

**CENTER FOR DRUG EVALUATION AND
RESEARCH**

APPLICATION NUMBER:

761255Orig2s000

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:	September 22, 2023
Application Type and Number:	BLA 761255
Product Name and Strength:	Idacio (adalimumab-aacf) injection, 40 mg/0.8 mL
Product Type:	Single Ingredient Product
Rx or OTC:	Prescription (Rx)
Applicant/Sponsor Name:	Fresenius Kabi (Fresenius Kabi)
PNR ID #:	2023-1044725233
DMEPA 1 Safety Evaluator:	Sarah K. Vee, PharmD
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, Idacio, which was found conditionally acceptable under BLA 761255 on March 7, 2022.^a The application for the vial received a complete response (CR) on December 13, 2022. Thus, Fresenius Kabi responded to the CR and resubmitted the name, Idacio, under BLA 761255 for review on July 7, 2023. We note that all product characteristics remain the same.

2 REGULATORY HISTORY

BLA 761255 was submitted on December 13, 2021, seeking licensure of adalimumab-aacf as a biosimilar to U.S.-licensed Humira (BLA 125057). For administrative purposes, the Division of Rheumatology and Transplant Medicine (DRTM) have designated as follows:

- BLA 761255/Original 1 – single-dose prefilled pen and single-dose prefilled glass syringe
- BLA 761255/Original 2 – single-dose glass vial kit

BLA 761255/Original 1 was approved on December 13, 2022 under the proprietary name Idacio, while BLA 761255/Original 2 received a CR.

We note that our previous review of the proposed proprietary name for BLA 761255 included all three presentations and found the name, Idacio, conditionally acceptable for all three presentations^b.

3 PRODUCT INFORMATION

Table 1. Product Characteristics Idacio (prefilled pen and prefilled syringe) and Idacio (vial kit)		
Product Name	Idacio	Idacio (proposed)
Initial Approval Date	12/13/2022	N/A
Nonproprietary Name	Adalimumab-aacf	
Indication	• Rheumatoid Arthritis (RA): reducing signs and symptoms, inducing major clinical response, inhibiting the progression of structural damage, and improving physical function in adult patients with moderately to severely active RA. • Juvenile Idiopathic Arthritis (JIA): reducing signs and symptoms of moderately to severely active polyarticular JIA in patients 2 years of age and older.	

^a Owens, L. Proprietary Name Review for Idacio (BLA 761255). Silver Spring (MD): FDA, CDER, OSE, DMEPA 1 (US); 2022 MAR 07. PNR ID No. 2021-1044724323.

^b Owens, L. Proprietary Name Review for Idacio (BLA 761255). Silver Spring (MD): FDA, CDER, OSE, DMEPA 1 (US); 2022 MAR 07. PNR ID No. 2021-1044724323.

	• Psoriatic Arthritis (PsA): reducing signs and symptoms, inhibiting the progression of structural damage, and improving physical function in adult patients with active PsA. • Ankylosing Spondylitis (AS): reducing signs and symptoms in adult patients with active AS. • Crohn's Disease (CD): treatment of moderately to severely active Crohn's disease in adults and pediatric patients 6 years of age and older. • Ulcerative Colitis (UC): treatment of moderately to severely active ulcerative colitis in adult patients. • Plaque Psoriasis (Ps): treatment of adult patients with moderate to severe chronic plaque psoriasis who are candidates for systemic therapy or phototherapy, and when other systemic therapies are medically less appropriate. • Hidradenitis Suppurativa (HS): treatment of moderate to severe hidradenitis suppurativa in adult patients. • Uveitis (UV): treatment of non-infectious intermediate, posterior, and panuveitis in adults.								
Route of Administration	Subcutaneous injection								
Dosage Form	injection								
Strength	40 mg/0.8 mL								
Dose and Frequency	Rheumatoid Arthritis, Psoriatic Arthritis, Ankylosing Spondylitis: • <i>Adults</i>: 40 mg every other week. • Some patients with RA not receiving methotrexate may benefit from increasing the dosage to 40 mg every week or 80 mg every other week. Juvenile Idiopathic Arthritis: <table border="1"> <thead> <tr> <th>Pediatric Weight 2 Years of Age and Older</th><th>Recommended Dosage</th></tr> </thead> <tbody> <tr> <td>10 kg (22 lbs) to less than 15 Kg (33 lbs)</td><td>10 mg every other week</td></tr> <tr> <td>15 Kg (33 lbs) to less than 30 kg (66 lbs)</td><td>20 mg every other week</td></tr> <tr> <td>30 kg (66 lbs) and greater</td><td>40 mg every other week</td></tr> </tbody> </table> Crohn's Disease: • <i>Adults</i>: 160 mg on Day 1 (given in one day or split over two consecutive days); 80 mg on Day 15; and 40 mg	Pediatric Weight 2 Years of Age and Older	Recommended Dosage	10 kg (22 lbs) to less than 15 Kg (33 lbs)	10 mg every other week	15 Kg (33 lbs) to less than 30 kg (66 lbs)	20 mg every other week	30 kg (66 lbs) and greater	40 mg every other week
Pediatric Weight 2 Years of Age and Older	Recommended Dosage								
10 kg (22 lbs) to less than 15 Kg (33 lbs)	10 mg every other week								
15 Kg (33 lbs) to less than 30 kg (66 lbs)	20 mg every other week								
30 kg (66 lbs) and greater	40 mg every other week								

	every other week starting on Day 29. • <i>Pediatric Patients 6 Years of Age and Older:</i> <table border="1"><thead><tr><th>Pediatric Weight</th><th colspan="2">Recommended Dosage</th></tr><tr><th></th><th>Days 1 and 15</th><th>Starting on</th></tr></thead><tbody><tr><td>17 Kg (37 lbs) to</td><td>Day 1: 80 mg Day 15: 40 mg</td><td>20 mg every other week</td></tr><tr><td>40 kg (88 lbs) and</td><td>Day 1: 160 mg (single dose or split</td><td>40 mg every other week</td></tr></tbody></table> Ulcerative Colitis: • <i>Adults:</i> 160 mg on Day 1 (given in one day or split over two consecutive days), 80 mg on Day 15 and 40 mg every other week starting on Day 29. Discontinue in patients without evidence of clinical remission by eight weeks (Day 57). Plaque Psoriasis or Adult Uveitis: • <i>Adults:</i> 80 mg initial dose, followed by 40 mg every other week starting one week after initial dose. Hidradenitis Suppurativa: • <i>Adults:</i> ◦ Day 1: 160 mg (given in one day or split over two consecutive days) ◦ Day 15: 80 mg Day 29 and subsequent doses: 40 mg every week or 80 mg every other week			Pediatric Weight	Recommended Dosage			Days 1 and 15	Starting on	17 Kg (37 lbs) to	Day 1: 80 mg Day 15: 40 mg	20 mg every other week	40 kg (88 lbs) and	Day 1: 160 mg (single dose or split	40 mg every other week
Pediatric Weight	Recommended Dosage														
	Days 1 and 15	Starting on													
17 Kg (37 lbs) to	Day 1: 80 mg Day 15: 40 mg	20 mg every other week													
40 kg (88 lbs) and	Day 1: 160 mg (single dose or split	40 mg every other week													
How Supplied	IDACIO Pen Carton - 40 mg/0.8 mL (2 count) IDACIO is supplied in a carton containing 2 alcohol preps and one tray. The tray contains two single-dose pens, each containing a 1 mL prefilled glass syringe with a 29 gauge staked ½ inch needle, providing 40 mg/0.8 mL of IDACIO. The syringe plunger stopper and needle cover are not made with natural rubber latex.	IDACIO Single-Dose Vial kit - 40 mg/0.8 mL. IDACIO is supplied in a carton containing 1 sterile single-use syringe, an adapter, 2 alcohol preps and 1 glass vial providing 40 mg/0.8 mL of IDACIO. The vial stopper is not made with natural rubber latex.													

	IDACIO Pen 40 mg/0.8 mL Starter Package for Plaque Psoriasis or Uveitis IDACIO is supplied in a carton containing 4 alcohol preps and 2 trays (Starter Package for Plaque Psoriasis). Each tray contains two single-dose pens, each pen containing a 1 mL prefilled glass syringe with a 29 gauge staked ½ inch needle, providing 40 mg/0.8 mL of IDACIO. The syringe plunger stopper and needle cover are not made with natural rubber latex. IDACIO Pen 40 mg/0.8 mL - Starter Package for Crohn's Disease, Ulcerative Colitis, or Adult Hidradenitis Suppurativa IDACIO is supplied in a carton containing 6 alcohol preps and 3 trays (Starter Package for Crohn's Disease, Ulcerative Colitis). Each tray contains two single-dose pens, each pen containing a 1 mL prefilled glass syringe with a 29 gauge staked ½ inch needle, providing 40 mg/0.8 mL of IDACIO. The syringe plunger stopper and needle cover are not made with natural rubber latex. IDACIO Prefilled Syringe Carton - 40 mg/0.8 mL (2 count) IDACIO is supplied in a carton containing 2 alcohol preps and one tray. The tray contains two single-dose, 1 mL prefilled glass syringes with 29 gauge staked	
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	½ inch needle, each syringe providing 40 mg/0.8 mL of IDACIO. The syringe plunger stopper and needle cover are not made with natural rubber latex.	
Storage	Do not use beyond the expiration date on the container. IDACIO must be refrigerated at 36°F to 46°F (2°C to 8°C). DO NOT FREEZE. Do not use if frozen even if it has been thawed. Store in original carton until time of administration to protect from light. If needed, for example when traveling, IDACIO may be stored at room temperature up to a maximum of 77°F (25°C) for a period of up to 28 days, with protection from light. IDACIO should be discarded if not used within the 28-day period. Record the date when IDACIO is first removed from the refrigerator in the spaces provided on the carton. Do not store IDACIO in extreme heat or cold.	

4 METHODS AND DISCUSSION

4.1 MISBRANDING ASSESSMENT

The Office of Prescription Drug Promotion (OPDP) determined that Idacio 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 Idacio. The Division of Rheumatology and Transplant Medicine (DRTM) did not comment on the findings of OPDP's assessment for Idacio.

4.2 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 August 7, 2023 search of USAN stems did not find any USAN stems in the proposed proprietary name, Idacio.

4.3 COMMUNICATION OF DMEPA'S DETERMINATION

On September 22, 2023, we communicated our determination to the Division of Rheumatology and Transplant Medicine (DRTM).

5 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, Idacio, is conditionally acceptable.

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

5.1 COMMENTS TO FRESENIUS KABI

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

If any of the proposed product characteristics as stated in your submission, received on July 7, 2023, are altered prior to approval of the marketing application, the name must be resubmitted for review.

6 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.

This is a representation of an electronic record that was signed electronically. Following this are manifestations of any and all electronic signatures for this electronic record.

/s/

SARAH K VEE
09/22/2023 08:49:48 AM

IDALIA E RYCHLIK
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MISHALE P MISTRY
09/22/2023 10:58:18 AM

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)

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

Date of This Review:	March 7, 2022
Application Type and Number:	BLA 761255
Product Name and Strength:	Idacio (adalimumab-xxxx) ^a Injection, 40 mg/0.8 mL
Product Type:	Combination Product (Drug-Biologic-Device)
Rx or OTC:	Prescription (Rx)
Applicant/Sponsor Name:	Fresenius Kabi USA, LLC (Fresenius Kabi)
PNR ID #:	2021-1044724323
DMEPA 1 Safety Evaluator:	Lissa C. Owens, PharmD
DMEPA 1 Team Leader:	Idalia E. Rychlik, PharmD

^a The proposed nonproprietary name has not yet been conditionally accepted. We therefore refer to the proposed product as “adalimumab-xxxx” throughout this review in place of the nonproprietary name for this product.

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1 INTRODUCTION

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

1.1 REGULATORY HISTORY

Fresenius Kabi previously submitted the proposed proprietary name, Idacio*** on April 19, 2017, to the Division of Pulmonary, Allergy, and Rheumatology Products (DPARP). We found the name, Idacio*** acceptable under IND 124098 on October 12, 2017.^b We note that our previous review under DPRP included the same indications and product characteristics as currently proposed for the Division of Rheumatology and Transplant Medicine (DRTM).

Fresenius Kabi submitted the name, Idacio to DRTM for review on December 13, 2021.

1.2 PRODUCT INFORMATION

The following product information is provided in the proprietary name submission received on December 13, 2021.

- Intended Pronunciation: i-DAS-i-oh
- Nonproprietary Name: adalimumab-xxxx
- Indication of Use: Rheumatoid Arthritis, Juvenile Idiopathic Arthritis, Psoriatic Arthritis, Ankylosing Spondylosis, Adult Crohn's Disease, Pediatric Crohn's Disease, Ulcerative Colitis, Plaque Psoriasis, Hidradenitis Suppurativa
- Route of Administration: Subcutaneous
- Dosage Form: Injection
- Strength: 40 mg/0.8 mL
- Dose and Frequency:
 1. **Rheumatoid Arthritis, Psoriatic Arthritis, Ankylosing Spondylitis:**
40 mg every other week.
Some patients with RA not receiving methotrexate may benefit from increasing the dosage to 40 mg every week or 80 mg every other week.
 2. **Juvenile Idiopathic Arthritis**

^b McMillan, T. Proprietary Name Review for Idacio (IND 124098). Silver Spring (MD): FDA, CDER, OSE, DMEPA (US); 2017 OCT 12. PNR ID No. 2017-14521121.

Pediatric Weight 2 Years of Age and Older	Recommended Dosage
10 kg (22 lbs) to less than 15 kg (33 lbs)	10 mg every other week
15 kg (33 lbs) to less than 30 kg (66 lbs)	20 mg every other week
30 kg (66 lbs) and greater	40 mg every other week

3. Crohn's Disease

Adults: 160 mg on Day 1 (given in one day or split over two consecutive days); 80 mg on Day 15; and 40 mg every other week starting on Day 29.

- Pediatric Patients 6 Years of Age and Older:

Pediatric Weight	Recommended Dosage	
	Days 1 and 15	Starting on Day 29
17 kg (37 lbs) to less than 40 kg (88 lbs)	Day 1: 80 mg Day 15: 40 mg	20 mg every other week
40 kg (88 lbs) and greater	Day 1: 160 mg (single dose or split over two consecutive days) Day 15: 80 mg	40 mg every other week

4. Ulcerative Colitis

160 mg on Day 1 (given in one day or split over two consecutive days), 80 mg on Day 15 and 40 mg every other week starting on Day 29. Discontinue in patients without evidence of clinical remission by eight weeks (Day 57).

5. Plaque Psoriasis

80 mg initial dose, followed by 40 mg every other week starting one week after initial dose.

6. Hidradenitis Suppurativa

Day 1: 160 mg (given in one day or split over two consecutive days)

- Day 15: 80 mg
- Day 29 and subsequent doses: 40 mg every week or 80 mg every other week

- How Supplied: a preservative-free, sterile, clear and colorless solution. A (b) (4) 2-count, 4-count, and 6-count pen cartons. A starter package for plaque psoriasis, A starter package for Crohn's disease, Ulcerative Colitis or Hidradenitis Suppurativa. A (b) (4) 2-count, (b) (4) prefilled glass syringe package, and a single-dose vial kit.
- Storage: must be refrigerated at 36°F to 46°F (2°C to 8°C). DO NOT FREEZE. If needed, for example when traveling, IDACIO may be stored at room temperature up to a maximum of 77°F (25°C) for a period of up to 28 days, with protection from light
- Reference Product: Humira BLA 125057

2 RESULTS

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

2.1 MISBRANDING ASSESSMENT

The Office of Prescription Drug Promotion (OPDP) determined that Idacio would not misbrand the proposed product. The Division of Medication Error Prevention and Analysis 1 (DMEPA 1) and the Division of Rheumatology and Transplant Medicine (DRTM) concurred with the findings of OPDP's assessment for Idacio.

2.2 SAFETY ASSESSMENT

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

2.2.1 *United States Adopted Names (USAN) Search*

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

2.2.2 *Components of the Proposed Proprietary Name*

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

2.2.3 *Comments from Other Review Disciplines at Initial Review*

On January 24, 2022, the Division of Rheumatology and Transplant Medicine (DRTM) did not forward any comments or concerns relating to Idacio at the initial phase of the review.

2.2.4 *FDA Name Simulation Studies*

One hundred and seven (107) practitioners participated in DMEPA's prescription studies for Idacio. 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 prescription simulation studies.

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

Our POCA search^d identified 45 names with the combined score of $\geq 55\%$ or individual orthographic or phonetic score of $\geq 70\%$. We had identified and evaluated some of the names in our previous proprietary name review^e. We re-evaluated the previously identified names of

^c USAN stem search conducted on January 10, 2022.

^d POCA search conducted on January 10, 2022 in version 4.4.

^e McMillan, T. Proprietary Name Review for Idacio (IND 124098). Silver Spring (MD): FDA, CDER, OSE, DMEPA (US); 2017 OCT 12. PNR ID No. 2017-14521121.

concern considering any lessons learned from recent post-marketing experience, which may have altered our previous conclusion regarding the acceptability of the name. We note that none of the product characteristics have changed, and we agree with the findings from our previous review for the names evaluated previously. Therefore, we identified nine names not previously analyzed. 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 $\geq 70\%$	0
Moderately similar name pair: combined match percentage score $\geq 55\%$ to $\leq 69\%$	9
Low similarity name pair: combined match percentage score $\leq 54\%$	0

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

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

2.2.8 Communication of DMEPA's Determination

On March 7, 2022, DMEPA 1 communicated our determination to the Division of Rheumatology and Transplant Medicine (DRTM).

3 CONCLUSION

The proposed proprietary name, Idacio, 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 FRESENIUS KABI USA, LLC

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

If any of the proposed product characteristics as stated in your submission, received on December 13, 2021, 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.^f

^f 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 names⁸. 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 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

⁸ Shah, M, Merchant, L, Characteristics That May Help in the Identification of Potentially Confusing Proprietary Drug Names. Therapeutic Innovation & Regulatory Science, September 2016

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. 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>	
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?		

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.

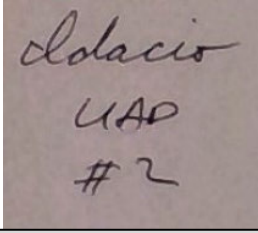
	Orthographic Checklist (Y/N to each question) - Do the names begin with different first letters? Note that even when names begin with different first letters, certain letters may be confused with each other when scripted. - Are the lengths of the names dissimilar* when scripted? *FDA considers the length 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 $\leq 54\%$).

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. Idacio Study (Conducted on January 14, 2022)

Handwritten Medication Order/Prescription	Verbal Prescription
Medication Order: <i>Idacio Inject 40mg subcutaneously every other week</i>	Idacio UAD #2
Outpatient Prescription: 	
CPOE Study Sample (displayed as sans-serif, 12-point, bold font)	
Idacio	

Study Name: Idacio

As of Date 1/28/2022

261 People Received Study
107 People Responded

Study Name: Idacio

Total	29	25	31	22	
INTERPRETATION	OUTPATIENT	CPOE	VOICE	INPATIENT	TOTAL
AIDESIO	0	0	1	0	1
AYDASIO	0	0	1	0	1
CLOLACIO	1	0	0	0	1
DOLACIO	1	0	0	0	1
DOLACIR	1	0	0	0	1
IDACIO	23	25	5	21	74
IDACIO INJECTION	0	0	0	1	1
IDACIS	2	0	0	0	2
IDASCIO	0	0	3	0	3
IDASIO	0	0	11	0	11
IDASIYO	0	0	1	0	1
IDASSIO	0	0	7	0	7
IDAZIO	0	0	1	0	1
ILDASIO	0	0	1	0	1
IOLACIO	1	0	0	0	1

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

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 -N/A

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: Idacio Established name: adalimumab-xxxx Dosage form: Injection Strength(s): 40 mg/0.8 mL Usual Dose: Initial dose: 80 mg or 160 mg on day 1 or 160 mg split over two consecutive days and Day 15: 40 mg or 80 mg Maintenance dose: 10 mg, 20 mg, 40 mg, or 80 mg once every other week or 40 mg every week	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.	Xaciato	59	This name pair has sufficient orthographic and phonetic differences.
2.	(b) (4) **	56	(b) (4)

No.	Proposed name: Idacio Established name: adalimumab-xxxx Dosage form: Injection Strength(s): 40 mg/0.8 mL Usual Dose: Initial dose: 80 mg or 160 mg on day 1 or 160 mg split over two consecutive days and Day 15: 40 mg or 80 mg Maintenance dose: 10 mg, 20 mg, 40 mg, or 80 mg once every other week or 40 mg every week	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
			When all of the aforementioned mitigations are considered in totality, we find the risk of confusion is adequately minimized in this case.
3.	(b) (4)***	56	This name pair has sufficient orthographic and phonetic differences.

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

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

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

No.	Name	POCA Score (%)
1.	(b) (4)*** (O71)	64
2.	(b) (4)***	62
3.	iDose***	58
4.	Kixio	56
5.	Adakveo	56
6.	Dayvigo	56

^h 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

This is a representation of an electronic record that was signed electronically. Following this are manifestations of any and all electronic signatures for this electronic record.

/s/

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03/07/2022 12:24:42 PM

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