

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**207962Orig1s000**

**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>	November 16, 2017
<b>Application Type and Number:</b>	NDA 207962
<b>Product Name and Strength:</b>	Ztlido (lidocaine) topical system, 1.8%
<b>Product Type:</b>	Single ingredient
<b>Rx or OTC:</b>	Rx
<b>Applicant/Sponsor Name:</b>	Scilex Pharmaceuticals, Inc.
<b>Panorama #:</b>	2017- 17243903
<b>DMEPA Safety Evaluator:</b>	Millie Shah, PharmD, BCPS
<b>DMEPA Team Leader:</b>	Otto L. Townsend, PharmD

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## 1 INTRODUCTION

This review evaluates the proposed proprietary name, Ztlido, 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 did not submit an external name study for this proposed proprietary name.

### 1.1 REGULATORY HISTORY

The Applicant previously submitted the proposed proprietary name, Ztlido, on July 9, 2014 and July 10, 2015. The Division of Medication Error Prevention and Analysis (DMEPA) found the name, Ztlido, acceptable in OSE Review #2014-258591, dated November 4, 2014<sup>a</sup> and in OSE Review #2015-992880 dated September 18, 2015<sup>b</sup>. However, the Division of Anesthesia, Analgesia, and Addiction Products (DAAAP) issued a Complete Response (CR) for the application on May 10, 2016. The Applicant re-submitted the application, including the request for proprietary name review, on August 28, 2017.

### 1.2 PRODUCT INFORMATION

The following product information is provided in the August 28, 2017 proprietary name submission.

- Intended Pronunciation: ZEE-TEE-LIE-DOH
- Active Ingredient: lidocaine
- Indication of Use: Relief of pain associated with postherpetic neuralgia.
- Route of Administration: topical
- Dosage Form: topical system
- Strength: 1.8%
- Dose and Frequency: 1 to 3 patches only once for up to 12 hours within a 24-hour period
- How Supplied: one patch per envelope, packaged in a 30-count carton
- Storage: Store at 25°C (77°F); excursions permitted to 15-30°C (59-86°F)

## 2 RESULTS

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

### 2.1 MISBRANDING ASSESSMENT

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<sup>a</sup> Brahmhatt M. Proprietary Name Review for Ztlido (IND 111537). 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 NOV 04. 21 p. OSE RCM No.: 2014-25859.

<sup>b</sup> Shah M. Proprietary Name Review for Ztlido (NDA 207962). 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); 2015 SEP 18. 22 p. OSE RCM No.: 2015-992880.

The Office of Prescription Drug Promotion (OPDP) determined that the proposed name would not misbrand the proposed product. The Division of Medication Error Prevention and Analysis (DMEPA) and the Division of Anesthesia, Analgesia, and Addiction Products (DAAAP) 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>c</sup>.

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

The Applicant indicated in their submission that the proposed name, Ztlido, is derived from, “Z (zero water content) T (transdermal) lido (lidocaine).” 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 Comments from Other Review Disciplines at Initial Review***

In response to the OSE e-mail dated September 6, 2017, the Division of Anesthesia, Analgesia, and Addiction Products (DAAAP) did not forward any comments or concerns relating to the proposed proprietary name at the initial phase of the review.

### ***2.2.4 FDA Name Simulation Studies***

Eighty-six practitioners participated in DMEPA’s prescription studies. The responses did not overlap with any currently marketed products nor did the responses sound or look similar to any currently marketed products or any products in the pipeline. Appendix B contains the results from the verbal and written prescription studies.

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

Our POCA search<sup>d</sup> identified 27 names with a combined phonetic and orthographic score of  $\geq 55\%$  or an individual phonetic or orthographic score  $\geq 70$ . These names are included in Table 1 below.

### ***2.2.6 Names with Strength Overlap and Potential Orthographic, Spelling, and Phonetic Similarities***

The proposed product, Ztlido, will be available in 1.8% strength. Since this is not a typical strength that is commonly marketed, we searched the Electronic Drug Registration and Listing System (eDRLS) database to identify names with strength overlap. Names identified in the eDRLS database not likely to be confused due to notable spelling, orthographic and phonetic differences are listed in Appendix I.

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<sup>c</sup> USAN stem search conducted on September 5, 2017.

<sup>d</sup> POCA search conducted on August 30, 2017 in version 4.1.

### 2.2.7 Names Retrieved for Review Organized by Name Pair Similarity

Table 1 lists the number of names retrieved from our POCA search. These name pairs are organized as highly similar, moderately similar or low similarity for further evaluation.

Table 1. Similarity Category	Number of Names
Highly similar name pair: combined match percentage score $\geq 70\%$	2
Moderately similar name pair: combined match percentage score $\geq 55\%$ to $\leq 69\%$	21
Low similarity name pair: combined match percentage score $\leq 54\%$	4

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

Our analysis of the 27 names contained in Table 1 determined that none of the names will pose a risk for confusion as described in Appendices C through H.

### 2.2.9 Communication of DMEPA's Analysis at Midpoint of Review

DMEPA communicated our findings to the Division of Anesthesia, Analgesia, and Addiction Products (DAAAP) via e-mail on November 9, 2017. At that time, we also requested additional information or concerns that could inform our review. The DAAAP did not have concerns with the proposed proprietary name, Ztlido.

## 3 CONCLUSIONS

The proposed proprietary name is acceptable.

If you have any questions or need clarifications, please contact Davis Mathew, OSE project manager, at 240-402-4559.

### 3.1 COMMENTS TO THE APPLICANT

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

If any of the proposed product characteristics as stated in your August 28, 2017 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.

3. ***Electronic Drug Registration and Listing System (eDRLS) database***

The electronic Drug Registration and Listing System (eDRLS) was established to support the FDA's Center for Drug Evaluation and Research (CDER) goal to establish a common Structured Product Labeling (SPL) repository for all facilities that manufacture regulated drugs. The system is a reliable, up-to-date inventory of FDA-regulated, drugs and establishments that produce drugs and their associated information.

## 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 DNDP. OPDP or DNDP 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 DNDP 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>°</sup>

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<sup>°</sup> National Coordinating Council for Medication Error Reporting and Prevention.  
<http://www.nccmerp.org/aboutMedErrors.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 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 55% 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  $\geq 55\%$  to  $\leq 69\%$ .
  - Low similarity: combined match percentage score  $\leq 54\%$ .

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 are further evaluated to identify the presence of attributes that are known to cause name confusion.
  - Name attributes: We note that the beginning of the drug name plays a significant role in contributing to confusion. Additionally, drug name pairs that start with the same first letter and contain a shared letter string of at least 3 letters in both names are major contributing factor in the confusion of drug names<sup>f</sup>. We evaluate all moderately similar names retrieved from POCA to identify the above attributes. These names are further evaluated to identify overlapping or similar strengths or doses.
  - Product attributes: Moderately similar names of products that have overlapping or similar strengths or doses represent an area for concern for FDA. The dose and strength information is often located in close proximity to the drug name itself on prescriptions and medication orders, and the information 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.,

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<sup>f</sup> Shah, M, Merchant, L, Characteristics That May Help in the Identification of Potentially Confusing Proprietary Drug Names. Therapeutic Innovation & Regulatory Science, September 2016

route, frequency, dosage form) may be limited when the strength or dose overlaps. DMEPA reviews 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 does 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?

Y/N	Is there different number or placement of cross-stroke or dotted letters present in the names?	Y/N	Across a range of dialects, are the names consistently pronounced differently?
Y/N	Do the infixes of the name appear dissimilar when scripted?		
Y/N	Do the suffixes of the names appear dissimilar when scripted?		

**Table 4: Moderately Similar Name Pair Checklist (i.e., combined score is  $\geq 55\%$  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>
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Step 2	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>with</b> overlapping or similar strengths or doses.	
	<p>Orthographic Checklist (Y/N to each question)</p> <ul style="list-style-type: none"> <li>Do the names begin with different first letters? Note that even when names begin with different first letters, certain letters may be confused with each other when scripted.</li> <li>Are the lengths of the names dissimilar* when scripted? *FDA considers the length of names different if the names differ by two or more letters.</li> <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>

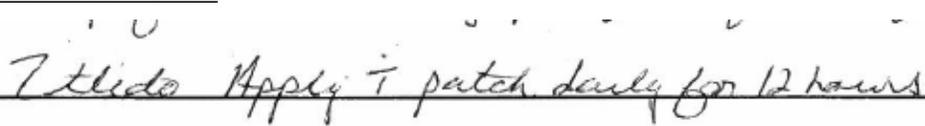
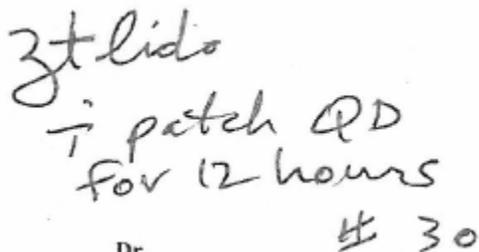
**Table 5: Low Similarity Name Pair Checklist (i.e., combined score is  $\leq 54\%$ ).**

Names with low similarity are generally acceptable 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.

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

**Figure 1. Ztlido Study (Conducted on September 29, 2017)**

<b>Handwritten Medication Order/Prescription</b>	<b>Verbal Prescription</b>
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<u>Medication Order:</u> 	Ztlido Apply 1 patch daily for 12 hours
<u>Outpatient Prescription:</u> 	Dispense #30

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

297 People Received

Study

86 People Responded

Study Name: Ztlido

	33	25	28	
Total				
INTERPRETATION	OUTPATIENT	VOICE	INPATIENT	TOTAL
FEMESSA	1	0	0	1
STLIDO	0	0	1	1
Z T LIDO	0	1	0	1
ZEETELIDO	0	1	0	1
ZETELIDO	0	3	0	3
ZETELIDO PATCHES	0	1	0	1
ZETELITO	0	1	0	1
ZETILIDO	0	1	0	1
ZETLIDO	0	1	0	1
ZE-T-LIDO	0	1	0	1
ZILIDO	0	0	1	1
ZIQULYDO	0	1	0	1
ZITILIDO	0	1	0	1
ZT LEIDO	0	1	0	1
ZT LIDO	1	8	0	9
Z-T LIDO	0	2	0	2
ZTILDA	0	0	1	1
ZTILIDO	0	0	1	1
ZTLIDO	28	2	24	54
ZTLIDS	1	0	0	1
ZTLILDO	1	0	0	1
ZYTLID	1	0	0	1

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

No.	Proposed name: Ztlido Established name: lidocaine Dosage form: patch Strength(s): 1.8% Usual Dose: Apply 1 to 3 patches only once for up to 12 hours within a 24-hour period	POCA Score (%)	Orthographic and/or phonetic differences in the names sufficient to prevent confusion  Other prevention of failure mode expected to minimize the risk of confusion between these two names.
1.	Ztlido	100	Name subject of this review
2.	Xolido	70	The prefixes (“Xo” and “Zt”) have sufficient orthographic differences. Ztlido contains a cross-stroke in the letter “t,” whereas Xolido does not. The first and second syllables of this name pair sound different. Ztlido has an extra syllable.

**Appendix D:** Moderately Similar Names (e.g., combined POCA score is  $\geq 55\%$  to  $\leq 69\%$ ) with no overlap or numerical similarity in Strength and/or Dose

No.	Name	POCA Score (%)
3.	Not Applicable	

**Appendix E:** Moderately Similar Names (e.g., combined POCA score is  $\geq 55\%$  to  $\leq 69\%$ ) with overlap or numerical similarity in Strength and/or Dose

No.	Proposed name: Ztlido Established name: lidocaine Dosage form: patch Strength(s): 1.8% Usual Dose: Apply 1 to 3 patches only once for up to 12 hours within a 24-hour period	POCA Score (%)	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
4.	(b) (4) ***	57	This name pair has sufficient orthographic and phonetic differences.
5.	(b) (4) ***	57	This name pair has sufficient orthographic and phonetic differences.
6.	Z-sleep	52	This name pair has sufficient orthographic and phonetic differences.
7.	Tedizolid	51	This name pair has sufficient orthographic and phonetic differences.
8.	Lidothol	46	This name pair has sufficient orthographic and phonetic differences.

**Appendix F:** Low Similarity Names (e.g., combined POCA score is  $\leq 54\%$ )

No.	Name	POCA Score (%)
9.	Not Applicable	

**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
10.	Ticlid	66	Brand discontinued with no generic available. NDA 019979 withdrawn; FR Effective 07/08/2011.
11.	Azolid	61	Brand discontinued with no generic available. 100 mg tablet (ANDA 087091; FR Effective 03/31/1992) and 100 mg capsule (ANDA 087260; FR Effective 03/30/1992). Active ingredient, phenylbutazone, is only available as a powder for compounding.
12.	Skelid	59	Brand discontinued. NDA 020707 withdrawn. FR Effective 01/05/2015. Generic available as veterinary product.
13.	Zida-Co	56	International product marketed in the United Kingdom.
14.	Stesolid	55	International product marketed in several foreign countries.
15.	(b) (4) ***	46	Proposed proprietary name for ANDA 204234 found unacceptable by DMEPA ( (b) (4) ). ANDA 204234 approved without a proprietary name.

**Appendix H:** Names not likely to be confused due to absence of attributes that are known to cause name confusion<sup>g</sup>.

No.	Name	POCA Score (%)
16.	(b) (4) ***	65
17.	Stadol	58
18.	Stiolto	58
19.	Glydo	57

<sup>g</sup> Shah, M, Merchant, L, Chan, I, and Taylor, K. Characteristics That May Help in the Identification of Potentially Confusing Proprietary Drug Names. Therapeutic Innovation & Regulatory Science, September 2016

No.	Name	POCA Score (%)
20.	Tabloid	57
21.	Slo-Indo	56
22.	Stalevo	56
23.	Stalevo 100	56
24.	Stalevo 125	56
25.	Stalevo 150	56
26.	Stalevo 200	56
27.	Stalevo 50	56
28.	Stalevo 75	56
29.	Xl-Dol	56

**Appendix I:** Names identified in the eDRLS database not likely to be confused due to notable spelling, orthographic and phonetic differences.

No.	Name
1.	AC Control Daily Mask
2.	ALWAYS PURE FIRST AID
3.	Amiodarone HCl
4.	AQUA COLLAGEN SOLUTION EYE TREATMENT MASK
5.	BK Cell 5DAYS OF SECRET PURITY WRINKLE LIFTING
6.	BRTC Jasmine 3D Jelly Foundation
7.	COVER YOUR MOUTH
8.	DIAPEDIC FOOT AND LEG TREATMENT
9.	Dyna1195
10.	Dynashield
11.	Four Season
12.	GeriGard
13.	GOLD CAVIAR COLLAGEN SERUM
14.	HES CLEAN EVE
15.	HES CLEAN FOR WOMAN
16.	Home Health Everclean Antidandruff
17.	Long Last Makeup 00
18.	Long Last Makeup 01
19.	Long Last Makeup 03
20.	Long Last Makeup 05
21.	Mediceuticals X-Derma
22.	Medpride
23.	Miracle of Aloe Rub Roll On
24.	Natural Cherry Honey Herb Throat Drops
25.	New Skin Bandage
26.	Nexterone
27.	PLATINUM GRAPE CELL EMULSION
28.	Preparing Tonic

<b>No.</b>	<b>Name</b>
29.	Pro-Den Rx
30.	PsoriWash
31.	ROVECTIN
32.	zinc oxide

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**This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.**  
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/s/  
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MILLIE C BRAHMBHATT  
11/16/2017

OTTO L TOWNSEND  
11/16/2017

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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>	September 18, 2015
<b>Application Type and Number:</b>	NDA 207962
<b>Product Name and Strength:</b>	ZTlido (lidocaine) 1.8% patch
<b>Product Type:</b>	Single ingredient
<b>Rx or OTC:</b>	Rx
<b>Applicant/Sponsor Name:</b>	Scilex Pharmaceuticals, Inc.
<b>Submission Date:</b>	July 10, 2015
<b>Panorama #:</b>	2015-992880
<b>DMEPA Primary Reviewer:</b>	Millie Shah, PharmD, BCPS
<b>DMEPA Team Leader:</b>	Vicky Borders-Hemphill, PharmD

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## 1 INTRODUCTION

This review evaluates the proposed proprietary name, ZTlido, 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 did not submit an external name study for this proposed proprietary name.

### 1.1 REGULATORY HISTORY

The Applicant previously submitted the proposed proprietary name, ZTlido on July 9, 2014. The Division of Medication Error Prevention and Analysis (DMEPA) found the name, ZTlido, acceptable in OSE Review #2014-25859<sup>1</sup>, dated November 4, 2014.

### 1.2 PRODUCT INFORMATION

The Sponsor provided the following product information in the July 10, 2015 proprietary name submission.

- Intended Pronunciation: ZEE-TEE-LIE-DOH
- Active Ingredient: lidocaine
- Indication of Use: Relief of pain associated with postherpetic neuralgia
- Route of Administration: topical
- Dosage Form: patch
- Strength: 1.8%
- Dose and Frequency: 1 to 3 patches only once for up to 12 hours within a 24-hour period
- How Supplied: Carton of (b) (4) or 30 patches, packaged into individual child-resistant envelopes.
- Storage: Store at 25°C (77°F); excursions permitted to 15°-30°C (59°-86°F). [See USP Controlled Room Temperature].
- Container and Closure Systems: The drug product will be available in an (b) (4) envelope. There will be one patch per envelope.

## 2 RESULTS

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

### 2.1 MISBRANDING ASSESSMENT

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<sup>1</sup> Brahmbhatt M. Proprietary Name Review for Ztlido (IND 111537). 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 NOV 04. 21 p. OSE RCM No.: 2014-25859.

The Office of Prescription Drug Promotion (OPDP) determined that the proposed name would not misbrand the proposed product. DMEPA and the Division of Anesthesia, Analgesia, and Addiction Products (DAAAP) 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 indicated in their submission that the proposed name, ZTlido, is derived from Z (zero water content) T (transdermal) lido (lidocaine). Neither OPDP nor DAAAP identified any concerns with the name derivation, and DMEPA did not identify a safety concern stemming from the name derivation. 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.

### ***2.2.4 FDA Name Simulation Studies***

Eighty practitioners participated in DMEPA's prescription studies. Of the 80 participants, 52 correctly interpreted the name ZTlido. The responses did not overlap with any currently marketed products nor did the responses sound or look similar to any currently marketed products or any products in the pipeline.

In the voice study, three participants correctly interpreted the name. Common misinterpretations occurred in the prefix of the name where participants inserted either "e" (5 of 24 participants), "i" (2 of 24 participants), "ee" (2 of 24 participants), or "y" (1 of 24 participants) between the "Z" and "T." Another common misinterpretation in the prefix of the name occurred where participants inserted either "e" (5 of 24 participants), "i" (3 of 24 participants), or "ee" (1 of 24 participants) between the "T" and the "l" in the name.

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

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

In response to the OSE August 7, 2015 e-mail, the Division of Anesthesia, Analgesia, and Addiction Products (DAAAP) did not forward any comments or concerns relating to the proposed proprietary name at the initial phase of the review.

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<sup>2</sup>USAN stem search conducted on July 30, 2015.

**2.2.6 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.

<b>Table 1. POCA Search Results</b>	<b>Number of Names</b>
Highly similar name pair: combined match percentage score $\geq 70\%$	2
Moderately similar name pair: combined match percentage score $\geq 50\%$ to $\leq 69\%$	29
Low similarity name pair: combined match percentage score $\leq 49\%$	0

2.2.7 *N  
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***with Potential Orthographic, Spelling, and Phonetic Similarities that overlap in strength***

The proposed product, ZTlido, will be available in strength of 1.8%. Since this is not a typical strength, we searched the Electronic Drug Registration and Listing System (eDRLS) database to identify any names with potential orthographic, spelling, and phonetic similarities with ZTlido that were not identified in POCA, and found to have an overlap in strength with ZTlido.

<b>Table 1A. eDRLS Search Results</b>	<b>POCA score</b>
None	Not Applicable

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

Our analysis of the 31 names contained in Table 1 determined 31 names will not pose a risk for confusion as described in Appendices C through H.

**2.2.9 Communication of DMEPA’s Analysis at Midpoint of Review**

DMEPA communicated our findings to the Division of Anesthesia, Analgesia, and Addiction Products (DAAAP) via e-mail on September 1, 2015. At that time, we also requested additional information or concerns that could inform our review. Per e-mail correspondence from the DAAAP on September 11, 2015, they stated no additional concerns with the proposed proprietary name, ZTlido.

**3 CONCLUSIONS**

<sup>3</sup> POCA search conducted on July 30, 2015.

The proposed proprietary name is acceptable.

If you have any questions or need clarifications, please contact Lisa Skarupa, OSE project manager, at 301-796-2219.

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

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

If any of the proposed product characteristics as stated in your July 10, 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 DNDP. OPDP or DNDP 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 DNDP 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/aboutMedErrors.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 <i>z</i> and <i>f</i> ), 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 as 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  $\leq 69\%$ ).**

<p>Step 1</p>	<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>
<p>Step 2</p>	<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>

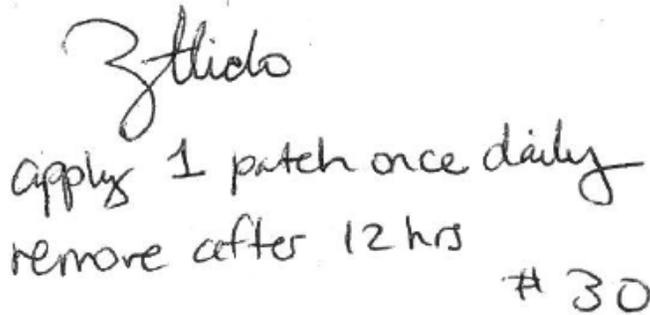
<p>Orthographic Checklist (Y/N to each question)</p> <ul style="list-style-type: none"> <li>• Do the names begin with different first letters?</li> </ul> <p>Note that even when names begin with different first letters, certain letters may be confused with each other when scripted.</p> <ul style="list-style-type: 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. ZTlido Study (Conducted on July 31, 2015)**

Handwritten Requisition Medication Order	Verbal Prescription
<p><u>Medication Order:</u>  <i>Ztlido 7 patch topically Qdaily x 12 hrs.</i></p> <p><u>Outpatient Prescription:</u>  </p>	<p>ZTlido</p> <p>Apply one patch once daily. Remove after 12 hours.</p> <p>Dispense number 30</p>

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

244 People Received Study 80 People Responded				
Study Name: ZTlido				
<b>Total</b>	<b>25</b>	<b>24</b>	<b>31</b>	
INTERPRETATION	OUTPATIENT	VOICE	INPATIENT	TOTAL
CETEOLIDO	0	1	0	1
CT LIDO	0	1	0	1
ZEETEELIDO	0	1	0	1
ZEETELIDO	0	1	0	1
ZETELIDO	0	3	0	3
ZETILYDO	0	1	0	1
ZETLYDO	0	1	0	1
ZITILIDO	0	1	0	1
ZITILYDO	0	1	0	1

ZT LIDO	0	6	0	6
ZTHIDO	1	0	1	2
ZTILDO	0	0	2	2
ZTLIDA	1	0	0	1
ZTLIDO	21	3	28	52
ZT-LIDO	0	1	0	1
Z-T-LIDO	0	1	0	1
ZTLIDO PATCH	1	0	0	1
ZTLYDO	0	1	0	1
ZTTIDO	1	0	0	1
ZYTELIDO	0	1	0	1

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

No.	<b>Proposed name: ZTlido</b> <b>Established name: lidocaine</b> <b>Dosage form: patch</b> <b>Strength(s): 1.8%</b> <b>Usual Dose: Apply 1 to 3 patches only once for up to 12 hours within a 24-hour period</b>	<b>POCA Score (%)</b>	<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.	ZTlido	100	Name subject of this review.
2.	Xolido	72	<p>The prefixes (“Xo” and “Zt”) have sufficient orthographic differences. ZTlido contains a cross-stroke in the letter “t,” whereas Xolido does not.</p> <p>The first syllables of this name pair sound different. ZTlido has an extra syllable.</p> <p>Xolido is available in two strengths (2% and 4%), whereas ZTlido is a single strength product (1.8%). Thus, a prescription for Xolido would need to include the strength. Xolido is intended to be applied two to three times daily as needed, whereas ZTlido is applied once daily for 12 hours.</p>

**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.	Name	POCA Score (%)
1.	(b) (4) ***	56
2.	Zaclir	52

**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: ZTlido</b> <b>Established name: lidocaine</b> <b>Dosage form: patch</b> <b>Strength(s): 1.8%</b> <b>Usual Dose: Apply 1 to 3 patches only once for up to 12 hours within a 24-hour period</b>	<b>POCA Score (%)</b>	<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.	Ticlid	58	<p>The prefixes and suffixes of this name pair have sufficient orthographic differences.</p> <p>The first and last syllables of this name pair sound different, and ZTlido contains extra syllables.</p>
2.	Skelid	56	<p>The prefixes and suffixes of this name pair have sufficient orthographic differences.</p> <p>The first and last syllables of this name pair sound different, and ZTlido contains extra syllables.</p>
3.	(b) (4) ***	54	<p>The prefixes and suffixes of this name pair have sufficient orthographic differences.</p> <p>The first and last syllables of this name pair sound different, and ZTlido contains extra syllables.</p>
4.	(b) (4) ***	54	<p>The infixes of this name pair have sufficient orthographic differences. ZTlido contains 6 letters whereas (b) (4) contains 8 letters, giving the name a longer length when scripted.</p> <p>The first syllables of this name pair sound different, and ZTlido contains an extra syllable.</p>
5.	Z-Sleep	54	<p>The infixes and suffixes of this name pair have sufficient orthographic differences.</p> <p>The last syllables of this name pair sound different, and ZTlido contains extra syllables.</p>
6.	(b) (4) ***	52	<p>The prefixes of this name pair have sufficient orthographic differences.</p> <p>The first syllables of this name pair sound different, and ZTlido contains an extra syllable.</p>

No.	<b>Proposed name: ZTlido</b> <b>Established name: lidocaine</b> <b>Dosage form: patch</b> <b>Strength(s): 1.8%</b> <b>Usual Dose: Apply 1 to 3 patches only once for up to 12 hours within a 24-hour period</b>	<b>POCA Score (%)</b>	<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.	Zutripro	52	<p>The infixes and suffixes of this name pair have sufficient orthographic differences. ZTlido contains 6 letters whereas Zutripro contains 8 letters, giving the name a longer length when scripted. The down stroke letter “p” in the suffix affords a different shape.</p> <p>The last syllables of this name pair sound different, and ZTlido contains an extra syllable.</p>
8.	Zyflo	52	<p>The infixes of this name pair have sufficient orthographic differences.</p> <p>The first and last syllables of this name pair sound different, and ZTlido contains extra syllables.</p>
9.	Zflex	50	<p>The infixes and suffixes of this name pair have sufficient orthographic differences.</p> <p>The last syllables of this name pair sound different, and ZTlido contains an extra syllable.</p>
10.	Zydelig	50	<p>The prefixes and suffixes of this name pair have sufficient orthographic differences.</p> <p>The first and last syllables of this name pair sound different, and ZTlido contains an extra syllable.</p>

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

No.	Name	POCA Score (%)
1.	Not Applicable	N/A

**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.	Zida-Co	53	Name identified in Rx Norm database. Unable to find product characteristics in commonly used drug databases.
2.	Azolid	52	Product withdrawn from the market due to safety concerns. (FR effective 3/30/1992)

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

No.	Name	POCA Score (%)
1.	Glydo	58
2.	Stalevo	55
3.	Stalevo 100	55
4.	Stalevo 125	55
5.	Stalevo 150	55
6.	Stalevo 200	55
7.	Stalevo 50	55
8.	Stalevo 75	55
9.	Stadol	52
10.	Xeloda	52
11.	XI-Dol	52
12.	Slo-Indo	50
13.	Tri-Sudo	50
14.	Xofigo	50
15.	Xtandi	50

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**This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.**  
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/s/  
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09/18/2015

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09/21/2015