



NDA 209531/S-003/S-004

**SUPPLEMENT APPROVAL**

Biogen, Inc.  
Attention: Trevor Mill, Ph.D.  
Sr. Vice President, Regulatory Affairs  
225 Binney Street  
Cambridge, MA 02142

Dear Dr. Mill:

Please refer to your Supplemental New Drug Applications (sNDAs) and your amendments, submitted under section 505(b) of the Federal Food, Drug, and Cosmetic Act (FDCA) for Spinraza (nusinersen) 2.4 mg/mL:

<b>NDA / Supplement Number</b>	<b>Submitted on:</b>	<b>Received on:</b>
NDA 209531/ S-003	July 14, 2017	July 14, 2017

This Prior Approval supplemental new drug application provides for changes to the labeling that were based on results from controlled clinical trials in infantile-onset spinal muscular atrophy (SMA) and in later-onset SMA, as well as interim results from an open-label study in presymptomatic SMA. The revisions include changes to section 5 (Warnings and Precautions), section 6 (Adverse Reactions), section 12.2 (Pharmacodynamics), and section 14 (Clinical Studies) of the prescribing information (PI). In addition, this supplement provides for an update to section 2 (Dosage and Administration) to include language that the use of an external filter is not required, and the correction of the molecular structure of nusinersen in section 11 (Description) of the PI.

<b>NDA / Supplement Number</b>	<b>Product Name</b>	<b>Submitted and Received on:</b>
NDA 209531/ S-004	December 13, 2017	December 13, 2017

This “Changes Being Effected” supplemental new drug application provides for revision to the PI in section 6.3 (Postmarketing Experience) related to the occurrence of hydrocephalus in patients treated with Spinraza via lumbar puncture.

## **APPROVAL & LABELING**

We have completed our review of these supplemental applications, as amended. They are approved, effective on the date of this letter, for use as recommended in the enclosed, agreed-upon labeling text.

## **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), with the addition of any labeling changes in pending “Changes Being Effectuated” (CBE) supplements, as well as annual reportable changes not included in the enclosed labeling.

Information on submitting SPL files using eList may be found in the guidance for industry titled “SPL Standard for Content of Labeling Technical Qs and As” at <http://www.fda.gov/downloads/DrugsGuidanceComplianceRegulatoryInformation/Guidances/UCM072392.pdf>.

The SPL will be accessible from publicly available labeling repositories.

Also within 14 days, amend all pending supplemental applications that include labeling changes for this NDA, including CBE supplements for which FDA has not yet issued an action letter, with the content of labeling [21 CFR 314.50(l)(1)(i)] in MS Word format, that includes the changes approved in this supplemental application, as well as annual reportable changes and annotate each change. To facilitate review of your submission, provide a highlighted or marked-up copy that shows all changes, as well as a clean Microsoft Word version. The marked-up copy should provide appropriate annotations, including supplement number(s) and annual report date(s).

## **REQUIRED PEDIATRIC ASSESSMENTS**

Under the Pediatric Research Equity Act (PREA) (21 U.S.C. 355c), all applications for new active ingredients (which includes new salts and new fixed combinations), 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 in pediatric patients unless this requirement is waived, deferred, or inapplicable.

Because none of these criteria apply to your applications, you are exempt from this requirement.

## **PROMOTIONAL MATERIALS**

You may request advisory comments on proposed introductory advertising and promotional labeling. To do so, submit the following, in triplicate, (1) a cover letter requesting advisory comments, (2) the proposed materials in draft or mock-up form with annotated references, and (3) the package insert(s) to:

OPDP Regulatory Project Manager  
Food and Drug Administration  
Center for Drug Evaluation and Research  
Office of Prescription Drug Promotion (OPDP)  
5901-B Ammendale Road  
Beltsville, MD 20705-1266

Alternatively, you may submit a request for advisory comments electronically in eCTD format. For more information about submitting promotional materials in eCTD format, see the draft Guidance for Industry (available at:

<http://www.fda.gov/downloads/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/UCM443702.pdf> ).

You must submit final promotional materials and package insert(s), accompanied by a Form FDA 2253, at the time of initial dissemination or publication [21 CFR 314.81(b)(3)(i)]. 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, contact Fannie Choy, Regulatory Project Manager, at (301) 796-2899 or [fannie.choy@fda.hhs.gov](mailto:fannie.choy@fda.hhs.gov).

Sincerely,

*{See appended electronic signature page}*

Billy Dunn, M.D.  
Director  
Division of Neurology Products  
Office of Drug Evaluation I  
Center for Drug Evaluation and Research

ENCLOSURE(S):  
Content of 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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WILLIAM H Dunn  
05/14/2018