

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**216660Orig1s000**

**PROPRIETARY NAME REVIEW(S)**

---

## PROPRIETARY NAME REVIEW

Division of Medication Error Prevention and Analysis 2 (DMEPA 2)  
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\*\*\***

---

|                                      |                                                                                                                                                     |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Date of This Review:</b>          | April 26, 2022                                                                                                                                      |
| <b>Application Type and Number:</b>  | NDA 216660                                                                                                                                          |
| <b>Product Name and Strength:</b>    | Relyvrio (sodium phenylbutyrate and taurursodiol) for oral <span style="background-color: #cccccc; padding: 0 2px;">(b) (4)</span> , 3 grams/1 gram |
| <b>Product Type:</b>                 | Multiple Ingredient Product                                                                                                                         |
| <b>Rx or OTC:</b>                    | Prescription (Rx)                                                                                                                                   |
| <b>Applicant/Sponsor Name:</b>       | Amylyx Pharmaceuticals. Inc. (Amylyx)                                                                                                               |
| <b>PNR ID #:</b>                     | 2022-1044724424                                                                                                                                     |
| <b>DMEPA 2 Safety Evaluator:</b>     | Beverly Weitzman, PharmD                                                                                                                            |
| <b>DMEPA 2 Team Leader (Acting):</b> | Stephanie DeGraw, PharmD                                                                                                                            |
| <b>DMEPA 2 Director:</b>             | Danielle Harris, PharmD                                                                                                                             |

---

## Contents

|     |                                              |   |
|-----|----------------------------------------------|---|
| 1   | INTRODUCTION .....                           | 1 |
| 1.1 | Regulatory History.....                      | 1 |
| 1.2 | Product Information.....                     | 1 |
| 2   | RESULTS.....                                 | 2 |
| 2.1 | Misbranding Assessment .....                 | 2 |
| 2.2 | Safety Assessment .....                      | 2 |
| 3   | CONCLUSION .....                             | 4 |
| 3.1 | Comments to Amylyx Pharmaceuticals Inc. .... | 4 |
| 4   | REFERENCES .....                             | 5 |
|     | APPENDICES .....                             | 6 |

# 1 INTRODUCTION

This review evaluates the proposed proprietary name, Relyvrio, 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. Amylyx submitted an external name study, conducted by (b) (4), for this proposed proprietary name. The submitted external name study was previously reviewed under IND 129563.

## 1.1 REGULATORY HISTORY

Amylyx previously submitted the proposed proprietary name (b) (4) \*\*\* under IND 129563. We found the name, (b) (4) \*\*\* conditionally acceptable on December 5, 2019.<sup>a</sup> However, we found the proposed proprietary name, (b) (4) \*\*\* unacceptable under IND 129563 on January 15, 2020<sup>b</sup> due to spelling, orthographic and phonetic similarities and shared product characteristics with another pending proposed proprietary name, (b) (4) \*\*\*.

Subsequently, Amylyx submitted the proposed proprietary name, Relyvrio under IND 129563. We found the proposed name, Relyvrio conditionally acceptable on January 25, 2021.<sup>c</sup> However, the sponsor withdrew the name Relyvrio on November 17, 2021.<sup>d</sup>

Thus, Amylyx submitted the name, (b) (4) \*\*\* for review under NDA 216660 on November 5, 2021. However we found the proposed proprietary name, (b) (4) \*\*\* unacceptable under NDA 216660 on January 18, 2022<sup>e</sup> due to orthographic similarities and overlapping product characteristics with the currently marketed product, (b) (4).

Subsequently, Amylyx re-submitted the name Relyvrio for review on February 4, 2022.

## 1.2 PRODUCT INFORMATION

The following product information is provided in the proprietary name submission received on February 4, 2022.

- Intended Pronunciation: Reh-lee-vree-oh
- Active Ingredient: sodium phenylbutyrate and taurursodiol
- Indication of Use: For the treatment of Amyotrophic Lateral Sclerosis (ALS)
- Route of Administration: oral or via gastric tube

---

<sup>a</sup> Weitzman, B. Proprietary Name Review for (b) (4) \*\*\* (IND 129563). Silver Spring (MD): FDA, CDER, OSE, DMEPA (US); 2019 DEC 05. Panorama No. 2019-32435254.

<sup>b</sup> Weitzman, B. Proprietary Name Review for (b) (4) \*\*\* (IND 129563). Silver Spring (MD): FDA, CDER, OSE, DMEPA (US); 2020 JAN 15. Panorama No. 2019-32435254-1.

<sup>c</sup> Weitzman, B. Proprietary Name Review for Relyvrio (IND 129563). Silver Spring (MD): FDA, CDER, OSE, DMEPA (US); 2021 JAN 25. Panorama No. 2020-41357236.

<sup>d</sup> Withdrawal of Proprietary name review for Relyvrio (IND 129563) available from docuBridge via: [\\CDSESUB1\evsprod\ind129563\0084\m1\us\cover-letter.pdf](#)

<sup>e</sup> Weitzman, B. Proprietary Name Review for (b) (4) \*\*\* (NDA 216660). Silver Spring (MD): FDA, CDER, OSE, DMEPA (US); 2022 JAN 18. Panorama No. 2021-1044724277.

- Dosage Form: for oral (b) (4)
- Strength: 3 grams/1 gram
- Dose and Frequency: Recommended dosing for first 3 weeks of treatment is 1 packet dissolved in water once daily. After 3 weeks, (b) (4), increase to 1 packet dissolved in water twice a day
- How Supplied:
  - 7 single-dose packets per carton (7 packets total)
  - 14 single-dose packets per carton; 4 x 14 count cartons per outer carton (56 packets total)
- Storage: Store at controlled room temperature 20°C to 25°C; excursions permitted to 15°C to 30°C. Protect from moisture.
- Reference Listed Drug/Reference Product: N/A

## 2 RESULTS

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

### 2.1 MISBRANDING ASSESSMENT

The Office of Prescription Drug Promotion (OPDP) determined that Relyvrio would not misbrand the proposed product. The Division of Medication Error Prevention and Analysis 2 (DMEPA 2) and the Division of Neurology 1 (DN 1) concurred with the findings of OPDP's assessment for Relyvrio.

### 2.2 SAFETY ASSESSMENT

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

#### 2.2.1 *United States Adopted Names (USAN) Search*

There is no USAN stem present in the proposed proprietary name<sup>f</sup>.

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

Amylyx did not provide a derivation or intended meaning for the proposed proprietary name, Relyvrio, 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.

---

<sup>f</sup> USAN stem search conducted on March 22, 2022.

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

On February 18, 2022, the Division of Neurology 1 (DN 1) did not forward any comments or concerns relating to Relyvrio at the initial phase of the review.

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

One hundred and seven practitioners participated in DMEPA's prescription studies for Relyvrio. The responses did not directly overlap with any currently marketed products or any products in the pipeline.

One respondent in the voice study interpreted the proposed proprietary name as "Ilivreo", which demonstrates similarity to the marketed product, Ilevro. We evaluated the name pair, Relyvrio and Ilevro, further and find that there are sufficient orthographic, phonetic, and product characteristic differences.

Orthographically, the name pair begins with different first letters (R vs. I) that look different, especially when capitalized. Additionally, the lengths of the names (8 letters versus 6 letters) are dissimilar when scripted and Relyvrio contains a downstroke letter 'y' in infix, whereas Ilevro does not contain any downstroke letters, which gives the names different shapes when scripted.

Phonetically, the first syllables (Reh vs. Eye) sound different when spoken and Relyvrio contains an extra syllable.

Furthermore the following product characteristics may provide additional differentiation, if included: there is no direct overlap in strength (3 grams/1 gram vs. 0.3%), dosage form (for oral (b) (4) vs. ophthalmic suspension), route of administration (oral/via gastric tube vs. ophthalmic) or duration of therapy (chronic vs. 1 day prior to cataract surgery through 2 weeks postop).

When all of the aforementioned mitigations are considered in totality, we find the risk of name confusion is mitigated to an acceptable level (See appendix E).

Two respondents in the voice study interpreted the proposed proprietary name as "(b) (4)", which demonstrates similarity to the proposed proprietary name, (b) (4)\*\*\*. We evaluated the name pair, Relyvrio and (b) (4)\*\*\*, further and find that the proposed proprietary name (b) (4)\*\*\* was found unacceptable by DMEPA (OSE# 2020-38213033 dated August 10, 2020) under IND 123087. The product was approved under the proprietary name Empaveli under NDA 215014. Thus, we find no risk of name confusion for this name pair (See Appendix G)

Appendix B contains the results from the prescription simulation studies.

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

Our POCA search<sup>§</sup> identified 50 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. We re-evaluated the previously identified names of concern considering the additional frequency of administration (i.e., was twice daily, now once daily or twice daily) and any lessons learned from recent post-marketing experience, which may have altered our previous conclusion regarding the acceptability of the name. Our re-evaluation

---

<sup>§</sup> POCA search conducted on March 22, 2022 in version 4.4.

determined we agree with the findings from our previous review for the names evaluated previously. Therefore, we identified 7 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 and FDA Prescription Simulation Study. These name pairs are organized as highly similar, moderately similar or low similarity for further evaluation.

| <b>Table 1. Names Retrieved for Review Organized by Name Pair Similarity</b>                |                        |
|---------------------------------------------------------------------------------------------|------------------------|
| <b>Similarity Category</b>                                                                  | <b>Number of Names</b> |
| Highly similar name pair:<br>combined match percentage score $\geq 70\%$                    | 0                      |
| Moderately similar name pair:<br>combined match percentage score $\geq 55\%$ to $\leq 69\%$ | 9                      |
| Low similarity name pair:<br>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 9 names contained in Table 1 determined none of the names will pose a risk for confusion with Relyvrio as described in Appendices C through H.

### **2.2.8 Communication of DMEPA's Determination**

On April 26, 2022, DMEPA 2 communicated our determination to the Division of Neurology 1 (DN 1).

## **3 CONCLUSION**

The proposed proprietary name, Relyvrio, is acceptable.

If you have any questions or need clarifications, please contact Lopa Thambi, OSE project manager, at 301-796-5354.

### **3.1 COMMENTS TO AMYLYX PHARMACEUTICALS INC.**

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

If any of the proposed product characteristics as stated in your submission, received on February 4, 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](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>h</sup>

---

<sup>h</sup> 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.                                                 |
| <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>i</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., 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

---

<sup>i</sup> 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.

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  $\geq 70\%$ ).**

| <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 render the names less likely to confusion, provided that the pair does not share a common strength or dose.</p> |                                                                                                                                                                                                    |                           |                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------------------------------------------------------------------------------------------------------------|
| <u>Orthographic Checklist</u>                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                    | <u>Phonetic Checklist</u> |                                                                                                                  |
| <b>Y/N</b>                                                                                                                                                                                                                                                                                       | <p>Do the names begin with different first letters?</p> <p><i>Note that even when names begin with different first letters, certain letters may be confused with each other when scripted.</i></p> | <b>Y/N</b>                | <p>Do the names have different number of syllables?</p>                                                          |
| <b>Y/N</b>                                                                                                                                                                                                                                                                                       | <p>Are the lengths of the names dissimilar* when scripted?</p> <p><i>*FDA considers the length of names different if the names differ by two or more letters.</i></p>                              | <b>Y/N</b>                | <p>Do the names have different syllabic stresses?</p>                                                            |
| <b>Y/N</b>                                                                                                                                                                                                                                                                                       | <p>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?</p>                        | <b>Y/N</b>                | <p>Do the syllables have different phonologic processes, such as vowel reduction, assimilation, or deletion?</p> |
| <b>Y/N</b>                                                                                                                                                                                                                                                                                       | <p>Is there different number or placement of cross-stroke or dotted letters present in the names?</p>                                                                                              | <b>Y/N</b>                | <p>Across a range of dialects, are the names consistently pronounced differently?</p>                            |
| <b>Y/N</b>                                                                                                                                                                                                                                                                                       | <p>Do the infixes of the name appear dissimilar when scripted?</p>                                                                                                                                 |                           |                                                                                                                  |
| <b>Y/N</b>                                                                                                                                                                                                                                                                                       | <p>Do the suffixes of the names appear dissimilar when scripted?</p>                                                                                                                               |                           |                                                                                                                  |

**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> |
| Step 2 | <p>Answer the questions in the checklist below. Affirmative answers to some of these questions suggest that the pattern of orthographic or phonetic differences in the names may reduce the likelihood of confusion for moderately similar names <b><u>with</u></b> overlapping or similar strengths or doses.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

|  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>Orthographic Checklist (Y/N to each question)</p> <ul style="list-style-type: none"> <li>Do the names begin with different first letters?<br/>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?<br/>*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 z and f), 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 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. Relyvrio Study (Conducted on February 22, 2022)**

| Handwritten Medication Order/Prescription                                                                                                                                                                                                                                                                                                                                                                                                  | Verbal Prescription                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <p>Medication Order:</p> <p><i>Relyvrio 1 packet po twice daily</i></p>                                                                                                                                                                                                                                                                                                                                                                    | <p>Relyvrio</p> <p>Use contents of one packet twice daily as directed.</p> <p>#60</p> |
| <p>Outpatient Prescription:</p> <div> <p>Patient _____ Date _____</p> <p>Address _____</p> <p><b>Rx</b></p> <p><i>Relyvrio</i></p> <p><i>use contents of one packet twice daily as directed. #60</i></p> <p>  </p> <p>           Refill(s): _____ Dr. _____<br/>           DEA No. _____ Address _____<br/>           Telephone _____         </p> </div> |                                                                                       |
| <p><b>CPOE Study Sample (displayed as sans-serif, 12-point, bold font)</b></p> <p><b>Relyvrio</b></p>                                                                                                                                                                                                                                                                                                                                      |                                                                                       |

## FDA Prescription Simulation Responses (Aggregate Report)

|                                                   |                   |             |              |                  |              |
|---------------------------------------------------|-------------------|-------------|--------------|------------------|--------------|
| 264 People Received Study<br>107 People Responded |                   |             |              |                  |              |
| Study Name: Relyvrio                              |                   |             |              |                  |              |
| <b>Total</b>                                      | <b>24</b>         | <b>29</b>   | <b>24</b>    | <b>30</b>        |              |
| <b>INTERPRETATION</b>                             | <b>OUTPATIENT</b> | <b>CPOE</b> | <b>VOICE</b> | <b>INPATIENT</b> | <b>TOTAL</b> |
| FEYVVRIO                                          | 1                 | 0           | 0            | 0                | 1            |
| ILIVREO                                           | 0                 | 0           | 1            | 0                | 1            |
| LAREEVIO                                          | 0                 | 0           | 1            | 0                | 1            |
| MALEVRI0                                          | 0                 | 0           | 2            | 0                | 2            |
| RALEEVRI0                                         | 0                 | 0           | 1            | 0                | 1            |
| RELEAVO                                           | 0                 | 0           | 1            | 0                | 1            |



|           |    |    |   |    |    |
|-----------|----|----|---|----|----|
| RELEBRIO  | 0  | 0  | 1 | 0  | 1  |
| RELEEVRI0 | 0  | 0  | 1 | 0  | 1  |
| RELEIVRIO | 0  | 0  | 1 | 0  | 1  |
| RELEVERO  | 0  | 0  | 1 | 0  | 1  |
| RELEVRI0  | 0  | 0  | 3 | 0  | 3  |
| RELIBRIO  | 0  | 0  | 1 | 0  | 1  |
| RELIEVRI0 | 0  | 0  | 6 | 0  | 6  |
| RELIVIO   | 0  | 0  | 1 | 0  | 1  |
| RELIVRI0  | 0  | 0  | 3 | 0  | 3  |
| RELYERIC  | 1  | 0  | 0 | 0  | 1  |
| RELYUIRO  | 1  | 0  | 0 | 0  | 1  |
| RELYURIO  | 1  | 0  | 0 | 0  | 1  |
| RELYVIO   | 1  | 0  | 0 | 1  | 2  |
| RELYVRIN  | 0  | 0  | 0 | 1  | 1  |
| RELYVRIO  | 17 | 29 | 0 | 24 | 70 |
| RELYVRIS  | 1  | 0  | 0 | 2  | 3  |
| RELYVSIO  | 1  | 0  | 0 | 0  | 1  |
| RELYVZIO  | 0  | 0  | 0 | 2  | 2  |

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

| No. | <b>Proposed name:</b> Relyvrio<br><b>Established name:</b> sodium phenylbutyrate and taurursodiol <sup>(b) (4)</sup><br><b>Dosage form:</b> for oral<br><b>Strength(s):</b> 3 grams/1 gram<br><b>Usual Dose:</b> First 3 weeks, 1 packet dissolved in water once a day; thereafter 1 packet twice a day | POCA Score (%) | <b>Orthographic and/or phonetic differences in the names sufficient to prevent confusion</b><br><br><b>Other prevention of failure mode expected to minimize the risk of confusion between these two names.</b> |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     | 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

| No. | Name | POCA Score (%) |
|-----|------|----------------|
|     | 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. | <b>Proposed name:</b> Relyvrio<br><b>Established name:</b> sodium phenylbutyrate and taurursodiol <sup>(b) (4)</sup><br><b>Dosage form:</b> for oral<br><b>Strength(s):</b> 3 grams/1 gram<br><b>Usual Dose:</b> First 3 weeks, 1 packet dissolved in water once a day; thereafter 1 packet twice a day | POCA Score (%) | <b>Prevention of Failure Mode</b><br><br><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.  | Ilevro                                                                                                                                                                                                                                                                                                  | 68             | <p>This name pair has sufficient orthographic and phonetic differences.</p> <p>Orthographically, the name pair begins with different first letters (R vs. I) that look different, especially when capitalized. Additionally, the lengths of the names (8 letters versus 6 letters) are dissimilar when scripted and Relyvrio contains a downstroke letter 'y' in infix, whereas Ilevro does not contain any downstroke letters, which gives the names different shapes when</p> |

|    |             |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----|-------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |             |    | <p>scripted.</p> <p>Phonetically, the first syllables (Reh vs. Eye) sound different when spoken and Relyvrio contains an extra syllable.</p> <p>Furthermore, the following product characteristics may provide additional differentiation if included: there is no direct overlap in strength (3 grams/1 gram vs. 0.3%), dosage form (for oral (b) (4) vs. ophthalmic suspension), route of administration (oral/via gastric tube vs. ophthalmic) or duration of therapy (chronic vs. 1 day prior to cataract surgery through 2 weeks postop).</p> |
| 2. | (b) (4) *** | 68 | <p>This name pair has sufficient orthographic and phonetic differences.</p> <div style="background-color: #cccccc; height: 300px; width: 100%; margin-top: 10px;">(b) (4)</div>                                                                                                                                                                                                                                                                                                                                                                    |
| 3. | Lagevrio*** | 66 | <p>This name pair has sufficient orthographic and phonetic differences.</p> <p>Orthographically, the name pair begins with different first letters (R vs. L) that look different. Additionally, Relyvrio contains the upstroke letter 'l' in the</p>                                                                                                                                                                                                                                                                                               |

|    |             |    |                                                                                                                                                                                                                                                                                                                                                                                                            |
|----|-------------|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    |             |    | <p>third position followed by a downstroke letter ‘y’ in the fourth position, whereas Lagevrio*** contains the downstroke letter ‘g’ in the third position followed by the letter ‘e’ in the fourth position which gives the names different shapes when scripted.</p> <p>Phonetically, the onset of the first syllables (Reh vs. lah) and second syllables (lee vs. GEV) sound different when spoken.</p> |
| 4. | (b) (4) *** | 62 | <p>This name pair has sufficient orthographic and phonetic differences.</p> <p>(b) (4)</p>                                                                                                                                                                                                                                                                                                                 |

|    |             |    |                                                                                 |
|----|-------------|----|---------------------------------------------------------------------------------|
|    |             |    | (b) (4)                                                                         |
| 5. | Prehevbrío  | 58 | This name pair has sufficient orthographic and phonetic differences.            |
| 6. | (b) (4) *** | 56 | This name pair has sufficient orthographic and phonetic differences.<br>(b) (4) |
| 7. | Rolvedon*** | 55 | 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 (%) |
|-----|------|----------------|
|     | 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.  | (b) (4) *** | 58             | Proposed proprietary name for IND 123087 found unacceptable by DMEPA (OSE# 2020-38213033 dated August 10, 2020). NDA 215014 approved under the proprietary name Empaveli. |
| 2.  | (b) (4) *** | 56             | Proposed CBER proprietary name for BLA 125737 withdrawn by Applicant. BLA 125737 approved under the proprietary name Prehevbrio.                                          |

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

| No. | Name | POCA Score (%) |
|-----|------|----------------|
|     | N/A  |                |

---

<sup>j</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

-----  
**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/  
-----

BEVERLY WEITZMAN  
04/26/2022 08:48:40 AM

STEPHANIE L DEGRAW  
04/26/2022 12:22:29 PM

DANIELLE M HARRIS  
04/26/2022 12:29:42 PM