



NDA 021372/S-018  
NDA 021372/S-019

**SUPPLEMENT APPROVAL  
FULFILLMENT OF POSTMARKETING REQUIREMENTS**

Helsinn Healthcare SA  
c/o August Consulting, Inc.  
Attention: Craig Lehmann, Pharm.D.  
Authorized Representative  
515 S. Capital of Texas Hwy., Suite #150  
Austin, TX 78746

Dear Dr. Lehmann:

Please refer to your Supplemental New Drug Applications (sNDA) dated November 27, 2013 and November 28, 2013, received November 27, 2013 and November 29, 2013, submitted under section 505(b) of the Federal Food, Drug, and Cosmetic Act (FDCA) for Aloxi (palonosetron hydrochloride) Injection.

We acknowledge receipt of your amendments dated May 27, 2014, May 20, 2014, April 30, 2014, April 4, 2014, April 2, 2014, March 27, 2014, March 24, 2014, March 11, 2014, February 27, 2014, February 24, 2014, and February 4, 2014.

(b) (4)

Prior Approval supplemental new drug application S-018 provides for updates to the Use in Specific Populations section of the package insert. The agreed-upon labeling changes reflect the lack of efficacy in the pediatric patient population.

Prior Approval supplemental new drug application S-019 provides for the prevention of nausea and vomiting associated with cancer chemotherapy in pediatric patients 1 month and older.

**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, text for the patient 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, 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 note that you have fulfilled the pediatric studies requirement for all relevant pediatric age groups for this application.

### **FULFILLMENT OF POSTMARKETING REQUIREMENTS**

We have received your submissions dated November 27 and 28, 2013, reporting on the following postmarketing requirements listed in the February 29, 2008 approval letter and August 3, 2005 Pediatric Deferral granted letter.

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|-------|--|
| 120-1 | Deferred pediatric study under PREA to evaluate (1) the safety and tolerability of two doses of I.V. palonosetron for the prevention of postoperative nausea and vomiting, and (2) the efficacy of these two I.V. palonosetron doses to prevent postoperative nausea and vomiting. |
|-------|--|

- 806-1      Deferred pediatric study under PREA for the prevention of acute nausea and vomiting associated with initial and repeat courses of moderately and highly emetogenic cancer chemotherapy (CINV) in pediatric patients 1 month to 17 years of age.
- 806-2      Deferred pediatric study under PREA for the prevention of delayed nausea and vomiting associated with initial and repeat courses of moderately emetogenic cancer chemotherapy (CINV) in pediatric patients 1 month to 17 years of age.

We have reviewed your submission and conclude that the above requirements were fulfilled.

This completes all of your postmarketing requirements acknowledged in our August 3, 2005 and February 29, 2008 letters.

### **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:

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

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, call Mary Chung, Regulatory Project Manager, at (301) 796-0260.

Sincerely,

*{See appended electronic signature page}*

Donna Griebel, M.D.  
Division Director  
Division of Gastroenterology and Inborn Errors  
Products  
Office of Drug Evaluation III  
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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DONNA J GRIEBEL  
05/27/2014