETS  
McKesson  
**FOLIC ACID**  
U.S.P.

1 mg.

1 mg.

*Wed*  
NOV 13 1973

CAUTION: Federal law prohibits  
dispensing without prescription.

APPROVED  
**MK**

**MK**

PROTECT FROM LIGHT  
1000 TABLETS

Each tablet contains  
1 mg. of FOLIC ACID  
USUAL DOSAGE: See Package Insert  
READ ACCOMPANYING CIRCULAR  
#3109A

**McKesson Laboratories**  
DIV. OF FOREMOST-MCKESSON INC.  
FAIRFIELD, CONN. U.S.A. 06430

Each tablet contains  
1 mg. of FOLIC ACID  
USUAL DOSAGE: See Package Insert  
READ ACCOMPANYING CIRCULAR  
#3109A

McKesson  
**FOLIC ACID**  
U.S.P.

1 mg.

*Wed*  
NOV 13 1973

CAUTION: Federal law prohibits  
dispensing without prescription.

PROTECT FROM LIGHT  
100 TABLETS

**MK**

**McKesson Laboratories**  
DIV. OF FOREMOST-MCKESSON INC.  
FAIRFIELD, CONN. U.S.A. 06430

**CENTER FOR DRUG  
EVALUATION AND  
RESEARCH**

**APPLICATION NUMBER:**

**83-526**

**CSO LABELING REVIEW(S)**

REVIEW OF RESUBMISSION, FPL

DATE COMPLETED: 10-30-73

ANDA #: 83-526

F.R. DATE: 4-9-71

CO. NAME: McKesson Labs.  
Div. of Foremost-  
McKesson, Inc.  
424 Grasmere Ave.  
Fairfield, CT 06430

NAME OF DRUG: Trade & Generic: Folic Acid Tablets, 1.0 mg.

DATE OF SUBMISSION: Resubmission, FPL

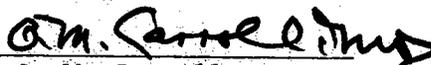
CLINICAL EVALUATION:

1. Review of Studies: None submitted
2. Review of Labeling: Container labels for 100 and 1000 tablets in bottles are satisfactory.  
  
Package insert is satisfactory.
3. Controls to be reviewed by the chemist.

CONCLUSIONS:

1. Labeling is satisfactory.
2. Controls to be reviewed by the chemist.

RECOMMENDATION: See conclusions.

  
O. M. Carroll, M.D.

cc:  
Dup  
BD-69  
OMCarroll/rt/10-30-73

REVIEW OF ANDA

DATE COMPLETED:

ANDA #: 83-526

F.R. DATE: 4-9-71

CO. NAME: McKesson Laboratories  
DIV. of Foremost-McKesson Inc.  
424 Grasmere Avenue  
Fairfield, Conn. 06430

NAME OF DRUG: Trade  
& Folic Acid Tablet, 1.0 mg.

Generic:

DATE OF SUBMISSION: 1-29-73

TYPE OF SUBMISSION: ANDA

CLINICAL EVALUATION:

1. Review of Studies: None submitted  
Bioavailability deferred
2. Review of Labeling: Container Label: Front panel satisfactory  
Left side panel - satisfactory  
  
Package Insert: Satisfactory

CONCLUSION: Container label and package insert are satisfactory.

RECOMMENDATIONS: Approve this application after F.P.L. are  
submitted.

O.M. Carroll, M.D.  
O. M. Carroll, M.D.

cc:  
BD-69  
Dup  
OMCarroll/rt/3-8-73

**CENTER FOR DRUG  
EVALUATION AND  
RESEARCH**

**APPLICATION NUMBER:**

**83-526**

**CHEMISTRY REVIEW(S)**

CHEMIST'S REVIEW FOR APPROVED NEW DRUG APPLICATION (OR SUPPLEMENT)		Federal Register Statement Date	NDA Number 83-526
Name and Address of Applicant (City and State) McKesson Laboratories Bridgeport, Conn		Original <u>XXX</u> Amendment _____ Supplement _____ Other _____	
Name of Drug folic acid	Nonproprietary Name	DATE(s) of Submission 1-29-73	
Purpose of Supplement <p style="text-align: center;"><b>APPEARS THIS WAY ON ORIGINAL</b></p>		AF Number 12-965	
Pharmacological Category vitamin vitamin	How Dispensed <input checked="" type="checkbox"/> Rx <input checked="" type="checkbox"/> OTC	Related IND/NEA/EE	
Dosage Form(s) tablet	Potency (ies) 1.0 mg.		
Satisfactory <input type="checkbox"/>	Labeling Date Due <u>draft labeling satisfactory per medical officer</u>		
Satisfactory <input type="checkbox"/>	Components, Composition, Manufacturing and Controls Date Due <u>additional information</u>		
Satisfactory <input type="checkbox"/>	Biologic Availability Date Due <u>deferred 6-14-72</u> Is data on current formulation? YES <input type="checkbox"/> NO <input type="checkbox"/>		
Satisfactory <input type="checkbox"/>	Probably or Possibly Effective Indications (if in labeling) Date data Due _____		
Establishment Inspection <u>twx 11-1-72 Satisfactory</u>		Recalls	
Is relabeling of drug in commercial channels required? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If so, what level:			
Remarks  final printed labeling component information information on containers since the material is light sensitive.			
Conclusions rev w/f majarski <u>M. A. Jarski 3/21/73</u>			

CHEMIST'S REVIEW FOR APPROVED NEW DRUG APPLICATION (OR SUPPLEMENT)		Federal Register Statement Date	NDA Number 83-526
Name and Address of Applicant (City and State) McKesson Laboratories Bridgeport, Conn		Original <u>XXX</u> Amendment _____ Supplement _____ Other _____	
Name of Drug folic acid	Nonproprietary Name	DATE(s) of Submission 4-18-73	
Purpose of Supplement <p style="text-align: center;"><b>APPEARS THIS WAY ON ORIGINAL</b></p>			
Pharmacological Category vitaminix vitamin	How Dispensed <input checked="" type="checkbox"/> Rx <input checked="" type="checkbox"/> OTC	AF Number 12-965	
Dosage Form(s) tablet	Potency (ies) 1.0 mg.	Related IND/NDA/ET	
Satisfactory <input type="checkbox"/>	Labeling Date Due <u>draft labeling satisfactory per medical officer</u>		
Satisfactory <input type="checkbox"/>	Components, Composition, Manufacturing and Controls Date Due <u>satisfactory</u>		
Satisfactory <input type="checkbox"/>	Biologic Availability Date Due <u>deferred 6-14-72</u> Is data on current formulation? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		
Satisfactory <input type="checkbox"/>	Probably or Possibly Effective Indications (if in labeling) Date data Due _____		
Establishment Inspection <u>TW 11-1-72 Satisfactory</u>		Recalls	
Is relabeling of drug in commercial channels required? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO If so, that level:			
Remarks <p style="text-align: center;">final printed labeling necessary.</p>			
Conclusions rev w/f majarski. <u>M.A. Janski 5/21/73</u>			

CHIEF'S REVIEW FOR  
NEW DRUG APPLICATION  
OR SUPPLEMENT

Federal Register  
Statement Date

NDA Number 83-526

MF Number 12-965

Name and Address of Applicant (City and State)  
  
McKesson Laboratories  
Division of Foremost-McKesson Inc.  
Fairfield, CT 06430

Original \_\_\_\_\_  
Amendment \_\_\_\_\_  
Supplement \_\_\_\_\_  
Resubmission  **XX**  
Correspondance \_\_\_\_\_  
Report \_\_\_\_\_  
Other \_\_\_\_\_

Purpose of Amendment/Supplement

Date(s) of Submission(s)  
  
10-15-73

Pharmacological Category  
  
vitamin

Name of Drug  
  
folic acid

Dosage Form(s)  
  
tablet

Potency (ies)  
  
1.0 mg.

How Dispensed  
Rx   
OTC

Environmental Impact Analysis  
Report

Samples

Related IND/NDA/MF(s)

Labeling  
satisfactory per medical officer's review

**APPEARS THIS WAY  
ON ORIGINAL**

Logic Availability  
NA

Establishment Inspection  
TWX 11-1-73 satisfactory

Ingredients, Composition, Manufacturing and Controls  
per compendium

Remarks  
  
approval m.a. jarski  
  
100 and 1000 tablet containers

Conclusion  
  
VIEWER DATE  
  
M.A. Jarski 11/8/73

**CENTER FOR DRUG  
EVALUATION AND  
RESEARCH**

**APPLICATION NUMBER:**

**83-526**

**ADMINISTRATIVE  
DOCUMENT(S)**

ORIG

NOTICE OF APPROVAL  
NEW DRUG APPLICATION OR SUPPLEMENT

NDA NUMBER

83-526

DATE APPROVAL LETTER ISSUED

NOV 13 1973

TO:

Press Relations Staff (PA-40)

FROM:

Bureau of Drugs

Bureau of Veterinary Medicine

APPROVAL OF ORIGINAL ABBREVIATED NDA

ATTENTION

Forward original of this form for publication only after approval letter has been issued and the date of approval has been entered above.

Abbreviated

TYPE OF APPLICATION

ORIGINAL NDA

SUPPLEMENT TO NDA

ABBREVIATED ORIGINAL NDA

SUPPLEMENT TO ANDA

CATEGORY

HUMAN

VETERINARY

TRADE NAME (or other designated name) AND ESTABLISHED OR NONPROPRIETARY NAME (if any) OF DRUG

Folic Acid

DOSAGE FORM

tablet

HOW DISPENSED

RX

OTC

ACTIVE INGREDIENT(S) (as declared on label. List by established or nonproprietary name(s) and include amount(s), if amount is declared on label.)

Folic Acid, 1 mg.

APPEARS THIS WAY  
ON ORIGINAL

NAME OF APPLICANT (Include City and State)

McKesson Laboratories  
Division of Foremost-McKesson Inc.  
Fairfield, CT 06430

PRINCIPAL INDICATION OR PHARMACOLOGICAL CATEGORY

vitamin

COMPLETE FOR VETERINARY ONLY

ANIMAL SPECIES FOR WHICH APPROVED.

COMPLETE FOR SUPPLEMENT ONLY.

CHANGE APPROVED TO PROVIDE FOR

FORM PREPARED BY

NAME

m.a. jarski

DATE

FORM APPROVED BY

NAME

j.l. meyer

DATE

[DESI 5697; Docket No. FDC-D-265; NDA 5-897, etc.]

## FOLIC ACID PREPARATIONS, ORAL AND PARENTERAL FOR THERAPEUTIC USE

### Uses for Human Use; Drug Efficacy Study Implementation

The Food and Drug Administration has evaluated reports received from the National Academy of Sciences-National Research Council, Drug Efficacy Study Group, on the following folic acid preparations:

1. a. Folvite Elixir; 5 mg. folic acid per 5 cc.;  
b. Folvite Tablets; 5 mg. and 20 mg. folic acid per tablet; and  
c. Folvite Parenteral Solution; sodium folate equivalent to 15 mg. folic acid per cc.; marketed by Lederle Laboratories, Pearl River, New York 10965 (NDA 5-897).
2. Folic Acid Tablets; 5 mg. per tablet; marketed by Eli Lilly and Co., Box 618, Indianapolis, Indiana 46206 (NDA 6-135).
3. Folic Acid Injection; 15 mg. folic acid, as the sodium salt, per cc.; marketed by S. F. Durst and Co., Inc., 5317 North Third Street, Philadelphia, Pennsylvania 19120 (NDA 6-338).

In addition to the above products, folic acid preparations for therapeutic use are marketed by other firms. A partial list of other suppliers of folic acid preparations limited to prescription dispensing, as indicated in readily available reference sources, is as follows:

A Pharmaceutical Co., Division of Bergher Distributing Co.  
American Pharmaceutical Co.  
American Drug Products.  
American Quinine Co.  
Approved Pharmaceutical Corp.  
Arcum Pharmaceutical Corp.  
Associated Labs., Inc.  
Barre Drug Co., Inc., The.  
Barry-Martin Pharmaceuticals, Inc.  
Bell Pharmaceutical Co.  
Carroll Chemical Co., The.  
Columbia Medical Co.  
Consolidated Midland Corp., CMC Research Division.  
Corvit Pharmaceuticals.  
Daniels, Robert and Co., Inc.  
DuMont Pharmacal Co.  
Evron Pharmaceutical Co., Inc.  
Faraday Laboratories, Inc.  
Gold Leaf Pharmacal Co., Inc.  
Gotham Pharmaceutical Co., Inc.  
Halsey Drug Co., Inc.  
Harvey Labs., Inc.  
Jan Labs.  
Kirkman Labs., Inc.  
Lannett Co., Inc.  
Lit Drug Co.  
Lusgarten Laboratories, Inc.  
Mifflin, McCambridge Co., Inc.  
Penhurst Pharmacal Co.  
Pharmex, Inc.  
Preston Franklin Pharmacal Co.  
Richlyn Labs.  
Robinson Laboratory, Inc.  
Spencer-Mead, Inc.  
Stanlabs, Inc.  
Supreme Pharmaceutical Co., Inc.  
Thompson, Wm. T., Co.  
Towne, Paulson and Co., Inc.  
Vitamin Research Corp.  
Vita-Fore Products Co.

West-Ward, Inc.  
Williams Chemical Co.  
Winsale Drug Co.

The drugs are regarded as new drugs (21 U.S.C. 321(p)). Supplemental new-drug applications are required to revise the labeling in and to update previously approved applications providing for such drugs. A new-drug application is required from any person marketing such drugs without approval.

The Food and Drug Administration is prepared to approve new-drug applications and supplements to previously approved new-drug applications under conditions described in this announcement.  
**A. Effectiveness classification.** The Food and Drug Administration has considered the Academy reports, as well as other available evidence, and concludes that:

1. Folic acid is effective for the treatment of megaloblastic anemias of tropical and nontropical sprue, nutritional origin, pregnancy, infancy, and childhood.

2. There is a lack of substantial evidence that folic acid is effective for the following labeled indications: "macrocytic anemias associated with pellagra and similar deficiency states" and such vague, unspecific conditions as "macrocytic anemia of gastrointestinal origin" and "megaloblastic anemias other than pernicious anemia."

The Food and Drug Administration also concludes that there is no evidence that doses of folic acid greater than 1 mg. daily have greater efficacy than do those of 1 mg. Further, the usual therapeutic dose, oral or parenteral, should be 0.25 mg. to 1.0 mg. daily, and the maintenance dose should ordinarily be 0.1 to 0.25 mg. daily. Administration of higher doses greatly increases the possibility of masking vitamin B-12 deficiencies and the insidious development of or precipitation of neurological manifestations and/or lesions.

Preparations supplying no more than 0.1 mg. folic acid daily continue to be regarded as dietary supplements (21 CFR 3.42) and may be prescribed when a maintenance dose of 0.1 mg. a day is indicated.

**B. Form of drug.** Folic acid preparations are in (1) tablet form suitable for oral administration and contain no less than 0.15 mg. and no more than 1.0 mg. folic acid per tablet or (2) solution form suitable for parenteral administration in the dosages recommended in the labeling guidelines below.

**C. Labeling conditions.** 1. The label bears the statement "CAUTION: Federal law prohibits dispensing without prescription."

2. The drug is labeled to comply with all requirements of the Act and regulations promulgated thereunder, and those parts of its labeling indicated below are substantially as follows: (Optional additional information, applicable to the drug, may be proposed under other appropriate paragraph headings and should follow the information set forth below.)

## FOLIC ACID DESCRIPTION

(To be supplied by the manufacturer. This is to be confined to an appropriate description of the physical and chemical properties of the drug, and the formulation.)

## ACTIONS

(To be supplied by the manufacturer. This is to be confined to an appropriate statement of the demonstrated pharmacologic/physiologic actions of the active ingredients of the drug in humans. When the mode of action has not been determined, this should be clearly indicated.)

## INDICATIONS

Folic acid is effective in the treatment of megaloblastic anemias due to a deficiency of folic acid as may be seen in tropical or nontropical sprue, in anemias of nutritional origin, pregnancy, infancy, or childhood.

## WARNINGS

Folic acid alone is improper therapy in the treatment of pernicious anemia and other megaloblastic anemias where vitamin B<sub>12</sub> is deficient.

## PRECAUTIONS

Folic acid especially in doses above 1.0 mg. daily may obscure pernicious anemia, in that hematologic remission may occur while neurological manifestations remain progressive.

## ADVERSE REACTIONS

Allergic sensitization has been reported following both oral and parenteral administration of folic acid.

## DO dosage AND ADMINISTRATION

**Oral administration:** Folic acid is well absorbed and may be administered orally with satisfactory results except in severe instances of intestinal malabsorption.

**Parental administration:** Intramuscular, intravenous, and subcutaneous routes may be used if the disease is exceptionally severe, or if gastrointestinal absorption may be, or is known to be, impaired.

**Usual therapeutic dosage:** In adults: 0.25 mg. to 1.0 mg. daily. In Children (regardless of age): 0.25 to 1.0 mg. daily. Resistant cases may require larger doses.

**Maintenance dosage:** When clinical symptoms have subsided and the blood picture has become normal, a maintenance dose of 0.1 mg. to 0.25 mg. daily should be used, but never less than 0.1 mg. per day. Patients should be kept under close supervision and adjustment of the maintenance dose made if relapse appears imminent.

In the presence of alcoholism, pregnancy, hemolytic anemia, anticonvulsant therapy, or chronic infection, the maintenance dose should be at least doubled.

## D. Previously approved applications.

1. Each holder of a "deemed approved" new-drug application (i.e., an application which became effective on the basis of safety prior to October 10, 1962) for such drug is requested to seek approval of the claims of effectiveness and bring the application into conformance by submitting supplements containing:

a. Revised labeling as needed to conform to the labeling conditions described herein for the drug; and complete current container labeling, unless recently submitted.

b. Updating information as needed to provide for an oral dosage form containing no less than 0.15 mg. and no more than 1.0 mg. folic acid per tablet or a

*C. N. Gwetter*

parenteral dosage form containing an amount appropriate for administration as described herein, and to make the application current in regard to items 6 (components), 7 (composition), and 8 (dosage, facilities, and controls) of the drug application form FD-356H to be submitted as described for abbreviated new-drug applications, § 130.4(f), published in the FEDERAL REGISTER April 24, 1970 (35 F.R. 6574). (One supplement may contain all the information described in this paragraph.)

2. Such supplements should be submitted within the following time periods after the date of publication of this notice in the FEDERAL REGISTER:

a. 60 days for revised labeling; or, for those products which must be reformulated, 180 days for revised labeling fully in accord with this announcement, provided claims for which substantial evidence of effectiveness is lacking are deleted within 60 days. The supplements should be submitted under the provisions of § 130.9 (d) and (e) of the new-drug regulations (21 CFR 130.9) which permit certain changes to be put into effect at the earliest possible time.

b. 180 days for updating information.

3. Marketing of the drug may continue until the supplemental applications submitted in accord with the preceding subparagraphs 1 and 2 are acted upon, provided that the labeling of the preparation shipped within the jurisdiction of the Act is in accord with the labeling conditions described in this announcement within the time periods described in subparagraph 2a.

**F. New applications.** 1. Any person who manufactures or intends to distribute such drug which is intended for the conditions of use for which it has been shown to be effective, as described under A1 above, should submit an abbreviated new-drug application meeting the conditions specified in § 130.4(f) (1) and (2), published in the FEDERAL REGISTER April 24, 1970 (35 F.R. 6574). Such applications should include proposed labeling which is in accord with the labeling conditions described herein.

2. Distribution of any such preparation currently on the market without an approved new-drug application may be continued provided that:

a. Within 60 days from the date of publication of this announcement in the FEDERAL REGISTER, the labeling of such preparation shipped within the jurisdiction of the Act is in accord with the labeling conditions described herein, except that if the preparation must be reformulated, 180 days will be allowed for the dosage recommendations to be in accord with this announcement.

b. The manufacturer, packer, or distributor of such drug submits, within 180 days from the date of this publication, a new-drug application to the Food and Drug Administration.

c. The applicant submits within a reasonable time additional information that may be required for the approval of the application as specified in a written communication from the Food and Drug Administration.

d. The application has not been ruled incomplete or unapprovable.

**F. Opportunity for a hearing.** 1. The Commissioner of Food and Drugs proposes to issue an order under section 505(e) of the Federal Food, Drug, and Cosmetic Act withdrawing approval of all new-drug applications and all amendments and supplements thereto providing for the indications for which substantial evidence of effectiveness is lacking as described in paragraph A2 of this announcement. An order withdrawing approval of the applications will not issue if such applications are supplemented, in accord with this notice, to delete such indications. Promulgation of the proposed order would cause any such drug for human use offered for the indications for which substantial evidence of effectiveness is lacking, to be a new drug for which an approved new-drug application is not in effect. Any such drug then on the market would be subject to regulatory proceedings.

2. In accordance with the provisions of section 505 of the Act (21 U.S.C. 355) and the regulations promulgated thereunder (21 CFR Part 130), the Commissioner will give the holders of any such applications, and any interested person who would be adversely affected by such an order, an opportunity for a hearing to show why such indications should not be deleted from labeling. A request for a hearing must be filed within 30 days after the date of publication of this notice in the FEDERAL REGISTER. A request for a hearing may not rest upon mere allegations or denials, but must set forth specific facts showing that a genuine and substantial issue of fact requires a hearing, together with a well-organized and full-factual analysis of the clinical and other investigational data the objector is prepared to prove in a hearing. Any data submitted in response to this notice must be previously unsubmitted and include data from adequate and well-controlled clinical investigations (identified for ready review) as described in § 130.12(a) (5) of the regulations published in the FEDERAL REGISTER of May 8, 1970 (35 F.R. 7250). Carefully conducted and documented clinical studies obtained under uncontrolled or partially controlled situations are not acceptable as a sole basis for approval of claims of effectiveness, but such studies may be considered on their merits for corroborative support of efficacy and evidence of safety. If a hearing is requested and justified by the response to this notice, the issues will be defined, a hearing examiner will be named, and he shall issue a written notice of the time and place at which the hearing will commence.

**G. Unapproved use or form of drug.**

1. If the article is labeled or advertised for use in any condition other than those provided for in this announcement, it may be regarded as an unapproved new drug subject to regulatory proceedings until such recommended use is approved in a new-drug application, or is otherwise in accord with this announcement.

2. If the article is proposed for marketing in another form or for use other than

the use provided for in this announcement, appropriate additional information as described in § 130.4 or § 130.9 of the regulations (21 CFR 130.4, 130.9) may be required, including results of animal and clinical tests intended to show whether the drug is safe and effective.

Representatives of the Administration are willing to meet with any interested person who desires to have a conference concerning proposed changes in the labeling set forth herein. Requests for such meetings should be made to the Office of Scientific Evaluation at the address given below, within 30 days after the publication of this notice in the FEDERAL REGISTER.

A copy of the NAS-NRC report has been furnished to each firm referred to above. Any other interested person may obtain a copy by request to the appropriate office named below.

Communications forwarded in response to this announcement should be identified with the reference number DESI 5897, directed to the attention of the following appropriate office, and addressed (unless otherwise specified) to the Food and Drug Administration, 5300 Fishers Lane, Rockville, Maryland 20852:

Supplements (Identify with NDA number): Office of Scientific Evaluation (BD-103), Bureau of Drugs.

Original abbreviated new-drug applications (Identify as such): Drug Efficacy Study Implementation Project Office (BD-5), Bureau of Drugs.

Request for Hearing (Identify with Docket number): Hearing Clerk, Office of General Counsel (GC-1), Room 6-62, Parklawn. All other communications regarding this announcement: Drug Efficacy Study Implementation Project Office (BD-5), Bureau of Drugs.

Requests for NAS-NRC report: Press Relations Office (CE-200), 200 C Street SW., Washington, D.C. 20204.

This notice is issued pursuant to provisions of the Federal Food, Drug, and Cosmetic Act (secs. 502, 505, 52 Stat. 1050-53, as amended; 21 U.S.C. 352, 355) and under authority delegated to the Commissioner of Food and Drugs (21 CFR 2.120).

Dated: March 19, 1971.

SAM D. FINE,  
Associate Commissioner  
for Compliance.

[FR Doc. 71-4952 Filed 4-8-71; 9:46 am]

[DESI 10423]

### LEVALLORPHAN TARTRATE INJECTION

#### Drugs for Human Use; Drug Efficacy Study Implementation

The Food and Drug Administration has evaluated a report received from the National Academy of Sciences-National Research Council, Drug Efficacy Study Group, on the following drug for intravenous use:

Lorfan Injection, containing levallorphan tartrate; Roche Laboratories, Division of Hoffman-La Roche, Inc., 240 Kingsland Street, Nutley, New Jersey 07110 (NDA 10-423).

**NEW DRUG APPLICATION (DRUGS FOR HUMAN USE)**  
(Title 21, Code of Federal Regulations, § 130.4)

Name of applicant McKesson Laboratories, Division of Foremost-McKesson Inc.

Address 424 Grasmere Avenue, Fairfield, Connecticut 06430

Date January 29, 1973

Name of new drug Folic Acid Tablets 1.0 mg.

- Original application (regulation § 130.4).  
 Amendment to original, unapproved application (regulation § 130.7).  
 Abbreviated application (regulation § 130.4(f)).
- Amendment to abbreviated, unapproved application (regulation § 130.7).  
 Supplement to an approved application (regulation § 130.9).  
 Amendment to supplement to an approved application.

The undersigned submits this application for a new drug pursuant to section 505(b) of the Federal Food, Drug, and Cosmetic Act. It is understood that when this application is approved, the labeling and advertising for the drug will prescribe, recommend, or suggest its use only under the conditions stated in the labeling which is part of this application; and if the article is a prescription drug, it is understood that any labeling which furnishes or purports to furnish information for use or which prescribes, recommends, or suggests a dosage for use of the drug will contain the same information for its use, including indications, effects, dosages, routes, methods, and frequency and duration of administration, any relevant warnings, hazards, contraindications, side effects, and precautions, as that contained in the labeling which is part of this application in accord with § 1.106(b) (21 CFR 1.106(b)). It is understood that all representations in this application apply to the drug produced until an approved supplement to the application provides for a change or the change is made in conformance with other provisions of § 130.9 of the new-drug regulations.

Attached hereto, submitted in the form described in § 130.4(e) of the new-drug regulations, and constituting a part of this application are the following:

**1. Table of contents.** The table of contents should specify the volume number and the page number in which the complete and detailed item is located and the volume number and the page number in which the summary of that item is located (if any).

**2. Summary.** A summary demonstrating that the application is well-organized, adequately tabulated, statistically analyzed (where appropriate), and coherent and that it presents a sound basis for the approval requested. The summary should include the following information: (In lieu of the outline described below and the evaluation described in Item 3, an expanded summary and evaluation as outlined in § 130.4(d) of the new-drug regulations may be submitted to facilitate the review of this application.)

**a. Chemistry.**

*i.* Chemical structural formula or description for any new-drug substance.

*ii.* Relationship to other chemically or pharmacologically related drugs.

*iii.* Description of dosage form and quantitative composition.

*b.* Scientific rationale and purpose the drug is to serve.

*c.* Reference number of the investigational drug notice(s) under which this drug was investigated and of any notice, new-drug application, or master file of which any contents are being incorporated by reference to support this application.

*d.* Preclinical studies. (Present all findings including all adverse experiences which may be interpreted as incidental or not drug-related. Refer to date and page number of the investigational drug notice(s) or the volume and page number of this application where complete data and reports appear.)

*i.* Pharmacology (pharmacodynamics, endocrinology, metabolism, etc.).

*ii.* Toxicology and pathology: Acute toxicity studies; subacute and chronic toxicity studies; reproduction and teratology studies; miscellaneous studies.

*e.* Clinical studies. (All material should refer specifically to each clinical investigator and to the volume and page number in the application and any documents incorporated by reference where the complete data and reports may be found.)

*i.* Special studies not described elsewhere.

*ii.* Dose-range studies.

*iii.* Controlled clinical studies.

*iv.* Other clinical studies (for example, uncontrolled or incompletely controlled studies).

*v.* Clinical laboratory studies related to effectiveness.

*vi.* Clinical laboratory studies related to safety.

*vii.* Summary of literature and unpublished reports available to the applicant.

**3. Evaluation of safety and effectiveness.** *a.* Summarize separately the favorable and unfavorable evidence for each claim in the package labeling. Include references to the volume and page number in the application and in any documents incorporated by reference where the complete data and reports may be found.

*b.* Include tabulation of all side effects or adverse experience, by age, sex, and dosage formulation, whether or not considered to be significant, showing whether administration of the drug was stopped and showing the investigator's name with a reference to the volume and page number in the application and any documents incorporated by reference where the complete data and reports may be found. Indicate those side effects or adverse experiences considered to be drug-related.

**4. Copies of the label and all other labeling to be used for the drug** (a total of 12 copies if in final printed form, 4 copies if in draft form):

a. Each label, or other labeling, should be clearly identified to show its position on, or the manner in which it accompanies, the market package.

b. If the drug is to be offered over the counter, labeling on or within the retail package should include adequate directions for use by the layman under all the conditions for which the drug is intended for lay use or is to be prescribed, recommended, or suggested in any labeling or advertising sponsored by or on behalf of the applicant and directed to the layman. If the drug is intended or offered for uses under the professional supervision of a practitioner licensed by law to administer it, the application should also contain labeling that includes adequate information for all such uses, including all the purposes for which the over-the-counter drug is to be advertised to, or represented for use by, physicians.

c. If the drug is limited in its labeling to use under the professional supervision of a practitioner licensed by law to administer it, its labeling should bear information for use under which such practitioners can use the drug for the purposes for which it is intended, including all the purposes for which it is to be advertised or represented, in accord with §1.106(b) (21 CFR 1.106(b)). The application should include any labeling for the drug intended to be made available to the layman.

d. If no established name exists for a new-drug substance, the application shall propose a nonproprietary name for use as the established name for the substance.

e. Typewritten or other draft labeling copy may be submitted for preliminary consideration of an application. An application will not ordinarily be approved prior to the submission of the final printed label and labeling of the drug.

f. No application may be approved if the labeling is false or misleading in any particular.

(When mailing pieces, any other labeling, or advertising copy are devised for promotion of the new drug, samples shall be submitted at the time of initial dissemination of such labeling and at the time of initial placement of any such advertising for a prescription drug (see §130.13 of the new-drug regulations). Approval of a supplemental new-drug application is required prior to use of any promotional claims not covered by the approved application.)

5. A statement as to whether the drug is (or is not) limited in its labeling and by this application to use under the professional supervision of a practitioner licensed by law to administer it.

6. A full list of the articles used as components of the drug. This list should include all substances used in the synthesis, extraction, or other method of preparation of any new-drug substance, and in the preparation of the finished dosage form, regardless of whether they undergo chemical change or are removed in the process. Each substance should be identified by its established name, if any, or complete chemical name, using structural formulas when necessary for specific identification. If any proprietary preparation is used as a component, the proprietary name should be followed by a complete quantitative statement of composition. Reasonable alternatives for any listed substance may be specified.

7. A full statement of the composition of the drug. The statement shall set forth the name and amount of each ingredient, whether active or not, contained in a stated quantity of the drug in the form in which it is to be distributed (for example, amount per tablet or per milliliter) and a batch formula representative of that to be employed for the manufacture of the finished dosage form. All components should be included in the batch formula regardless of whether they appear in the finished product. Any calculated excess of an ingredient over the label declaration should be designated as such and percent excess shown. Reasonable variations may be specified.

8. A full description of the methods used in, and the facilities and controls used for, the manufacture, processing, and packing of the drug. Included in this description should be full information with respect to any new-drug substance and to the new-drug dosage form, as follows, in sufficient detail to permit evaluation of the adequacy of the described methods of manufacture, processing, and packing and the described facilities and controls to determine and preserve the identity, strength, quality, and purity of the drug:

a. A description of the physical facilities including building and equipment used in manufacturing, processing, packaging, labeling, storage, and control operations.

b. A description of the qualifications, including educational background and experience, of the technical and professional personnel who are responsible for assuring that the drug has the safety, identity, strength, quality, and purity it purports or is represented to possess, and a statement of their responsibilities.

c. The methods used in the synthesis, extraction, isolation, or purification of any new-drug substance. When the specifications and controls applied to such substance are inadequate in themselves to determine its identity, strength, quality, and purity, the methods should be described in sufficient detail, including quantities used, times, temperatures, pH, solvents, etc., to determine these characteristics. Alternative methods or variations in methods within reasonable limits that do not affect such characteristics of the substance may be specified.

d. Precautions to assure proper identity, strength, quality, and purity of the raw materials, whether active or not, including the specifications for acceptance and methods of testing for each lot of raw material.

e. Whether or not each lot of raw materials is given a serial number to identify it, and the use made of such numbers in subsequent plant operations.

f. If the applicant does not himself perform all the manufacturing, processing, packaging, labeling, and control operations for any new-drug substance or the new-drug dosage form, his statement identifying each person who will perform any part of such operations and designating the part; and a signed statement from each such person fully describing, directly or by reference, the methods, facilities, and controls in his part of the operation.

g. Method of preparation of the master formula records and individual batch records and manner in which these records are used.

h. The instructions used in the manufacturing, processing, packaging, and labeling of each dosage form of the new drug, including any special precautions observed in the operations.

i. Adequate information with respect to the characteristics of and the test methods employed for the container, closure, or other component parts of the drug package to assure their suitability for the intended use.

j. Number of individuals checking weight or volume of each individual ingredient entering into each batch of the drug.

k. Whether or not the total weight or volume of each batch is determined at any stage of the manufacturing process subsequent to making up a batch according to the formula card and, if so, at what stage and by whom it is done.

l. Precautions to check the actual package yield produced from a batch of the drug with the theoretical yield. This should include a description of the accounting for such items as discards, breakage, etc., and the criteria used in accepting or rejecting batches of drugs in the event of an unexplained discrepancy.

m. Precautions to assure that each lot of the drug is packaged with the proper label and labeling, including provisions for labeling storage and inventory control.

n. The analytical controls used during the various stages of the manufacturing, processing, packaging, and labeling of the drug, including a detailed description of the collection of samples and the analytical procedures to which they are subjected. The analytical procedures should be capable of determining the active components within a reasonable degree of accuracy and of assuring the identity of such components. If the article is one that is represented to be sterile, the same information with regard to the manufacturing, processing, packaging, and the collection of samples of the drug should be given for sterility controls. Include the standards used for acceptance of each lot of the finished drug.

o. An explanation of the exact significance of the batch control numbers used in the manufacturing, processing, packaging, and labeling of the drug, including the control numbers that appear on the label of the finished article. State whether these numbers enable determination of the complete manufacturing history of the product. Describe any methods used to permit determination of the distribution of any batch if its recall is required.

p. A complete description of, and data derived from, studies of the stability of the drug, including information showing the suitability of the analytical methods used. Describe any additional stability studies underway or contemplated. Stability data should be submitted for any new-drug substance, for the finished dosage form of the drug in the container in which it is to be marketed, including any proposed multiple-dose container, and if it is to be put into solution at the time of dispensing, for the solution prepared as directed. State the expiration date(s) that will be used on the label to preserve the identity, strength, quality, and purity of the drug until it is used. (If no expiration date is proposed, the applicant must justify its absence.)

q. Additional procedures employed which are designed to prevent contamination and otherwise assure proper control of the product.

An application may be refused unless it includes adequate information showing that the methods used in, and the facilities and controls used for, the manufacturing, processing, and packaging of the drug are adequate to preserve its identity, strength, quality, and purity in conformity with good manufacturing practice and identifies each establishment, showing the location of the plant conducting these operations.)

9. Samples of the drug and articles used as components, as follows: a. The following samples shall be submitted with the application or as soon thereafter as they become available. Each sample shall consist of four identical, separately packaged subdivisions, each containing at least three times the amount required to perform the laboratory test procedures described in the application to determine compliance with its control specifications for identity and assays:

i. A representative sample or samples of the finished dosage form(s) proposed in the application and employed in the clinical investigations and a representative sample or samples of each new-drug substance, as defined in §130.1(g), from the batch(es) employed in the production of such dosage form(s).

ii. A representative sample or samples of finished market packages of each dosage form of the drug prepared for initial marketing and, if any such sample is not from a commercial-scale production batch, such a sample from a representative commercial-scale production batch; and a representative sample or samples of each new-drug substance as defined in §130.1(g), from the batch(es) employed in the production of such dosage form(s).

iii. A sample or samples of any reference standard and blank used in the procedures described in the application for assaying each new-drug substance and other assayed

components of the finished drug: *Provided, however,* That samples of reference standards recognized in the official U.S. Pharmacopeia or The National Formulary need not be submitted unless requested.

b. Additional samples shall be submitted on request.

c. Each of the samples submitted shall be appropriately packaged and labeled to preserve its characteristics, to identify the material and the quantity in each subdivision of the sample, and to identify each subdivision with the name of the applicant and the new-drug application to which it relates.

d. There shall be included a full list of the samples submitted pursuant to Item 9a; a statement of the additional samples that will be submitted as soon as available; and, with respect to each sample submitted, full information with respect to its identity, the origin of any new-drug substance contained therein (including in the case of new-drug substances, a statement whether it was produced on a laboratory, pilot-plant, or full-production scale) and detailed results of all laboratory tests made to determine the identity, strength, quality, and purity of the batch represented by the sample, including assays. Include for any reference standard a complete description of its preparation and the results of all laboratory tests on it. If the test methods used differed from those described in the application, full details of the methods employed in obtaining the reported results shall be submitted.

e. The requirements of Item 9a may be waived in whole or in part on request of the applicant or otherwise when any such samples are not necessary.

f. If samples of the drug are sent under separate cover, they should be addressed to the attention of the Bureau of Medicine and identified on the outside of the shipping carton with the name of the applicant and the name of the drug as shown on the application.

10. Full reports of preclinical investigations that have been made to show whether or not the drug is safe for use and effective in use. a. An application may be refused unless it contains full reports of adequate preclinical tests by all methods reasonably applicable to a determination of the safety and effectiveness of the drug under the conditions of use suggested in the proposed labeling.

b. Detailed reports of the preclinical investigations, including all studies made on laboratory animals, the methods used, and the results obtained, should be clearly set forth. Such information should include identification of the person who conducted each investigation, a statement of where the investigations were conducted, and where the underlying data are available for inspection. The animal studies may not be considered adequate unless they give proper attention to the conditions of use recommended in the proposed labeling for the drug such as, for example, whether the drug is for short- or long-term administration or whether it is to be used in infants, children, pregnant women, or women of child-bearing potential.

c. Detailed reports of any pertinent microbiological and *in vitro* studies.

d. Summarize and provide a list of literature references (if available) to all other preclinical information known to the applicant, whether published or unpublished, that is pertinent to an evaluation of the safety or effectiveness of the drug.

11. List of investigators. a. A complete list of all investigators supplied with the drug including the name and post office address of each investigator and, following each name, the volume and page references to the investigator's report(s) in this application and in any documents incorporated by reference, or the explanation of the omission of any reports.

b. The unexplained omission of any reports of investigations made with the new drug by the applicant, or

submitted to him by an investigator, or the unexplained omission of any pertinent reports of investigations or clinical experience received or otherwise obtained by the applicant from published literature or other sources, whether or not it would bias an evaluation of the safety of the drug or its effectiveness in use, may constitute grounds for the refusal or withdrawal of the approval of an application.

12. Full reports of clinical investigations that have been made to show whether or not the drug is safe for use and effective in use. a. An application may be refused unless it contains full reports of adequate tests by all methods reasonably applicable to show whether or not the drug is safe and effective for use as suggested in the labeling.

b. An application may be refused unless it includes substantial evidence consisting of adequate and well-controlled investigations, including clinical investigations, by experts qualified by scientific training and experience to evaluate the effectiveness of the drug involved, on the basis of which it could fairly and responsibly be concluded by such experts that the drug will have the effect it purports or is represented to have under the conditions of use prescribed, recommended, or suggested in the proposed labeling.

c. Reports of all clinical tests sponsored by the applicant or received or otherwise obtained by the applicant should be attached. These reports should include adequate information concerning each subject treated with the drug or employed as a control, including age, sex, conditions treated, dosage, frequency of administration of the drug, results of all relevant clinical observations and laboratory examinations made, full information concerning any other treatment given previously or concurrently, and a full statement of adverse effects and useful results observed, together with an opinion as to whether such effects or results are attributable to the drug under investigation and a statement of where the underlying data are available for inspection. Ordinarily, the reports of clinical studies will not be regarded as adequate unless they include reports from more than one independent, competent investigator who maintains adequate case histories of an adequate number of subjects, designed to record observations and permit evaluation of any and all discernible effects attributable to the drug in each individual treated and comparable records on any individuals employed as controls. An application for a combination drug may be refused unless there is substantial evidence that each ingredient designated as active makes a contribution to the total effect claimed for the drug combination. Except when the disease for which the drug is being tested occurs with such infrequency in the United States as to make testing impractical, some of the investigations should be performed by competent investigators within the United States.

d. Attach as a separate section a completed Form FD-1639, Drug Experience Report (obtainable, with instructions, on request from the Department of HEW, Food and Drug Administration, Bureau of Drugs (BD-200) Rockville, Maryland 20852), for each adverse experience or, if feasible, for each subject or patient experiencing one or more adverse effects, described in Item 12c, whether or not full information is available. Form FD-1639 should be prepared by the applicant if the adverse experience was not reported in such form by the investigator. The Drug Experience Report should be cross-referenced to any narrative description included in Item 12c. In lieu of a FD Form 1639, a computer-generated report may be submitted if equivalent in all elements of information with the identical enumerated sequence of events and methods of completion; all formats proposed for such use will require initial review and approval by the Food and Drug Administration.

e. All information pertinent to an evaluation of the safety and effectiveness of the drug received or otherwise obtained by the applicant from any source, including information derived from other investigations or commercial marketing (for example, outside the United States), or reports in the scientific literature, involving the drug that is the subject of the application and related drugs. An adequate summary may be acceptable in lieu of a reprint of a published report which only supports other data submitted. Reprints are not required of reports in designated journals, listed in §130.38 of the new-drug regulations, about related drugs; a bibliography will suffice. Include any evaluation of the safety or effectiveness of the drug that has been made by the applicant's medical department, expert committee, or consultants.

f. If the drug is a combination of previously investigated or marketed drugs, an adequate summary of pre-existing information from preclinical and clinical investigation and experience with its components, including all reports received or otherwise obtained by the applicant suggesting side effects, contraindications, and ineffectiveness in use of such components. Such summary should include an adequate bibliography of publications about the components and may incorporate by reference information concerning such components previously submitted by the applicant to the Food and Drug Administration.

g. The complete composition and/or method of manufacture of the new drug used in each submitted report of investigation should be shown to the extent necessary to establish its identity, strength, quality, and purity if it differs from the description in Item 6, 7, or 8 of the application.

13. If this is a supplemental application, full information on each proposed change concerning any statement made in the approved application.

Observe the provisions of §130.9 of the new-drug regulations concerning supplemental applications.

McKesson Laboratories  
Div. of Foremost-McKesson Inc.

(Applicant)

Per

  
(Responsible official or agent)

Charles J. Swartz, Ph.D.

Technical Director, Research & Development  
(Indicate authority)

(Warning: A willfully false statement is a criminal offense. U.S.C. Title 18, sec. 1001.)

NOTE: This application must be signed by the applicant or by an authorized attorney, agent, or official. If the applicant or such authorized representative does not reside or have a place of business within the United States, the application must also furnish the name and post office address of and must be countersigned by an authorized attorney, agent, or official residing or maintaining a place of business within the United States.

**CENTER FOR DRUG  
EVALUATION AND  
RESEARCH**

**APPLICATION NUMBER:**

**83-526**

**CORRESPONDENCE**



**McKesson Laboratories**

BRIDGEPORT, CONNECTICUT 06602

PERSONALLY SUBMITTED BY

*Charles J. Swartz, Ph.D.*  
*Rec'd by B. Owen*  
*2-7-73*

COPY 1

ABBREVIATED  
NEW DRUG APPLICATI

83-526

NDA

January 29, 1973

Marvin Seife, M.D.  
Director  
Division of Actions Implementation  
Drug Efficacy Study Implementation Project Office  
Bureau of Drugs  
Department of Health, Education and Welfare  
Food and Drug Administration  
5600 Fishers Lane  
Rockville, Maryland 20852

Dear Dr. Seife:

Submitted herewith, in triplicate, is our abbreviated New Drug Application for Folic Acid Tablets 1.0 mg.

Your early review and comments will be appreciated.

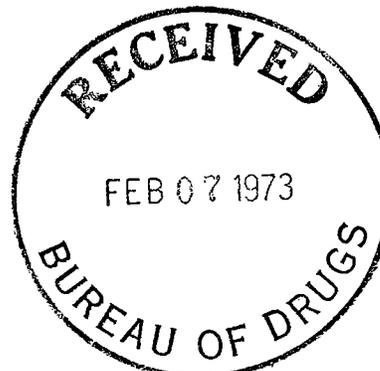
Cordially,

McKESSON LABORATORIES

Charles J. Swartz, Ph.D.  
Technical Director  
Research and Development

CJS/jt

Enc.



NDA 83-526

AF 12-965

FEB 22 1973

McKesson Laboratories  
Division of Foremost-McKesson Inc.  
Attention: Dr. Charles J. Swartz  
424 Grasmere Avenue  
Fairfield, Connecticut 06430

Gentlemen:

We acknowledge the receipt of your abbreviated new drug application submitted pursuant to Section 505(b) of the Federal Food, Drug, and Cosmetic Act for the following:

NAME of DRUG: Folic Acid Tablets, 1.0 mg.

DATE of APPLICATION: January 29, 1973

DATE of RECEIPT: February 7, 1973

We will correspond with you further after we have had the opportunity to review the application.

Please identify any communications concerning this application with the NDA number shown above.

Sincerely yours,

*Marvin Seife* 2/22/73

Marvin Seife, M.D.

Director  
Division of Actions Implementation  
Drug Efficacy Study Implementation  
Project Office  
Bureau of Drugs

cc:

BOS-DO

Dup

BD-69

BD-66

BD-106BD-310

JLMeyer/wlb/2-15-73

Ack

*SMeyer 2/20/73*

NDA 83-526

AF 12-965

McKesson Laboratories  
Attention: Dr. Charles J. Swartz  
P.O. Box 548  
Bridgeport, Connecticut 06602

MAR 22 1973

Gentlemen:

Reference is made to your abbreviated new drug application dated January 29, 1973, submitted pursuant to Section 505(b) of the Federal Food, Drug, and Cosmetic Act for Folic Acid Tablets, 1.0 mg.

We have completed the review of this abbreviated new drug application as submitted with draft labeling. However, before the application may be approved, it will be necessary for you to submit final printed labeling. The labeling should be identical in content to the draft copy.

Other information required by 130.4(f) of the regulations:

1. Identify the manufacturer of the active ingredient.
2. Clarify the chemical identity of and the source of the specifications and test procedures for \_\_\_\_\_
3. Information with respect to the characteristics of the container and closure to assure their suitability for the intended use.

Please let us have your response promptly.

Sincerely yours,

*Marvin Seife* 3/22/73  
Marvin Seife, M.D.

Director  
Division of Actions Implementation  
Drug Efficacy Study Implementation  
Project Office  
Bureau of Drugs

cc:  
BOS-DO  
Dup  
BD-69  
BD-66  
BD-106  
BD-242

*W.A. Jarski 3/21/73*  
OMCarroll/JLMeyer/MAJarski  
R/D init. JLMeyer, MSeife 3  
Final typing bhy 3/20/73  
Rev. w/f

*© M. Carroll, M.D. 3/22/73*



**McKesson Laboratories**  
BRIDGEPORT, CONNECTICUT 06602

*REV. W/F*  
RESUBMISSION  
NDA ORIG AMENDMENT

*E*  
*Original*

NDA 83-526

April 10, 1973

Marvin Seife, M.D.  
Director  
Division of Actions Implementation  
Drug Efficacy Study Implementation Project Office  
Bureau of Drugs  
Department of Health, Education, and Welfare  
Food and Drug Administration  
Rockville, Maryland 20852

Dear Dr. Seife:

In compliance with your letter of March 22, 1973, our abbreviated new drug application dated January 29, 1973 submitted pursuant to Section 505(b) of the Federal Food, Drug, and Cosmetic Act for Folic Acid Tablets 1.0 mg., I am enclosing in triplicate the information you requested.

Your early review and comments would be appreciated.

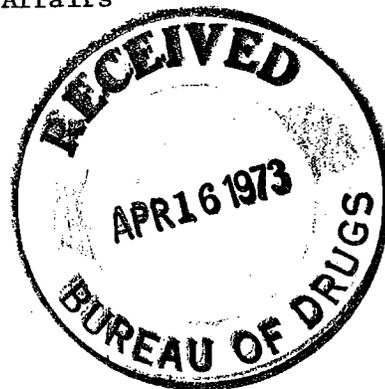
Sincerely,

McKESSON LABORATORIES

J. W. Deutsch  
Manager of Regulatory Affairs

JWD/jt

Enc. 2



NDA 83-526

AF 12-965

MAY 18 1973

McKesson Laboratories  
Attention: Dr. Charles J. Swartz  
P.O. Box 548  
Bridgeport, Ct. 06602

Gentlemen:

Reference is made to your abbreviated new drug application submitted pursuant to Section 505(b) of the Federal Food, Drug, and Cosmetic Act for Folic Acid Tablets, 1.0 mg.

Reference is also made to your communication dated April 10, 1973, enclosing manufacturing information.

We have completed the review of this abbreviated new drug application as submitted with draft labeling. However, before the application may be approved, it will be necessary for you to submit final printed labeling. The labeling should be identical in content to the draft copy.

Please let us have your response promptly

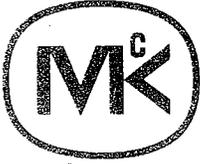
Sincerely yours,

*Dr. Seife, M.D. for*

Marvin Seife, M.D.  
Director  
Division of Actions Implementation  
Drug Efficacy Study Implementation  
Project Office  
Bureau of Drugs

cc:  
BOS-DO  
Dup  
BD-69  
BD-66  
BD-106  
BD-242  
M. G. Jarski 5/21/73  
OMCarroll/JLMeyer/MAJarski  
R/D init. by MSeife/JMeyer/5-18-73  
Final typing/kim/5-18-73

*Dr. Seife, M.D. 5/21/73*  
*SMeyer 5/21/73*



McKesson Laboratories

DIVISION OF FOREMOST-McKESSON INC. • FAIRFIELD, CONN. 06430 • PHONE (203) 259-1661

ORIGINAL FPL

ORIG

NDA 83-526

October 15, 1973

Marvin Seife, M. D., Director  
Division of Actions Implementation  
Drug Efficacy Study Implementation  
Project Office  
Bureau of Drugs  
Department of Health, Education & Welfare  
Food and Drug Administration  
Rockville, Maryland 20852

Dear Dr. Seife:

In reference to our abbreviated new drug application submitted pursuant to Section 505(b) of the Federal Food, Drug, and Cosmetic Act for Folic Acid Tablets, 1.0 mg., we are submitting, as requested, our final printed labeling.

We would appreciate a prompt review of this matter.

Cordially,

McKESSON LABORATORIES  
DIV. OF FOREMOST-McKESSON, INC.

Joseph W. Deutsch, R. Ph.  
Technical Director

JWD/mk

Encl.

