

# CENTER FOR DRUG EVALUATION AND RESEARCH

## Approval Package for:

### *APPLICATION NUMBER:*

**203312Orig1s000**

*Trade Name:* RYTARY extended-release capsules, for oral use

*Generic Name:* carbidopa and levodopa

*Sponsor:* Impax Laboratories, Inc.

*Approval Date:* January 7, 2015

*Indications:* RYTARY is a combination of carbidopa (an aromatic amino acid decarboxylation inhibitor) and levodopa (an aromatic amino acid) indicated for the treatment of Parkinson's disease, post-encephalitic parkinsonism, and parkinsonism that may follow carbon monoxide intoxication or manganese intoxication

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## 203312Orig1s000

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RESEARCH**

*APPLICATION NUMBER:*

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**APPROVAL LETTER**



NDA 203312

**NDA APPROVAL**

Impax Laboratories, Inc.  
Attention: Michael Marsman, PharmD  
Vice President, Regulatory Affairs  
30831 Huntwood Avenue  
Hayward, CA 94544

Dear Dr. Marsman:

Please refer to your New Drug Application (NDA) dated December 20, 2011, and received December 21, 2011, submitted pursuant to section 505(b)(2) of the Federal Food, Drug, and Cosmetic Act (FDCA), for Rytary (carbidopa and levodopa extended-release capsules) 23.75-95 mg, 36.25-145 mg, 48.75-195 mg, and 61.25-245 mg.

We acknowledge receipt of your amendments dated as follows:

First Cycle	
January 17, 2012	February 6, 14, and 29, 2012
March 22 and 30, 2012	April 5, 9, 10, 23, and 30, 2012
May 1 and 7, 2012	July 24 and 27, 2012
August 10, 17, 23(2), 24, and 31, 2012	September 5, 25, and 28, 2012
October 2 and 5, 2012	November 1 and 12, 2012
December 7, 10, and 28, 2012	January 7, 9 and 17, 2013
Second Cycle	
April 9, 11 and 18, 2014	June 11, 2014
July 3, 2014	August 22 and 29, 2014
October 17, 2014	December 10 and 29, 2014

The April 9, 2014, submission constituted a complete response to our January 18, 2013, action letter. We also note that the August 29, 2014, submission was considered a major amendment to the resubmission of this application.

This new drug application provides for the use of Rytary (carbidopa and levodopa extended-release capsules) for the treatment of patients with Parkinson's disease, postencephalitic parkinsonism, and parkinsonism that may follow carbon monoxide intoxication or manganese intoxication.

We have completed our review of this application, as amended. It is approved, effective on the date of this letter, for use as recommended in the enclosed agreed-upon labeling text.

### **WAIVER OF HIGHLIGHTS SECTION**

We acknowledge your request to waive the requirements of 21 CFR 201.57(d)(8) regarding the length of Highlights of prescribing information. As previously discussed with you, we are denying your request.

### **CONTENT OF LABELING**

As soon as possible, but no later than 14 days from the date of this letter, submit the content of labeling [21 CFR 314.50(l)] in structured product labeling (SPL) format using the FDA automated drug registration and listing system (eLIST), as described at <http://www.fda.gov/ForIndustry/DataStandards/StructuredProductLabeling/default.htm>. Content of labeling must be identical to the enclosed labeling (text for the package insert). Information on submitting SPL files using eLIST may be found in the guidance for industry *SPL Standard for Content of Labeling Technical Qs and As*, available at <http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM072392.pdf>.

The SPL will be accessible via publicly available labeling repositories.

### **CARTON AND IMMEDIATE CONTAINER LABELS**

Submit final printed carton and immediate container labels that are identical to the carton and immediate container labels submitted on April 9, 2014, as soon as they are available, but no more than 30 days after they are printed. Please submit these labels electronically according to the guidance for industry *Providing Regulatory Submissions in Electronic Format – Human Pharmaceutical Product Applications and Related Submissions Using the eCTD Specifications (June 2008)*. Alternatively, you may submit 12 paper copies, with 6 of the copies individually mounted on heavy-weight paper or similar material. For administrative purposes, designate this submission “**Final Printed Carton and Container Labels for approved NDA 203312.**” Approval of this submission by FDA is not required before the labeling is used.

Marketing the product(s) with FPL that is not identical to the approved labeling text may render the product misbranded and an unapproved new drug.

## **CHEMISTRY, MANUFACTURING AND CONTROLS/ EXPIRATION DATING**

The Agency has assigned an expiration dating period of 30 months for each strength of the Rytary (carbidopa-levodopa extended-release capsules) drug product in the described packaging configurations. The 30-month expiration dating period begins with the introduction of the first active ingredient into the manufacturing process of the drug product. No extension period is granted for hold time of components or bulk capsules.

## **REQUIRED PEDIATRIC ASSESSMENTS**

Under the Pediatric Research Equity Act (PREA) (21 U.S.C. 355c), all applications for new active ingredients, new indications, new dosage forms, new dosing regimens, or new routes of administration are required to contain an assessment of the safety and effectiveness of the product for the claimed indication(s) in pediatric patients unless this requirement is waived, deferred, or inapplicable.

We are waiving the pediatric study requirement for this application because necessary studies are impossible or highly impracticable because the disease/condition does not occur in the pediatric population.

## **POSTMARKETING REQUIREMENTS UNDER 505(o)**

Section 505(o)(3) of the FDCA authorizes FDA to require holders of approved drug and biological product applications to conduct postmarketing studies and clinical trials for certain purposes, if FDA makes certain findings required by the statute.

We have determined that an analysis of spontaneous postmarketing adverse events reported under subsection 505(k)(1) of the FDCA will not be sufficient to assess a signal of a serious risk of systemic toxicity associated with the excipient, methacrylic acid copolymer, (b) (4)

Furthermore, the new pharmacovigilance system that FDA is required to establish under section 505(k)(3) of the FDCA will not be sufficient to assess this serious risk.

Therefore, based on appropriate scientific data, FDA has determined that you are required to conduct the following:

1996-1 Six-month oral toxicology study of methacrylic acid copolymer, (b) (4) in rat. The methacrylic acid copolymer, (b) (4) should be the same as the excipient in the to-be-marketed product.

The timetable you submitted on October 17, 2014, states that you will conduct this study according to the following schedule:

Final Protocol Submission:	04/2015
Study Completion:	10/2016
Final Report Submission:	12/2016

1996-2 Oral absorption study of radiolabeled methacrylic acid copolymer, (b) (4), in rat. The methacrylic acid copolymer, (b) (4) should be the same as the excipient in the to-be-marketed product.

The timetable you submitted on October 17, 2014, states that you will conduct this study according to the following schedule:

Final Protocol Submission:	07/2015
Study Completion:	08/2016
Final Report Submission:	10/2016

Submit the protocols to your IND 102887, with a cross-reference letter to this NDA. Submit all final reports to your NDA. Prominently identify the submission with the following wording in bold capital letters at the top of the first page of the submission, as appropriate: **“Required Postmarketing Protocol Under 505(o)”**, **“Required Postmarketing Final Report Under 505(o)”**, **“Required Postmarketing Correspondence Under 505(o)”**.

Section 505(o)(3)(E)(ii) of the FDCA requires you to report periodically on the status of any study or clinical trial required under this section. This section also requires you to periodically report to FDA on the status of any study or clinical trial otherwise undertaken to investigate a safety issue. Section 506B of the FDCA, as well as 21 CFR 314.81(b)(2)(vii) requires you to report annually on the status of any postmarketing commitments or required studies or clinical trials.

FDA will consider the submission of your annual report under section 506B and 21 CFR 314.81(b)(2)(vii) to satisfy the periodic reporting requirement under section 505(o)(3)(E)(ii) provided that you include the elements listed in 505(o) and 21 CFR 314.81(b)(2)(vii). We remind you that to comply with 505(o), your annual report must also include a report on the status of any study or clinical trial otherwise undertaken to investigate a safety issue. Failure to submit an annual report for studies or clinical trials required under 505(o) on the date required will be considered a violation of FDCA section 505(o)(3)(E)(ii) and could result in enforcement action.

## **PROMOTIONAL MATERIALS**

You may request advisory comments on proposed introductory advertising and promotional labeling. To do so, submit, in triplicate, a cover letter requesting advisory comments, the proposed materials in draft or mock-up form with annotated references, and the package insert to:

Food and Drug Administration  
Center for Drug Evaluation and Research  
Office of Prescription Drug Promotion  
5901-B Ammendale Road  
Beltsville, MD 20705-1266

As required under 21 CFR 314.81(b)(3)(i), you must submit final promotional materials, and the package insert, at the time of initial dissemination or publication, accompanied by a Form FDA 2253. Form FDA 2253 is available at <http://www.fda.gov/downloads/AboutFDA/ReportsManualsForms/Forms/UCM083570.pdf>. Information and Instructions for completing the form can be found at <http://www.fda.gov/downloads/AboutFDA/ReportsManualsForms/Forms/UCM375154.pdf>. For more information about submission of promotional materials to the Office of Prescription Drug Promotion (OPDP), see <http://www.fda.gov/AboutFDA/CentersOffices/CDER/ucm090142.htm>.

## **REPORTING REQUIREMENTS**

We remind you that you must comply with reporting requirements for an approved NDA (21 CFR 314.80 and 314.81).

If you have any questions, call Tracy Peters, PharmD, Senior Regulatory Project Manager, at (301) 796-2953.

Sincerely,

*{See appended electronic signature page}*

Eric Bastings, M.D.  
Deputy Director  
Division of Neurology Products  
Office of Drug Evaluation I  
Center for Drug Evaluation and Research

Enclosure(s):

Content of Labeling  
Carton and Container Labeling

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**This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.**  
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/s/  
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ERIC P BASTINGS  
01/07/2015