

**CENTER FOR DRUG EVALUATION AND
RESEARCH**

APPLICATION NUMBER:

217865Orig1s000

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*****

Date of This Review:	July 20, 2023
Application Type and Number:	NDA 217865 and IND 126598
Product Name and Strength:	Duvyzat (givinostat) oral suspension, 8.86 mg/mL
Product Type:	Combination Product (Drug-Device)
Rx or OTC:	Prescription (Rx)
Applicant/Sponsor Name:	Italfarmaco S.p.A. (Italfarmaco)
PNR ID #:	2023-1044725113 and 2022-1044724671
DMEPA 2 Safety Evaluator:	Chad Morris, PharmD, MPH
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1 INTRODUCTION

This review evaluates the proposed proprietary name, **Duvyzat**, 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. **Italfarmaco** submitted an external name study, conducted by the (b) (4) for this proposed proprietary name.

1.1 PRODUCT INFORMATION

The following product information is provided in the proprietary name submission and prescribing information received on **April 21, 2023**.

- Intended Pronunciation: doo' vi zat
- **Active Ingredient:** **givinostat**
- Indication of Use: treatment of Duchenne muscular dystrophy (DMD)
- Route of Administration: oral
- Dosage Form: **oral suspension**
- Strength^a: **8.86 mg/mL** (equivalent to 10 mg/mL givinostat hydrochloride monohydrate)
- Dose^b and Frequency: dose is based on body weight (see tables below) and is administered twice daily



Starting Doses based on givinostat

^a Within the request for proprietary name review and the proposed prescribing information, the applicant has presented the established name and strength as “givinostat 8.86 mg/mL (equivalent to givinostat hydrochloride monohydrate 10 mg/mL)”. Per OPQ, the strength should be presented based on the active moiety, givinostat (that is, 8.86 mg/mL), and not the salt (that is, 10 mg/mL). For the purposes of this evaluation, we considered both strength presentations.

^b Within the request for proprietary name review and the proposed prescribing information, the applicant has presented the doses in mg and mL based on the salt form of the active moiety, givinostat hydrochloride monohydrate (that is, 10 mg/mL). Per OPQ, the doses should be based on the active moiety, givinostat (that is, 8.86 mg/mL), and not the salt. For the purposes of this evaluation, we considered both dose presentations.

(b) (4)

Dose Modifications

(b) (4)

- How Supplied: carton containing one each: 140 mL bottle oral suspension, (b) (4) 5 mL oral syringe, prescribing information, instructions for use

- Storage: Store at 20°C to 25°C (68°F to 77°F), excursions permitted to 15°C to 30°C (59°F to 86°F) [see USP Controlled Room Temperature]. Do not freeze. Store upright. Use within 60 days after initially opening of the bottle. Discard any unused DUVYZAT remaining after 60 days of first opening of the bottle.

2 RESULTS

The following sections provide information obtained and considered in the overall evaluation of the proposed proprietary name, [Duvyzat](#).

2.1 MISBRANDING ASSESSMENT

The Office of Prescription Drug Promotion (OPDP) determined that [Duvyzat](#) 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 [Duvyzat](#).

2.2 SAFETY ASSESSMENT

The following aspects were considered in the safety evaluation of the proposed proprietary name, [Duvyzat](#).

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

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

2.2.3 Comments from Other Review Disciplines at Initial Review

On May 15, 2023, the [Division of Neurology 1 \(DN 1\)](#) did not forward any comments or concerns relating to [Duvyzat](#) at the initial phase of the review.

2.2.4 FDA Name Simulation Studies

Seventy-eight practitioners participated in DMEPA's prescription studies for [Duvyzat](#).

One outpatient study participant provided the response "Dureyzat" which contains the same first 4 letters as the marketed product Durezol. We evaluated this name pair and determined there are sufficient orthographic, phonetic, and product characteristic differences to adequately minimize the risk for a medication error between this name pair.

^c USAN stem search conducted on May 19, 2023.

Orthographically, the infixes (-vy- vs. -re-) and suffixes (-zat vs. -zol) provide some differentiation. Specifically, Duvyzat contains the downstroke letter ‘y’ in the fourth position compared to the letter ‘e’ in Durezol. Also, Durezol contains one upstroke letter ‘l’ in the suffix, whereas Duvyzat contains the crossed letter ‘t’.

Phonetically, the second syllables (vi vs. reh) and ending sounds of the third syllables (zat vs. zol) sound different.

Additionally, FDA’s Phonetic and Orthographic Computer Analysis (POCA) program calculates a combined orthographic and phonetic score of 54%, suggesting that there is low similarity between these names. See Appendix F.

Furthermore, the products do not overlap in dose ((b) (4) mL to (b) (4) mL or (b) (4) mg givinostat [(b) (4) mg givinostat hydrochloride monohydrate] to (b) (4) mg givinostat [(b) (4) mg givinostat hydrochloride monohydrate] vs. 1 drop), and the dose of Duvyzat will be required on a prescription or medication order. Additionally, the products differ in strength (8.86 mg/mL givinostat [10 mg/mL givinostat hydrochloride monohydrate] vs. 0.05%), dosage form (oral suspension vs. emulsion/drops) and route of administration (oral vs. ophthalmic), which may provide additional differentiation if included.

In addition to their study response, one voice study participant provided an additional comment “duvelisib”, which is the established name for the marketed product Copiktra. We evaluated this name pair and determined there are sufficient orthographic, phonetic, and product characteristic differences to adequately minimize the risk for a medication error between this name pair.

Orthographically, the infixes (-vy- vs. -eli-) and suffixes (-zat vs. -sib) provide sufficient differentiation.

Phonetically, the ending sounds of the second syllables (vi vs. veh) and the third syllables (zat vs. lih) sound different. Duvelisib also contains an extra syllable.

Additionally, FDA’s Phonetic and Orthographic Computer Analysis (POCA) program calculates a combined orthographic and phonetic score of 49%, suggesting that there is low similarity between these names. See Appendix F.

Furthermore, the products do not overlap in strength (8.86 mg/mL givinostat [10 mg/mL givinostat hydrochloride monohydrate] vs. 15 mg or 25 mg), and the strength of duvelisib will be required on a prescription or medication order. Additionally, the products differ in dosage form (oral suspension vs. capsule), which may provide additional differentiation if included.

Otherwise, the responses did not overlap nor did the responses sound or look similar to any other 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 a combined phonetic and orthographic score of $\geq 55\%$ or an individual phonetic or orthographic score $\geq 70\%$. These names are included in Table 1 below.

2.2.6 Names Retrieved for Review Organized by Name Pair Similarity

Table 1 lists the number of names retrieved from our POCA search, FDA Prescription Simulation Study, and (b) (4) external study. These name pairs are organized as highly similar, moderately similar or low similarity for further evaluation.

Table 1. Names Retrieved for Review Organized by Name Pair Similarity	
Similarity Category	Number of Names
Highly similar name pair: combined match percentage score $\geq 70\%$	1
Moderately similar name pair: combined match percentage score $\geq 55\%$ to $\leq 69\%$	41
Low similarity name pair: combined match percentage score $\leq 54\%$	7

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

Our analysis of the 49 names contained in Table 1 determined none of the names will pose a risk for confusion with Duvyzat as described in Appendices C through H.

2.2.8 Communication of DMEPA's Determination

On July 19, 2023, DMEPA 2 communicated our determination to the Division of Neurology 1 (DN 1).

3 CONCLUSION

The proposed proprietary name, Duvyzat, is conditionally acceptable.

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

3.1 COMMENTS TO ITALFARMACO S.P.A.

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

^d POCA search conducted on May 19, 2023 in version 5.2.

If any of the proposed product characteristics as stated in your submission, received on [April 21, 2023](#) 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.^e

^e 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, Cerner RxNorm, and names in the review pipeline using a 55% threshold in POCA. DMEPA reviews the combined orthographic and phonetic matches and group the names into one of the following three categories:
- Highly similar pair: combined match percentage score $\geq 70\%$.
 - Moderately similar pair: combined match percentage score $\geq 55\%$ to $\leq 69\%$.

- Low similarity: combined match percentage score $\leq 54\%$.

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

- For highly similar names, differences in product characteristics often cannot mitigate the risk of a medication error, including product differences such as strength and dose. Thus, proposed proprietary names that have a combined score of ≥ 70 percent are at risk for a look-alike sound-alike confusion which is an area of concern (See Table 3).
- Moderately similar names are further evaluated to identify the presence of attributes that are known to cause name confusion.
 - Name attributes: We note that the beginning of the drug name plays a significant role in contributing to confusion. Additionally, drug name pairs that start with the same first letter and contain a shared letter string of at least 3 letters in both names are major contributing factor in the confusion of drug names^f. 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 a low similarity name to the moderate similarity category and review according to the moderately similar name pair checklist.

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

- 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 $\geq 70\%$).

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.

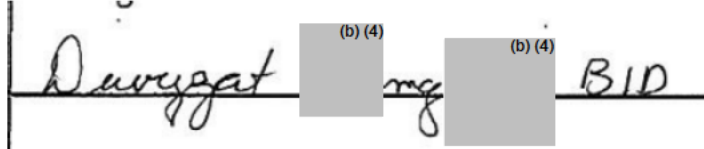
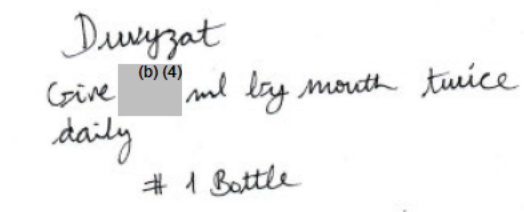
	Orthographic Checklist (Y/N to each question) - Do the names begin with different first letters? Note that even when names begin with different first letters, certain letters may be confused with each other when scripted. - Are the lengths of the names dissimilar* when scripted? *FDA considers the length 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. Duvyzat Study (Conducted on May 5, 2023)

Handwritten Medication Order/Prescription	Verbal Prescription
<u>Medication Order:</u> 	Duvyzat Give (b) (4) mL by mouth twice daily #1 bottle
<u>Outpatient Prescription:</u> 	
CPOE Study Sample (displayed as sans-serif, 12-point, bold font) Duvyzat	

FDA Prescription Simulation Responses (Aggregate Report)

Study Name: [Duvyzat](#)

256 People Received Study

78 People Responded

Total	17	19	23	19	78
INTERPRETATION	INPATIENT	OUTPATIENT	VOICE	CPOE	TOTAL
DEVYGEST	1	0	0	0	1
DUEYZAT	0	1	0	0	1
DUREYZAT	0	1	0	0	1
DURSYZAT	0	1	0	0	1
DURVYZAT	0	1	0	0	1
DURYZAT	0	1	0	0	1
DUVASAT	0	0	1	0	1
DUVISAC	0	0	2	0	2
DUVISAQ	0	0	1	0	1
DUVISAT	0	0	1	0	1
DUVIZAT	0	0	2	0	2
DUVYGAT	8	0	0	0	8
DUVYQAT	1	0	0	0	1
DUVYSAC	0	0	2	0	2
DUVYSAT	0	0	8	0	8
DUVYZAT	5	14	6	19	44
DUVYZAT 20MG	1	0	0	0	1
UVYZAT	1	0	0	0	1

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

No.	Proposed name: Duvyzat Established name: givinostat Dosage form: oral suspension Strength(s): 8.86 mg/mL [10 mg/mL] Usual Dose^g: (b) (4) twice daily	POCA Score (%)	Orthographic and/or phonetic differences in the names sufficient to prevent confusion Other prevention of failure mode expected to minimize the risk of confusion between these two names.
1.	Duvyzat***	100	Subject of this review.

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

No.	Name	POCA Score (%)
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: Duvyzat Established name: givinostat Dosage form: oral suspension Strength(s): 8.86 mg/mL [10 mg/mL] Usual Dose^f: (b) (4) twice daily	POCA Score (%)	Prevention of Failure Mode In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names
1.	Durysta	63	This name pair has sufficient orthographic and phonetic differences. Orthographically, the suffixes (-zat vs. -sta) provide some differentiation, especially if the “z” in Duvyzat is scripted with a downstroke.

^g Within the request for proprietary name review and the proposed prescribing information, the applicant has presented the established name and strength as “givinostat 8.86 mg/mL (equivalent to givinostat hydrochloride monohydrate 10 mg/mL)” and the doses are based on the salt form of the active moiety, givinostat hydrochloride monohydrate. For the purpose of identifying overlapping product characteristics, we considered both strength expressions and all possible doses (in mg and mL) between (b) (4) which includes doses based on both on givinostat and givinostat hydrochloride monohydrate.

No.	Proposed name: Duvyzat Established name: givinostat Dosage form: oral suspension Strength(s): 8.86 mg/mL [10 mg/mL] Usual Dose^f: (b) (4)) twice daily	POCA Score (%)	Prevention of Failure Mode In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names
			Phonetically, the ending sounds of the first syllables (doo vs. dur), and the second syllables (vi vs. is) and third syllables (zat vs. tah) sound different. Furthermore, there is no direct overlap in dose (b) (4) vs. 1 implant), and a dose will be required for Duvyzat to be dispensed. Additionally, the dosage forms (oral suspension vs. implant), and route of administration (oral vs. ophthalmic) may provide additional differentiation if included. Further, Durysta must be inserted via intracameral injection by a trained healthcare provider under aseptic conditions, whereas Duvyzat may be self-administered at home.
2.	Fulyzaq	63	This name pair has sufficient orthographic and phonetic differences. Orthographically, the names begin with different first letters (D vs. F). Additionally, the infixes (-vy- vs. -ly-) and suffixes (-zat vs. -zaq) provide some differentiation. Specifically, Fulyzaq contains an upstroke letter “l” in the third position and downstroke letter “q” in the final position, compared to the letters “v” and “t” in the same positions for Duvyzat. Phonetically, the first syllables (doo vs. fuhl), and onsets of the second syllables (vi vs. ee), and ending sounds of the third syllables (zat vs. zak) sound different.

No.	Proposed name: Duvyzat Established name: givinostat Dosage form: oral suspension Strength(s): 8.86 mg/mL [10 mg/mL] Usual Dose^f: (b) (4) twice daily	POCA Score (%)	Prevention of Failure Mode In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names
			Furthermore, there is no direct overlap in dose (b) (4) vs. 1 tablet), and a dose will be required for Duvyzat to be dispensed. Additionally, the strengths (8.86 mg/mL [10 mg/mL] vs. 125 mg) and dosage forms (oral suspension vs. tablet) may provide additional differentiation if included.
3.	Mavyret	60	This name pair has sufficient orthographic and phonetic differences. Orthographically, the names begin with different first letters (D vs. M). Additionally, if the ‘z’ in Duvyzat is scripted with a downstroke, that will further differentiate the name pair since Mavyret does not contain a downstroke letter in the suffix (-zat vs. -ret). Phonetically, the first syllables (doo vs. mav), second syllables (vi vs. ih), and onsets of the third syllables (zat vs. reht) sound different. Furthermore, the strengths (8.86 mg/mL [10 mg/mL] vs. 50 mg/20 mg and 100 mg/40 mg) do no overlap, and a strength would be required on a prescription or medication order for Mavyret. Additionally, the dosage forms are different (oral suspension vs. (b) (4) and tablet), which may provide further differentiation if included.
4.	Novacet	60	This name pair has sufficient orthographic and phonetic differences. Orthographically, the names begin with different first letters (D vs. N). Additionally, if the ‘z’ in Duvyzat is

No.	Proposed name: Duvyzat Established name: givinostat Dosage form: oral suspension Strength(s): 8.86 mg/mL [10 mg/mL] Usual Dose^f: (b) (4) twice daily	POCA Score (%)	Prevention of Failure Mode In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names
			scripted with a downstroke, that will further differentiate the name pair since Novacet does not contain a downstroke letter in the suffix (-zat vs. -cet). Phonetically, the first syllables (doo vs. no) and the offsets of the second syllables (vi vs. vah) sound different. Furthermore, the doses (b) (4) vs. small amount), do not overlap, and a dose would be required on a prescription for Duvyzat. Additionally, the dosage forms (oral suspension vs. lotion) and route of administration (oral vs topical), which may provide further differentiation if included.
5.	Dovato	58	This name pair has sufficient orthographic and phonetic differences.
6.	Duetact	58	This name pair has sufficient orthographic and phonetic differences.
7.	Vyzulta	58	This name pair has sufficient orthographic and phonetic differences.
8.	Duphalac	57	This name pair has sufficient orthographic and phonetic differences.
9.	Duratest (Root name for Duratest-100 and Duratest-200)	57	This name pair has sufficient orthographic and phonetic differences.
10.	Dryvax	56	This name pair has sufficient orthographic and phonetic differences.
11.	Duratuss	56	This name pair has sufficient orthographic and phonetic differences.
12.	Durlaza	56	This name pair has sufficient orthographic and phonetic differences.
13.	Duvoid	55	This name pair has sufficient orthographic and phonetic differences.
14.	Quviviq	52	This name pair has sufficient orthographic and phonetic differences.

No.	Proposed name: Duvyzat Established name: givinostat Dosage form: oral suspension Strength(s): 8.86 mg/mL [10 mg/mL] Usual Dose^f: (b) (4) twice daily	POCA Score (%)	Prevention of Failure Mode In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names
15.	Dificid	48	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 (%)
1.	Durezol	54
2.	Duricef	53
3.	Duvelisib	49
4.	Dupixent	48

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)	68	Proposed proprietary name for BLA 761061 found unacceptable by DMEPA (OSE# 2017-13165377). BLA 761061 approved under the proprietary name Tremfya.
2.	Dytan-At	62	Name identified in RxNorm database. Product is deactivated and no generic equivalents are available.
3.	Dura-Vent	60	Name identified in RxNorm database. Product is deactivated and no generic equivalents are available.
4.	Tubizid	60	Name identified in RxNorm database. Unable to find product characteristics in commonly used drug databases.
5.	Duratan (Root name for Duratan DM, Durtan Forte, and Duratan PE)	59	Name identified in RxNorm database. Product line is deactivated and no generic equivalents are available.
6.	Durophet	59	Name identified in RxNorm database. Unable to find product characteristics in commonly used drug databases.

No.	Name	POCA Score (%)	Failure preventions
7.	Durabac	58	Name identified in RxNorm database. Product is deactivated and no generic equivalents are available.
8.	Duract	58	Name identified in RxNorm database. Product is deactivated and no generic equivalents are available.
9.	(b) (4)	58	Proposed proprietary name for IND 101291 found unacceptable by DMEPA (OSE# 2019-29498474 dated 8/12/2019). NDA 216951 approved under the proprietary name Jesduvroq.
10.	Luviset 360	58	Name identified in RxNorm database. Unable to find product characteristics in commonly used drug databases.
11.	Dolacet	57	Name identified in RxNorm database. Product is deactivated and no generic equivalents are available.
12.	(b) (4)	57	Proposed proprietary name found unacceptable by CBER under BB-IND 15015 (b) (4) BLA 125592 approved under the proprietary name, Odactra.
13.	Duranest	56	Brand discontinued with no generic equivalents available. NDA 017751 withdrawn FR effective 09/17/2003.
14.	Duvadilan	55	International product marketed in India, the Philippines, Japan, Indonesia, Argentina, and Venezuela.
15.	Novafed	54	Brand discontinued with no generic equivalents available. NDA 017603 withdrawn FR effective 04/04/2005.

Appendix H: Names not likely to be confused due to absence of attributes that are known to cause name confusion^{8Fh}.

No.	Name	POCA Score (%)
1.	Vyvgart	58
2.	Advate	56
3.	Butyrate	56
4.	(b) (4)	56
5.	Cutivate	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

No.	Name	POCA Score (%)
6.	Tivdak	56
7.	Truvada	56
8.	Tusstat	56
9.	(b) (4)	56
10.	Zadstat	56
11.	Zavedos	56
12.	Nuzyra	55
13.	Sedivet	55
14.	Tusana D	55

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