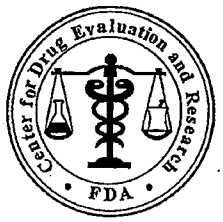
CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

22-285

RISK ASSESSMENT and RISK MITIGATION REVIEW(S)



Department of Health and Human Services
Public Health Service
Food and Drug Administration
Center for Drug Evaluation and Research
Office of Surveillance and Epidemiology

Date:	September 11, 2008
To:	Russell Katz, MD, Director Division of Neurology Products
Through:	Denise Toyer, PharmD, Deputy Director Carol Holquist, RPh, Director Division of Medication Error Prevention and Analysis
From:	Todd Bridges, RPh, Team Leader Division of Medication Error Prevention and Analysis
Subject:	Label and Labeling Review
Drug Name(s):	Keppra XR (Levetiracetam) Extended-release Tablets 500 mg
Application Type/Number:	NDA 22-285
Applicant:	UCB, Inc.
OSE RCM #:	2008-1060

CONTENTS

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EXECUTIVE SUMMARY

The results of the label and labeling risk assessment noted areas of vulnerability that could lead to medication errrors. Improvements should be made to the container label and carton labeling to increase readability of information presented.

For full recommendations, we refer you to section 5 of this review.

1 BACKGROUND

1.1 INTRODUCTION

This review was written in response to a request from the Division of Neurology Products to evaluate the labels and labeling for Keppra XR (Levetiracetam) Extended-Release Tablets for their potential to contribute to medication errors.

The proprietary name was submitted for review separately and will be forthcoming in the Office of Surveillance and Epidemiology (OSE) Review # 2008-1158. The forthcoming review will include an updated search of the FDA Adverse Event Reporting System (AERS) for medication errors submitted for Keppra since OSE Review 05-0013, dated January 26, 2005.

1.2 PRODUCT INFORMATION

Keppra XR is an antiepileptic drug indicated for the adjunct therapy in the treatment of partial onset seizures in patients equal to or more than [redacted] years of age with epilepsy. Keppra XR is supplied as a 500 mg tablet in bottles of sixty. b(4)

Treatment should be initiated with a dose of 1000 mg once daily. This may be adjusted in increments of 1000 mg every 2 weeks to a maximum daily dose of 3000 mg.

2 METHODS AND MATERIALS

This section describes the methods and materials used by DMEPA to conduct a label, labeling, and/or packaging risk assessment. The primary focus of the assessments is to identify and remedy potential sources of medication errors prior to drug approval. We define 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]

The label and labeling of a drug product are the primary means by which practitioners and patients (depending on configuration) interact with the pharmaceutical product. The container labels and carton labeling communicate critical information including the proprietary and established name, strength, form, container quantity, expiration date, and so on. The insert labeling is intended to communicate to practitioners all the information relevant to the approved uses of the drug, including the correct dosing and administration.

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

Given the critical role that the label and labeling has in the safe use of drug products, it is not surprising that 33 percent of medication errors reported to the USP-ISMP Medication Error Reporting Program (MERP) may be attributed to the packaging and labeling of drug products, including 30 percent of fatal errors.[2]

We analyze reported misuse of drugs and are able to use their experience to identify potential errors with all packaged, labeled and/or prescribed medications. We also use failure mode and effects analysis (FMEA) and human factor principles to identify potential sources of error with the proposed product labels and insert labeling. We then provide recommendations that aim at reducing the risk of medication errors.

For this product, the Sponsor submitted on June 19, 2008, the following labels and labeling which are the subject of this review (see Appendices A, B, and C for images):

- Container Label
- Carton Labeling b(4)
- [redacted]
- Package Insert Labeling (No Image)

In addition, DMEPA requested container labels and carton labeling for all currently marketed Keppra products. These were requested so that comparisons could be made across the product line. The Applicant submitted these on August 22, 2008 (see Appendices D through O).

3 RESULTS

3.1 ALL CONTAINER LABELS AND CARTON LABELING

[redacted] b(4)

3.2 PROFESSIONAL [redacted] LABEL AND CARTON LABELING

[redacted] b(4)

[2] Institute of Medicine. Preventing Medication Errors. The National Academies Press: Washington DC. 2006. p275.

18 Page(s) Withheld

_____ Trade Secret / Confidential (b4)

_____ Draft Labeling (b4)

✓ Draft Labeling (b5)

_____ Deliberative Process (b5)

Withheld Track Number: Risk Assessment / Risk Mitigation- 6

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/s/

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9/11/2008 05:41:52 PM
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