

**CENTER FOR DRUG EVALUATION AND
RESEARCH**

APPLICATION NUMBER:

211566Orig1s000

PROPRIETARY NAME REVIEW(S)

PROPRIETARY NAME MEMORANDUM

Division of Medication Error Prevention and Analysis 1 (DMEPA 1)
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*****

Date of This Review:	July 13, 2023
Application Type and Number:	NDA 211566
Product Name and Strength:	Zituvio (sitagliptin) Tablets, 25 mg, 50 mg, and 100 mg
Product Type:	Single Ingredient Product
Rx or OTC:	Prescription (Rx)
Applicant/Sponsor Name:	Zydus Pharmaceuticals Inc. (Zydus)
PNR ID #:	2023-1044725108
DMEPA 1 Safety Evaluator:	Teresa McMillan, PharmD
DMEPA 1 Team Leader:	Idalia Rychlik, PharmD
DMEPA 1 Director (acting):	Irene Chan, PharmD

1 INTRODUCTION

This memorandum is to reassess the proposed proprietary name, Zituvio, which was found conditionally acceptable under NDA 211566 on February 13, 2023.^a Zydus received a complete response for NDA 211566 on March 3, 2023 due to product quality deficiencies. Thus, Zydus resubmitted the name, Zituvio, under 211566 for review on April 18, 2023. We note that all product characteristics remain the same.

2 METHODS AND DISCUSSION

2.1 MISBRANDING ASSESSMENT

The Office of Prescription Drug Promotion (OPDP) determined that Zituvio would not misbrand the proposed product. The Division of Medication Error Prevention and Analysis 1 (DMEPA 1) concurred with the findings of OPDP's assessment for Zituvio. The Division of Diabetes, Lipid Disorders, and Obesity (DDLO) concurred with the findings of OPDP's assessment for Zituvio.

2.2 SAFETY ASSESSMENT

For re-assessment of the proposed proprietary name, we evaluated the previously identified names of concern considering any lessons learned from recent post-marketing experience, which may have altered our previous conclusion regarding the acceptability of the proposed proprietary name. Our reassessment did not change our conclusion regarding the previously identified names of concern. Additionally, we searched the United States Adopted Name (USAN) stem list to determine if the proposed proprietary name contains any USAN stems as of the last USAN updates. The May 15, 2023 search of USAN stems did not find any USAN stems in the proposed proprietary name, Zituvio.

2.3 COMMUNICATION OF DMEPA'S DETERMINATION

On July 13, 2023, we communicated our determination to the Division of Diabetes, Lipid Disorders, and Obesity (DDLO).

3 CONCLUSION

Our re-assessment did not identify any names that represent a potential source of drug name confusion. Therefore, we maintain that the proposed proprietary name, Zituvio, is conditionally acceptable.

If you have any questions or need clarifications, please contact Terrolyn Thomas, OSE project manager, at 240-402-3981.

3.1 COMMENTS TO ZYDUS PHARMACEUTICALS INC.

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

^a Conrad, A. Proprietary Name Review for Zituvio (NDA 211566). Silver Spring (MD): FDA, CDER, OSE, DMEPA 1 (US); 2023 FEB 13. PNR ID No. 2023-1044724959.

If any of the proposed product characteristics as stated in your submission, received on April 18, 2023, are altered prior to approval of the marketing application, the name must be resubmitted for review.

4 REFERENCE

- 1. *USAN Stems*** (<https://www.ama-assn.org/about/united-states-adopted-names-approved-stems>)

USAN Stems List contains all the recognized USAN stems.

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/s/

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PROPRIETARY NAME MEMORANDUM

Division of Medication Error Prevention and Analysis 1 (DMEPA 1)
Office of Medication Error Prevention and Risk Management (OMEPRM)
Office of Surveillance and Epidemiology (OSE)
Center for Drug Evaluation and Research (CDER)

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Date of This Review:	February 13, 2023
Application Type and Number:	NDA 211566
Product Name and Strength:	Zituvio (sitagliptin) tablets, 25 mg, 50 mg, 100 mg
Product Type:	Single Ingredient Product
Rx or OTC:	Prescription (Rx)
Applicant/Sponsor Name:	Zydus Pharmaceuticals Inc. (Zydus)
PNR ID #:	2023-1044724959
DMEPA 1 Safety Evaluator:	Ariane O. Conrad, PharmD, BCACP, CDCES
DMEPA 1 Team Leader:	Idalia E. Rychlik, PharmD
DMEPA 1 Director:	Mishale Mistry, PharmD, MPH

1 INTRODUCTION

This memorandum is to reassess the proposed proprietary name, Zituvio, which was found conditionally acceptable under NDA 211566 on September 1, 2022.^a Zydus received a Tentative Approval letter for NDA 211566 on September 2, 2021 due to a pending patent infringement case; thus, upon case settlement, Zydus resubmitted NDA 211566 as a Class 1 resubmission on January 5, 2023.

Subsequently, Zydus submitted the name, Zituvio, under NDA 211566 for review on January 27, 2023. We note that all product characteristics remain the same.

2 METHODS AND DISCUSSION

2.1 MISBRANDING ASSESSMENT

The Office of Prescription Drug Promotion (OPDP) determined that Zituvio would not misbrand the proposed product on February 1, 2023. The Division of Medication Error Prevention and Analysis 1 (DMEPA 1) concurred with the findings of OPDP's assessment for Zituvio. On February 9, 2023, the Division of Diabetes, Lipid Disorders, and Obesity (DDLO) concurred with the findings of OPDP's assessment for Zituvio.

2.2 SAFETY ASSESSMENT

For re-assessment of the proposed proprietary name, we evaluated the previously identified names of concern considering any lessons learned from recent post-marketing experience, which may have altered our previous conclusion regarding the acceptability of the proposed proprietary name. Our reassessment did not change our conclusion regarding the previously identified names of concern. Additionally, we searched the United States Adopted Name (USAN) stem list to determine if the proposed proprietary name contains any USAN stems as of the last USAN updates. The January 30, 2023 search of USAN stems did not find any USAN stems in the proposed proprietary name, Zituvio.

2.3 COMMUNICATION OF DMEPA'S DETERMINATION

On February 10, 2023, we communicated our determination to the Division of Diabetes, Lipid Disorders, and Obesity (DDLO).

3 CONCLUSION

Our re-assessment did not identify any names that represent a potential source of drug name confusion. Therefore, we maintain that the proposed proprietary name, Zituvio, is conditionally acceptable.

If you have any questions or need clarifications, please contact Terrolyn Thomas, OSE project manager, at 240-402-3981.

^a Abraham, S. Proprietary Name Review for Zituvio (NDA 211566). Silver Spring (MD): FDA, CDER, OSE, DMEPA 1 (US); 2022 Sep 1. PNR ID No. 2022-1044724630.

3.1 COMMENTS TO ZYDUS PHARMACEUTICALS INC.

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

If any of the proposed product characteristics as stated in your submission, received on January 27, 2023, are altered prior to approval of the marketing application, the name must be resubmitted for review.

4 REFERENCE

- 1. *USAN Stems*** (<https://www.ama-assn.org/about/united-states-adopted-names-approved-stems>)

USAN Stems List contains all the recognized USAN stems.

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/s/

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02/13/2023 08:40:49 AM

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PROPRIETARY NAME REVIEW
Division of Medication Error Prevention and Analysis 1 (DMEPA 1)
Office of Medication Error Prevention and Risk Management (OMEPRM)
Office of Surveillance and Epidemiology (OSE)
Center for Drug Evaluation and Research (CDER)

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Date of This Review:	September 1, 2022
Application Type and Number:	NDA 211566
Product Name and Strength:	Zituvio (sitagliptin) tablets, 25 mg, 50 mg, and 100 mg
Product Type:	Single Ingredient Product
Rx or OTC:	Prescription (Rx)
Applicant/Sponsor Name:	Zydus Pharmaceuticals USA
PNR ID #:	2022-1044724630
DMEPA 1 Safety Evaluator:	Sherly Abraham, R.Ph.
DMEPA 1 Team Leader:	Idalia E. Rychlik, Pharm.D.
DMEPA 1 Associate Director for Nomenclature and Labeling:	Mishale Mistry, Pharm.D., MPH.

Contents

1	INTRODUCTION	1
1.1	Regulatory History	1
1.2	Product Information.....	1
2	RESULTS.....	1
2.1	Misbranding Assessment	2
2.2	Safety Assessment	2
3	CONCLUSION	4
3.1	Comments to the Applicant/Sponsor	4
4	REFERENCES	5
	APPENDICES.....	6

1 INTRODUCTION

This review evaluates the proposed proprietary name, Zituvio, from a safety and misbranding perspective. The sources and methods used to evaluate the proposed proprietary name are outlined in the reference section and Appendix A, respectively. Zydus submitted an external name study, conducted by (b) (4) for this proposed proprietary name.

1.1 Regulatory History

NDA 211566 was tentatively approved on September 2, 2021 under the established name sitagliptin.

1.2 PRODUCT INFORMATION

The following product information is provided in the proprietary name submission received on June 20, 2022.

- Intended Pronunciation: zi too' vee oh
- Active Ingredient: sitagliptin
- Indication of Use: adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus
- Route of Administration: oral
- Dosage Form: tablets
- Strength: 25 mg, 50 mg, and 100 mg
- Dose and Frequency: 100 mg once daily.

Renal impairment: eGFR greater than or equal to 30 mL/min/1.73 m² to less than 45 mL/min/1.73m: 50 mg once daily

eGFR less than 30 mL/min/1.73 m² (including patients with end stage renal disease [ESRD] on dialysis) 50 mg once daily: 25 mg once daily

- How Supplied: bottles of 30 tablets, bottles of 90, (b) (4) .
- Storage: Store at 20° to 25°C (68° to 77°F), excursions permitted to 15° to 30°C (59° to 86°F), [See USP Controlled Room Temperature].
- Reference Listed Drug/Reference Product: Januvia NDA 021995

2 RESULTS

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

2.1 MISBRANDING ASSESSMENT

The Office of Prescription Drug Promotion (OPDP) determined that Zituvio would not misbrand the proposed product. The Division of Medication Error Prevention and Analysis 1 (DMEPA 1) concurred with the findings of OPDP's assessment for Zituvio. The Division of Diabetes, Lipid Disorders, and Obesity (DDLO) concurred with the findings of OPDP's assessment for Zituvio.

2.2 SAFETY ASSESSMENT

The following aspects were considered in the safety evaluation of the proposed proprietary name, Zituvio.

2.2.1 *United States Adopted Names (USAN) Search*

There is no USAN stem present in the proposed proprietary name^a.

2.2.2 *Components of the Proposed Proprietary Name*

Zydus did not provide a derivation or intended meaning for the proposed proprietary name, Zituvio, in their submission. This proprietary name is comprised of a single word that does not contain any components (i.e. a modifier, route of administration, dosage form, etc.) that can contribute to medication error.

2.2.3 *Comments from Other Review Disciplines at Initial Review*

On August 3, 2022, the Division of Diabetes, Lipid Disorders, and Obesity (DDLO) did not forward any comments or concerns relating to Zituvio at the initial phase of the review.

2.2.4 *FDA Name Simulation Studies*

Ninety-one (n=91) practitioners participated in DMEPA's prescription studies for Zituvio. Appendix B contains the results from the prescription simulation studies. One inpatient study participant interpreted the proposed proprietary name Zituvio as "Aiturio" which is a close variation of Altuviio***, a CBER product found conditionally acceptable for BB-IND 17464.54.^b

We find that there are sufficient orthographic and phonetic differences between this name pair. Orthographically, the lengths of both names differ by two letters, both names begin with different letters (Z vs. A), and the additional letters '-ii-' in the suffix of Altuviio*** provide sufficient differences. Phonetically, the first syllables ('Zi' vs. 'Ai') have sufficient differences.

In addition to the orthographic and phonetic differences, the following product characteristics would help to mitigate the error:

^a USAN stem search conducted on June 22, 2022.

^b Elekwachi, O. Proprietary Name Review for Altuviio*** (Antihemophilic Factor (Recombinant), Fc-Von Willebrand Factor-XTEN Fusion Protein) BB-IND 17464.54. Silver Spring (MD): FDA, CBER, OCBQ, DCM, APLB (US); 2021 OCT 12.

Zituvio is available as an oral tablet once daily as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus. Altuviio*** is available as an intravenous injection once weekly and is indicated in adults and children with hemophilia A (congenital factor VIII deficiency) for routine prophylaxis to reduce the frequency of bleeding episodes, on demand treatment & control of bleeding episodes, perioperative management of bleeding. There is no overlap in the route of administration (oral vs. intravenous) or dosage form (tablet vs. injection) if included on a prescription/medication order. Additionally, we note that the dose of Altuviio*** is based on patient weight (50 IU/kg) whereas the dose of Zituvio is either 25 mg, 50 mg, or 100 mg (1 tablet). Given that the dose of Altuviio*** is based on patient weight administered via intravenous injection, it is unlikely that the strength would be included on a prescription/medication order. However, the strength/dose of Zituvio would need to be specified on a prescription/medication order.

When all of the aforementioned mitigations are considered in totality, we find the risk of confusion is adequately minimized in this case; see Appendix E for our evaluation of the name pair.

2.2.5 Phonetic and Orthographic Computer Analysis (POCA) Search Results

Our POCA search^c identified 59 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 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. Names Retrieved for Review Organized by Name Pair Similarity	
Similarity Category	Number of Names
Highly similar name pair: combined match percentage score $\geq 70\%$	1
Moderately similar name pair: combined match percentage score $\geq 55\%$ to $\leq 69\%$	57
Low similarity name pair: combined match percentage score $\leq 54\%$	1

^cPOCA search conducted on June 22, 2022 in version 4.4

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

Our analysis of the 59 names contained in Table 1 determined none of the names will pose a risk for confusion with as described in Appendices C through H.

2.2.8 Communication of DMEPA's Determination

On August 31, 2022, DMEPA 1 communicated our determination to the Division of Diabetes, Lipid Disorders, and Obesity (DDLO).

3 CONCLUSION

The proposed proprietary name, Zituvio, is acceptable.

If you have any questions or need clarifications, please contact Terrolyn Thomas, OSE project manager, at (240) 402-3981.

3.1 COMMENTS TO ZYDUS PHARMACEUTICALS USA

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

If any of the proposed product characteristics as stated in your submission, June 20, 2022, are altered prior to approval of the marketing application, the name must be resubmitted for review.

4 REFERENCES

1. *USAN Stems* (<https://www.ama-assn.org/about/united-states-adopted-names-approved-stems>)

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).

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. 6F^d

^d National Coordinating Council for Medication Error Reporting and Prevention. <https://www.nccmerp.org/about-medication-errors> Last accessed 10/05/2020.

*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.
Y/N	Is the proposed name obviously similar in spelling and pronunciation to other names?
	Proprietary names should not be similar in spelling or pronunciation to proprietary names, established names, or ingredients of other products.
Y/N	Are there inert or inactive ingredients referenced in the proprietary name?
	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)).
Y/N	Does the proprietary name include combinations of active ingredients?
	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)).
Y/N	Is there a United States Adopted Name (USAN) stem in the proprietary name?
	Proprietary names should not incorporate a USAN stem in the position that USAN designates for the stem.
Y/N	Is this proprietary name used for another product that does not share at least one common active ingredient?
	Drug products that do not contain at least one common active ingredient should not use the same (root) proprietary name.
Y/N	Is this a proprietary name of a discontinued product?
	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 ≥ 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^{7F^e}. 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., route, frequency, dosage form) may be limited when the strength

^e Shah, M, Merchant, L, Characteristics That May Help in the Identification of Potentially Confusing Proprietary Drug Names. Therapeutic Innovation & Regulatory Science, September 2016

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.

Four 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, verbal pronunciation of the drug name or during computerized provider order entry. 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 vulnerability of the proposed name to be misinterpreted by healthcare practitioners during written, verbal, or electronic prescribing.

In order to evaluate the potential for misinterpretation of the proposed proprietary name during written, verbal, or electronic prescribing of the name, written inpatient medication orders, written outpatient prescriptions, verbal orders, and electronic orders are simulated, each consisting of a combination of marketed and unapproved drug products, including the proposed name.

- 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.

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 $\geq 70\%$).

Orthographic Checklist		Phonetic Checklist	
Y/N	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>	Y/N	Do the names have different number of syllables?
Y/N	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>	Y/N	Do the names have different syllabic stresses?
Y/N	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?	Y/N	Do the syllables have different phonologic processes, such as 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?		
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Table 4: Moderately Similar Name Pair Checklist (i.e., combined score is $\geq 55\%$ to $\leq 69\%$).

Step 1	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. For single strength products, also consider circumstances where the strength may not be expressed. 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. To determine whether the strengths or doses are similar to your proposed product, consider the following list of factors that may increase confusion: • 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. • Trailing or deleting zeros: 10 mg is similar in appearance to 100 mg which may potentiate confusion between a name pair with moderate similarity. • Similar sounding doses: 15 mg is similar in sound to 50 mg
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 <u>with</u> overlapping or similar strengths or doses.

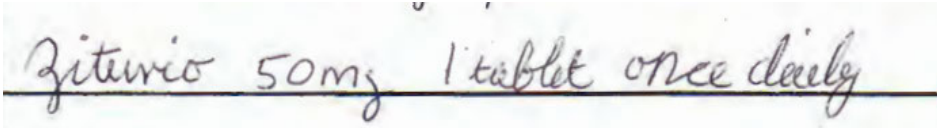
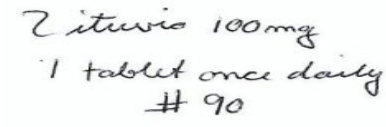
	Orthographic Checklist (Y/N to each question) - Do the names begin with different first letters? Note that even when names begin with different first letters, certain letters may be confused with each other when scripted. - Are the lengths of the names dissimilar* when scripted? *FDA considers the length of names different if the names differ by two or more letters. - 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? - Is there different number or placement of cross-stroke or dotted letters present in the names? - Do the infixes of the name appear dissimilar when scripted? - Do the suffixes of the names appear dissimilar when scripted?	Phonetic Checklist (Y/N to each question) - Do the names have different number of syllables? - Do the names have different syllabic stresses? - Do the syllables have different phonologic processes, such vowel reduction, assimilation, or deletion? - Across a range of dialects, are the names consistently pronounced differently?
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Table 5: Low Similarity Name Pair Checklist (i.e., combined score is **≤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. Zituvio Study (Conducted on July 1, 2022)

Handwritten Medication Order/Prescription	Verbal Prescription
<u>Medication Order:</u> 	Zituvio 100 mg 1 tablet once daily #90
<u>Outpatient Prescription:</u> 	
CPOE Study Sample (displayed as sans-serif, 12-point, bold font)	
Zituvio	

FDA Prescription Simulation Responses (Aggregate Report)

262 People Received Study

91 People Responded

Total	18	27	21	25	
INTERPRETATION	OUTPATIENT	CPOE	VOICE	INPATIENT	TOTAL
AITURIO	0	0	0	1	1
LITRIVIO	0	0	0	1	1
SITUVIO	0	0	1	0	1
ZETUVIO	0	0	2	0	2
ZITERVIO	0	0	0	3	3

ZITERVIO 50 MG	0	0	0	1	1
ZITRUVIA	1	0	0	0	1
ZITURVIO	0	0	0	1	1
ZITUVIO	16	27	14	18	75
ZITUVIS	1	0	0	0	1
ZUTIVIO	0	0	1	0	1
ZYTUVIO	0	0	3	0	3

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

No.	Proposed name: Zituvio Established name: sitagliptin Dosage form: tablets Strength(s): 25 mg, 50 mg, and 100 mg Usual Dose: 25 mg, 50 mg, or 100 mg daily	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.	Zituvio	100	Name subject of review.

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 (%)
1.	(b) (4) ***	57
2.	Zit Stick	56

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: Zituvio Established name: sitagliptin Dosage form: tablets Strength(s): 25 mg, 50 mg, and 100 mg Usual Dose: 25 mg, 50 mg, or 100 mg daily	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
1.	Vituz	68	This name pair has sufficient orthographic and phonetic differences
2.	Xpovio	66	This name pair has sufficient orthographic and phonetic differences
3.	Vitussin	64	This name pair has sufficient orthographic and phonetic differences
4.	Steviol	63	This name pair has sufficient orthographic and phonetic differences.
5.	Sitavig	61	This name pair has sufficient orthographic and phonetic differences.

No.	Proposed name: Zituvio Established name: sitagliptin Dosage form: tablets Strength(s): 25 mg, 50 mg, and 100 mg Usual Dose: 25 mg, 50 mg, or 100 mg daily	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
6.	Entyvio	60	This name pair has sufficient orthographic and phonetic differences
7.	(b) (4) ***	60	This name pair has sufficient orthographic and phonetic differences
8.	Zeposia	59	This name pair has sufficient orthographic and phonetic differences
9.	Zontivity	58	This name pair has sufficient orthographic and phonetic differences
10.	(b) (4) ***	58	This name pair has sufficient orthographic and phonetic differences
11.	Dsuvia	58	This name pair has sufficient orthographic and phonetic differences
12.	Leqvio	58	This name pair has sufficient orthographic and phonetic differences
13.	Altuviiio***	57	Orthographically, the lengths of both names differ by two letters, both names begin with different letters (Z vs. A), and the additional letters '-ii-' in the suffix of Altuviiio*** provide sufficient differences. Phonetically, the first syllables ('Zi' vs. 'Al') have sufficient differences. In addition to the orthographic and phonetic differences, the following product characteristics would help to mitigate the error: Zituvio is available as an oral tablet once daily as an adjunct to diet and exercise to improve glycemic control in adults with type 2 diabetes mellitus. Altuviiio is available as an intravenous injection once weekly and is indicated in adults and children with hemophilia A (congenital factor VIII deficiency) for routine prophylaxis to reduce the

No.	Proposed name: Zituvio Established name: sitagliptin Dosage form: tablets Strength(s): 25 mg, 50 mg, and 100 mg Usual Dose: 25 mg, 50 mg, or 100 mg daily	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
			frequency of bleeding episodes, on demand treatment & control of bleeding episodes, perioperative management of bleeding. There is no overlap in the route of administration (oral vs. intravenous) or dosage form (tablet vs. injection) if included on a prescription/medication order. Additionally, we note that the dose of Altuviio*** is based on patient weight (50 IU/kg) whereas the dose of Zituvio is either 25 mg, 50 mg, or 100 mg (1 tablet). Given that the dose of Altuviio*** is based on patient weight administered via intravenous injection, it is unlikely that the strength would be included on a prescription/medication order. However, the strength/dose of Zituvio would need to be specified on a prescription/medication order. When all of the aforementioned mitigations are considered in totality, we find the risk of confusion is adequately minimized in this case.
14.	Ztlido	57	This name pair has sufficient orthographic and phonetic differences
15.	Zinotic	57	This name pair has sufficient orthographic and phonetic differences
16.	Sonsuvi***	56	This name pair has sufficient orthographic and phonetic differences
17.	Zovia 1/50	56	This name pair has sufficient orthographic and phonetic differences
18.	Zovia 1/35	56	This name pair has sufficient orthographic and phonetic differences

No.	Proposed name: Zituvio Established name: sitagliptin Dosage form: tablets Strength(s): 25 mg, 50 mg, and 100 mg Usual Dose: 25 mg, 50 mg, or 100 mg daily	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
19.	Zutripro	56	This name pair has sufficient orthographic and phonetic differences
20.	Zokinvy	55	This name pair has sufficient orthographic and phonetic differences

Appendix F: Low Similarity Names (e.g., combined POCA score is ≤54%)

No.	Name	POCA Score (%)
1.	(b) (4) ***	52

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.	(b) (4) ***	63	Proposed proprietary name for IND 117192 found unacceptable by DMEPA (OSE Panorama# 2017-18841009) on March 5, 2018. NDA 210933 approved under the proprietary name Eysuvis.
2.	(b) (4) ***	60	This proposed proprietary name for IND (b) (4) was found acceptable by DMEPA (OSE Panorama # (b) (4)) dated (b) (4). However, the IND was withdrawn as of (b) (4) per DARRTS.
3.	Zidoval	60	International product formerly marketed in United Kingdom, Australia, and other countries per Micromedex database.
4.	Zuprevo	59	Product is not a drug. It is a veterinary product.
5.	Zytopic	58	Name identified in RxNorm database. Product is deactivated per Redbook and no generic equivalents are available.

No.	Name	POCA Score (%)	Failure preventions
6.	(b) (4) ***	57	(b) (4) previously submitted the proposed proprietary name, (b) (4) *** on (b) (4). However, DMEPA found the name, (b) (4) *** unacceptable under OSE Panorma # (b) (4). (b) (4) then submitted the name, (b) (4) *** , for review under NDA (b) (4) on (b) (4) which was found conditionally acceptable by DMEPA on (b) (4). On (b) (4), the NDA application was withdrawn by the Applicant.
7.	(b) (4) ***	56	Proposed proprietary name for IND 138178 found conditionally acceptable by DMEPA (OSE PNR ID #2021-1044723863 dated August 11, 2021). On May 3, 2022 Applicant submitted a withdrawal for (b) (4) *** and submitted a new proposed proprietary name Columvi*** which is under review.
8.	(b) (4) ***	56	The Applicant submitted the name, (b) (4) *** , for review on December 6, 2017 under NDA 209360. On a teleconference held on December 11, 2017, we informed the Applicant that (b) (4) *** may be confused with the currently marketed proprietary name, (b) (4). Therefore, the Applicant withdrew the name (b) (4) *** on December 11, 2017. NDA 209360 approved under the proprietary name, Giapreza.
9.	Vitadye	56	Name identified in RxNorm database. Product is deactivated per Redbook and no generic equivalents are available.
10.	(b) (4) ***	55	Proposed proprietary name for IND 104839 found to be unacceptable (OSE Panorama# 2016-8807820). NDA 211109 approved under the proprietary name Xerava.

Appendix H: Names not likely to be confused due to absence of attributes that are known to cause name confusion^f.

No.	Name	POCA Score (%)
1.	Victoza	64
2.	Vitazol	64
3.	Vi-Sudo	63
4.	Vimovo	62
5.	(b) (4) ***	61
6.	Susvimo	61
7.	Sitavig	61
8.	(b) (4) ***	60
9.	Sirturo	59
10.	(b) (4) ***	59
11.	Litfulo***	58
12.	Tibsovo	58
13.	Eticovo	58
14.	Mektovi	57
15.	(b) (4) ***	56
16.	Vitrakvi	56
17.	(b) (4) ***	56
18.	(b) (4) ***	56
19.	Sinuva	56
20.	Verquvo	56
21.	Mitigo	55
22.	Vicotuss	55
23.	Ri-Tussin	55
24.	Vicodin	55
25.	Lidovir	55

^f 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

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/s/

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