CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

203505Orig1s000

PROPRIETARY NAME 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
Office of Medication Error Prevention and Risk Management

Proprietary Name Review--Final

Date:	November 29, 2012
Reviewer:	Manizheh Siahpoushan, PharmD Division of Medication Error Prevention and Analysis
Team Leader	Zachary Oleszczuk, PharmD Division of Medication Error Prevention and Analysis
Drug Name and Strength:	Osphena (Ospemifene) Tablets, 60 mg
Application Type/Number:	NDA 203505
Applicant:	Shionogi Inc.
OSE RCM #:	2012-2810

*** This document contains proprietary and confidential information that should not be released to the public.***

CONTENTS

1 INTRODUCTION

This re-assessment of the proposed proprietary name, Osphena is written in response to the anticipated approval of this NDA within 90 days from the date of this review. DMEPA found the proposed name, Osphena, acceptable in OSE Review #2012-1435 dated September 11, 2012.

2 METHODS AND DISCUSSION

For re-assessments of proposed proprietary names, DMEPA searches a standard set of databases and information sources (see section 4) to identify names with orthographic and phonetic similarity to the proposed name that have been approved since the previous OSE proprietary name review. For this review we used the same search criteria described in OSE Review #2012-1435. We note that none of the proposed product characteristics were altered. However, we evaluated the previously identified names of concern considering any lessons learned from recent post-marketing experience, which may have altered our previous conclusion regarding the acceptability of the proposed proprietary name. The searches of the databases yielded three new names (Ampligen***, (b) (4) ***, (b) (4) ***), thought to look or sound similar to Osphena and represent a potential source of drug name confusion. Failure mode and effects analysis was applied to determine if the proposed proprietary name could potentially be confused with Osphena and lead to medication errors. This analysis determined that the name similarity between Osphena and the identified names was unlikely to result in medication error for the reasons presented in Appendix A.

Additionally, DMEPA searched the USAN stem list to determine if the name contains any USAN stems as of the last USAN updates. The Safety Evaluator did not identify any United States Adopted Names (USAN) stems in the proposed proprietary name, as of November 28, 2012. The Office of Prescription Drug Promotion OPDP re-reviewed the proposed name on December 6, 2012 and had no concerns regarding the proposed name from a promotional perspective.

3 CONCLUSIONS

The re-evaluation of the proposed proprietary name, Osphena, did not identify any vulnerabilities that would result in medication errors with any additional names noted in this review. Thus, DMEPA has no objection to the proprietary name, Osphena, for this product at this time.

DMEPA considers this a final review; however, if approval of the NDA is delayed beyond 90 days from the date of this review, the Division of Reproductive and Urologic Products should notify DMEPA because the proprietary name must be re-reviewed prior to the new approval date.

If you have further questions or need clarifications, please contact Marcus Cato, OSE project manager, at 301-796-3903.

4 REFERENCES

1. **OSE Review # 2012-1435,** Proprietary Name Review of Osphena (Ospemifene) Tablets, 60 mg. Siahpoushan, M. September 11, 2012.

2. ***Drugs@FDA (***http://www.accessdata.fda.gov/scripts/cder/drugsatfda/index.cfm***)***

   Drugs@FDA contains most of the drug products approved since 1939. The majority of labels, approval letters, reviews, and other information are available for drug products approved from 1998 to the present. Drugs@FDA contains official information about FDA approved brand name, generic drugs, therapeutic biological products, prescription and over-the-counter human drugs and discontinued drugs and "Chemical Type 6" approvals.

3. ***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.

4. ***Division of Medication Error Prevention and Analysis Proprietary Name Consultation Request***

   Compiled list of proposed proprietary names submitted to the Division of Medication Error Prevention and Analysis for review. The list is generated on a weekly basis from the Access database/tracking system.

Appendix A: FMEA Table

No.	Osphena (Ospemifene) Tablets 60 mg One tablet (or 60 mg) orally once daily with food.	Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion Causes (could be multiple)	Prevention of Failure Mode In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names
1.	Ampligen*** (b) (4) [redacted]	Orthographic: Both names share similar scripted beginning letters ('O' vs. 'A' when the letter 'A' is scripted in lower case), a third position downstroke 'p' followed by an upstroke ('h' vs. 'l') and similar scripted vowels ('e' vs. 'i'). Additionally, the ending letter 'a' in Osphena may appear similar to the ending letter 'n' in Ampligen*** when scripted. (b) (4) [redacted]	Orthographic: The second letter 's' in Osphena (vs. the letter 'm' in Ampligen***) and the sixth position downstroke 'g' in Ampligen provide different shapes for each name and can help differentiate Osphena and Ampligen*** when scripted.

No.	Osphena (Ospemifene) Tablets 60 mg One tablet (or 60 mg) orally once daily with food.	Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion Causes (could be multiple)	Prevention of Failure Mode In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names
2.	(b) (4)		

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/s/

MANIZHEH SIAHPOUSHAN
11/29/2012

ZACHARY A OLESZCZUK
11/29/2012

Department of Health and Human Services
Public Health Service
Food and Drug Administration
Center for Drug Evaluation and Research
Office of Surveillance and Epidemiology
Office of Medication Error Prevention and Risk Management

Proprietary Name Review

Date:	September 11, 2012
Reviewer(s):	Manizheh Siahpoushan, PharmD Division of Medication Error Prevention and Analysis
Team Leader:	Zachary Oleszczuk, PharmD Division of Medication Error Prevention and Analysis
Division Director:	Carol Holquist, RPh Division of Medication Error Prevention and Analysis
Drug Name(s) and Strength:	Osphena (Ospemifene) Tablets, 60 mg
Application Type/Number:	NDA 203505
Applicant:	Shionogi Inc.
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CONTENTS

1 INTRODUCTION

This review evaluates the proposed proprietary name, Osphena, 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.

1.1 REGULATORY HISTORY

The proposed proprietary name, Osphena (Ospemifene) Tablets is the subject of a 505 (b)(1) application, NDA 203505 submitted to the FDA on April 25, 2012. The name, Osphena, is the second proposed proprietary name for this product submitted by the Applicant on June 20, 2012.

In the preliminary assessment of the first proposed proprietary name, (b) (4) DMEPA identified safety concerns between (b) (4) and a discontinued over-the-counter product, Ostiva, trademarked by the same Applicant, Shionogi Inc. DMEPA communicated this concern with the Applicant during a phone call dated April 26, 2012, and asked if the firm has any plans of re-marketing Ostiva as part of their future plans. In an Amendment dated June 8, 2012, Shionogi, the Applicant for Application, confirmed that Ostiva did belong to them and it had been discontinued since 2008. The Amendment also stated that Shionogi has no intention to reintroduce Ostiva back into the market.

Additionally, further analysis of the first proposed name, (b) (4), identified concerns between this name and the marketed over-the-counter product, Ostera, due to orthographic similarities and shared product characteristics. This concern was communicated to the Applicant during a June 18, 2012 teleconference and the firm subsequently withdrew the name from consideration on June 20, 2012.

Additionally, the Applicant submitted container labels, carton, and insert labeling on April 26, 2012 which will be reviewed under a separate cover in OSE Review #2012-1048.

1.2 PRODUCT INFORMATION

The following product information is provided in the April 26, 2012 proprietary name submission.

- Active Ingredient: Ospemifene
- Indication of Use: Treatment of vulvar and vaginal atrophy due to menopause, including moderate to severe symptoms of dyspareunia and/or vaginal dryness and physiological changes (parabasal cells, superficial cells and pH)
- Route of Administration: Oral
- Dosage Form: Tablets
- Strength: 60 mg
- Dose and Frequency: One tablet orally once daily with food
- How Supplied: Blister pack of 30 tablets containing 2 blister cards of 15 tablets each and100-count bottles.

- Storage: 20°C to 25°C (68°F to 77°F); excursions permitted to 15°C to 30°C (59°F to 86°F) [see USP Controlled Room Temperature]
- Container and Closure Systems: 100-count bottle: the bottle is manufactured with high-density polyethylene (b) (4) round plastic senior friendly, child resistant tamper-evident screw ca (b) (4) Free from damage or contamination. 30-count blister: the film is composed of a (b) (4). The foil is a push-through foil with a paper backing. The blisters are packaged into a blister pack.

2. RESULTS

The following sections provide the information obtained and considered in the 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 Reproductive and Urology Products concurred with the findings of OPDP's promotional assessment of the proposed name.

2.2 SAFETY ASSESSMENT

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

2.2.1 United States Adopted Names (USAN) SEARCH

The June 28 search of the United States Adopted Name (USAN) stems did not identify that a USAN stem is present in the proposed proprietary name.

2.2.2 Components of the Proposed Proprietary Name

The Applicant did not indicate the meaning or the derivation of the proposed name, Osphena, in their submission. This proprietary name is comprised of a single word that does not contain any components (i.e. a modifier, route of administration, dosage form, etc.) that are misleading or can contribute to medication error.

2.2.3 FDA Name Simulation Studies

Twenty-eight practitioners participated in DMEPA's prescription studies. The interpretations did not overlap with or appear or sound similar to any currently marketed products. Seventeen of the twenty-eight participants interpreted the name correctly as Osphena. Three participants in the inpatient prescription studies misinterpreted the letter 'n' as the letter 'r', and seven participants from the voice prescription studies misinterpreted Osphena as 'Asfina', 'Osfeena', 'Osfina', 'Osphina', 'Ostena', and 'Ovsina'. See Appendix C for the complete listing of interpretations from the verbal and written prescription studies.

2.2.5 Comments from Other Review Disciplines

In response to the OSE, June 29, 2012 e-mail, the Division of Reproductive and Urology Products (DRUP) did not forward any comments or concerns relating to the proposed name at the initial phase of the proprietary name review.

2.2.6 Failure Mode and Effects Analysis of Similar Names

Appendix B lists possible orthographic and phonetic misinterpretations of the letters appearing in the proposed proprietary name, Osphena. Table 1 lists the names with orthographic, phonetic, or spelling similarity to the proposed proprietary name, Osphena, identified by the primary reviewer (PR) and the Expert Panel Discussion (EPD).

Table 1: Collective List of Potentially Similar Names (DMEPA and EPD)

Look Similar					
Name	***Source***	***Name***	***Source***	***Name***	***Source***
Oxytrol	EPD	Aciphex	EPD	Opsiria***	EPD
Onglyza	EPD	Aspirin	EPD	Aplenzin	EPD
(b) (4) ***	EPD	Qsymia	EPD	Ocu-Phrin	EPD
Cophene #2	EPD	Opana	EPD	Extina	EPD
(b) (4) ***	EPD	Esperalla	EPD	(b) (4) ***	EPD
Acephen	EPD	Oxytocin	EPD	Qutenza	EPD
Ora Plus	PR	Ucephan	PR	(b) (4) ***	PR
Iophen	PR	Elliphos	PR	Alophen	PR
Anaplex HD	PR	Diphen	PR	Suphera	PR
Sound Similar					
Look and Sound Similar					
Osphena	EPD				

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Our analysis of the 28 names contained in Table 1 considered the information obtained in the previous sections along with their product characteristics. We determined 28 names will not pose a risk for confusion as described in Appendix D through E.

2.2.7 Communication of DMEPA's Final Decision to Other Disciplines

DMEPA communicated our findings to the Division of Reproductive and Urology Products via e-mail on July 24, 2012. At that time we also requested additional information or concerns that could inform our review. The Division of Reproductive and Urology Products stated no additional concerns with the proposed proprietary name, Osphena.

3 CONCLUSIONS

The proposed proprietary name is acceptable from both a promotional and safety perspective.

If you have further questions or need clarifications, please contact Marcus Cato, OSE project manager, at 301-796-3903.

3.1 COMMENTS TO THE APPLICANT

We have completed our review of the proposed proprietary name, Osphena, and have concluded that this name is acceptable. However, if any of the proposed product characteristics as stated in your April 26, 2012 submission are altered, DMEPA rescinds this finding and the name must be resubmitted for review.

Additionally, the proposed proprietary name must be re-reviewed 90 days prior to approval of the NDA. The conclusions upon re-review are subject to change.

2 REFERENCES

1. ***Micromedex Integrated Index (http://csi.micromedex.com)***

   Micromedex contains a variety of databases covering pharmacology, therapeutics, toxicology and diagnostics.

2. ***Phonetic and Orthographic Computer Analysis (POCA)***

   POCA is a database which was created for the Division of Medication Error Prevention and Analysis, FDA. As part of the name similarity assessment, proposed names are evaluated via a phonetic/orthographic algorithm. The proposed proprietary name is converted into its phonemic representation before it runs through the phonetic algorithm. Likewise, an orthographic algorithm exists which operates in a similar fashion.

3. ***Drug Facts and Comparisons, online version, St. Louis, MO (http://factsandcomparisons.com)***

   Drug Facts and Comparisons is a compendium organized by therapeutic course; it contains monographs on prescription and OTC drugs, with charts comparing similar products. This database also lists the orphan drugs.

4. ***FDA Document Archiving, Reporting & Regulatory Tracking System [DARRTS]***

   DARRTS is a government database used to organize Applicant and Sponsor submissions as well as to store and organize assignments, reviews, and communications from the review divisions.

5. ***Division of Medication Errors Prevention and Analysis proprietary name consultation requests***

   This is a list of proposed and pending names that is generated by the Division of Medication Error Prevention and Analysis from the Access database/tracking system.

6. ***Drugs@FDA (http://www.accessdata.fda.gov/scripts/cder/drugsatfda/index.cfm)***

   Drugs@FDA contains most of the drug products approved since 1939. The majority of labels, approval letters, reviews, and other information are available for drug products approved from 1998 to the present. Drugs@FDA contains official information about FDA approved brand name, generic drugs, therapeutic biological products, prescription and over-the-counter human drugs and discontinued drugs and "Chemical Type 6" approvals.

7. ***U.S. Patent and Trademark Office (http://www.uspto.gov)***

   USPTO provides information regarding patent and trademarks.

8. ***Clinical Pharmacology Online (www.clinicalpharmacology-ip.com)***

   Clinical Pharmacology contains full monographs for the most common drugs in clinical use, plus mini monographs covering investigational, less common,

combination, nutraceutical and nutritional products. It also provides a keyword search engine.

9. ***Data provided by Thomson & Thomson's SAEGIS ™ Online Service, available at (www.thomson-thomson.com)***

   The Pharma In-Use Search database contains over 400,000 unique pharmaceutical trademarks and trade names that are used in about 50 countries worldwide. The data is provided under license by IMS HEALTH.

10. ***Natural Medicines Comprehensive Databases (www.naturaldatabase.com)***

    Natural Medicines contains up-to-date clinical data on the natural medicines, herbal medicines, and dietary supplements used in the western world.

11. ***Access Medicine (www.accessmedicine.com)***

    Access Medicine® from McGraw-Hill contains full-text information from approximately 60 titles; it includes tables and references. Among the titles are: Harrison's Principles of Internal Medicine, Basic & Clinical Pharmacology, and Goodman and Gilman's The Pharmacologic Basis of Therapeutics.

12. ***USAN Stems (http://www.ama-assn.org/ama/pub/about-ama/our-people/coalitions-consortiums/united-states-adopted-names-council/naming-guidelines/approved-stems.shtml)***

    USAN Stems List contains all the recognized USAN stems.

13. ***Red Book (www.thomsonhc.com/home/dispatch)***

    Red Book contains prices and product information for prescription, over-the-counter drugs, medical devices, and accessories.

14. ***Lexi-Comp (www.lexi.com)***

    Lexi-Comp is a web-based searchable version of the Drug Information Handbook.

15. ***Medical Abbreviations (www.medilexicon.com)***

    Medical Abbreviations dictionary contains commonly used medical abbreviations and their definitions.

16. ***CVS/Pharmacy (www.CVS.com)***

    This database contains commonly used over the counter products not usually identified in other databases.

17. ***Walgreens (www.walgreens.com)***

    This database contains commonly used over the counter products not usually identified in other databases.

18. Rx List (www.rxlist.com)

RxList is an online medical resource dedicated to offering detailed and current pharmaceutical information on brand and generic drugs.

19. Dogpile (www.dogpile.com)

Dogpile is a Metasearch engine that searches multiple search engines including Google, Yahoo! and Bing, and returns the most relevant results to the search.

APPENDICES

Appendix A

FDA's Proprietary Name Risk Assessment considers the promotional and safety aspects of a proposed proprietary name. The promotional review of the proposed name is conducted by OPDP. OPDP 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 provides their opinion to DMEPA for consideration in the overall acceptability of the proposed proprietary name.

The safety assessment is conducted by DMEPA. DMEPA staff search a standard set of databases and information sources to identify names that are similar in pronunciation, spelling, and orthographically similar when scripted to the proposed proprietary name. Additionally, 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.). 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]

Following the preliminary screening of the proposed proprietary name, DMEPA gathers to discuss their professional opinions on the safety of the proposed proprietary name. This meeting is commonly referred to the Center for Drug Evaluation and Research (CDER) Expert Panel discussion. DMEPA also considers other aspects of the name that may be misleading from a safety perspective. DMEPA staff conducts a prescription simulation studies using FDA health care professionals. 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. DMEPA bases the overall risk assessment on the findings of a Failure Mode and Effects Analysis (FMEA) of the proprietary name and misleading nature of the proposed proprietary name with a focus on the avoidance of medication errors.

DMEPA uses the clinical expertise of its staff to anticipate the conditions of the clinical setting where the product is likely to be used based on the characteristics of the proposed product. DMEPA considers the product characteristics associated with the proposed product throughout the risk assessment because the product characteristics of the proposed may provide a context for communication of the drug name and ultimately determine the use of the product in the *usual* clinical practice setting.

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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.

Typical product characteristics considered when identifying drug names that could potentially be confused with the proposed proprietary name include, but are not limited to; established name of the proposed product, proposed indication of use, dosage form, route of administration, strength, unit of measure, dosage units, recommended dose, typical quantity or volume, frequency of administration, product packaging, storage conditions, patient population, and prescriber population. DMEPA considers how these product characteristics may or may not be present in communicating a product name throughout the medication use system. Because drug name confusion can occur at any point in the medication use process, DMEPA considers the potential for confusion throughout the entire U.S. medication use process, including drug procurement, prescribing and ordering, dispensing, administration, and monitoring the impact of the medication.[2]

The DMEPA considers the spelling of the name, pronunciation of the name when spoken, and appearance of the name when scripted. DMEPA compares the proposed proprietary name with the proprietary and established name of existing and proposed drug products and names currently under review at the FDA. DMEPA compares the pronunciation of the proposed proprietary name with the pronunciation of other drug names because verbal communication of medication names is common in clinical settings. DMEPA examines the phonetic similarity using patterns of speech. If provided, DMEPA will consider the Sponsor's intended pronunciation of the proprietary name. However, DMEPA also considers a variety of pronunciations that could occur in the English language because the Sponsor has little control over how the name will be spoken in clinical practice. The orthographic appearance of the proposed name is evaluated using a number of different handwriting samples. DMEPA applies expertise gained from root-cause analysis of postmarketing medication errors to identify sources of ambiguity within the name that could be introduced when scripting (e.g.,"T" may look like "F," lower case 'a' looks like a lower case 'u,' etc). Additionally, other orthographic attributes that determine the overall appearance of the drug name when scripted (see Table 1 below for details).

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

Table 1. Criteria Used to Identify Drug Names that Look- or Sound-Similar to a Proposed Proprietary Name.

Type of Similarity	**Considerations when Searching the Databases**		
	Potential Causes of Drug Name Similarity	*Attributes Examined to Identify Similar Drug Names*	*Potential Effects*
Look-alike	Similar spelling	Identical prefix Identical infix Identical suffix Length of the name Overlapping product characteristics	• Names may appear similar in print or electronic media and lead to drug name confusion in printed or electronic communication • Names may look similar when scripted and lead to drug name confusion in written communication
	Orthographic similarity	Similar spelling Length of the name/Similar shape Upstrokes Down strokes Cross-strokes Dotted letters Ambiguity introduced by scripting letters Overlapping product characteristics	• Names may look similar when scripted, and lead to drug name confusion in written communication
Sound-alike	Phonetic similarity	Identical prefix Identical infix Identical suffix Number of syllables Stresses Placement of vowel sounds Placement of consonant sounds Overlapping product characteristics	• Names may sound similar when pronounced and lead to drug name confusion in verbal communication

Lastly, DMEPA considers the potential for the proposed proprietary name to inadvertently function as a source of error for reasons other than name confusion. Post-marketing experience has demonstrated that proprietary names (or components of the proprietary name) can be a source of error in a variety of ways. Consequently, DMEPA considers and evaluates these broader safety implications of the name throughout this assessment and the medication error staff provides additional comments related to the

safety of the proposed proprietary name or product based on professional experience with medication errors.

1. Database and Information Sources

DMEPA searches the internet, several standard published drug product reference texts, and FDA databases to identify existing and proposed drug names that may sound-alike or look-alike to the proposed proprietary name. A standard description of the databases used in the searches is provided in the reference section of this review. To complement the process, the DMEPA uses a computerized method of identifying phonetic and orthographic similarity between medication names. The program, Phonetic and Orthographic Computer Analysis (POCA), uses complex algorithms to select a list of names from a database that have some similarity (phonetic, orthographic, or both) to the trademark being evaluated. Lastly, DMEPA reviews the USAN stem list to determine if any USAN stems are present within the proprietary name. The individual findings of multiple safety evaluators are pooled and presented to the CDER Expert Panel. DMEPA also evaluates if there are characteristics included in the composition that may render the name unacceptable from a safety perspective (abbreviation, dosing interval, etc.).

2. Expert Panel Discussion

DMEPA gathers gather CDER professional opinions on the safety of the proposed product and discussed the proposed proprietary name (Expert Panel Discussion). The Expert Panel is composed of Division of Medication Errors Prevention (DMEPA) staff and representatives from the Office of Prescription Drug Promotion (OPDP). We also consider input from other review disciplines (OND, ONDQA/OBP). The Expert Panel also discusses potential concerns regarding drug marketing and promotion related to the proposed names.

The primary Safety Evaluator presents the pooled results of the database and information searches to the Expert Panel for consideration. Based on the clinical and professional experiences of the Expert Panel members, the Panel may recommend additional names, additional searches by the primary Safety Evaluator to supplement the pooled results, or general advice to consider when reviewing the proposed proprietary name.

3. FDA Prescription Simulation Studies

Three separate studies are conducted within the Centers of the FDA for the proposed proprietary name to determine the degree of confusion of the proposed proprietary name with marketed U.S. drug names (proprietary and established) due to similarity in visual appearance with handwritten prescriptions or verbal pronunciation of the drug name. The studies employ healthcare professionals (pharmacists, physicians, and nurses), and attempts to simulate the prescription ordering process. The primary Safety Evaluator uses the results to identify orthographic or phonetic vulnerability of the proposed name to be misinterpreted by healthcare practitioners.

In order to evaluate the potential for misinterpretation of the proposed proprietary name in handwriting and verbal communication of the name, inpatient medication orders and/or outpatient prescriptions are written, each consisting of a combination of marketed and unapproved drug products, including the proposed name. These orders are optically

scanned and one prescription is delivered to a random sample of participating health professionals via e-mail. In addition, a verbal prescription is recorded on voice mail. The voice mail messages are then sent to a random sample of the participating health professionals for their interpretations and review. After receiving either the written or verbal prescription orders, the participants record their interpretations of the orders which are recorded electronically.

4. 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.

5. Safety Evaluator Risk Assessment of the Proposed Proprietary Name

The primary Safety Evaluator applies his/her individual expertise gained from evaluating medication errors reported to FDA, considers all aspects of the name that may be misleading or confusing, conducts a Failure Mode and Effects Analysis, and provides an overall decision on acceptability dependent on their risk assessment of name confusion. Failure Mode and Effects Analysis (FMEA) is a systematic tool for evaluating a process and identifying where and how it might fail.[3] When applying FMEA to assess the risk of a proposed proprietary name, DMEPA seeks to evaluate the potential for a proposed proprietary name to be confused with another drug name because of name confusion and, thereby, cause errors to occur in the medication use system. FMEA capitalizes on the predictable and preventable nature of medication errors associated with drug name confusion. FMEA allows the Agency to identify the potential for medication errors due to orthographically or phonetically similar drug names prior to approval, where actions to overcome these issues are easier and more effective than remedies available in the post-approval phase.

In order to perform an FMEA of the proposed name, the primary Safety Evaluator must analyze the use of the product at all points in the medication use system. Because the proposed product is has not been marketed, the primary Safety Evaluator anticipates the use of the product in the usual practice settings by considering the clinical and product

[3] Institute for Healthcare Improvement (IHI). Failure Mode and Effects Analysis. Boston. IHI:2004.

characteristics listed in Section 1.2 of this review. The Safety Evaluator then analyzes the proposed proprietary name in the context of the usual practice setting and works to identify potential failure modes and the effects associated with the failure modes.

In the initial stage of the Risk Assessment, the Safety Evaluator compares the proposed proprietary name to all of the names gathered from the above searches, Expert Panel Discussion, and prescription studies, external studies, and identifies potential failure modes by asking:

> ***"Is the proposed proprietary name convincingly similar to another drug name, which may cause practitioners to become confused at any point in the usual practice setting? And are there any components of the name that may function as a source of error beyond sound/look-alike?"***

An affirmative answer indicates a failure mode and represents a potential for the proposed proprietary name to be confused with another proprietary or established drug name because of look- or sound-alike similarity or because of some other component of the name. If the answer to the question is no, the Safety Evaluator is not convinced that the names posses similarity that would cause confusion at any point in the medication use system, thus the name is eliminated from further review.

In the second stage of the Risk Assessment, the primary Safety Evaluator evaluates all potential failure modes to determine the likely *effect* of the drug name confusion, by asking:

> ***"Could the confusion of the drug names conceivably result in medication errors in the usual practice setting?"***

The answer to this question is a central component of the Safety Evaluator's overall risk assessment of the proprietary name. If the Safety Evaluator determines through FMEA that the name similarity would not ultimately be a source of medication errors in the usual practice setting, the primary Safety Evaluator eliminates the name from further analysis. However, if the Safety Evaluator determines through FMEA that the name similarity could ultimately cause medication errors in the usual practice setting, the Safety Evaluator will then recommend the use of an alternate proprietary name.

Moreover, DMEPA will object to the use of proposed proprietary name when the primary Safety Evaluator identifies one or more of the following conditions in the Overall Risk Assessment:

a. OPDP finds the proposed proprietary name misleading from a promotional perspective, and the Review Division concurs with OPDP's findings. The Federal Food, Drug, and Cosmetic Act provides that labeling or advertising can misbrand a product if misleading representations are made or suggested by statement, word, design, device, or any combination thereof, whether through a PROPRIETARY name or otherwise [21 U.S.C 321(n); See also 21 U.S.C. 352(a) & (n)].

b. DMEPA identifies that the proposed proprietary name is misleading because of similarity in spelling or pronunciation to another proprietary or established name of a different drug or ingredient [CFR 201.10.(C)(5)].

c. FMEA identifies the potential for confusion between the proposed proprietary name and other proprietary or established drug name(s), and demonstrates that medication errors are likely to result from the drug name confusion under the conditions of usual clinical practice.

d. The proposed proprietary name contains an USAN (United States Adopted Names) stem.

e. DMEPA identifies a potential source of medication error within the proposed proprietary name. For example, the proprietary name may be misleading or, inadvertently, introduce ambiguity and confusion that leads to errors. Such errors may not necessarily involve confusion between the proposed drug and another drug product but involve a naming characteristic that when incorporated into a proprietary name, may be confusing, misleading, cause or contribute to medication errors.

If DMEPA objects to a proposed proprietary name on the basis that drug name confusion could lead to medication errors, the primary Safety Evaluator uses the FMEA process to identify strategies to reduce the risk of medication errors. DMEPA generally recommends that the Sponsor select an alternative proprietary name and submit the alternate name to the Agency for review. However, in rare instances FMEA may identify plausible strategies that could reduce the risk of medication error of the currently proposed name. In that instance, DMEPA may be able to provide the Sponsor with recommendations that reduce or eliminate the potential for error and, thereby, would render the proposed name acceptable.

In the event that DMEPA objects to the use of the proposed proprietary name, based upon the potential for confusion with another proposed (but not yet approved) proprietary name, DMEPA will provide a contingency objection based on the date of approval. Whichever product, the Agency approves first has the right to use the proprietary name, while DMEPA will recommend that the second product to reach approval seek an alternative name.

The threshold set for objection to the proposed proprietary name may seem low to the Applicant/Sponsor. However, the safety concerns set forth in criteria a through e above are supported either by FDA regulation or by external healthcare authorities, including the Institute of Medicine (IOM), World Health Organization (WHO), the Joint Commission, and the Institute for Safe Medication Practices (ISMP). These organizations have examined medication errors resulting from look- or sound-alike drug names, confusing, or misleading names and called for regulatory authorities to address the issue prior to approval. Additionally, DMEPA contends that the threshold set for the Proprietary Name Risk Assessment is reasonable because proprietary drug name confusion is a predictable and preventable source of medication error that, in many instances, the Agency and/or Sponsor can identify and rectify prior to approval to avoid patient harm.

Furthermore, post-marketing experience has demonstrated that medication errors resulting from drug name confusion are notoriously difficult to rectify post-approval. Educational and other post-approval efforts are low-leverage strategies that have had limited effectiveness at alleviating medication errors involving drug name confusion. Sponsors have undertaken higher-leverage strategies, such as drug name changes, in the

past but at great financial cost to the Sponsor and at the expense of the public welfare, not to mention the Agency's credibility as the authority responsible for approving the error-prone proprietary name. Moreover, even after Sponsors' have changed a product's proprietary name in the post-approval phase, it is difficult to eradicate the original proprietary name from practitioners' vocabulary, and as a result, the Agency has continued to receive reports of drug name confusion long after a name change in some instances. Therefore, DMEPA believes that post-approval efforts at reducing name confusion errors should be reserved for those cases in which the potential for name confusion could not be predicted prior to approval.

Appendix B: Letters with Possible Orthographic or Phonetic Misinterpretation

Letters in Name, Osphena	Scripted May Appear as	Spoken May Be Interpreted as
Capital letter 'O'	'Q', 'A', 'U', 'D'	Oh
Lower case 'o'	'a', 'u', 'l', 'c', 'e'	Oh
Lower case 's'	'g', 'n', 'r', 'l', 'r', 'z', '5'	'c', 'z'
Lower case 'p'	'n', 'x', 'g', 'j', 'y', 'l', 'yn', 'ys', 'q'	'b', 'f' (ph)
Lower case 'h'	'n', 'k', 'b'	
Lower case 'e'	'a', 'c', 'i', 'o', 'u'	Any vowel
Lower case 'n'	's', 'm', 'u', 'r', 'x', 'h', 's'	'm'
Lower case 'a'	'o', 'e', 'u', 'c'	Any vowel

Appendix C: Prescription Simulation Samples and Results

Figure 1. Osphena Study (Conducted on 6/29/12)

Handwritten Requisition Medication Order	Verbal Prescription
Medication Order: Osphena 60 mg po qday	Osphena 60 mg 1 orally once daily #30
Outpatient Prescription: Osphena 1 PO QD #30	

FDA Prescription Simulation Responses (Aggregate 1 Rx Studies Report)

84 People Received Study
28 People Responded

Study Name: Osphena

Total	8	8	12	
INTERPRETATION	INPATIENT	VOICE	OUTPATIENT	TOTAL
ASFINA	0	2	0	2
OSFEENA	0	1	0	1
OSFINA	0	1	0	1
OSPHENA	5	1	11	17
OSPHERA	3	0	0	3
OSPHINA	0	1	0	1
OSPHORA	0	0	1	1
OSTENA	0	1	0	1
OVSINA	0	1	0	1

Appendix D: Proprietary names not likely to be confused or not used in usual practice settings for the reasons described

Proprietary Name	Active Ingredient	Similarity to Osphena	Failure preventions
Osphena	Ospemifene	Look and sound	Proprietary name trademarked by Shionogi Inc. and the subject of this review
Ora Plus	Purified water, microcrystalline cellulose, carboxymethylcellulose sodium, xanthan gum, carrageenan, calcium sulfate, trisodium phosphate, citric acid and sodium phosphate as buffers, dimethicone antifoam emulsion. Preserved with methylparaben and potassium sorbate.	Look	This product is utilized as a suspending vehicle used to simplify the process involved in the extemporaneous compounding of oral suspensions. It is unlikely that a prescription order for Ora Plus alone would be ordered because this product is used only in conjunction with other products in compounding.
(b) (4)			(b) (4)
Qutenza	Capsaicin Medicated Plaster	Look	The name pair has sufficient orthographic and /or phonetic differences.
Extina	Ketoconazole Topical Foam	Look	The name pair has sufficient orthographic and /or phonetic differences.
(b) (4) ***	Progesterone Vaginal Insert	Look	Alternate name for NDA 022057. Application was approved on 6/21/07 with the name, Endometrin.
(b) (4)			(b) (4)

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Appendix E: Risk of medication errors due to product confusion minimized by dissimilarity of the names and/ or use in clinical practice for the reasons described

Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets** **Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Ucephan Sodium Benzoate, Sodium Phenylacetate) Oral Solution 10%/10% (250 mg/250 mg) Usual Dose: The usual total daily dose for adjunctive therapy is 2.5 mL/kg/day (250 mg Sodium Benzoate and 250 mg Sodium Phenylacetate) orally in three to six equally divided doses after dilution. The total daily dose should not exceed 100 mL (1000 mg each of Sodium Benzoate and Dodium Phenylacetate). (This product is only available under the name, Ammonul. However, the product name, Ucephan is not withdrawn.)	Orthographic: Both names consist of 7 letters, share similar scripted letter strings ('-phen-' vs. '-phan') and beginning letters ('O' vs. 'U'). Route of Administration: Oral Strength: Single strength Possible Numerical Overlap in t he Usual Dose: The calculate daily dose of Ucephan for a 24 kg patient would be 60 mL which may be misinterpreted as 60 mg.	Orthographic: The letter 'e' in Ucephan and the ending letter 'a' in Osphena provide different shapes for each name (longer length between upstroke 'U' and downstroke 'p' in Ucephan and longer length following the upstroke 'h' in Osphena) and can help differentiate Osphena and Ucephan when scripted.

Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets** **Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
(b) (4)		
Iophen C NR (Codeine Phosphage and Guaifenesin) Liquid 10 mg/100 mg Iophen DM NR (Dextromethorphan and Guaifenesin) Liquid 10 mg/100 mg Iophen NR (Guaifenesin) Liquid, 100 mg Usual Dose: Half to four teaspoonfuls (2.5 to 20 mL) orally every 4 hours.	Orthographic: Both names share the letter string '-phen' and similar scripted second position letters ('s' vs. 'o'). Route of Administration: Oral Strength: Single strength Partial Overlap in the Usual Dose: One (tablet vs. teaspoonful)	Orthographic: The beginning letter 'O' does not appear similar to the beginning letter 'I' when scripted. Additionally, if the modifiers in the name Iophen are excluded from written prescription orders, the extra ending letter 'a' in Osphena provides a longer appearance for this name which can help differentiate Osphena and Iophen when scripted.

*** This document contains proprietary and confidential information that should not be released to the public.

Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Eliphos (Calcium Acetate) Tablets 667 mg Usual Dose: Two tablets orally with each meal. Most patients require 3 to 4 tablets with each meal.	Orthographic: Both names consist of 7 letters, share the letter string '-ph-' followed by similar scripted letter strings ('-en-' vs. '-os'), and beginning letters ('O' vs. 'E' scripted in lower case 'e'). Route of Administration: Oral Dosage Form: Tablets Strength: Single strength	Orthographic: The upstroke 'l' in Eliphos and the ending letter 'a' in Osphena provide different shapes for each name and can help differentiate Osphena and Eliphos when scripted. Frequency of Administration: Once daily vs. three times daily
Acephen (Acetaminophen) Suppository 120 mg, 325 mg, 650 mg Usual Dose: Children 6 to 12 years: One suppository (120 mg or 325 mg) rectally every 4 to 6 hours. Adults and children 12 years and older: Two suppositories (325 mg) or one suppository (650 mg) rectally every 4 to 6 hours.	Orthographic/Phonetic: Both names consist of 7 letters, share the letter string '-phen', and beginning letters that may appear similar when scripted ('O' vs. 'A' scripted in lower case 'a'). Phonetically, both names consist of 3 syllables and share the 'phen' sound when spoken. Partial Overlap in the Usual Dose: One (tablet vs. suppository)	Orthographic/Phonetic: The third position letter 'e' in Acephen and the ending letter 'a' in Osphena provide different shapes for each of these names which can help differentiate Osphena and Acephen when scripted. Strength: Single strength (60 mg) vs. multiple strengths (120 mg, 325 mg, and 650 mg)

Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets** **Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Alophen (Bisacodyl) Tablets 5 mg Usual Dose: 5 mg to 15 mg (one to three tablets) orally in the evening or before breakfast.	Orthographic: Both names consist of 7 letters, share the letter string '-phen', beginning letters that appear similar when scripted ('O' vs. 'A' scripted in lower case 'a'), and similar scripted letters in similar positions ('s' vs. 'o' in second and third positions respectively). Route of Administration: Oral Dosage Form: Tablets Strength: Single strength Overlap in the frequency of Administration: Once Overlap in the Usual Dose: One tablet	Orthographic: The upstroke 'l' in Alophen and the ending letter 'a' in Osphena provide different shapes for each name and can help differentiate Osphena and Alophen when scripted.

Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets** **Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Anaplex HD (Brompheniramine Maleate, Hydrocodone Bitartrate, Pseudoephedrine Hydrochloride) Oral Solution 2 mg, 1.7 mg, 30 mg/5 mL Usual Dose: 5 to 10 mL (One to two teaspoonfuls) orally every 4 to 6 hours as needed. Anaplex DM (Brompheniramine Maleate, Pseudoephedrine Hydrochloride, Dextromethorphan Hydrobromide) Oral Syrup 4 mg, 30 mg, 60 mg/5 mL Usual Dose: 1.25 mL to 5 mL orally every 4 to 6 hours as needed.	Orthographic: Both names consist of 7 letters and share similar scripted letter strings (‘-phen-‘ vs. ‘-plex’ and ‘Os-‘ vs. ‘An-‘ if the letter ‘A’ is scripted in lower case ‘a’). Route of Administration: Oral Strength: Single strength Partial Overlap in the Usual Dose: One (tablet vs. teaspoonful)	Orthographic: The letter ‘a’ in the third position of the name, Anaplex and the ending letter ‘a’ in Osphena provide different shapes for each name and can help differentiate Osphena and Anaplex when scripted. Additionally, if included, the modifiers ‘HD’ and ‘DM’ can also help differentiate the two names.

Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets** **Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Aciphex (Rabeprazole Sodium) Tablets, 20 mg Usual Dose: One tablet (20 mg) orally once daily.	Orthographic: Both names consist of 7 letters, share the letter string '-phe-' followed by similar scripted letters ('n' vs. 'x'), and beginning letters ('O' vs. 'A' scripted in lower case 'a'). Route of Administration: Oral Dosage Form: Tablets Strength: Single strength Frequency of Administration: Once daily Usual Dose: One tablet	Orthographic: The letter string '-ci-' in Aciphex does not appear similar to the letter 's' in Osphena when scripted. Additionally, extra ending letter 'a' in Osphena provides a longer appearance for this name and can help differentiate Osphena and Aciphex when scripted.

Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Diphen (Diphenhydramine) Tablets 25 mg Usual Dose: 1 to 2 tablets (25 mg to 50 mg) orally every 4 to 6 hours	Orthographic: Both names share the letter string '-phen' and beginning letters that may appear similar when scripted ('O' vs. 'D'). Route of Administration: Oral Dosage Form: Tablets Strength: Single strength Overlap in the Usual Dose: One tablet	Orthographic: The lack of similarity between the letter 's' and the letter 'i' in the second position of each name and the extra ending letter 'a' in Osphena (provides a longer appearance for Osphena) can help differentiate Osphena and Diphen when scripted.

Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets** **Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Onglyza (Saxagliptin) Tablets 2.5 mg, 5 mg Usual Dose: 2.5 mg to 5 mg (one or two tablets) orally once daily.	Orthographic: Both names consist of 7 letters, share the beginning letter 'O' followed by similar scripted letter strings ('-sph-' vs. '-ngl-'), and ending letter strings ('-na' vs. '-za' if the letter 'z' is not scripted as a downstroke). Route of Administration: Oral Dosage Form: Tablets Frequency of Administration: Once daily Usual Dose: One tablet	Orthographic: The downstroke 'y' in Onglyza (vs. letter 'e' in Osphena) provides a different shape for this name and can help differentiate Osphena and Onglyza when scripted. Strength: Single strength (60 mg) vs. multiple strengths (2.5 mg and 5 mg)

Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets** **Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Aspirin Tablets, Chewable Tablets, Enteric-coated Tablets, and Rectal Suppositories 81 mg, 325 mg, 500 mg, 300 mg, 600 mg Usual Dose: Adults: 325 to 650 mg orally or rectally every 4 hours, as needed Children: 10 to 15 mg/kg orally or rectally every 4 to 6 hours	Orthographic: Both names consist of 7 letters, share the letter string '-sp-', similar scripted letter strings in similar positions ('-en' vs. 'in'), and beginning letters that may appear similar when scripted ('O' vs. 'A' when scripted in lower case 'a'). Route of Administration: Oral Overlap in the Dosage Form: Tablets Overlap in the Usual Dose: One tablet	Orthographic: The upstroke 'h' in Osphena provides a different shape for this name and can help differentiate Osphena and Aspirin when scripted.
Oxytrol (Oxybutynin) Patch 3.9 mg Usual Dose: Apply one patch to dry, intact skin on the abdomen, hip, or buttock twice weekly (every 3 to 4 days).	Orthographic: Both names consist of 7 letters, share the beginning letter 'O' followed by similar scripted letter strings in each name ('-sph-' vs. '-xyt-'). Strength: Single strength Partial Overlap in the Usual Dose: One (tablet vs. patch)	Orthographic: The ending letter string '-ena' in Osphena appears different than the ending letter string '-rol' in Oxytrol and can help differentiate Osphena and Oxytrol when scripted. Frequency of Administration: Once daily vs. twice weekly (or every 3 to 4 days).

Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets** **Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Qsymia (Phentermine and Topiramate) Extended-release Capsules 3.75 mg/23 mg, 7.5 mg/46 mg, 11.25 mg/69 mg, 15 mg/92 mg Usual Dose: The recommended starting dose is 3.75 mg/23 mg by mouth once daily. The dose can be titrated up to a maximum dose of 15 mg/92 mg by mouth once daily.	Orthographic: Both names end with the letter 'a', share similar scripted beginning letters ('O' vs. 'Q') followed by the letter 's' and a down stroke in the third position of each name ('p' vs. 'y'). Route of Administration: Oral Dosage Form: Solid oral Frequency of Administration: Once daily Overlap in the Usual Dose: One (tablet vs. capsule)	Orthographic: The upstroke 'h' in Osphena provides a different shape for this name and can help differentiate Osphena and Qsymia*** when scripted.

Proposed name: Osphena (Ospemifene) Dosage Form(s): Tablets Strength(s): 60 mg Usual Dose: One tablet (or 60 mg) orally once daily with food.	Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion Causes (could be multiple)	Prevention of Failure Mode In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names
(b) (4)		

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Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets** **Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Aplenzin (Bupropion Hydrobromide) Extended-release Tablets 174 mg, 348 mg, 522 mg Usual Dose: Start with 174 mg (one tablet) orally once daily in the morning. The usual adult target dose is 348 mg/day.	Orthographic: Both names consist of similar scripted letter strings in similar positions of each name ('-ph-' vs. '-pl-') followed by the letter string '-en-'. Route of Administration: Oral Dosage Form: Tablets Frequency of Administration: Once daily Overlap in the Usual Dose: One tablet	Orthographic: The letter 's' between the upstrokes 'A' and 'l' in Osphena, as well as the extra letter string '-zin' in Aplenzin provide different shapes and lengths for these two names and can help differentiate Osphena and Aplenzin when scripted.

Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets** **Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Opana (Oxymorphone) Immediate-releae Tablets, 5 mg, 10 mg Extended-release (12-hour Tablets, 5 mg, 7.5 mg, 10 mg, 15 mg, 20 mg, 30 mg, 40 mg Injection Solution, 1 mg/mL Usual Dose: Immediate-release: 10 mg to 20 mg by mouth every 4 to 6 hours; Extended-release: 5 mg by mouth every 12 hours Intramuscular and subcutaneous injection: 1 mg to 1.5 mg, may repeat every 4 to 6 hours as needed.	Orthographic: Both names share the beginning letter 'O', the ending letter string '-na' preceded by similar scripted vowels ('e' vs. 'a'), and similarly positioned downstroke 'p' (third vs. second). Route of Administration: Oral Dosage Form: Tablets Overlap in the Usual Dose: One tablet	Orthographic: The upstroke 'h' and the letter 's' between the upstroke 'O' and the downstroke 'p' in Osphena (vs. no letters between 'O' and 'p' in Opana) provide a different shape and a longer length for this name and can help differentiate Osphena and Opana when scripted. Strength: Single strength (60 mg) vs. multiple strengths (5 mg, 7.5 mg, 10 mg, 15 mg, 20 mg, 30 mg, 40 mg, and 1 mg/mL)

Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets** **Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Opsiria*** (Sirolimus) Injection (b) (4) [redacted]	Orthographic: Both names consist of 7 letters and share the beginning letter 'O', the ending letter 'a', the downstroke 'p' in a similar position (third vs. second), and similar scripted letter strings in similar positions of each name ('-en-' vs. '-ir-').	Orthographic: The upstroke 'h' and the letter 's' between the upstroke 'O' and the downstroke 'p' in Osphena (vs. no letters between 'O' and 'p' in Opsiria***) provide a different shape for this name and can help differentiate Osphena and Opsiria*** when scripted. (b) (4) [redacted]
Ocu-Phrin (Phenylephrine Hydrochloride) Ophthalmic Solution 2.5%, 10% Usual Dose: For Mydriasis induction: Instill 1 or 2 drops in eye before procedure.	Orthographic: Both names share the beginning letter 'O', the letter string '-ph-' and similar scripted letter strings in similar positions of each name ('-en-' vs. '-in'). Partial Overlap in the Frequency of Administration: Once Partial Overlap in the Usual Dose: One (tablet vs. drop)	Orthographic: The extra letters 'u' and 'r' in Ocu-Phrin provide a longer appearance for this name and can help differentiate Osphena and Ocu-Phrin when scripted. Strength: Single strength (60 mg) vs. multiple strengths (2.5% and 10%)

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Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets** **Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Cophene No 2 Chlorpheniramine Maleate, Pseudoephedrine Hydrochloride) Extended-release Capsules 12 mg, 120 mg Cophene-XP (Codeine Phosphate, Guaifenesin, Pseudoephedrine) Oral Solution 10 mg/100 mg/30 mg per 5 mL Usual Dose: Cophene #2: one capsule orally every 12 hours. Cophene-XP: Adults: 10 mL (or two teaspoonfuls) orally every 4 to 6 hours. Children 6 to 12: 2.5 mL to 5 mL (or half to one teaspoonful) orally every 4 to 6 hours Children 2 to 6: 1.25 mL to 2.5 mL every 4 to 6 hours. (Both product are discontinued, however, generic equivalents are marketed.)	Orthographic: Both names consist of 7 letters and share the letter string '-phen-' followed by similar scripted vowels ('a' vs. 'e'). Route of Administration: Oral Overlap in the Dosage Form: Solid oral Strength: Single strength Overlap in the Usual Dose: One (tablet vs. capsule or teaspoonful)	Orthographic: The beginning letter string 'Os-' does not appear similar to the letter string 'Co-' when scripted and can help differentiate Osphena and Cophene when scripted. Additionally, The modifiers 'No 2 (or #2) and 'XP' can also help differentiate Osphena and Cophene. Since the ingredients in each Cophene product are different, a prescription for Cophene with no modifiers would prompt the pharmacist to contact the physician to identify the correct product intended to be dispensed to the patient. Thus the risk of confusion between Osphena and Cophene that may lead to medication errors is minimized. Additionally, evidence shows that the name, Cophene, has not been used in practice in the past several years.

Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets** **Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Oxytocin (Oxytocin) Injection 100 unit/10 mL Usual Dose: Start with 0.5 to 2 milliunits/min via continuous intravenous infusion. The rate of infusion may be slowly increased (1 to 2 milliunits/min increments at 15 to 60 minute intervals) until the required contraction pattern is established; the rate of infusion should be slowly decreased (1to 2 milliunits/min decrements at 15 to 60 minute intervals) when labor is established and progressed to 5 to 6 cm dilation. Patients with an unfavorable cervix may be more effectively induced using incremental increases of 2 milliunits/min every 15 minutes.	Orthographic: Both name share the beginning letter 'O' followed by similarly scripted letter strings ('-sphe-' vs. '-xyto-'. Strength: Single strength	Orthographic: The cross stroke 't' and the skinny letter 'i' in Oxytocin provide a different shape and a longer appearance for this name and can help differentiate Osphena and Oxytocin when scripted. Usual Dose: One tablet (or 60 mg) vs. 2 milliunits/min

Proposed name: Osphena (Ospemifene) **Dosage Form(s): Tablets** **Strength(s): 60 mg** **Usual Dose: One tablet (or 60 mg) orally once daily with food.**	**Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion** **Causes (could be multiple)**	**Prevention of Failure Mode** **In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names**
Suphera (Sulfacetamide Sodium, Sulfur) Cream, 10%-5% Usual Dose: Apply a thin film to affected areas 1 to 3 times per day.	Orthographic: Both names consist of 7 letters, share the letter string '-phe-' followed by similar scripted letters ('n' vs. 'r'), and ending letter 'a'. Strength: Single strength Overlap in the Frequency of Administration: Once daily Overlap in the Usual Dose: One (tablet vs. application)	Orthographic: The letter string 'Os-' in Osphena does not appear similar to the letter string 'Su-' in Suphera when scripted and can help differentiate Osphena and Suphera when scripted.

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/s/

MANIZHEH SIAHPOUSHAN
09/11/2012

ZACHARY A OLESZCZUK
09/12/2012

CAROL A HOLQUIST
09/12/2012

MEMORANDUM DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
FOOD AND DRUG ADMINISTRATION
CENTER FOR DRUG EVALUATION AND RESEARCH

MEETING DATE: June 18, 2012
TIME: 11:30- 12:00 noon
LOCATION: WO 22 Room 4311

APPLICATION: NDA 203505

DRUG NAME: (b) (4) (ospemifene)
TYPE OF MEETING: Proposed Proprietary Name

APPLICANT: Shionogi Inc

MEETING RECORDER: Maria Wasilik

FDA ATTENDEES:

Zach Oleszczuk, Team Leader, DMEPA
Manizheh Siahpoushan, Safety Evaluator, DMEPA
Maria Wasilik, Project Manager, OSE

EXTERNAL CONSTITUENT ATTENDEES:

Ting Chen, Director Regulatory Affairs
Susan A. Witham, EVP Regulatory Affairs & Quality Assurance
Manny Montalvo, VP, Marketing

(b) (4)

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/s/

MARIA R WASILIK
06/19/2012