

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**207947Orig1s000**

**PROPRIETARY NAME REVIEW(S)**

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## **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)

**\*\*\* This document contains proprietary information that cannot be released to the public\*\*\***

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<b>Date of This Review:</b>	February 19, 2015
<b>Application Type and Number:</b>	NDA 207947
<b>Product Name and Strength:</b>	Ultravi (selezipag) Tablets, 200 mcg, 400 mcg, 600 mcg, 800 mcg, 1000 mcg, 1200 mcg, 1400 mcg and 1600 mcg
<b>Product Type:</b>	Single ingredient product
<b>Rx or OTC:</b>	Rx
<b>Applicant/Sponsor Name:</b>	Actelion Pharmaceuticals
<b>Panorama #:</b>	2015-46939
<b>DMEPA Primary Reviewer:</b>	Tingting Gao, PharmD
<b>DMEPA Team Leader:</b>	Chi-Ming (Alice) Tu, PharmD

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## 1 INTRODUCTION

This review evaluates the proposed proprietary name, Uptravi, from a safety and misbranding 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 external name study, conducted by (b) (4), for this product under IND 104504 on November 1, 2013. We re-evaluated the external name study in this proprietary name review under NDA since our previous proprietary name review<sup>1</sup> under IND did not use the Phonetic and Orthographic Computer Analysis (POCA).

### 1.1 REGULATORY HISTORY

The Applicant's first proposed proprietary name, (b) (4)\*\*\* was found unacceptable on September 3, 2013 due to orthographic similarity with the established name of another product under review. Thus, the Applicant submitted a second proposed proprietary name, Uptravi, on November 1, 2013 under IND 104504. Uptravi was found conditionally acceptable under IND 104504 on April 1, 2014.

Subsequently, the sponsor submitted the name, Uptravi, for review on January 7, 2015 under NDA 207947.

### 1.2 PRODUCT INFORMATION

The following product information is provided in the January 7, 2015 proprietary name submission.

- Intended Pronunciation: up-TRA-vee
- Active Ingredient: selexipag
- Indication of Use: the treatment of pulmonary arterial hypertension (PAH, WHO Group I) to delay disease progression
- Route of Administration: oral
- Dosage Form: tablets
- Strength: 200 mcg, 400 mcg, 600 mcg, 800 mcg, 1000 mcg, 1200 mcg, 1400 mcg, 1600 mcg
- Dose and Frequency:
  - Starting dose: 200 mcg twice daily
  - Titrate by 200 mcg twice daily at weekly intervals
- How Supplied: All strengths are available in bottles of 60 tablets. The 200 mcg strength is also available in a bottle of 140 tablets.

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<sup>1</sup> Olumba J. Proprietary Name Review for Uptravi (IND 104504). 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 APR 1. 41 p. OSE RCM No.: 2013-16432.

- Storage: 20°C to 25°C (68°F to 77°F)
- Container closure: bottle

## 2 RESULTS

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

### 2.1 MISBRANDING ASSESSMENT

The Office of Prescription Drug Promotion (OPDP) determined that the proposed name would not misbrand the proposed product. DMEPA and the Division of Cardiovascular and Renal Products (DCRP) concurred with the findings of OPDP's 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 name<sup>2</sup>.

#### 2.2.2 *Components of the Proposed Proprietary Name*

The Applicant did not provide a derivation or intended meaning for the proposed name, Uptravi, in their submission. This proposed 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*

Eighty-seven practitioners participated in DMEPA's prescription studies. The responses did not overlap with any currently marketed products. One participant in the verbal study misinterpreted it as "Apravi", which sound similar to Aptivus. We evaluated the potential for confusion and determined that the risk of confusion is mitigated by the fact that Aptivus and Uptravi do not have overlaps in strength or dose (see Appendix D). Additionally, three participants in the verbal study misinterpreted the proposed name as "Optravi", which sounds similar to "Optivar". We evaluated the potential for confusion and determined that the risk of confusion is mitigated by the fact that Optivar and Uptravi do not have overlaps in strength or dose (see Appendix D). None of the remaining responses sound or look similar to any currently marketed products or any products in the pipeline.

Fifteen out of sixty-three participants in the written prescription studies correctly interpreted the name, Uptravi. Common misinterpretation includes substitution of the letter string 'Upt' as 'Lipt'. Eight out of twenty-four participants in the verbal

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<sup>2</sup>USAN stem search conducted on January 29, 2015.

prescription study correctly interpreted the name, Uptravi. Common misinterpretations include substitution of the letter string 'Upt' as 'Abt', 'Apt', 'Obt', and 'Opt'.

Appendix B contains the results from the verbal and written prescription studies.

#### **2.2.4 Comments from Other Review Disciplines at Initial Review**

In response to the OSE, January 23, 2015 e-mail, the Division of Cardiovascular and Renal Products (DCRP) did not forward any comments or concerns relating to the proposed proprietary name at the initial phase of the review.

#### **2.2.5 Phonetic and Orthographic Computer Analysis (POCA) Search Results**

Table 1 lists the number of names with the combined orthographic and phonetic score of  $\geq 50\%$  retrieved from our POCA search<sup>3</sup> organized as highly similar, moderately similar or low similarity for further evaluation. Table 1 also includes names identified from the FDA Prescription Stimulation Study and by (b) (4).

<b>Table 1. POCA Search Results</b>	<b>Number of Names</b>
Highly similar name pair: combined match percentage score $\geq 70\%$	1
Moderately similar name pair: combined match percentage score $\geq 50\%$ to $\leq 69\%$	67
Low similarity name pair: combined match percentage score $\leq 49\%$	7

#### **2.2.6 Names with Potential Orthographic, Spelling, and Phonetic Similarities that overlap in strength**

The proposed product, Uptravi will be available in strength of 200 mcg, 400 mcg, 600 mcg, 800 mcg, 1000 mcg, 1200 mcg, 1400 mcg and 1600 mcg. Since this is not a typical strength/ is an unusual strength/ not commonly marketed strength, we searched the Pragmatic® Regulated Product Labeling Listing and Registration System (PR<sup>o</sup>PLLR™) database to identify any names with potential orthographic, spelling, and phonetic similarities with Uptravi that were not identified in POCA, and found to have an overlap in strength with Uptravi.

Our search identified no relevant results.

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<sup>3</sup> POCA search conducted on January 22, 2015.

### ***2.2.7 Safety Analysis of Names with Potential Orthographic, Spelling, and Phonetic Similarities***

Our analysis of the 75 names contained in Table 1 determined none of the names will pose a risk for confusion as described in Appendices C through H.

### ***2.2.8 Communication of DMEPA's Analysis at Midpoint of Review***

DMEPA communicated our findings to the Division of Cardiovascular and Renal Products (DCRP) via e-mail on February 9, 2015. At that time we also requested additional information or concerns that could inform our review. Per e-mail correspondence from the DCRP on February 18, 2015, they stated no additional concerns with the proposed proprietary name, Uptravi.

## **3 CONCLUSIONS**

The proposed proprietary name is acceptable.

If you have further questions or need clarifications, please contact Darrell Lyons, OSE project manager, at 301-796-4092.

### **3.1 COMMENTS TO THE APPLICANT**

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

If any of the proposed product characteristics as stated in your January 7, 2015 submission are 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. *Phonetic and Orthographic Computer Analysis (POCA)***

POCA is a system that FDA designed. As part of the name similarity assessment, POCA is used to evaluate proposed names via a phonetic and orthographic algorithm. The proposed proprietary name is converted into its phonemic representation before it runs through the phonetic algorithm. Likewise, an orthographic algorithm exists that operates in a similar fashion. POCA is publicly accessible.

### ***Drugs@FDA***

Drugs@FDA is an FDA Web site that contains most of the drug products approved in the United States 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* and *generic drugs*; *therapeutic biological products*, *prescription* and *over-the-counter* human drugs; and *discontinued drugs* (see Drugs @ FDA Glossary of Terms, available at [http://www.fda.gov/Drugs/InformationOnDrugs/ucm079436.htm#ther\\_biological](http://www.fda.gov/Drugs/InformationOnDrugs/ucm079436.htm#ther_biological)).

### ***RxNorm***

RxNorm contains the names of prescription and many OTC drugs available in the United States. RxNorm includes generic and branded:

- Clinical drugs – pharmaceutical products given to (or taken by) a patient with therapeutic or diagnostic intent
- Drug packs – packs that contain multiple drugs, or drugs designed to be administered in a specified sequence

Radiopharmaceuticals, contrast media, food, dietary supplements, and medical devices, such as bandages and crutches, are all out of scope for RxNorm (<http://www.nlm.nih.gov/research/umls/rxnorm/overview.html#>).

### ***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.



## APPENDICES

### Appendix A

FDA's Proprietary Name Risk Assessment evaluates proposed proprietary names for misbranding and safety concerns.

1. **Misbranding Assessment:** For prescription drug products, OPDP assesses the name for misbranding concerns. . For over-the-counter (OTC) drug products, the misbranding assessment of the proposed name is conducted by DNCE. OPDP or DNCE evaluates proposed proprietary names to determine if the name is false or misleading, such as by making misrepresentations with respect to safety or efficacy. For example, a fanciful proprietary name may misbrand a product by suggesting that it has some unique effectiveness or composition when it does not (21 CFR 201.10(c)(3)). 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.<sup>4</sup>

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<sup>4</sup> National Coordinating Council for Medication Error Reporting and Prevention.  
<http://www.nccmerp.org/about/MedErrors.html>. Last accessed 10/11/2007.

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

	Answer the questions in the checklist below. Affirmative answers to any of these questions indicate a potential area of concern that should be carefully evaluated as described in this guidance.
<b>Y/N</b>	<b>Is the proposed name obviously similar in spelling and pronunciation to other names?</b>
	Proprietary names should not be similar in spelling or pronunciation to proprietary names, established names, or ingredients of other products.
<b>Y/N</b>	<b>Are there medical and/or coined abbreviations in the proprietary name?</b>
	Proprietary names should not incorporate medical abbreviations (e.g., QD, BID, or others commonly used for prescription communication) or coined abbreviations that have no established meaning.
<b>Y/N</b>	<b>Are there inert or inactive ingredients referenced in the proprietary name?</b>
	Proprietary names should not incorporate any reference to an inert or inactive ingredient in a way that might create an impression that the ingredient's value is greater than its true functional role in the formulation (21 CFR 201.10(c)(4)).
<b>Y/N</b>	<b>Does the proprietary name include combinations of active ingredients?</b>
	Proprietary names of fixed combination drug products should not include or suggest the name of one or more, but not all, of its active ingredients (see 21 CFR 201.6(b)).
<b>Y/N</b>	<b>Is there a United States Adopted Name (USAN) stem in the proprietary name?</b>
	Proprietary names should not incorporate a USAN stem in the position that USAN designates for the stem.
<b>Y/N</b>	<b>Is this proprietary name used for another product that does not share at least one common active ingredient?</b>
	Drug products that do not contain at least one common active ingredient should not use the same (root) proprietary name.
<b>Y/N</b>	<b>Is this a proprietary name of a discontinued product?</b>
	Proprietary names should not use the proprietary name of a discontinued product if that discontinued drug product does not contain the same active ingredients.

b. Phonetic and Orthographic Computer Analysis (POCA): Following the preliminary screening of the proposed proprietary name, DMEPA staff evaluates the proposed name against potentially similar names. In order to identify names with potential similarity to the proposed proprietary name, DMEPA enters the proposed proprietary name in POCA and queries the name against the following drug reference databases, Drugs@fda, CernerRxNorm, and names in the review pipeline using a 50% threshold in POCA. DMEPA reviews the combined orthographic and phonetic matches and group the names into one of the following three categories:

- Highly similar pair: combined match percentage score  $\geq 70\%$ .
- Moderately similar pair: combined match percentage score  $\geq 50\%$  to  $\leq 69\%$ .
- Low similarity: combined match percentage score  $\leq 49\%$ .

Using the criteria outlined in the check list (Table 3-5) that corresponds to each of the three categories (highly similar pair, moderately similar pair, and low similarity), DMEPA evaluates the name pairs to determine the acceptability or non-acceptability of a proposed proprietary name. The intent of these checklists is to increase the transparency and predictability of the safety determination of whether a proposed name is vulnerable to confusion from a look-alike or sound-alike perspective. Each bullet below corresponds to the name similarity category cross-references the respective table that addresses criteria that DMEPA uses to determine whether a name presents a safety concern from a look-alike or sound-alike perspective.

- For highly similar names, differences in product characteristics often cannot mitigate the risk of a medication error, including product differences such as strength and dose. Thus, proposed proprietary names that have a combined score of  $\geq 70$  percent are at risk for a look-alike sound-alike confusion which is an area of concern (See Table 3).
- Moderately similar names with overlapping or similar strengths or doses represent an area for concern for FDA. The dosage and strength information is often located in close proximity to the drug name itself on prescriptions and medication orders, and it can be an important factor that either increases or decreases the potential for confusion between similarly named drug pairs. The ability of other product characteristics to mitigate confusion (e.g., route, frequency, dosage form, etc.) may be limited when the strength or dose overlaps. We review such names further, to determine whether sufficient differences exist to prevent confusion. (See Table 4).
- Names with low similarity that have no overlap or similarity in strength and dose are generally acceptable (See Table 5) unless there are data to suggest that the name might be vulnerable to confusion (e.g., prescription simulation study suggests that the name is likely to be misinterpreted as a marketed product). In these instances, we would reassign a low similarity name to the moderate similarity category and review according to the moderately similar name pair checklist.

- c. FDA Prescription Simulation Studies: DMEPA staff also conducts a prescription simulation studies using FDA health care professionals.

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.

- d. 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.

**Table 3. Highly Similar Name Pair Checklist (i.e., combined Orthographic and Phonetic score is  $\geq 70\%$ ).**

Answer the questions in the checklist below. Affirmative answers to some of these questions suggest that the pattern of orthographic or phonetic differences in the names may render the names less likely to confusion, provided that the pair do not share a common strength or dose.			
<u>Orthographic Checklist</u>		<u>Phonetic Checklist</u>	
<b>Y/N</b>	Do the names begin with different first letters? <i>Note that even when names begin with different first letters, certain letters may be confused with each other when scripted.</i>	<b>Y/N</b>	Do the names have different number of syllables?
<b>Y/N</b>	Are the lengths of the names dissimilar* when scripted?  <i>*FDA considers the length of names different if the names differ by two or more letters.</i>	<b>Y/N</b>	Do the names have different syllabic stresses?
<b>Y/N</b>	Considering variations in scripting of some letters (such as z and f), is there a different number or placement of upstroke/downstroke letters present in the names?	<b>Y/N</b>	Do the syllables have different phonologic processes, such vowel reduction, assimilation, or deletion?
<b>Y/N</b>	Is there different number or placement of cross-stroke or dotted letters present in the names?	<b>Y/N</b>	Across a range of dialects, are the names consistently pronounced differently?
<b>Y/N</b>	Do the infixes of the name appear dissimilar when scripted?		
<b>Y/N</b>	Do the suffixes of the names appear dissimilar when scripted?		

**Table 4: Moderately Similar Name Pair Checklist (i.e., combined score is  $\geq 50\%$  to  $\leq 69\%$ ).**

Step 1	<p>Review the DOSAGE AND ADMINISTRATION and HOW SUPPLIED/STORAGE AND HANDLING sections of the prescribing information (or for OTC drugs refer to the Drug Facts label) to determine if strengths and doses of the name pair overlap or are very similar. Different strengths and doses for products whose names are moderately similar may decrease the risk of confusion between the moderately similar name pairs. Name pairs that have overlapping or similar strengths or doses have a higher potential for confusion and should be evaluated further (see Step 2). Because the strength or dose could be used to express an order or prescription for a particular drug product, overlap in one or both of these components would be reason for further evaluation.</p> <p>For single strength products, also consider circumstances where the strength may not be expressed.</p> <p>For any i.e. drug products comprised of more than one active ingredient, consider whether the strength or dose may be expressed using only one of the components.</p> <p>To determine whether the strengths or doses are similar to your proposed product, consider the following list of factors that may increase confusion:</p> <ul style="list-style-type: none"> <li>○ Alternative expressions of dose: 5 mL may be listed in the prescribing information, but the dose may be expressed in metric weight (e.g., 500 mg) or in non-metric units (e.g., 1 tsp, 1 tablet/capsule). Similarly, a strength or dose of 1000 mg may be expressed, in practice, as 1 g, or vice versa.</li> <li>○ Trailing or deleting zeros: 10 mg is similar in appearance to 100 mg which may potentiate confusion between a name pair with moderate similarity.</li> <li>○ Similar sounding doses: 15 mg is similar in sound to 50 mg</li> </ul>
Step 2	<p>Answer the questions in the checklist below. Affirmative answers to some of these questions suggest that the pattern of orthographic or phonetic differences in the names may reduce the likelihood of confusion for moderately similar names <b><u>with</u></b> overlapping or similar strengths or doses.</p>

	<p>Orthographic Checklist (Y/N to each question)</p> <ul style="list-style-type: none"> <li>Do the names begin with different first letters?</li> </ul> <p>Note that even when names begin with different first letters, certain letters may be confused with each other when scripted.</p> <ul style="list-style-type: none"> <li>Are the lengths of the names dissimilar* when scripted?</li> </ul> <p>*FDA considers the length of names different if the names differ by two or more letters.</p> <ul style="list-style-type: none"> <li>Considering variations in scripting of some letters (such as <i>z</i> and <i>f</i>), is there a different number or placement of upstroke/downstroke letters present in the names?</li> <li>Is there different number or placement of cross-stroke or dotted letters present in the names?</li> <li>Do the infixes of the name appear dissimilar when scripted?</li> <li>Do the suffixes of the names appear dissimilar when scripted?</li> </ul>	<p>Phonetic Checklist (Y/N to each question)</p> <ul style="list-style-type: none"> <li>Do the names have different number of syllables?</li> <li>Do the names have different syllabic stresses?</li> <li>Do the syllables have different phonologic processes, such as vowel reduction, assimilation, or deletion?</li> <li>Across a range of dialects, are the names consistently pronounced differently?</li> </ul>
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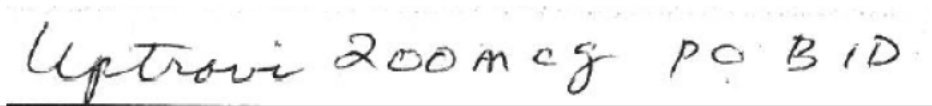
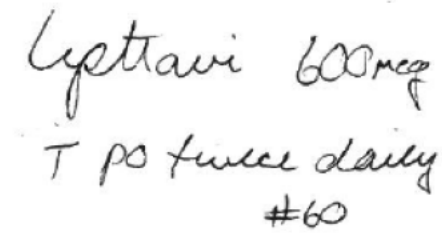
**Table 5: Low Similarity Name Pair Checklist (i.e., combined score is  $\leq 49\%$ ).**

In most circumstances, these names are viewed as sufficiently different to minimize confusion. Exceptions to this would occur in circumstances where, for example, there are data that suggest a name with low similarity is nonetheless misinterpreted as a marketed product name in a prescription simulation study. In such instances, FDA would reassign a low similarity name to the moderate similarity category and review according to the moderately similar name pair checklist.



**Appendix B:** Prescription Simulation Samples and Results

**Figure 1. Uptravi Study (Conducted on January 7, 2015)**

Handwritten Requisition Medication Order	Verbal Prescription
<u>Medication Order:</u> 	Uptravi 600 mcg 1 po twice daily Dispense #60
<u>Outpatient Prescription:</u> 	

# **FDA Prescription Simulation Responses (Aggregate 1 Rx Studies Report)**

**Study Name: Uptravi**

As of Date 2/9/2015

252 People Received Study

87 People Responded

<b>Total</b>	<b>31</b>	<b>24</b>	<b>32</b>	
<b>INTERPRETATION</b>	<b>OUTPATIENT</b>	<b>VOICE</b>	<b>INPATIENT</b>	<b>TOTAL</b>
ABTRAVI	0	1	0	1
ABTRAVY	0	1	0	1
APTRABE	0	1	0	1
APTRAVI	0	1	0	1
APTRAVIE	0	1	0	1
CYSTLAVI	1	0	0	1
LEPTRAVI	1	0	0	1
LEPTROVI	0	0	2	2
LIPOTRAVI	1	0	0	1
LIPTLAVI	2	0	0	2
LIPTRAVI	11	0	0	11
LIPTRAVI 600MG	1	0	0	1
LIPTROVI	0	0	3	3
LYSTRAVI	1	0	0	1
OBTRABI	0	1	0	1
OBTRATIC	0	1	0	1
OBTRAVI	0	3	0	3
OPTRAVI	0	3	0	3
UPTAVY	0	1	0	1
UPTRAVE	0	1	0	1
UPTRAVI	13	8	2	23
UPTRAVY	0	1	0	1
UPTROVI	0	0	24	24
UPTROVIR	0	0	1	1

**Appendix C:** Highly Similar Names (e.g., combined POCA score is  $\geq 70\%$ )

No.	<b>Proposed name:</b> Uptravi <b>Established name:</b> selexipag <b>Dosage form:</b> Tablet <b>Strength(s):</b> 200 mcg, 400 mcg, 600 mcg, 800 mcg, 1000 mcg, 1200 mcg, 1400 mcg, 1600 mcg <b>Usual Dose:</b> 200 mcg to 1600 mcg twice daily	POCA Score (%)	<b>Orthographic and/or phonetic differences in the names sufficient to prevent confusion</b>  <b>Other prevention of failure mode expected to minimize the risk of confusion between these two names.</b>
1.	Uptravi	100	Name is the subject of the review

**Appendix D:** Moderately Similar Names (e.g., combined POCA score is  $\geq 50\%$  to  $\leq 69\%$ ) with no overlap or numerical similarity in Strength and/or Dose

No.	Proposed Name	POCA Score (%)
1.	Ak-tracin	56
2.	ATRALIN	52
3.	Ocu-tracin	54
4.	OPTIVAR	52
5.	Tetravisc	54
6.	Triavil	55
7.	TRIAVIL 2-10	55
8.	TRIAVIL 2-25	55
9.	TRIAVIL 4-10	55
10.	TRIAVIL 4-25	55
11.	TRIAVIL 4-50	55
12.	ULTRACEF	54
13.	ULTRACET	54
14.	ULTRAGRIS-165	52
15.	ULTRAGRIS-330	52
16.	Ultrasal	54
17.	Ultrase	51
18.	ULTRATAG	50
19.	ULTRAVATE	56
20.	ULTRESA	57
21.	Uni-Tris	54

**Appendix E:** Moderately Similar Names (e.g., combined POCA score is  $\geq 50\%$  to  $\leq 69\%$ ) with overlap or numerical similarity in Strength and/or Dose

No.	<b>Proposed name:</b> Upravi <b>Established name:</b> selexipag <b>Dosage form:</b> Tablet <b>Strength(s):</b> 200 mcg, 400 mcg, 600 mcg, 800 mcg, 1000 mcg, 1200 mcg, 1400 mcg, 1600 mcg <b>Usual Dose:</b> 200 mcg to 1600 mcg twice daily	POCA Score (%)	<b>Prevention of Failure Mode</b>  <b>In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names</b>
1.	CONTRA VE	50	The prefix of this name pair has sufficient orthographic differences. The first syllable of this name pair sound different.
2.	EMTRIVA	59	The prefix of this name pair has sufficient orthographic differences. The first syllable of this name pair sound different.
3.	Estra-V 40	62	The prefix and suffix of this name pair has sufficient orthographic differences. The first syllable of this name pair sound different. Additionally, Estra-V 40 contains extra syllables from the modifier '40'.
4.	Lustra	50	The prefix and suffix of this name pair has sufficient orthographic differences. The first syllable of this name pair sound different. Upravi has 3 syllables whereas Lustra has 2 syllables.
5.	Lustra AF	50	The prefix and suffix of this name pair has sufficient orthographic differences. The first syllable of this name pair sound different. Upravi has 3 syllables whereas Lustra has 2 syllables. Additionally, Lustra AF contains extra syllables from the modifier 'AF'.
6.	Portrazza***	50	The prefix and suffix of this name pair have sufficient orthographic differences. The first and third syllables of this name pair sound different.

No.	<b>Proposed name:</b> Uptravi <b>Established name:</b> selexipag <b>Dosage form:</b> Tablet <b>Strength(s):</b> 200 mcg, 400 mcg, 600 mcg, 800 mcg, 1000 mcg, 1200 mcg, 1400 mcg, 1600 mcg <b>Usual Dose:</b> 200 mcg to 1600 mcg twice daily	POCA Score (%)	<b>Prevention of Failure Mode</b>  <b>In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names</b>
7.	SEPTRA	52	The prefix and suffix of this name pair has sufficient orthographic differences. The first syllable of this name pair sound different. Uptravi contains 3 syllables whereas Septra contains only 2 syllables.
8.	SEPTRA DS	51	The prefix and suffix of this name pair has sufficient orthographic differences. The first syllable of this name pair sound different. Uptravi contains 3 syllables whereas the root name Septra contains only 2 syllables. Additionally, SEPTRA DS contains extra syllables from the modifier 'DS'.
9.	ULTRAM	55	The prefix and suffix of this name pair have sufficient orthographic differences. The first syllable of this name pair sound different. Uptravi contains 3 syllables whereas Ultram contains only 2 syllables.
10.	ULTRAM ER	51	The prefix and suffix of this name pair have sufficient orthographic differences. The first syllable of this name pair sound different. Uptravi contains 3 syllables whereas Ultram contains only 2 syllables. Additionally, ULTRAM ER contains extra syllables from the modifier 'ER'.
11.	Ultraprin	52	The prefix and suffix of this name pair have sufficient orthographic differences. The first and third syllables of this name pair sound different.
12.	Ultravist	61	The prefix and suffix of this name pair have sufficient orthographic differences. The first and third syllable of this name pair sound different.

No.	<b>Proposed name:</b> Uptravi <b>Established name:</b> selexipag <b>Dosage form:</b> Tablet <b>Strength(s):</b> 200 mcg, 400 mcg, 600 mcg, 800 mcg, 1000 mcg, 1200 mcg, 1400 mcg, 1600 mcg <b>Usual Dose:</b> 200 mcg to 1600 mcg twice daily	POCA Score (%)	<b>Prevention of Failure Mode</b>  <b>In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names</b>
13.	ULTRAVIST 150	61	The prefix and suffix of this name pair have sufficient orthographic differences. The first and third syllable of this name pair sound different. Additionally, ULTRAVIST 150 contains extra syllables from the modifier '150'.
14.	ULTRAVIST 240	61	The prefix and suffix of this name pair have sufficient orthographic differences. The first and third syllable of this name pair sound different. Additionally, ULTRAVIST 240 contains extra syllables from the modifier '240'.
15.	ULTRAVIST 300	61	The prefix and suffix of this name pair have sufficient orthographic differences. The first and third syllable of this name pair sound different. Additionally, ULTRAVIST 300 contains extra syllables from the modifier '300'.
16.	ULTRAVIST 370	61	The prefix and suffix of this name pair have sufficient orthographic differences. The first and third syllable of this name pair sound different. Additionally, ULTRAVIST 370 contains extra syllables from the modifier '370'.

**Appendix F:** Low Similarity Names (e.g., combined POCA score is  $\leq 49\%$ )

No.	Name	POCA Score (%)
1.	Lupron*	36
2.	Motrin*	42
3.	Urecholine*	21
4.	Ultane*	30
5.	Vytorin*	36
6.	Travatan*	42
7.	Aptivus†	48

\*Name identified from (b) (4) External Study submitted in Request for Proprietary name Review under IND 104504

†Name identified from the FDA Prescription Stimulation Study. The risk of confusion between Aptivus and Uptravi is mitigated by the fact that these two drugs have no overlaps in strength and dose.

**Appendix G:** Names not likely to be confused or not used in usual practice settings for the reasons described.

No.	Name	POCA Score (%)	Failure preventions
1.	amitraz	50	Veterinary product
2.	Ampriva***	54	Proposed name was found unacceptable in OSE 2009-1763. Product approved under the proprietary name, Ampyra for NDA 022250.
3.	Citravet	54	Veterinary product
4.	Estracyt	50	International product marketed in France, Argentina, Belgium, China, Chile, Greece, Italy, South Africa, Singapore, etc.

No.	Name	POCA Score (%)	Failure preventions
5.	Estra-D	52	Name identified in RxNorm database. Unable to find product characteristics in commonly used drug databases. According to Redbook, product is discontinued and no generics are available.
6.	(b) (4) ***	54	Proposed name, (b) (4) *** was found unacceptable (see Regulatory History in OSE 2013-1782) for NDA (b) (4). The product is conditionally approved under a new proprietary name, (b) (4) *** under OSE 2013-1782 on 9/18/2013. However, NDA (b) (4) is withdrawn as of 12/3/2014 (b) (4).
7.	Septtrin	52	International product marketed in United Kingdom, Greece, Australia, Ireland, Mexico, Philippines, Israel, Chile, and Spain.
8.	(b) (4) ***	50	Proposed name, (b) (4) *** was found unacceptable in OSE 2011-2846 under IND (b) (4). The Applicant submitted an alternative name, (b) (4) ***, but later withdrew the name, (b) (4) *** on 10/11/2012 because their clinical study did not meet its primary endpoint. The Applicant did not submit any new proprietary names since 2012.
9.	TRAVASE	52	Product is discontinued and no generics are available. NDA 012828 is withdrawn FR effective 8/19/2013.
10.	Travivo***	56	Proposed name submitted under IND 33626 (OSE 2007-254) and NDA 21164 (OSE 2007-1145). NDA 21164 received a status of "Not Approvable" as of 11/2/2007. No new proprietary names were submitted.



No.	Name	POCA Score (%)	Failure preventions
11.	Ubretid	50	International product marketed in Greece, Russia, Germany, Hong Kong, Switzerland, and Japan.

**Appendix H:** Names not likely to be confused due to notable spelling, orthographic and phonetic differences.

No.	Name	POCA Score (%)
1.	ESTROVIS	58
2.	(b) (4) ***	51
3.	OPTIRAY 160	56
4.	OPTIRAY 240	56
5.	OPTIRAY 300	56
6.	OPTIRAY 320	56
7.	OPTIRAY 350	56
8.	Otrivin	59
9.	(b) (4) ***	50
10.	Petrola	50
11.	PIPRACIL	54
12.	Pitressin***	50
13.	Provil	52
14.	RAPTIVA	50
15.	RETROVIR	50
16.	Seb-Prev	50
17.	SPIRIVA	52
18.	(b) (4) ***	62
19.	Zuprevo	57

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/s/  
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TINGTING N GAO  
02/19/2015

CHI-MING TU  
02/19/2015