CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

761444Orig1s000
761444Orig2s000

PROPRIETARY NAME REVIEW(S)

SUFFIX REVIEW FOR NONPROPRIETARY NAME
Division of Medication Error Prevention and Analysis 1 (DMEPA 1)
Office of Medication Error Prevention and Risk Management (OMEPRM)
Office of Surveillance and Epidemiology (OSE)
Center for Drug Evaluation and Research (CDER)
*** This document contains proprietary information that cannot be released to the public***

Date of This Review:	May 29, 2025
Responsible OND Division:	Division of General Endocrinology (DGE)
Application Type and Number:	BLA 761444
Product Name and Strength:	Bildyos (denosumab-nxxp) injection, 60 mg/mL Bilprevda (denosumab-nxxp) injection, 120 mg/1.7 mL
Product Type:	Combination Product (Biologic-Device)
Applicant/Sponsor Name:	Shanghai Henlius Biotech, Inc. (Henlius)
FDA Received Date:	August 30, 2024
Nexus NPNS ID #:	2024-263
DMEPA 2 Biologics Suffix Specialist:	Carlos M Mena-Grillasca, BS Pharm
DMEPA 1 Director:	Mishale Mistry, PharmD, MPH

1 Purpose of Review

This review summarizes our evaluation of the four-letter suffixes proposed by Henlius for inclusion in the nonproprietary name and communicates our recommendation for the nonproprietary name for BLA 761444.

2 Assessment of the Nonproprietary Name

On August 30, 2024, Henlius submitted a list of 10 suffixes, in their order of preference, to be used in the nonproprietary name of their product.[a] Table 1 presents the list of suffixes submitted by Henlius:

Table 1

	Suffixes submitted by Henlius
1.	nxxp
2.	(b) (4)
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

We reviewed Henlius ‘s proposed suffixes in the order of preference listed by Henlius, using the principles described in the applicable guidance.

2.1 denosumab–nxxp

Henlius‘s first proposed suffix, -nxxp, is comprise of 3 distinct letters (n, x, p).

We determined that the proposed suffix -nxxp, is not too similar to any other product’s suffix designation, does not look similar to the names of other currently marketed products, that the suffix is devoid of meaning, does not include any abbreviations that could be misinterpreted, and does not make any misrepresentations with respect to safety or efficacy of this product.

3 Communication of DMEPA 1 Analysis

These findings were shared with OPDP. On May 21, 2025, OPDP did not identify any promotional concerns that would render this proposed suffix unacceptable. DMEPA 1 also communicated our findings to the Division of General Endocrinology (DGE) on May 29, 2025.

4 Conclusion

We find Henlius‘s proposed suffix –nxxp acceptable. DMEPA 1 will communicate our findings to the Applicant via letter.

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[a] Nonproprietary Name BLA 761444. Shanghai (China): Shanghai Henlius Biotech, Inc.; 2024 Aug 30. Available from: \\CDSESUB1\EVSPROD\bla761444\0002\m1\us\112-other-correspondence\nonprioprity-name.pdf

4.1 Recommendations for Shanghai Henlius Biotech, Inc.

We find the nonproprietary name, denosumab-nxxp, conditionally acceptable for your proposed product. Should your 351(k) BLA be approved during this review cycle, denosumab-nxxp will be the proper name designated in the license. You should revise your proposed labels and labeling accordingly and submit the revised labels and labeling to your BLA for our review. However, please be advised that if your application receives a complete response, the acceptability of your proposed suffix will be re-evaluated. If we find your suffix unacceptable upon our re-evaluation, we will inform you of our findings.

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/

CARLOS M MENA-GRILLASCA
05/29/2025 01:55:09 PM

MISHALE P MISTRY
05/29/2025 03:54:35 PM

PROPRIETARY NAME REVIEW

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

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

Date of This Review:	November 4, 2024
Application Type and Number:	BLA 761444
Product Name, Dosage Form, and Strength:	Bilprevda (denosumab-xxxx)[a] injection, 120 mg/1.7 mL (70 mg/mL)
Product Type:	Combination Product (Biologic-Device)
Rx or OTC:	Prescription (Rx)
Applicant/Sponsor Name:	Shanghai Henlius Biotech, Inc. (Henlius)
PNR ID #:	2024- 1044725973
DMEPA 1 Safety Evaluator:	Peggy Rahbani, PharmD, BCPS
DMEPA 1 Team Leader:	Yevgeniya Kogan, PharmD, BCSCP
DMEPA 1 Associate Director for Nomenclature and Labeling:	Idalia E. Rychlik, PharmD

[a] The non-proprietary name suffix for this product has not yet been determined; therefore, the placeholder denosumab-xxxx is used throughout this review to refer to the non-proprietary name and suffix for this product.

Table of Contents

1 INTRODUCTION

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

1.1 PRODUCT INFORMATION

The following product information is provided in the proprietary name submission received on August 30, 2024[b] and the prescribing information received on August 30, 2024[c].

Table 1. Relevant Product Information for Bilprevda	
Intended pronunciation:	bil prev' dah
Active ingredient:	denosumab-xxxx
Indication:	Prevention of skeletal-related events in patients with multiple myeloma and in patients with bone metastases from solid tumors. Treatment of adults and skeletally mature adolescents with giant cell tumor of bone that is unresectable or where surgical resection is likely to result in severe morbidity. Treatment of hypercalcemia of malignancy refractory to bisphosphonate therapy.
Dosage Form:	injection
Strength:	120 mg/1.7 mL (70 mg/mL)
Route of administration:	subcutaneous
Dose and frequency:	Multiple Myeloma and Bone Metastasis from Solid Tumors 120 mg every 4 weeks. Giant Cell Tumor of Bone and Hypercalcemia of Malignancy 120 mg every 4 weeks with additional 120 mg doses on Days 8 and 15 of the first month of therapy.
How Supplied:	single-dose vial

[b] Proprietary Names HLX14 120 mg (Bilprevda BLA 761444) Shanghai (China): Shanghai Henlius Biotech, Inc.; 2024 Aug 30. Available from: \\CDSESUB1\EVSPROD\bla761444\0002\m1\us\118-proprietary-names\proprietary-names-hlx14-120mg.pdf

[c] Proposed prescribing information for Bilprevda (BLA 761444). Shanghai (China): Shanghai Henlius Biotech, Inc.; 2024 Aug 30. Available from: \\CDSESUB1\EVSPROD\bla761444\0002\m1\us\114-labeling\draft\labeling\drafted-uspi-bilprevda.pdf .

Table 1. Relevant Product Information for Bilprevda	
Storage:	(b) (4)
Reference Product:	Bilprevda (denosumab-xxxx) is a proposed biosimilar and interchangeable to US-licensed Reference Product, Xgeva (denosumab) BLA 125320

2 DISCUSSION

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

2.1 MISBRANDING ASSESSMENT

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

2.2 SAFETY ASSESSMENT

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

2.2.1 UNITED STATES ADOPTED NAMES (USAN) SEARCH

There is no USAN stem present in the proposed proprietary name.[d]

2.2.2 COMPONENTS OF THE PROPOSED PROPRIETARY NAME

Henlius did not provide a derivation or intended meaning for the proposed proprietary name, Bilprevda, 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.

[d] USAN stem search conducted on October 10, 2024.

2.2.3 COMMENTS FROM OTHER REVIEW DISCIPLINES AT INITIAL REVIEW

The Division of General Endocrinology (DGE) did not forward any comments or concerns relating to Bilprevda at the initial phase of the review.

2.2.4 FDA PRESCRIPTION SIMULATION STUDIES

Seventy-eight (n=78) practitioners participated in DMEPA's prescription simulation studies for Bilprevda. The responses did not overlap with any currently marketed products nor did the responses sound or look similar to any currently marketed products or any products in the pipeline. Appendix B contains the results from the prescription simulation studies.

2.2.5 PHONETIC AND ORTHOGRAPHIC COMPUTER ANALYSIS (POCA) SEARCH RESULTS

Our POCA search[e] identified 73 names with a combined phonetic and orthographic score of ≥55% or an individual phonetic or orthographic score ≥70%. These names are included in Table 2 below.

2.2.6 NAMES RETRIEVED FOR REVIEW ORGANIZED BY NAME PAIR SIMILARITY

Table 2 provides the number of names retrieved from our POCA search. These name pairs are organized as highly similar, moderately similar, or low similarity for further evaluation.

Table 2. Names Retrieved for Review Organized by Name Pair Similarity	
Similarity Category	Number of Names
Highly similar name pair: combined match percentage score ≥70%	1
Moderately similar name pair: combined match percentage score ≥55% to ≤ 69%	67
Low similarity name pair: combined match percentage score ≤54%	5

2.2.7 SAFETY ANALYSIS OF NAMES WITH POTENTIAL ORTHOGRAPHIC, SPELLING, AND PHONETIC SIMILARITIES

Our analysis of the 73 names contained in Table 2 determined none of the names will pose a risk for confusion with Bilprevda as described in Appendices C through H.

2.2.8 DISCUSSION OF DUAL PROPRIETARY NAME

Henlius intends to market denosumab under two different proprietary names: Bilprevda (BLA 761444) and Bildyos*** (BLA 761444). Table 3 compares the two proposed proprietary names and their respective product characteristics.

Table 3. Relevant Product Information for Bilprevda and Bildyos***

[e] POCA search conducted on October 8, 2024 in version 5.9.

Product Name	Bilprevda	Bildyos***
Initial Approval Date	N/A	N/A
Intended Pronunciation	bil prev' dah	bil' dee ose
Nonproprietary Name	denosumab-xxxx	
Indication	Prevention of skeletal-related events in patients with multiple myeloma and in patients with bone metastases from solid tumors. Treatment of adults and skeletally mature adolescents with giant cell tumor of bone that is unresectable or where surgical resection is likely to result in severe morbidity. Treatment of hypercalcemia of malignancy refractory to bisphosphonate therapy.	Treatment of postmenopausal women with osteoporosis at high risk for fractures. Treatment to increase bone mass in men with osteoporosis at high risk for fractures. Treatment of glucocorticoid-induced osteoporosis (GIOP) in men and women at high risk for fracture Treatment to increase bone mass in men at high risk for fracture receiving androgen deprivation therapy for nonmetastatic prostate cancer. Treatment to increase bone mass in women at high risk for fracture receiving adjuvant aromatase inhibitor therapy for breast cancer.
Route of Administration	subcutaneous	
Dosage Form	injection	
Strength	120 mg/1.7 mL (70 mg/mL)	60 mg/mL
Dose and Frequency	Multiple Myeloma and Bone Metastasis from Solid Tumors: 120 mg administered as a subcutaneous injection every 4 weeks.	60 mg subcutaneous injection once every 6 months

	Giant Cell Tumor of Bone and Hypercalcemia of Malignancy: 120 mg administered every 4 weeks with additional 120 mg doses on Days 8 and 15 of the first month of therapy.	
How Supplied	Single-dose vial, 1 vial per carton	Single-dose prefilled syringe, 1 syringe per carton. One single-dose vial
Reference Product	Proposed biosimilar and interchangeable to US-licensed Reference Product Xgeva (denosumab) BLA 125320	Proposed biosimilar and interchangeable to US-licensed Reference Product Prolia (denosumab) BLA 125320

The Applicant did not provide a rationale of the proposal to use a dual proprietary name for this product. However, we note that US-licensed Reference Products, Prolia and Xgeva (BLA 125320), also use a dual proprietary naming strategy.

We have evaluated the risks associated with the proposed dual proprietary name strategy and do not object to the use of a dual proprietary name in this case.

2.2.9 COMMUNICATION OF DMEPA'S DETERMINATION

On November 4, 2024, DMEPA 1 communicated our determination to the Division of General Endocrinology (DGE).

3 CONCLUSION

The proposed proprietary name, Bilprevda, is conditionally acceptable.

3.1 COMMENTS TO SHANGHAI HENLIUS BIOTECH, INC.

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

If any of the proposed product characteristics as stated in your submission, received on August 30, 2024, are altered prior to approval of the marketing application, the proprietary name must be resubmitted for review.

4 REFERENCES

1. United States Adopted Names (USAN) Stems

USAN Stems List contains all the recognized USAN stems, available at https://www.ama-assn.org/about/united-states-adopted-names/united-states-adopted-names-approved-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 https://www.fda.gov/drugs/drug-approvals-and-databases/drugsfda-glossary-terms).

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).

Purple Book

The Purple Book is an online database that contains information about biological products, including biosimilar and interchangeable biological products, licensed (approved) by the FDA under the Public Health Service (PHS) Act. See Purple Book: Lists of Licensed Biological Products with Reference Product Exclusivity and Biosimilarity or Interchangeability Evaluations, available at https://www.fda.gov/drugs/therapeutic-biologics-applications-bla/purple-book-lists-licensed-biological-products-reference-product-exclusivity-and-biosimilarity-or.

Division of Medication Errors Prevention and Analysis pending proprietary name requests

This is a list of proposed and pending names that is generated by the Division of Medication Error Prevention and Analysis.

5 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, the Office of Prescription Drug Promotion (OPDP) assesses the name for misbranding concerns. For over-the-counter (OTC) drug products, the misbranding assessment of the proposed name is conducted by the Office of Non-Prescription Drugs (ONPD). OPDP or ONPD 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 ONPD 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 3*. DMEPA defines a medication error as any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer.[f]

*Table 3. 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.

[f] National Coordinating Council for Medication Error Reporting and Prevention. https://www.nccmerp.org/about-medication-errors. Last accessed 10/05/2020.

*Table 3. 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 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, Purple Book, 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 ≥70%.
- Moderately similar pair: combined match percentage score ≥55% to ≤ 69%.
- Low similarity: combined match percentage score ≤54%.

Using the criteria outlined in the check list (Table 4-6) 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 4).
- 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[9]. 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 5).

- Names with low similarity that have no overlap or similarity in strength and dose are generally acceptable (See Table 6) unless there are data to suggest that the name might be vulnerable to confusion (e.g., prescription simulation study suggests that the name is likely to be misinterpreted as a marketed product). In these instances, we would reassign a low similarity name to the moderate similarity category and review according to the moderately similar name pair checklist.

c. FDA Prescription Simulation Studies: DMEPA also conducts 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), Office of Generic Drugs (OGD), and/or Office of Pharmaceutical Quality (OPQ) 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-

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

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 OPQ 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 Safety Evaluator 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 4. Highly Similar Name Pair Checklist (i.e., combined Orthographic and Phonetic score is ≥ 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.			
Orthographic Checklist		Phonetic Checklist	
Y/N	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.*	Y/N	Do the names have different number of syllables?
Y/N	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.*	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 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>
<tr><th colspan="3">Table 5: Moderately Similar Name Pair Checklist (i.e., combined score is ≥55% to ≤69%).</th></tr>
<tr><td>Step 1</td><td colspan="2">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</td></tr>
<tr><td>Step 2</td><td colspan="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 with overlapping or similar strengths or doses.</td></tr>
<tr><td></td><td>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</td><td>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?</td></tr>
</table>

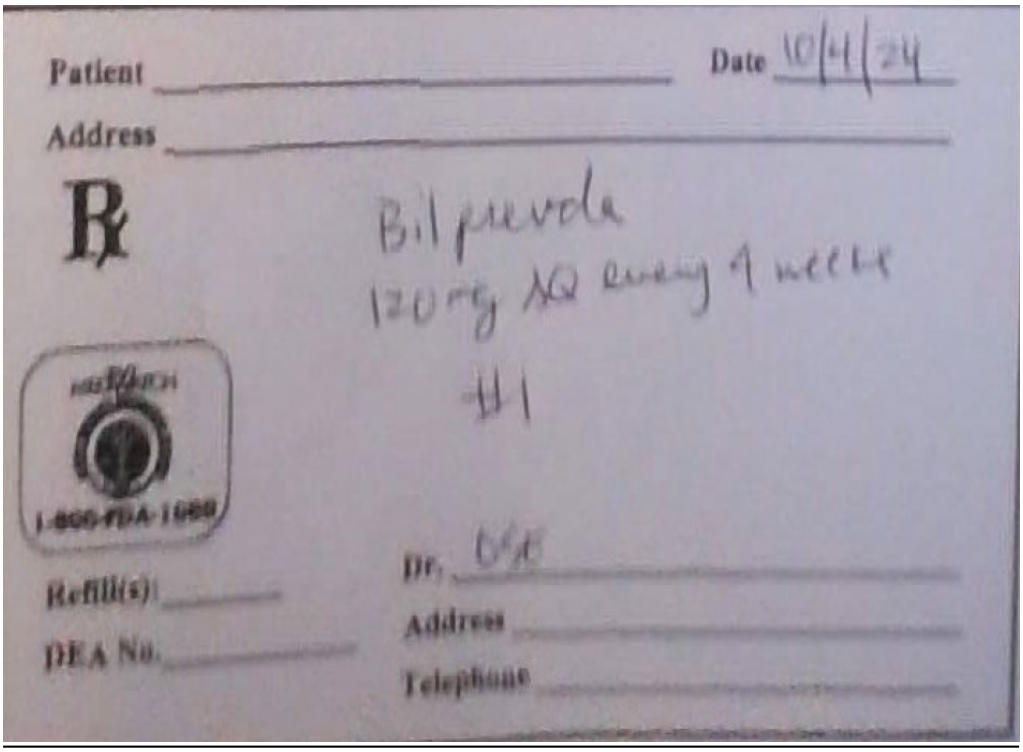
Table 5: Moderately Similar Name Pair Checklist (i.e., combined score is **≥55%** to **≤69%).**		
	placement of upstroke/downstroke letters present in the names? • Is there different number or placement of cross-stroke or dotted letters present in the names? • Do the infixes of the name appear dissimilar when scripted? • Do the suffixes of the names appear dissimilar when scripted?	

Table 6. Low Similarity Name Pair Checklist (i.e., combined score is **≤54%).**
Names with low similarity are generally acceptable unless there are data to suggest that the name might be vulnerable to confusion (e.g., prescription simulation study suggests that the name is likely to be misinterpreted as a marketed product). In these instances, we would reassign a low similarity name to the moderate similarity category and review according to the moderately similar name pair checklist.

APPENDIX B. PRESCRIPTION SIMULATION SAMPLES AND RESULTS

Figure 1. Bilprevda Study (Conducted on 10/4/2024)

<table>
<tr><th>Handwritten Medication Order Prescription</th><th>Verbal Prescription</th></tr>
<tr><td><u>Medication Order:</u>
Bilprevda 120 mg SQ every 4 weeks

<u>Outpatient Prescription:</u>
 
</td><td rowspan="3">Bilprevda
Inject 120 mg SQ every 4 weeks.
Dispense # 1</td></tr>
<tr><td>CPOE Study Sample (displayed as sans-serif, 12-point, bold font)</td></tr>
<tr><td>Bilprevda</td></tr>
</table>

FDA Prescription Simulation Responses (Aggregate Report)					
Study Name: Bilprevda People Received Study: 187 People Responded: 78					
Total	21	22	15	20	78
INTERPRETATION	INPATIENT	OUTPATIENT	VOICE	CPOE	TOTAL
BELVITO	0	0	1	0	1
BILPRECDE	0	1	0	0	1
BILPREODA	1	0	0	0	1
BILPREPTA	0	0	1	0	1
BILPREVDA	20	20	12	20	72
BILPREVDE	0	1	0	0	1
PHILPREBDA	0	0	1	0	1

APPENDIX C. HIGHLY SIMILAR NAMES (e.g., combined POCA score is **≥70%)**

No.	Proposed name: Bilprevda Pronunciation: bil prev' dah Established name: denosumab-xxxx Dosage form: injection Strength(s): 120 mg/1.7 mL (70 mg/mL) Dosage: 120 mg as a single subcutaneous injection once every 4 weeks with additional 120 mg doses on Days 8 and 15 of the first month of therapy	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.	Bilprevda	100	This name is the subject of this review.

APPENDIX D. MODERATELY SIMILAR NAMES (e.g., combined POCA score is **≥55%** to **≤69%)** with no overlap or numerical similarity in Strength and/or Dose N/A

APPENDIX E. MODERATELY SIMILAR NAMES (e.g., combined POCA score is **≥55%** to **≤69%)** with overlap or numerical similarity in Strength and/or Dose

No.	Proposed name: Bilprevda Pronunciation: bil prev' dah Established name: denosumab-xxxx Dosage form: injection Strength(s): 120 mg/1.7 mL (70 mg/mL) Dosage: 120 mg as a single subcutaneous injection once every 4 weeks with additional 120 mg doses on Days 8 and 15 of the first month of therapy	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.	Bubbli-Pred	68	This name pair has sufficient orthographic and phonetic differences.
2.	Millipred	68	This name pair has sufficient orthographic and phonetic differences.
3.	(b) (4) ***	64	(b) (4)

No.	Proposed name: Bilprevda Pronunciation: bil prev' dah Established name: denosumab-xxxx Dosage form: injection Strength(s): 120 mg/1.7 mL (70 mg/mL) Dosage: 120 mg as a single subcutaneous injection once every 4 weeks with additional 120 mg doses on Days 8 and 15 of the first month of therapy	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
			(b) (4)
4.	Biltricide	64	Orthographically, the downstroke letter 'p' in the 4th position of Bilprevda vs. the cross-stroke letter 't' in the 4th position, and the additional dotted letter 'i' in the 6th and 8th positions of Biltricide, provides some orthographic differences. Phonetically, the second syllables (prev' vs tri) and third syllables (dah vs cide) sound different. Additionally, the following product characteristics may help to minimize the risk of error if included on a prescription or order: • Dosage form: injection vs. tablet • Route of administration: subcutaneous vs. oral • Frequency of administration: every 4 weeks vs. three times a day. Thus, in this specific case, the risk of name confusion between this name pair is minimized.
5.	Milprosa	64	This name pair has sufficient orthographic and phonetic differences.

No.	Proposed name: Bilprevda Pronunciation: bil prev' dah Established name: denosumab-xxxx Dosage form: injection Strength(s): 120 mg/1.7 mL (70 mg/mL) Dosage: 120 mg as a single subcutaneous injection once every 4 weeks with additional 120 mg doses on Days 8 and 15 of the first month of therapy	POCA Score (%)	Prevention of Failure Mode In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names
6.	(b) (4) ***	62	This name pair has sufficient orthographic and phonetic differences.
7.	Veripred	62	This name pair has sufficient orthographic and phonetic differences.
8.	Belrapzo	61	This name pair has sufficient orthographic and phonetic differences.
9.	Bepreve	59	This name pair has sufficient orthographic and phonetic differences.
10.	(b) (4) ***	59	This name pair has sufficient orthographic and phonetic differences.
11.	Balversa	58	This name pair has sufficient orthographic and phonetic differences.
12.	(b) (4) ***	58	This name pair has sufficient orthographic and phonetic differences.
13.	Abrilada	58	This name pair has sufficient orthographic and phonetic differences.
14.	Olpruva	58	This name pair has sufficient orthographic and phonetic differences.
15.	Valproate	58	This name pair has sufficient orthographic and phonetic differences.
16.	Difluprednate	58	This name pair has sufficient orthographic and phonetic differences.
17.	Giapreza	58	This name pair has sufficient orthographic and phonetic differences.
18.	Pediapred	58	This name pair has sufficient orthographic and phonetic differences.

No.	Proposed name: Bilprevda Pronunciation: bil prev' dah Established name: denosumab-xxxx Dosage form: injection Strength(s): 120 mg/1.7 mL (70 mg/mL) Dosage: 120 mg as a single subcutaneous injection once every 4 weeks with additional 120 mg doses on Days 8 and 15 of the first month of therapy	POCA Score (%)	Prevention of Failure Mode In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names
19.	Medipred	58	This name pair has sufficient orthographic and phonetic differences.
20.	Brevital	57	This name pair has sufficient orthographic and phonetic differences.
21.	Balziva	56	This name pair has sufficient orthographic and phonetic differences.
22.	Balziva-21	56	This name pair has sufficient orthographic and phonetic differences.
23.	Balziva-28	56	This name pair has sufficient orthographic and phonetic differences.
24.	Prevnar	56	This name pair has sufficient orthographic and phonetic differences.
25.	Prevnar 13	56	This name pair has sufficient orthographic and phonetic differences.
26.	Prevnar 20	56	This name pair has sufficient orthographic and phonetic differences.
27.	Prevpac	56	This name pair has sufficient orthographic and phonetic differences.
28.	Seb-Prev	56	This name pair has sufficient orthographic and phonetic differences.
29.	Flo-Pred	56	This name pair has sufficient orthographic and phonetic differences.
30.	Abreva	55	This name pair has sufficient orthographic and phonetic differences.

APPENDIX F: LOW SIMILARITY NAMES (e.g., combined POCA score is **≤54%)**

No.	Name	POCA Score (%)
1.	Prevacid	54
2.	Prevail	52
3.	Carbilev	52
4.	Predair	50
5.	Advil Pediatric	49

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.	Belprofen	66	Veterinary product.
2.	Telaprevir	63	Established name for Incivek. Brand discontinued with no generic equivalents available. NDA 201917 withdrawn FR effective 07/21/2017.
3.	Bepridil	62	Established name for Bepadin and Vascor. Brand discontinued with no generic equivalents available. NDA 019001 withdrawn FR effective 08/17/2005and NDA 019002 withdrawn FR effective 08/11/2005.
4.	Milprem-200	62	Brand discontinued with no generic equivalents available. NDA 011045 withdrawn FR effective 09/29/1995.
5.	Milprem-400	62	Brand discontinued with no generic equivalents available. NDA 011045 withdrawn FR effective 09/29/1995.
6.	Poly-Pred	61	Brand discontinued with no available generics. NDA 050081 withdrawn FR effective 03/26/2018.
7.	Poly Pred	61	Name identified in RxNorm database. Product characteristics are the same as Poly-Pred (see above)
8.	Biperiden	60	Established name for Akineton. Brand discontinued with no generic equivalents available. NDA 012003 withdrawn FR effective 7/21/17 and NDA 012418 withdrawn FR effective 09/17/2003.
9.	Brevidil	59	International product formally marketed in the United Kingdom.
10.	(b) (4) ***	59	Proposed proprietary name for ANDA 212955 found unacceptable due to a conflict with a marketed product, by DMEPA (PNR ID # 2021-1044724027 dated

No.	Name	POCA Score (%)	Failure preventions
			11/17/2021). ANDA 212955 approved under the established name, Nalmefene hydrochloride.
11.	(b) (4) ***	58	Proposed proprietary name for IND (b) (4) found to be acceptable (OSE # (b) (4)). However, the application was put on inactive status per the Sponsor's request on 05/05/2023.
12.	Basic Red 46	56	This is not a drug. It is an azo-dye used in fluorescence studies as well as hair dyes.
13.	Basic Red 51	56	This is not a drug. It is a semi-permanent hair dye.
14.	Bile Fluid	56	This is not a drug. It is fluid that is made and released by the liver and stored in the gallbladder.
15.	Boceprevir	56	Established name for Victrelis. Brand discontinued with no generic equivalents available. NDA 202258 withdrawn FR effective 11/02/2017.
16.	(b) (4) ***	56	Proposed proprietary name for NDA 209360 found unacceptable by DMEPA (OSE # 2017-17064786 dated November 9, 2017). NDA 209360 was approved under proprietary name Giapreza.
17.	(b) (4) ***	56	Proposed proprietary name for IND (b) (4) and BLA (b) (4) found unacceptable, (b) (4) Subsequently, the proposed proprietary name (b) (4) *** was found conditionally acceptable for BLA (b) (4)
18.	Bf-Paradac	55	International product marketed in Hong Kong.
19.	Biclora-D	55	Name identified in RxNorm database. Product deactivated and no generic equivalents are available.
20.	Bilberry Seed Oil	55	This is not a drug. It is a cosmetic skin care.

APPENDIX H. Names not likely to be confused due to absence of attributes that are known to cause name confusion[h].

No.	Name	POCA Score (%)
1.	Diprivan	64
2.	(b) (4) ***	62
3.	Dilatrate	60
4.	Vita-Respa	59
5.	(b) (4) ***	58
6.	Galliprant	58
7.	Sulpiride	57
8.	Veralipride	57
9.	Zilretta	57
10.	(b) (4) ***	56
11.	Copper Edta	56
12.	Mulpleta	56
13.	Piribedil	56
14.	Risperdal	56
15.	Tildren	56
16.	Xolremdi	56
17.	Daliresp	55

[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

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/s/

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PROPRIETARY NAME REVIEW

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

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

Date of This Review:	November 4, 2024
Application Type and Number:	BLA 761444
Product Name, Dosage Form, and Strength:	Bildyos (denosumab-xxxx)[a] injection, 60 mg/mL
Product Type:	Combination Product (Biologic-Device)
Rx or OTC:	Prescription (Rx)
Applicant/Sponsor Name:	Shanghai Henlius Biotech, Inc. (Henlius)
PNR ID #:	2024- 1044725964
DMEPA 1 Safety Evaluator:	Peggy Rahbani, PharmD, BCPS
DMEPA 1 Team Leader:	Yevgeniya Kogan, PharmD, BCSCP
DMEPA 1 Associate Director for Nomenclature and Labeling:	Idalia E. Rychlik, PharmD

[a] The non-proprietary name suffix for this product has not yet been determined; therefore, the placeholder denosumab-xxxx is used throughout this review to refer to the non-proprietary name and suffix for this product.

Table of Contents

1 INTRODUCTION

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

1.1 PRODUCT INFORMATION

The following product information is provided in the proprietary name submission received on August 30, 2024[b] and the prescribing information received on August 30, 2024[c].

Table 1. Relevant Product Information for Bildyos	
Intended pronunciation:	bil' dee ose
Active ingredient:	denosumab-xxxx
Indication:	Treatment of postmenopausal women with osteoporosis at high risk for fracture. • Treatment to increase bone mass in men with osteoporosis at high risk for fracture. • Treatment of glucocorticoid-induced osteoporosis in men and women at high risk for fracture. • Treatment to increase bone mass in men at high risk for fracture receiving androgen deprivation therapy for nonmetastatic prostate cancer. • Treatment to increased bone mass in women at high risk for fracture receiving adjuvant aromatase inhibitor therapy for breast cancer.
Dosage Form:	injection
Strength:	60 mg/mL
Route of administration:	Subcutaneous
Dose and frequency:	60 mg every 6 months
How Supplied:	60 mg/mL single-dose prefilled syringe 60 mg/mL single-dose vial

[b] Proprietary Names HLX14 60 mg (Bildyos BLA 761444) Shanghai (China): Shanghai Henlius Biotech, Inc.; 2024 Aug 30. Available from: \\CDSESUB1\EVSPROD\bla761444\0002\m1\us\118-proprietary-names\proprietary-names-hlx14-60mg.pdf.

[c] Proposed prescribing information for Bildyos (BLA 761444). Shanghai (China): Shanghai Henlius Biotech, Inc.; 2024 Aug 30. Available from: \\CDSESUB1\EVSPROD\bla761444\0002\m1\us\114-labeling\draft\labeling\drafted-uspi-bildyos.pdf

Table 1. Relevant Product Information for Bildyos	
Storage:	(b) (4)
Reference Product:	Bildyos (denosumab-xxxx) is a proposed biosimilar and interchangeable to US-licensed Reference Product, Prolia (denosumab) BLA 125320.

2 DISCUSSION

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

2.1 MISBRANDING ASSESSMENT

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

2.2 SAFETY ASSESSMENT

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

2.2.1 UNITED STATES ADOPTED NAMES (USAN) SEARCH

There is no USAN stem present in the proposed proprietary name.[d]

2.2.2 COMPONENTS OF THE PROPOSED PROPRIETARY NAME

Henlius did not provide a derivation or intended meaning for the proposed proprietary name, Bildyos, in their submission. This proprietary name is comprised of a single word that contains the following medical abbreviations and components:

Abbreviation	Intended Meaning	Category
LD	Low dose	Modifier

[d] USAN stem search conducted on September 23, 2024.

OS	Left eye	Route of Administration

We determined that the location of the following medical abbreviation "ld" which is embedded in the middle of the name, makes it unlikely it will be separated from the surrounding letters in a manner that could lead to confusion.

Additionally, the medical abbreviation, "os", is located in the suffix position of the name. We note that "os" may be used on prescription to direct that the product is to be administered via the ophthalmic route. Thus, the proposed name Bildyos could be interpreted as "Bildy," with "OS" as the intended route of administration (left eye). A POCA search of the name "Bildy" did not result in any names that would pose a risk for confusion[e]. Furthermore, as per the proposed Label and Labeling submitted under BLA 761444 for review, the letters 'OS' are not separated from the name to make the letters 'OS' more prominent in the name. In some circumstances, the incorporation of medical abbreviations in the proprietary names can inadvertently be a source of error. For more information see, *Best Practices in Developing Proprietary Names for Human Prescription Drug Products*. Although we typically discourage the inclusion of medical abbreviations in proprietary names, we determined that we do not object to the inclusion of the letter string "OS" in this case.

Beyond these abbreviations, we note that Bildyos does not contain any additional components (i.e., dosage form, etc.) that are misleading or can contribute to medication error.

2.2.3 COMMENTS FROM OTHER REVIEW DISCIPLINES AT INITIAL REVIEW

The Division of General Endocrinology (DGE) did not forward any comments or concerns relating to Bildyos at the initial phase of the review.

2.2.4 FDA PRESCRIPTION SIMULATION STUDIES

Seventy-eight (n=78) practitioners participated in DMEPA's prescription simulation studies for Bildyos. The responses did not overlap with any currently marketed products nor did the responses sound or look similar to any currently marketed products or any products in the pipeline. Appendix B contains the results from the prescription simulation studies.

2.2.5 PHONETIC AND ORTHOGRAPHIC COMPUTER ANALYSIS (POCA) SEARCH RESULTS

Our POCA search[f] identified 44 names with a combined phonetic and orthographic score of ≥55% or an individual phonetic or orthographic score ≥70%. These names are included in Table 2 below.

2.2.6 NAMES RETRIEVED FOR REVIEW ORGANIZED BY NAME PAIR SIMILARITY

Table 2 provides the number of names retrieved from our POCA search. These name pairs are organized as highly similar, moderately similar, or low similarity for further evaluation.

Table 2. Names Retrieved for Review Organized by Name Pair Similarity

[e] POCA search for 'Bildy' conducted on September 23, 2024

[f] POCA search conducted on September 19, 2024, in version 5.9.

Similarity Category	Number of Names
Highly similar name pair: combined match percentage score ≥70%	2
Moderately similar name pair: combined match percentage score ≥55% to ≤ 69%	42
Low similarity name pair: combined match percentage score ≤54%	0

2.2.7 SAFETY ANALYSIS OF NAMES WITH POTENTIAL ORTHOGRAPHIC, SPELLING, AND PHONETIC SIMILARITIES

Our analysis of the 44 names contained in Table 2 determined none of the names will pose a risk for confusion with Bildyos as described in Appendices C through H.

2.2.8 DISCUSSION OF DUAL PROPRIETARY NAME

Henlius intends to market denosumab under two different proprietary names: Bildyos (BLA 761444) and Bilprevda*** (BLA 761444). Table 3 compares the two proposed proprietary names and their respective product characteristics.

Table 3. Relevant Product Information for Bildyos and Bilprevda ***		
Product Name	Bildyos	Bilprevda ***
Initial Approval Date	N/A	N/A
Intended Pronunciation	bil' dee ose	bil prev' dah
Nonproprietary Name	denosumab-xxxx	
Indication	Treatment of postmenopausal women with osteoporosis at high risk for fracture. Treatment to increase bone mass in men with osteoporosis at high risk for fracture. Treatment of glucocorticoid-induced osteoporosis in men and women at high risk for fracture. Treatment to increase bone mass in men at high risk for fracture receiving androgen deprivation therapy for nonmetastatic prostate cancer.	Prevention of skeletal-related events in patients with multiple myeloma and in patients with bone metastases from solid tumors. Treatment of adults and skeletally mature adolescents with giant cell tumor of bone that is unresectable or where surgical resection is likely to result in severe morbidity.

Table 3. Relevant Product Information for Bildyos and Bilprevda ***		
Product Name	Bildyos	Bilprevda ***
	Treatment to increase bone mass in women at high risk for fracture receiving adjuvant aromatase inhibitor therapy for breast cancer.	Treatment of hypercalcemia of malignancy refractory to bisphosphonate therapy.
Route of Administration	subcutaneous	
Dosage Form	injection	
Strength	60 mg/mL	120 mg/1.7 mL (70 mg/mL)
Dose and Frequency	60 mg subcutaneous injection once every 6 months	Multiple Myeloma and Bone Metastasis from Solid Tumors: 120 mg administered as a subcutaneous injection every 4 weeks. Giant Cell Tumor of Bone and Hypercalcemia of Malignancy: 120 mg administered every 4 weeks with additional 120 mg doses on Days 8 and 15 of the first month of therapy.
How Supplied	Single-dose prefilled syringe, 1 syringe per carton. One single-dose vial	Single-dose vial, 1 vial per carton
Reference Product	Proposed biosimilar and interchangeable to US-licensed Reference Product, Prolia (denosumab) BLA 125320	Proposed biosimilar and interchangeable to US-licensed Reference Product, Xgeva (denosumab) BLA 125320

de a rationale of the proposal to use a dual proprietary name for this
that US-licensed Reference Products, Prolia and Xgeva (BLA
oprietary naming strategy.

We have evaluated the risks associated with the proposed dual proprietary name strategy and do not object to the use of a dual proprietary name in this case.

2.2.9 COMMUNICATION OF DMEPA'S DETERMINATION

On November 4, 2024, DMEPA 1 communicated our determination to the Division of General Endocrinology (DGE).

3 CONCLUSION

The proposed proprietary name, Bildyos, is conditionally acceptable.

3.1 COMMENTS TO SHANGHAI HENLIUS BIOTECH, INC.

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

If any of the proposed product characteristics as stated in your submission, received on August 30, 2024, are altered prior to approval of the marketing application, the proprietary name must be resubmitted for review.

4 REFERENCES

1. United States Adopted Names (USAN) Stems

USAN Stems List contains all the recognized USAN stems, available at https://www.ama-assn.org/about/united-states-adopted-names/united-states-adopted-names-approved-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 https://www.fda.gov/drugs/drug-approvals-and-databases/drugsfda-glossary-terms).

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).

Purple Book

The Purple Book is an online database that contains information about biological products, including biosimilar and interchangeable biological products, licensed (approved) by the FDA under the Public Health Service (PHS) Act. See Purple Book: Lists of Licensed Biological Products with Reference Product Exclusivity and Biosimilarity or Interchangeability Evaluations, available at https://www.fda.gov/drugs/therapeutic-biologics-applications-bla/purple-book-lists-licensed-biological-products-reference-product-exclusivity-and-biosimilarity-or.

Division of Medication Errors Prevention and Analysis pending proprietary name requests

This is a list of proposed and pending names that is generated by the Division of Medication Error Prevention and Analysis.

5 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, the Office of Prescription Drug Promotion (OPDP) assesses the name for misbranding concerns. For over-the-counter (OTC) drug products, the misbranding assessment of the proposed name is conducted by the Office of Non-Prescription Drugs (ONPD). OPDP or ONPD 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 ONPD 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 3*. 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.[g]

*Table 3. 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.

[g] National Coordinating Council for Medication Error Reporting and Prevention. https://www.nccmerp.org/about-medication-errors. Last accessed 10/05/2020.

*Table 3. 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 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, Purple Book, 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 ≥70%.
- Moderately similar pair: combined match percentage score ≥55% to ≤ 69%.
- Low similarity: combined match percentage score ≤54%.

Using the criteria outlined in the check list (Table 4-6) 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 4).
- 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[h]. 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 5).

- Names with low similarity that have no overlap or similarity in strength and dose are generally acceptable (See Table 6) unless there are data to suggest that the name might be vulnerable to confusion (e.g., prescription simulation study suggests that the name is likely to be misinterpreted as a marketed product). In these instances, we would reassign a low similarity name to the moderate similarity category and review according to the moderately similar name pair checklist.

c. FDA Prescription Simulation Studies: DMEPA also conducts 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), Office of Generic Drugs (OGD), and/or Office of Pharmaceutical Quality (OPQ) 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.

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

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 OPQ 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 Safety Evaluator 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 4. Highly Similar Name Pair Checklist (i.e., combined Orthographic and Phonetic score is ≥ 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.

Orthographic Checklist		Phonetic Checklist	
Y/N	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.*	Y/N	Do the names have different number of syllables?
Y/N	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.*	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 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?		

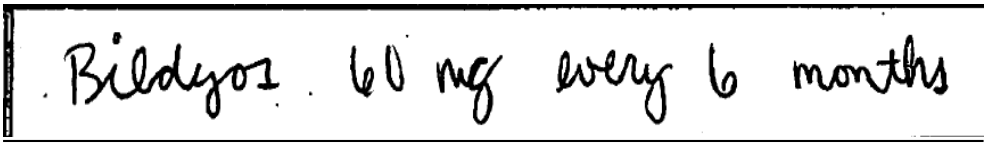
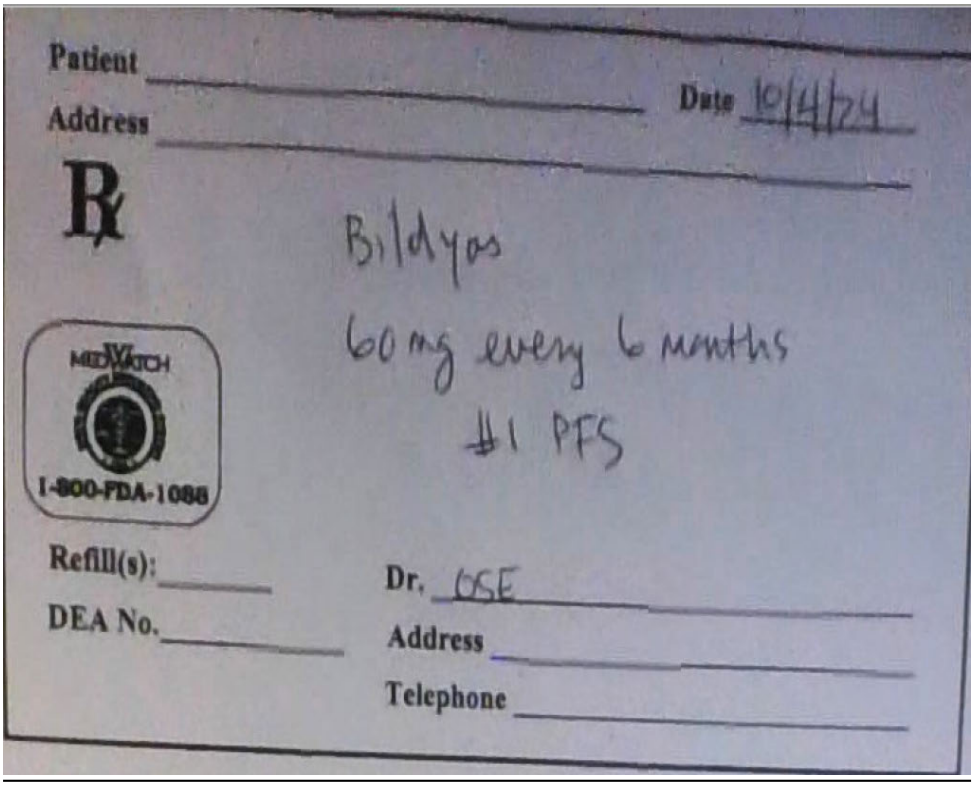
Table 5: Moderately Similar Name Pair Checklist (i.e., combined score is **≥55%** to **≤69%).**		
Step 1	Review the DOSAGE AND ADMINISTRATION and HOW SUPPLIED/STORAGE AND HANDLING sections of the prescribing information (or for OTC drugs refer to the Drug Facts label) to determine if strengths and doses 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 with 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	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?

Table 5: Moderately Similar Name Pair Checklist (i.e., combined score is **≥55%** to **≤69%).**		
	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?	

Table 6. Low Similarity Name Pair Checklist (i.e., combined score is **≤54%).**
Names with low similarity are generally acceptable unless there are data to suggest that the name might be vulnerable to confusion (e.g., prescription simulation study suggests that the name is likely to be misinterpreted as a marketed product). In these instances, we would reassign a low similarity name to the moderate similarity category and review according to the moderately similar name pair checklist.

APPENDIX B. PRESCRIPTION SIMULATION SAMPLES AND RESULTS

Figure 1. Bildyos Study (Conducted on 10/4/2024)

Handwritten Medication Order Prescription	Verbal Prescription
Medication Order:  	Bildyos Inject 60 mg every 6 months. Dispense # 1 prefilled syringe
Outpatient Prescription:  	
CPOE Study Sample (displayed as sans-serif, 12-point, bold font)	
Bildyos	

FDA Prescription Simulation Responses (Aggregate Report)					
Study Name: Bildyos People Received Study: 187 People Responded: 78					
Total	21	22	15	20	78
INTERPRETATION	INPATIENT	OUTPATIENT	VOICE	CPOE	TOTAL
BELDOIS	0	0	1	0	1
BIDYOS	1	0	0	0	1
BILDEOS	0	0	1	0	1
BILDEYOS	1	0	0	0	1
BILDIOS	0	0	8	0	8
BILDIOZ	0	0	1	0	1
BILDYAS	0	6	0	0	6
BILDYOE	1	0	0	0	1
BILDYOI	1	0	0	0	1
BILDYOS	16	15	0	20	51
BILDYOSE	0	0	1	0	1
BILDYOZ	1	0	0	0	1
BILYOS	0	1	0	0	1
FILDIOS	0	0	1	0	1
PHILDEOS	0	0	1	0	1
VILDIOS	0	0	1	0	1

APPENDIX C. HIGHLY SIMILAR NAMES (e.g., combined POCA score is **≥70%)**

No.	Proposed name: Bildyos Pronunciation: bil' dee ose Established name: denosumab-xxxx Dosage form: injection Strength(s): 60 mg/mL Dosage: 60 mg subcutaneously every 6 months	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.	Bildyos	100	This name is the subject of this review.
2.	(b) (4) ***	74	Proposed proprietary name was found conditionally acceptable on September 26, 2019, by CBER's Advertising and Promotional Labeling Branch. However, the entire Application (BLA (b) (4)) was withdrawn by the Applicant on December 11, 2023.

APPENDIX D. MODERATELY SIMILAR NAMES (e.g., combined POCA score is **≥55%** to **≤69%)** with no overlap or numerical similarity in Strength and/or Dose

No.	Name	POCA Score (%)
1.	Silodosin	58

APPENDIX E. MODERATELY SIMILAR NAMES (e.g., combined POCA score is **≥55%** to **≤69%)** with overlap or numerical similarity in Strength and/or Dose

No.	Proposed name: Bildyos Pronunciation: bil' dee ose Established name: denosumab-xxxx Dosage form: injection Strength(s): 60 mg/mL Dosage: 60 mg subcutaneously every 6 months	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.	Gildess	68	This name pair has sufficient orthographic and phonetic differences.
2.	Gildess 1.5/30	68	This name pair has sufficient orthographic and phonetic differences.
3.	Gildess 1/20	68	This name pair has sufficient orthographic and phonetic differences.
4.	Zaldyon	64	This name pair has sufficient orthographic and phonetic differences.
5.	(b) (4) ***	64	This name pair has sufficient orthographic and phonetic differences.
6.	Beldin	60	This name pair has sufficient orthographic and phonetic differences.
7.	Xelpros	58	This name pair has sufficient orthographic and phonetic differences.
8.	Bludigo	56	This name pair has sufficient orthographic and phonetic differences.
9.	Bridion	56	This name pair has sufficient orthographic and phonetic differences.
10.	Sildaflo	55	This name pair has sufficient orthographic and phonetic differences.
11.	Pb Hyos	55	This name pair has sufficient orthographic and phonetic differences.

APPENDIX F: LOW SIMILARITY NAMES (e.g., combined POCA score is **≤54%)** 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.	Pelodis	64	Name identified in RxNorm database. Unable to find product characteristics in commonly used drug databases.
2.	Bidnase	61	Name identified in RxNorm database. Product is deactivated and no generic equivalents are available.
3.	Bilovet	60	Veterinary Product.
4.	(b) (4) ***	60	Proposed proprietary name withdrawn by the Applicant. NDA 215498 approved under the proprietary name, Bylvay.
5.	(b) (4) ***	60	Proposed proprietary name for BLA (b) (4) found unacceptable by DMEPA due to a conflict with a marketed product (b) (4) Subsequently, the proposed proprietary name (b) (4) *** was found conditionally acceptable for BLA (b) (4)
6.	Bel-Tabs	58	Name identified in RxNorm database. Product is deactivated and no generic equivalents are available.
7.	Bilivist	58	Discontinued with no generic equivalents available. ANDA 087768 withdrawn FR effective April 26, 1996.
8.	Berdoz	57	Name identified in RxNorm database. Unable to find product characteristics in commonly used drug databases.
9.	(b) (4) ***	57	Proposed name withdrawn by the Applicant. IND (b) (4) is inactive as of January 21, 2021.
10.	Sildec	56	Name identified in RxNorm database. Product is deactivated and no generic equivalents are available.
11.	Sildec 0.8/12	56	Name identified in RxNorm database. Product is deactivated and no generic equivalents are available.
12.	Sildec 1/15	56	Name identified in RxNorm database. Product is deactivated and no generic equivalents are available.
13.	Sildec 2/15	56	Name identified in RxNorm database. Product is deactivated and no generic equivalents are available.
14.	(b) (4) ***	56	Proposed proprietary name for IND 121256 found unacceptable by DMEPA (OSE # 2020-43841806 dated

No.	Name	POCA Score (%)	Failure preventions
			12/11/2020). Subsequently, NDA 217347 was approved under the proprietary name Sofdra.
15.	Tildiem	55	International product marketed in various countries.
16.	Bidhist	55	Name identified in RxNorm database. Product is deactivated and no generic equivalents are available
17.	(b) (4) ***	55	Proposed proprietary name for ANDA 214729 found unacceptable by DMEPA due to a conflict with a marketed product name (OSE# 2020-40328919 dated 11/24/2020). Subsequently, ANDA 214729 approved under the proprietary name Etyqa.
18.	(b) (4) ***	55	Proposed proprietary name for IND 126721 found unacceptable, due to a conflict with a marketed product, by DMEPA (OSE# 2020-40452014 dated 09/01/2020). Subsequently, the proposed proprietary name Exkivity*** was found conditionally acceptable for NDA 215310. NDA 215310 was withdrawn on July 15, 2024.

APPENDIX H. Names not likely to be confused due to absence of attributes that are known to cause name confusion[i].

No.	Name	POCA Score (%)
1.	Imuldosa***	62
2.	Peri-D.O.S.	60
3.	Siladyl	60
4.	Dolobid	59
5.	Dialose	58
6.	Milprosa	58
7.	Zilbrysq	58
8.	Toldimfos	57
9.	Maltose	56
10.	Pediox-S	56
11.	Siladyl Sa	56
12.	Dilotab	55

[i] 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

APPEARS THIS WAY ON ORIGINAL

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