

CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER: 21-153/ 21-154

CORRESPONDENCE

Food and Drug Administration  
Rockville MD 20857

John M. Provenza, M.D.  
Gastrointestinal Specialists, AMC  
3217 Mabel Street  
Shreveport, Pennsylvania 71103

SEP 19 2000

Dear Dr Provenza:

Between June 27 and July 27, 2000, Mr. Mark W. Rivero, representing the Food and Drug Administration (FDA), met with you to review your conduct of a clinical study (protocol # 192) of the investigational drug Nexium (esomeprazole magnesium), performed for AstraZeneca. This inspection is a part of FDA's Bioresearch Monitoring Program, which includes inspections designed to validate clinical studies on which drug approval may be based and to assure that the rights and welfare of the human subjects of those studies have been protected.

From our evaluation of the inspection report and the documents submitted with that report, we conclude that you did not adhere to pertinent federal regulations and/or good clinical investigational practices governing your conduct of clinical investigations. We are aware that Mr. Rivero discussed with you his inspectional observations at the close of the inspection. The discussion included, but was not limited to, your failure to perform the study according to the relevant protocol in that randomization and stratification procedures were not followed as required by the protocol for subjects #010, #013, #014, and #008. We acknowledge your responses and your promise to make corrections/changes in your procedures to ensure that the finding discussed above is not repeated in any ongoing or future studies.

We appreciate the cooperation shown Investigator Rivero during the inspection. Should you have any questions or concerns about any aspect of the clinical testing of investigational drugs, we invite you to contact me by letter at the address given below.

Sincerely yours,

/S/

Antoine El-Hage, Ph.D.  
Branch Chief  
Good Clinical Practice II, HFD-47  
Division of Scientific Investigations  
Office of Medical Policy  
Center for Drug Evaluation and Research  
7520 Standish Place  
Rockville, MD 20855



Bacho

Food and Drug Administration  
Rockville MD 20857

SEP 13 2000

Isaac Bassan, M.D.  
Pharma Research Group, Inc.  
4302 Alton Road, Suite 850  
Miami, Florida 33140

Dear Dr Bassan:

Between July 13 and 18, 2000, Ms. Luz I. Collado, representing the Food and Drug Administration (FDA), met with you and your staff to review your conduct of a clinical study (protocol # 191) of the investigational drug Nexium (esomeprazole magnesium), performed for AstraZeneca. This inspection is a part of FDA's Bioresearch Monitoring Program, which includes inspections designed to validate clinical studies on which drug approval may be based and to assure that the rights and welfare of the human subjects of those studies have been protected.

From our evaluation of the inspection report, the documents submitted with that report and your July 27, 2000, written response to the items listed on the Form FDA 483, we conclude that you did not adhere to pertinent federal regulations and/or good clinical investigational practices governing your conduct of clinical investigations. We are aware that Ms. Collado discussed with you and your staff her inspectional observations at the close of the inspection. The discussion included: a) your failure to handle frozen tissue biopsy samples as required by the protocol for seven subjects (#002, #003, #004, #005, #006, #007 and #008); and b) your failure to maintain source documentation for the baseline CLO test for subjects #003 and #005. We acknowledge your responses and your promise to make corrections/changes in your procedures to ensure that the findings discussed above are not repeated in any ongoing or future studies.

We appreciate the cooperation shown Investigator Collado during the inspection. Should you have any questions or concerns about any aspect of the clinical testing of investigational drugs, we invite you to contact me by letter at the address given below.

Sincerely yours,

/S/

Antoine El-Hage, Ph.D.  
Branch Chief  
Good Clinical Practice II, HFD-47  
Division of Scientific Investigations  
Office of Medical Policy  
Center for Drug Evaluation and Research  
7520 Standish Place  
Rockville, MD 20855

March 7, 2000

Mr. Jeff Fritsch, Regulatory Project Manager  
Division of Special Pathogens and Immunologic  
Drug Products HFD-590  
Office of Drug Evaluation IV (CDER)  
Food and Drug Administration  
9201 Corporate Boulevard  
Rockville, MD 20850

Dear Mr. Fritsch:

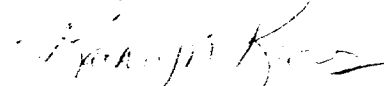
**NDA 21-154 Nexium™ (esomeprazole magnesium)  
Delayed-Release Capsules (also known as H 199/18)  
Response to Request for Information**

Reference is made to NDA 21-154 for Nexium™ Delayed-Release Capsules submitted February 28, 2000. Additional reference is made to your telephone conversation on March 3, 2000 with Dr. Gary Horowitz regarding provision of a desk copy of the CMC information from NDA 21-153.

In response to this request, a desk copy consisting of six volumes of the Chemistry, Manufacturing, and Controls Information (volumes 1.5 through 1.10) from NDA 21-153 is attached.

Please direct any questions or requests for additional information me at (610)-695-1873, or in my absence, to Donna Kipphorn, Regulatory Project Manager, at (610) 578-8416.

Sincerely yours,



Kathryn Kross  
Director, Regulatory Affairs

FedEx tracking number: \_\_\_\_\_  
Attachment: One desk copy, 6 binders



Gary P. Horowitz, Ph.D.  
Executive Director

10 March 2000

Mark Goldberger, M.D., Director  
Division of Special Pathogens and Immunologic Drug Products  
HFD-590, Room S445  
Office of Drug Evaluation IV (CDER)  
Food and Drug Administration  
9201 Corporate Boulevard  
Rockville, MD 20850

**NDA 21-154**  
**NEXIUM™ (esomeprazole magnesium) Delayed-Release Capsules**  
**General Correspondence**

Dear Dr. Goldberger:

Please refer to NDA 21-154 for Nexium™ that was submitted February 28, 2000.

I wish to inform you that, effective 15 March 2000, the primary AstraZeneca LP contact for all matters concerning NDA 21-154 is being transferred to Ms. Kathryn D. Kross. She can be reached at the following address and telephone number:

Kathryn D. Kross  
Director, Regulatory Affairs  
725 Chesterbrook Blvd.  
Wayne, PA 19807-5677  
Tel: 610-695-1873  
FAX: 610-695-4479

In Ms. Kross' absence, please contact Donna Kipphorn, Regulatory Project Manager, at 610-578-8416.

Sincerely,

A handwritten signature in black ink that reads "Gary P. Horowitz".

Gary P. Horowitz, Ph.D.  
Executive Director, Regulatory Affairs

Federal Express No.: \_\_\_\_\_  
Desk Copy: Mr. Jeff Fritsch

DEPARTMENT OF HEALTH AND HUMAN SERVICES

FOOD AND DRUG ADMINISTRATION

APPLICATION TO MARKET A NEW DRUG, BIOLOGIC, OR AN ANTIBIOTIC DRUG FOR HUMAN USE

(Title 21, Code of Federal Regulations, 314 & 601)

Form Approved : OMB No. 0910-0338  
Expiration Date: April 30, 2000  
See OMB Statement on page 2.

FOR FDA USE ONLY

APPLICATION NUMBER

APPLICANT INFORMATION

NAME OF APPLICANT AstraZeneca LP	DATE OF SUBMISSION 10 March 2000
TELEPHONE NO. (Include Area Code) 610-695-1873	FACSIMILE (FAX) Number (Include Area Code) 610-695-4479
APPLICANT ADDRESS (Number, Street, City, State, Country, ZIP Code or Mail Code, and U.S. License number if previously issued): 725 Chesterbrook Blvd. Wayne, PA 19087-5677	AUTHORIZED U.S. AGENT NAME & ADDRESS (Number, Street, City, State, ZIP Code, telephone & FAX number ) IF APPLICABLE

PRODUCT DESCRIPTION

NEW DRUG OR ANTIBIOTIC APPLICATION NUMBER, OR BIOLOGICS LICENSE APPLICATION NUMBER (If previously issued)	21-154
ESTABLISHED NAME (e.g., Proper name, USP/USAN name) esomeprazole magnesium	PROPRIETARY NAME (trade name) IF ANY Nexium™
CHEMICAL/BIOCHEMICAL/BLOOD PRODUCT NAME (if any) bis(5-methoxy-2-[(S)-[(4-methoxy-3,5-dimethyl-2-pyridinyl)methyl]sulfinyl]-1H-benzimidazole-1-yl) magnesium trihydrate	CODE NAME (if any) H 199/18
DOSAGE FORM: Delayed-Release Capsules	STRENGTHS: 20 mg, 40 mg
ROUTE OF ADMINISTRATION: Oral	

(PROPOSED) INDICATION(S) FOR USE:

Eradication of Helicobacter Pylori

APPLICATION INFORMATION

APPLICATION TYPE (check one)	<input checked="" type="checkbox"/> NEW DRUG APPLICATION (21 CFR 314.50)	<input type="checkbox"/> ABBREVIATED APPLICATION (ANDA, AADA, 21 CFR 314.94)
	<input type="checkbox"/> BIOLOGICS LICENSE APPLICATION (21 CFR part 601)	
IF AN NDA, IDENTIFY THE APPROPRIATE TYPE	<input checked="" type="checkbox"/> 505 (b) (1)	<input type="checkbox"/> 505 (b) (2) <input type="checkbox"/> 507
IF AN ANDA, OR AADA, IDENTIFY THE REFERENCE LISTED DRUG PRODUCT THAT IS THE BASIS FOR THE SUBMISSION	Name of Drug	Holder of Approved Application
TYPE OF SUBMISSION (check one)	<input type="checkbox"/> ORIGINAL APPLICATION	<input type="checkbox"/> AMENDMENT TO A PENDING APPLICATION
	<input type="checkbox"/> PRESUBMISSION	<input type="checkbox"/> ANNUAL REPORT
	<input type="checkbox"/> EFFICACY SUPPLEMENT	<input type="checkbox"/> LABELING SUPPLEMENT
	<input type="checkbox"/> ESTABLISHMENT DESCRIPTION SUPPLEMENT	<input type="checkbox"/> SUPAC SUPPLEMENT
	<input type="checkbox"/> CHEMISTRY MANUFACTURING AND CONTROLS SUPPLEMENT	<input checked="" type="checkbox"/> OTHER
REASON FOR SUBMISSION	General Correspondence	

PROPOSED MARKETING STATUS (check one)	<input checked="" type="checkbox"/> PRESCRIPTION PRODUCT (Rx)	<input type="checkbox"/> OVER-THE-COUNTER PRODUCT (OTC)
NUMBER OF VOLUMES SUBMITTED	THIS APPLICATION IS	
	<input type="checkbox"/> PAPER	<input type="checkbox"/> PAPER AND ELECTRONIC <input type="checkbox"/> ELECTRONIC

ESTABLISHMENT INFORMATION

Provide locations of all manufacturing, packaging and control sites for drug substance and drug product (continuation sheets may be used if necessary). Include name, address, contact, telephone number, registration number (CFN), DMF number, and manufacturing steps and/or type of testing (e.g. Final dosage form, Stability testing) conducted at the site. Please indicate whether the site is ready for inspection or, if not, when it will be ready.

Cross References (list related License Applications, INDs, NDAs, PMAs, 510(k)s, IDEs, BMFs and DMFs referenced in the current application)

NDA 19-810; NDA 21-153

March 29, 2000

Mr. Jeff Fritsch, Regulatory Project Manager  
Division of Special Pathogens and Immunologic  
Drug Products HFD-590 Mail Stop S-416  
Office of Drug Evaluation IV (CDER)  
Food and Drug Administration  
9201 Corporate Boulevard  
Rockville, MD 20850

Dear Mr. Fritsch:

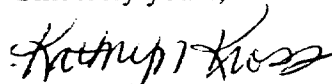
**NDA 21-154 Nexium™ (esomeprazole magnesium)  
Delayed-Release Capsules (also known as H 199/18)  
Response to Request for Package Insert and Annotated Package Insert**

Reference is made to NDA 21-154 for Nexium™ Delayed-Release Capsules submitted February 28, 2000. Additional reference is made to your telephone message to Dr. Gary Horowitz on March 27, 2000 and follow-up conversation with Ms. Donna Kipphorn regarding provision of a desk copy of the electronic version of the package insert (PI) (Item 2) and the annotated package insert.

In response to this request, a Review Aid in Microsoft® Word 97 (desk copy consisting of one volume in a white binder containing a diskette) of the PI (Filename: NDA 21-154 Nexium™ Package Insert.DOC) and the annotated PI (Filename: NDA 21-154 Nexium™ Annotated Package Insert.DOC, and this letter (Filename: JF030700.DOC) is attached.

Please direct any questions or requests for additional information me at (610)-695-1873, or in my absence, to Donna Kipphorn, Regulatory Project Manager, at (610) 578-8416.

Sincerely yours,



Kathryn Kross  
Director, Regulatory Affairs

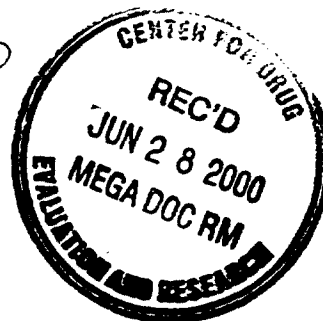
FedEx tracking number: \_\_\_\_\_  
Enclosures: One desk copy, 1 binder

**AstraZeneca**  
Kathryn Kross  
Director - Regulatory Affairs

June 21, 2000

Renata Albrecht, M.D., Acting Director  
Division of Special Pathogens and Immunologic  
Drug Products HFD-590, Room S-304  
Office of Drug Evaluation IV (CDER)  
Food and Drug Administration  
9201 Corporate Boulevard  
Rockville, MD 20850

NAI  
u  
ISI  
7/24/00



AMENDMENT

SU

**NDA 21-154 Nexium™ (esomeprazole magnesium) Delayed-Release Capsules  
Four Month Safety Update**

Dear Dr. Albrecht:

Reference is made to NDA 21-154 for concomitant use of Nexium™ Delayed-Release Capsules (esomeprazole magnesium), clarithromycin and amoxicillin for the eradication of *Helicobacter pylori* (*H. pylori*) submitted to the FDA on February 28, 2000. Reference is also made to NDA 21-153 submitted on December 3, 1999 to the Division of Gastrointestinal and Coagulation Drug Products (GI) the four-month safety update for that NDA submitted April 3, 2000.

With this letter, AstraZeneca is notifying the Agency that no additional safety data from *H. pylori* eradication studies has been obtained since the NDA submission because all pertinent US and International studies to support NDA 21-154 were completed prior to the NDA. Therefore, a four-month safety update (Item 9) will not be provided.

Additional safety information in other indications has been provided in the 4-month safety update document submitted to NDA 21-153. Copies of that update can be provided upon request.

Please direct any questions or requests for additional information to me at (610) 695-1873 or, in my absence, to Donna Kipphorn, Regulatory Project Manager at (610) 578-8416.

Sincerely yours,

Kathryn D. Kross  
Director, Regulatory Affairs

Copy to Mr. Jeff Fritsch (HFD-590) S-416  
Fed Ex Number: \_\_\_\_\_



MAH 6 2000

NDA 21-154

AstraZeneca  
Attention: Gary P. Horowitz, Ph.D.  
Executive Director  
725 Chesterbrook Boulevard  
Wayne, PA 19087-5677

Dear Dr. Horowitz:

We have received your new drug application (NDA) submitted under section 505(b) of the Federal Food, Drug, and Cosmetic Act for the following:

Name of Drug Product: Nexium (esomeprazole magnesium) Delayed-Release Capsules, 20mg and 40mg

Therapeutic Classification: Standard (S)

Date of Application: February 28, 2000

Date of Receipt: February 28, 2000

Our Reference Number: NDA 21-154

Unless we notify you within 60 days of our receipt date that the application is not sufficiently complete to permit a substantive review, this application will be filed under section 505(b) of the Act on April 28, 2000 in accordance with 21 CFR 314.101(a). If the application is filed, the primary user fee goal date will be December 28, 2000 and the secondary user fee goal date will be February 28, 2001.

Be advised that, as of April 1, 1999, all applications for new active ingredients, new dosage forms, new indications, new routes of administration, and new dosing regimens are required to contain an assessment of the safety and effectiveness of the product in pediatric patients unless this requirement is waived or deferred (63 FR 66632). If you have not already fulfilled the requirements of 21 CFR 314.55 (or 601.27), please submit your plans for pediatric drug development within 120 days from the date of this letter unless you believe a waiver is appropriate. Within approximately 120 days of receipt of your pediatric drug development plan, we will review your plan and notify you of its adequacy.

If you believe that this drug qualifies for a waiver of the pediatric study requirement, you should submit a request for a waiver with supporting information and documentation in accordance with the provisions of 21 CFR 314.55 within 60 days from the date of this letter. We will make a

determination whether to grant or deny a request for a waiver of pediatric studies during the review of the application. In no case, however, will the determination be made later than the date action is taken on the application. If a waiver is not granted, we will ask you to submit your pediatric drug development plans within 120 days from the date of denial of the waiver.

Pediatric studies conducted under the terms of section 505A of the Federal Food, Drug, and Cosmetic Act may result in additional marketing exclusivity for certain products (pediatric exclusivity). You should refer to the *Guidance for Industry on Qualifying for Pediatric Exclusivity* (available on our web site at [www.fda.gov/cder/pediatric](http://www.fda.gov/cder/pediatric)) for details. If you wish to qualify for pediatric exclusivity you should submit a "Proposed Pediatric Study Request" (PPSR) in addition to your plans for pediatric drug development described above. We recommend that you submit a Proposed Pediatric Study Request within 120 days from the date of this letter. If you are unable to meet this time frame but are interested in pediatric exclusivity, please notify the division in writing. FDA generally will not accept studies submitted to an NDA before issuance of a Written Request as responsive to a Written Request. Sponsors should obtain a Written Request before submitting pediatric studies to an NDA. If you do not submit a PPSR or indicate that you are interested in pediatric exclusivity, we will review your pediatric drug development plan and notify you of its adequacy. Please note that satisfaction of the requirements in 21 CFR 314.55 alone may not qualify you for pediatric exclusivity. FDA does not necessarily ask a sponsor to complete the same scope of studies to qualify for pediatric exclusivity as it does to fulfill the requirements of the pediatric rule.

Please cite the NDA number listed above at the top of the first page of any communications concerning this application. All communications concerning this NDA should be addressed as follows:

U.S. Postal Service:

Food and Drug Administration  
Center for Drug Evaluation and Research  
Division of Special Pathogen and  
Immunologic Drug Products, HFD-590  
Attention: Document Control Room  
5600 Fishers Lane  
Rockville, Maryland 20857

Courier/Overnight Mail:

Food and Drug Administration  
Center for Drug Evaluation and Research  
Division of Special Pathogen and  
Immunologic Drug Products, HFD-590  
Attention: Document Control Room  
9201 Corporate Blvd.  
Rockville, Maryland 20850-3202

If you have any questions, call Jeffrey Fritsch, R.Ph., Regulatory Project Manager, at (301) 827-2127.

Sincerely,

/S/

for  
3/6/00

Ellen C. Frank, R.Ph.  
Chief, Project Management Staff  
Division of Special Pathogen and Immunologic Drug  
Products  
Office of Drug Evaluation IV  
Center for Drug Evaluation and Research

**APPEARS THIS WAY  
ON ORIGINAL**



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
Rockville, MD 20857

NDA 21-153

IND \_\_\_\_\_

AstraZeneca LP  
Attention: Kathryn D. Kross  
725 Chesterbrook Blvd.  
Mailcode E-2C  
Wayne, PA 19087-5677

Dear Ms. Kross:

Reference is made to your correspondence dated April 27, 2000, requesting FDA issue a Written Request under Section 505A of the Food, Drug, and Cosmetic Act for Nexium (esomeprazole magnesium) Delayed-Release Capsules.

We note that this submission provides a rationale for your clinical development program; a synopsis of a proposed pharmacokinetic study of single and multiple dose in pediatric patients aged 2 through 16 years; and a synopsis of a proposed usage study in pediatric patients aged 2 through 16 years in the treatment of gastrointestinal (GI) symptoms associated with acid-related disorders.

We have reviewed your proposed pediatric study request and are unable to issue a Written Request at this time. We are in the process of assimilating information and obtaining external opinion to make a determination as to whether a health benefit would be gained or not gained by studying children for the treatment of GERD and, if so, what ages in the pediatric population would be appropriate to study. Until the Agency completes this determination, a Written Request will not be issued.

If you have any questions, contact Maria R. Walsh, Regulatory Project Manager, at (301) 443-8017.

Sincerely yours,

Lilia Talarico, M.D.  
Director  
Division of Gastrointestinal and Coagulation  
Drug Products  
Office of Drug Evaluation III  
Center for Drug Evaluation and Research

/s/

-----  
Lilia Talarico  
1/9/01 12:33:07 PM

**APPEARS THIS WAY  
ON ORIGINAL**

**FDA REVISED DRAFT LABELING 2/13/01**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 39

Draft

Labeling

**FDA REVISED DRAFT LABELING 2/1/01**

**APPEARS THIS WAY  
ON ORIGINAL**



WITHHOLD 79

Draft

Labeling

**FDA APPROVABLE LABELING 10/3/00**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 49

Draft

Labeling

**REVISIONS TO PACKAGE INSERT**

**Submitted 2/14/01**

**APPEARS THIS WAY  
ON ORIGINAL**

# Fax

To Maria Walsh Fax number 301 443 9285  
Company Food and Drug Administration  
From Kathy Kross Fax number 619 695 4479  
Date 14 February, 2001; 09:25 Total pages 1(3)  
Subject NDA 21-153 – Nexium Label

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Dear Maria:

Attached are the editorial revisions for the Nexium label.

Thank you,

Kathy

APPEARS THIS WAY  
ON ORIGINAL

Microorganism	Antimicrobial Agent	MIC ( $\mu\text{g/mL}$ ) <sup>a</sup>
<i>H. pylori</i> ATCC 43504	Clarithromycin	0.016 – 0.12 ( $\mu\text{g/mL}$ )
<i>H. pylori</i> ATCC 43504	Amoxicillin	0.016 – 0.12 ( $\mu\text{g/mL}$ )

<sup>a</sup> These are quality control ranges for the agar dilution methodology and they should not be used to control test results obtained using alternative methods.

## Clinical Studies

### Healing of Erosive Esophagitis

The healing rates of NEXIUM 40 mg, NEXIUM 20 mg, and omeprazole 20 mg (the approved dose for this indication) were evaluated in patients with endoscopically diagnosed erosive esophagitis in four multicenter, double-blind, randomized studies. The healing rates at weeks 4 and 8 were evaluated and are shown in the table below:

**Erosive Esophagitis Healing Rate (Life-Table Analysis)**

Study	No. of Patients	Treatment Groups	Week 4	Week 8	Significance Level *
1	588	NEXIUM 20 mg	68.7%	90.6%	N.S.
	588	Omeprazole 20 mg	69.5%	88.3%	
2	654	NEXIUM 40 mg	75.9%	94.1%	p < 0.001 p < 0.05
	656	NEXIUM 20 mg	70.5%	89.9%	
	650	Omeprazole 20 mg	64.7%	86.9%	
3	576	NEXIUM 40 mg	71.5%	92.2%	N.S.
	572	Omeprazole 20 mg	68.6%	89.8%	
4	1216	NEXIUM 40 mg	81.7%	93.7%	p < 0.001
	1209	Omeprazole 20 mg	68.7%	84.2%	

\*log-rank test vs omeprazole 20 mg

N.S. = not significant ( $p > 0.05$ ).

In these same studies of patients with erosive esophagitis, sustained heartburn resolution and time to sustained heartburn resolution were evaluated and are shown in the table below:

### Sustained Resolution<sup>†</sup> of Heartburn (Erosive Esophagitis Patients)

Study	No. of Patients	Treatment Groups	Cumulative Percent <sup>*</sup> with Sustained Resolution		Significance Level *
			Day 14	Day 28	
1	573	NEXIUM 20 mg	64.3%	72.7%	N.S.
	555	Omeprazole 20 mg	64.1%	70.9%	
2	621	NEXIUM 40 mg	64.8%	74.2%	p < 0.001
	620	NEXIUM 20 mg	62.9%	70.1%	N.S.
	626	Omeprazole 20 mg	56.5%	66.5%	
3	568	NEXIUM 40 mg	65.4%	73.9%	N.S.
	551	Omeprazole 20 mg	65.5%	73.1%	
4	1187	NEXIUM 40 mg	67.6%	75.1%	p < 0.001
	1188	Omeprazole 20 mg	62.5%	70.8%	

<sup>\*</sup>Defined as 7 consecutive days with no heartburn reported in daily patient diary.

<sup>†</sup>Defined as the cumulative proportion of patients who have reached the start of sustained resolution

<sup>\*</sup>log-rank test vs omeprazole 20 mg

N.S. = not significant (p > 0.05).

In these four studies, the range of median days to the start of sustained resolution (defined as 7 consecutive days with no heartburn) was 5 days for NEXIUM 40 mg, 7-8 days for NEXIUM 20 mg and 7-9 days for omeprazole 20 mg.

There are no comparisons of 40 mg of NEXIUM with 40 mg of omeprazole in clinical trials assessing either healing or symptomatic relief of erosive esophagitis.

#### Long-Term Maintenance of Healing of Erosive Esophagitis

Two multicenter, randomized, double-blind placebo-controlled 4-arm trials were conducted in patients with endoscopically confirmed, healed erosive esophagitis to evaluate NEXIUM 40 mg (n=174), 20 mg (n=180), 10 mg (n=168) or placebo (n=171) once daily over six months of treatment.

No additional clinical benefit was seen with NEXIUM 40 mg over NEXIUM 20 mg.

The percentage of patients that maintained healing of erosive esophagitis at the various time points are shown in the figures below:

**REVISED PROPOSED PACKAGE INSERT**

**Submitted 2/12/01 (Afternoon)**

**APPEARS THIS WAY  
ON ORIGINAL**





## Fax

**To** Maria Walsh **Fax number** 301 443-9285  
**Company** FDA  
**From** Kathy Kross **Fax number** 301 816-8525  
**Date** 12 February, 2001; 15:07 **Total pages** 1(14)  
**Subject** Revised Nexium Label- Clinical Pharmacology and clinical studies

---

Dear Maria:

Per my telephone message, attached is the revised label incorporating revisions agreed upon at the meeting today. Also included are the proposed alternate text for the PK section of the label and a revised definition for heartburn resolution for review by the Division.

I will follow-up with you tomorrow.

Best Regards,  
Kathy

**APPEARS THIS WAY  
ON ORIGINAL**

**AstraZeneca**  
725 Chesterbrook Blvd  
Wayne, PA 19087

**Tel +1 610 695 1000**

WITHHOLD 13

DRAFT

Labeling

**REVISED PROPOSED PACKAGE INSERT**  
**Submitted 2/12/01 (Morning)**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 14

Draft

Labeling

**REVISED PROPOSED PACKAGE INSERT**  
**Submitted 2/8/01**

**APPEARS THIS WAY  
ON ORIGINAL**

**REVISED PROPOSED PACKAGE INSERT**  
**Submitted 2/5/01**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 27

Draft

Labeling

**REVISED PROPOSED PACKAGE INSERT**  
**Submitted 12/19/00**

**APPEARS THIS WAY  
ON ORIGINAL**



WITHHOLD 40

Draft

Labeling

**REVISED PROPOSED PACKAGE INSERT**  
**Submitted 8/2/00**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 28

Draft

Labeling

WITHHOLD 29

Draft

Labeling

**REVISED PROPOSED PACKAGE INSERT**

**Submitted 4/3/00**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 28

Draft

Labeling

**REVISED PROPOSED PACKAGE INSERT**  
**Submitted 3/17/00**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 23

Draft

Labeling



**ORIGINAL PROPOSED PACKAGE INSERT**  
**Submitted 12/3/99**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 17

Draft

Labeling

**PROPOSED CONTAINER LABELS**  
**Submitted 12/3/00**

**APPEARS THIS WAY  
ON ORIGINAL**

**UNIT DOSE PACKAGE OF 100 LABEL - 20 MG**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 1

DRAFT

Label

**UNIT DOSE PACKAGE OF 100  
CARTON OVERLAP LABEL - 20 MG**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 1

Draft

Label

**UNIT DOSE PACKAGE OF 100  
BLISTER CELL - 20 MG**

**APPEARS THIS WAY  
ON ORIGINAL**



WITHHOLD 1

Draft

Label

**BOTTLES OF 30 - 20 MG**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 1

Draft

Label

**BOTTLES OF 90 - 20 MG**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 1

Draft

Label

**BOTTLES OF 100 - 20 MG**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 1

Draft

Label

**BOTTLES OF 1000 - 20 MG**

**APPEARS THIS WAY  
ON ORIGINAL**



WITHHOLD 1

Draft

Label

**UNIT DOSE PACKAGE OF 100 LABEL - 40 MG**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 1

Draft

Label

**UNIT DOSE PACKAGE OF 100  
CARTON OVERLAP LABEL - 40 MG**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 1

Draft

Label

**UNIT DOSE PACKAGE OF 100  
BLISTER CELL - 40 MG**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 1

Draft

Label

**BOTTLES OF 30 - 40 MG**

**APPEARS THIS WAY  
ON ORIGINAL**



WITHHOLD 1

Draft

Label

**BOTTLES OF 100 - 40 MG**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 1

Draft

Label

**BOTTLES OF 1000 - 40 MG**

**APPEARS THIS WAY  
ON ORIGINAL**

WITHHOLD 1

Draft

Label

#### **4.0 FOREIGN MARKETING HISTORY**

##### **4.1 H 199/18 Foreign Marketing Status**

Currently, H 199/18 is not approved or marketed in any country. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

##### **4.2 Omeprazole Marketing Status**

From 1988 through 31 January 1999, omeprazole has been approved in 106 countries worldwide.

**APPEARS THIS WAY  
ON ORIGINAL**

OCT 24 2000

<b>CONSULTATION RESPONSE</b> Office of Post-Marketing Drug Risk Assessment (OPDRA; HFD-400)		
<b>DATE RECEIVED:</b> October 13, 2000	<b>DUE DATE:</b> November 27, 2000	<b>OPDRA CONSULT #:</b> 00-0253-2
<b>TO:</b> Lilia Talarico, M.D. Director, Division of Gastro-Intestinal and Coagulation Drug Products HFD-180		
<b>THROUGH:</b> Maria Walsh, Project Manager HFD-180		
<b>PRODUCT NAME:</b> Nexium (Esomeprazole Magnesium Delayed-Release Tablets) 20 mg and 40 mg  NDA #: 21-153		<b>MANUFACTURER:</b> Manufactured by: AstraZeneca AB ; Distributed by: Astra Pharmaceuticals, L.P.
<b>SAFETY EVALUATOR:</b> Carol Holquist, R.Ph.		
<b>SUMMARY:</b> In response to a consult from the Division of Gastro-Intestinal Drug Products (HFD-180), OPDRA reviewed the firms labeling submission in response to the Division.		
<b>OPDRA RECOMMENDATION:</b> OPDRA has further recommendations for labeling revisions to minimize potential errors with the use of this product.		
<div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="width: 45%;"> <p style="text-align: center;"><u>/S/</u> 10/23/00</p> <p>Jerry Phillips, R.Ph. " " Associate Director for Medication Error Prevention Office of Post-Marketing Drug Risk Assessment Phone: (301) 827-3242 Fax: (301) 480-8173</p> </div> <div style="width: 45%;"> <p style="text-align: center;"><u>/S/</u> 10/24/00</p> <p>Martin Himmel, M.D. Deputy Director Office of Post-Marketing Drug Risk Assessment Center for Drug Evaluation and Research Food and Drug Administration</p> </div> </div>		

**APPEARS THIS WAY  
ON ORIGINAL**