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RESEARCH**

APPLICATION NUMBER:

207925Orig1s000

PROPRIETARY NAME REVIEW(S)

PROPRIETARY NAME REVIEW

Division of Medication Error Prevention and Analysis (DMEPA)
Office of Medication Error Prevention and Risk Management (OMEPRM)
Office of Surveillance and Epidemiology (OSE)
Center for Drug Evaluation and Research (CDER)

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Date of This Review: March 2, 2015

Requesting Office or Division: Division of Pulmonary, Allergy, and Rheumatology Products (DPARP)

Application Type and Number: NDA 207925

Product Name and Strength: Kalydeco (Ivacaftor) Granules, 50 mg and 75 mg

Product Type: Single Ingredient Product

Rx or OTC: Rx

Applicant/Sponsor Name: Vertex Pharmaceuticals Incorporated

Submission Date: December 17, 2014

OSE RCM #: 2014-45608

DMEPA Primary Reviewer: Lissa C. Owens, PharmD

DMEPA Team Leader: Kendra Worthy, PharmD

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1 INTRODUCTION

This review evaluates the proposed proprietary name, Kalydeco, from a safety and promotional perspective. The sources and methods used to evaluate the proposed name are outlined in the reference section and Appendix A respectively. The Applicant submitted an (b) (4) external name study from 2010.

1.1 REGULATORY HISTORY

Kalydeo (Ivacaftor) 150 mg (NDA 203188) was approved on January 31, 2012. The proposed proprietary name Kalydeco is currently under review for the 50 mg and 75 mg granules formulation.

1.2 PRODUCT INFORMATION

The following product information is provided in the September 17, 2014 labeling submission.

- Intended Pronunciation: kuh-LYE-deh-koh
- Active Ingredient: Ivacaftor
- Indication of Use: Treatment of cystic fibrosis (CF) in patients age 2 years and older who have one of the following mutations in the CFTR gene: G551D, G1244E, G1349D, G178R, G551S, S1251N, S1255P, S549N, or S549R. If the patient's genotype is unknown, an FDA-cleared CF mutation test should be used to detect the presence of a CFTR mutation followed by verification with bi-directional sequencing when recommended by the mutation test instructions for use
- Route of Administration: Oral
- Dosage Form: Granules
- Proposed Strengths: 50 mg and 75 mg
- Proposed Dose and Frequency: Pediatric patients 2 to <6 years of age and <14 kg: one 50 mg packet mixed with 1 teaspoon (5 mL) of soft food or liquid and administered orally every 12 hours with fat-containing food. Pediatric patients 2 to <6 years of age and ≥14 kg: one 75 mg packet mixed with 1 teaspoon (5 mL) of soft food or liquid and administered orally every 12 hours with fat-containing food
- How Supplied: Small, white to off-white granules and enclosed in unit dose packets as follows:
 - 56-count carton (contains 56 unit dose packets of 50 mg Ivacaftor per packet)
 - 56-count carton (contains 56 unit dose packets of 75 mg Ivacaftor per packet)

- Storage: Store at 20°C - 25°C (68°F - 77°F); excursions permitted to 15°C - 30°C (59°C- 86°F)

2 RESULTS

The following sections provide information obtained and considered in the overall evaluation of the proposed proprietary name.

2.1 PROMOTIONAL ASSESSMENT

The Office of Prescription Drug Promotion (OPDP) determined the proposed name is acceptable from a promotional perspective. DMEPA and the Division of Pulmonary, Allergy, and Rheumatology Products (DPARP) concurred with the findings of OPDP's promotional assessment of the proposed name.

2.2 SAFETY ASSESSMENT

The following aspects were considered in the safety evaluation of the name.

2.2.1 United States Adopted Names (USAN) Search

There is no USAN stem present in the proprietary name¹.

2.2.2 Comments from Other Review Disciplines at Initial Review

In response to the OSE, January 6, 2015 e-mail, the Division of Pulmonary, Allergy, and Rheumatology Products (DPARP) did not forward any comments or concerns relating to the proposed proprietary name at the initial phase of the review.

2.2.3 Medication Error Data Selection of Cases

Since the name Kalydeco has been marketed, we searched the FDA Adverse Event Reporting System (FAERS) database using the strategy listed in Table 1 (see Appendix A for a description of FAERS database) for any name confusion errors involving Kalydeco, which would be relevant for this review.

¹USAN stem search conducted on February 2, 2015.

Table 3: FAERS Search Strategy	
Date Range	April 16, 2014 ¹ to September 26, 2014
Product	Kalydeco [active ingredient]
Event (MedDRA Terms)	DMEPA Official FBIS Search Terms Event List: Medication Errors [HLGT] Product Packaging Issues [HLT] Product Label Issues [HLT] Product Adhesion Issue [PT] Product Compounding Quality Issue [PT] Product Difficult to Remove [PT] Product Formulation Issue [PT] Product Substitution Issue [PT] Inadequate (b) (4) Technique in Use of Product [PT]

The FAERS database search identified five cases. None of the cases were relevant to drug name confusion with Kalydeco.

2.2.4 Components of the Proposed Proprietary Name

The applicant indicated in their submission that the proposed name, Kalydeco, is derived from the existing product, Kalydeco (Ivacaftor) 150 mg. This proprietary name is comprised of a single word that does not contain any components (i.e. route of administration, dosing frequency, etc.) that are misleading or can contribute to medication error. Additionally, as noted above we did not retrieve any medication errors associated with name confusion with the name Kalydeco.

The Applicant is proposing a new 50 mg and 75 mg strength granules for their product line. The proposed 50 mg and 75 mg granules and the currently marketed 150 mg tablets share the same indication (with the exception of age range, The granule formulation is proposed to be used for pediatric patients 2 to < 6 years of age), route of administration and frequency of administration. It is a common and accepted practice to have a product line with multiple formulations/dosage forms and strengths managed under one proprietary name. Therefore, given the precedent for using this naming convention, Kalydeco is an acceptable proprietary name for the 50 mg and 75 mg granule strengths.

¹ Owens, Lissa. Label and Labeling Review for Kalydeco (NDA 203188/S-007). Silver Spring (MD): Food and Drug Administration, Center for Drug Evaluation and Research, Office of Surveillance and Epidemiology, Division of Medication Error Prevention and Analysis (US); 2014 May 1. 8 OSE RCM No.: 2014-741

2.2.5 Communication of DMEPA's Analysis at Midpoint of Review

DMEPA communicated our findings to the Division of Pulmonary, Allergy, and Rheumatology Products (DPARP) via e-mail on February 19, 2015. DPARP did not forward any comments or concerns relating to the proposed proprietary name.

3 CONCLUSIONS

The proposed proprietary name is acceptable.

If you have further questions or need clarifications, please contact Nichelle Rashid, OSE project manager, at 301-796-3904.

3.1 COMMENTS TO THE APPLICANT

We have completed our review of the proposed proprietary name, Kalydeco, and have concluded that this name is acceptable.

If any of the proposed product characteristics as stated in your September 17, 2014 submission is altered prior to approval of the marketing application, the name must be resubmitted for review.

4 REFERENCES

1. **USAN Stems** (<http://www.ama-assn.org/ama/pub/physician-resources/medical-science/united-states-adopted-names-council/naming-guidelines/approved-stems.page>)

USAN Stems List contains all the recognized USAN stems.

2. **FDA Adverse Event Reporting System (FAERS)**

The FDA Adverse Event Reporting System (FAERS) is a database that contains information on adverse event and medication error reports submitted to FDA. The database is designed to support the FDA's postmarket safety surveillance program for drug and therapeutic biologic products. The informatic structure of the FAERS database adheres to the international safety reporting guidance issued by the International Conference on Harmonisation. FDA's Office of Surveillance and Epidemiology codes adverse events and medication errors to terms in the Medical Dictionary for Regulatory Activities (MedDRA) terminology. Product names are coded using the FAERS Product Dictionary. More information about FAERS can be found at:

<http://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/Surveillance/AdverseDrugEffects/default.htm>.

APPENDICES

Appendix A

FDA's Proprietary Name Risk Assessment considers the promotional and safety aspects of a proposed proprietary name.

1. **Promotional Assessment:** For prescription drug products, the promotional review of the proposed name is conducted by OPDP. For over-the-counter (OTC) drug products, the promotional review of the proposed name is conducted by DNCE. OPDP or DNCE evaluates proposed proprietary names to determine if they are overly fanciful, so as to misleadingly imply unique effectiveness or composition, as well as to assess whether they contribute to overstatement of product efficacy, minimization of risk, broadening of product indications, or making of unsubstantiated superiority claims. OPDP or DNCE provides their opinion to DMEPA for consideration in the overall acceptability of the proposed proprietary name.
2. **Safety Assessment:** The safety assessment is conducted by DMEPA, and includes the following:
 - a. Preliminary Assessment: We consider inclusion of USAN stems or other characteristics that when incorporated into a proprietary name may cause or contribute to medication errors (i.e., dosing interval, dosage form/route of administration, medical or product name abbreviations, names that include or suggest the composition of the drug product, etc.) See prescreening checklist below in Table 2*. DMEPA defines a medication error as any preventable event that may cause or lead to inappropriate

medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer.¹

***Table 2- Prescreening Checklist for Proposed Proprietary Name**

	Affirmative answers to these questions indicate a potential area of concern.
Y/N	Does the name have obvious Similarities in Spelling and Pronunciation to other Names?
Y/N	Are there Manufacturing Characteristics in the Proprietary Name?
Y/N	Are there Medical and/or Coined Abbreviations in the Proprietary Name?
Y/N	Are there Inert or Inactive Ingredients referenced in the Proprietary Name?
Y/N	Does the Proprietary Name include combinations of Active Ingredients
Y/N	Is there a United States Adopted Name (USAN) Stem in the Proprietary Name?
Y/N	Is this the same Proprietary Name for Products containing Different Active Ingredients?
Y/N	Is this a Proprietary Name of a discontinued product?

- b. Comments from Other Review Disciplines: DMEPA requests the Office of New Drugs (OND) and/or Office of Generic Drugs (OGD), ONDQA or OBP for their comments or concerns with the proposed proprietary name, ask for any clinical issues that may impact the DMEPA review during the initial phase of the name review. Additionally, when applicable, at the same time DMEPA requests concurrence/non-concurrence with OPDP's decision on the name. The primary Safety Evaluator addresses any comments or concerns in the safety evaluator's assessment.

The OND/OGD Regulatory Division is contacted a second time following our analysis of the proposed proprietary name. At this point, DMEPA conveys their decision to accept or reject the name. The OND or OGD Regulatory Division is requested to provide any further information that might inform DMEPA's final decision on the proposed name.

Additionally, other review disciplines opinions such as ONDQA or OBP may be considered depending on the proposed proprietary name.

When provided, DMEPA considers external proprietary name studies conducted by or for the Applicant/Sponsor and incorporates the findings of these studies into the overall risk assessment.

The DMEPA primary reviewer assigned to evaluate the proposed proprietary name is responsible for considering the collective findings, and provides an overall risk assessment of the proposed proprietary name.

¹ National Coordinating Council for Medication Error Reporting and Prevention.
<http://www.nccmerp.org/aboutMedErrors.html>. Last accessed 10/11/2007.

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/s/

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