

**CENTER FOR DRUG EVALUATION AND
RESEARCH**

APPLICATION NUMBER:

212045Orig1s000

PROPRIETARY NAME REVIEW(S)

PROPRIETARY NAME REVIEW

Division of Medication Error Prevention and Analysis (DMEPA)
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:	April 23, 2021
Application Type and Number:	NDA 212045
Product Name and Strength:	Kloxxado (Naloxone hydrochloride) nasal spray, 8 mg/0.1 mL
Product Type:	Combination Product (Drug-Device)
Rx or OTC:	Prescription (Rx)
Applicant/Sponsor Name:	Hikma Pharmaceuticals USA, Inc. (Hikma)
PNR ID #:	2021-1044723805
DMEPA Safety Evaluator:	Sofanit Getahun, PharmD. BCPS
DMEPA Team Leader:	Valerie S. Vaughan, PharmD.

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1 INTRODUCTION

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

1.1 REGULATORY HISTORY

NDA 212045 was originally submitted on April 30, 2019. At that time, the applicant was Insys Development Company (Insys). Insys previously submitted the proposed proprietary name (b) (4) *** on February 7, 2019. However, we found the name, (b) (4) *** unacceptable under IND 134954 on April 5, 2019 (b) (4).^a

Insys then submitted the proposed proprietary name, (b) (4) *** on May 9, 2019. However, we found the name, (b) (4) *** unacceptable under NDA 212045 on July 29, 2019 (b) (4).

On September 3, 2019 Insys submitted a notice of transfer of ownership which states that all rights to the application NDA 212045 have been transferred to the new owner Hikma Pharmaceuticals USA Inc. (Hikma).

Hikma then submitted the name, (b) (4) *** for review on January 31, 2020. However, on February 28, 2020, a complete response (CR) letter was issued for NDA 212045. On March 2, 2020, the Office of Prescription Drug Promotion (OPDP) determined that the proprietary name, (b) (4); therefore, on March 10, 2020^c we found the name, (b) (4) unacceptable (b) (4), as a result a full safety analysis was not performed at that time.

Subsequently on October 29, 2020 Hikma resubmitted (b) (4) *** under NDA 212045 for reconsideration, we found the name, (b) (4) *** unacceptable on January 27, 2021 (b) (4).

Thus, Hikma submitted the name, Kloxxado, for review on February 8, 2021.

^a Johnson, C. Proprietary Name Review for (b) (4) (IND 134954). Silver Spring (MD): FDA, CDER, OSE, DMEPA (US); 2019 APR 05. Panorama No. 2019-29181411.

^b Johnson, C. Proprietary Name Review for (b) (4) (NDA 212045). Silver Spring (MD): FDA, CDER, OSE, DMEPA (US); 2019 JUL 29. Panorama No. 2019-31589157.

^c Johnson, C. Proprietary Name Review for (b) (4) (NDA 212045). Silver Spring (MD): FDA, CDER, OSE, DMEPA (US); 2020 MAR 10. Panorama No. 2020-37566087.

^d Farshneshani, Z. Proprietary Name Review for (b) (4) (NDA 212045). Silver Spring (MD): FDA, CDER, OSE, DMEPA (US); 2021 JAN 27. Panorama No. 2020-43677122.

1.2 PRODUCT INFORMATION

The following product information is provided in the proprietary name submission received on February 8, 2021.

- Intended Pronunciation: klawks-AH-doh
- Active Ingredient: Naloxone hydrochloride
- Indication of Use: For the emergency treatment of known or suspected opioid overdose, as manifested by respiratory and/or central nervous system depression, for adult and pediatric patients.
- Route of Administration: Intranasal
- Dosage Form: nasal spray
- Strength: 8 mg/0.1 mL
- Dose and Frequency: single spray (8 mg/0.1 mL) intranasally into one nostril; seek emergency medical assistance as soon as possible. May repeat dose if desired response is not obtained after 2 or 3 minutes. Administer additional dose using a new Kloxxado nasal spray in alternate nostrils with each dose. If there is still no response and additional doses are available, administer additional doses of Kloxxado every 2 to 3 minutes using a new Kloxxado nasal spray until emergency medical assistance arrives. The requirement for repeat doses of Kloxxado nasal spray depends upon the amount, type, and route of administration of the opioid being antagonized.
- How Supplied: Single-dose spray device; stoppered glass vial, encased in a container holder fitted with a spray actuator, cannula, and spray pin. Each Kloxxado nasal spray carton contains two individual blisters sealed with a paper backing with a “peel off” feature. The carton contains abbreviated instruction-for-use printed on the back. In addition, a quick instructions leaflet is attached to the bottom of each individual blister.
- Storage: Store Kloxxado nasal spray in the blister and cartons provided, at 20°C to 25°C (68°F to 77°F), with excursions permitted to 40°C (104°F) and to 5°C (41°F). Do not freeze. Protect from light.
- Reference Product: Narcan (Naloxone Hydrochloride) Injection NDA 016636

2 RESULTS

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

2.1 MISBRANDING ASSESSMENT

The Office of Prescription Drug Promotion (OPDP) determined that Kloxxado would not misbrand the proposed product. The Division of Medication Error Prevention and Analysis (DMEPA) and the Division of Anesthesiology, Addiction Medicine, and Pain Medicine (DAAP) concurred with the findings of OPDP’s assessment for Kloxxado.

2.2 SAFETY ASSESSMENT

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

2.2.1 United States Adopted Names (USAN) Search

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

2.2.2 Components of the Proposed Proprietary Name

Hikma did not provide a derivation or intended meaning for the proposed proprietary name, Kloxxado, in their submission. This proprietary name is comprised of a single word. We note that Kloxxado contains the medical abbreviations, Kl (abbreviation for kiloliter), XX (abbreviation for the sex chromosomes found in the female of species) and ox (abbreviation for oxidizing agent, used to label containers that hold potentially hazardous substances). In some circumstances the incorporation of medical abbreviation in the proprietary name can inadvertently be a source of error. Although we typically discourage the inclusion of medical abbreviations in proprietary names, we determined that the location of these abbreviations in the beginning and middle of the name is unlikely to be separated from the surrounding letters or interpreted in a manner that would lead to confusion in the context of a written prescription. Thus, in this case, we do not object to the inclusion of the abbreviations Kl, xx and ox, in the proprietary name. Beyond these abbreviations, we note that Kloxxado does not contain any components (i.e. a modifier, route of administration, dosage form, etc.) that are misleading or can contribute to medication error.

2.2.3 Comments from Other Review Disciplines at Initial Review

On February 22, 2021, the Division of Anesthesiology, Addiction Medicine, and Pain Medicine (DAAP) did not forward any comments or concerns relating to Kloxxado at the initial phase of the review.

2.2.4 FDA Name Simulation Studies

Eighty (80) practitioners participated in DMEPA's prescription studies for Kloxxado. 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 15 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.

^e USAN stem search conducted on February 17, 2021.

^f POCA search conducted on February 17, 2021 in version 4.4.

2.2.6 Names Retrieved for Review Organized by Name Pair Similarity

Table 1 lists the number of names retrieved from our POCA search and the (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 $\leq 69\%$	11
Low similarity name pair: combined match percentage score $\leq 54\%$	9

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

Our analysis of the 21 names contained in Table 1 determined none of the names will pose a risk for confusion with Kloxxado as described in Appendices C through H.

2.2.8 Communication of DMEPA's Analysis at Midpoint of Review

DMEPA communicated our findings to the Division of Anesthesiology, Addiction Medicine, and Pain Medicine (DAAP). At that time we also requested additional information or concerns that could inform our review. On April 23, 2021, the Division of Anesthesiology, Addiction Medicine, and Pain Medicine (DAAP) stated no additional concerns with the proposed proprietary name, Kloxxado.

3 CONCLUSION

The proposed proprietary name, Kloxxado, is acceptable.

If you have any questions or need clarifications, please contact Tamika White, OSE project manager, at 301-796-0310.

3.1 COMMENTS TO HIKMA PHARMACEUTICALS USA, INC.

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

If any of the proposed product characteristics as stated in your submission, received on February 8, 2021, are altered prior to approval of the marketing application, the name must be resubmitted for review.

4 REFERENCES

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

USAN Stems List contains all the recognized USAN stems.

2. *Phonetic and Orthographic Computer Analysis (POCA)*

POCA is a system that FDA designed. As part of the name similarity assessment, POCA is used to evaluate proposed names via a phonetic and orthographic algorithm. The proposed proprietary name is converted into its phonemic representation before it runs through the phonetic algorithm. Likewise, an orthographic algorithm exists that operates in a similar fashion. POCA is publicly accessible.

Drugs@FDA

Drugs@FDA is an FDA Web site that contains most of the drug products approved in the United States since 1939. The majority of labels, approval letters, reviews, and other information are available for drug products approved from 1998 to the present. Drugs@FDA contains official information about FDA-approved *brand name* and *generic drugs*; *therapeutic biological products*, *prescription* and *over-the-counter* human drugs; and *discontinued drugs* (see Drugs @ FDA Glossary of Terms, available at http://www.fda.gov/Drugs/InformationOnDrugs/ucm079436.htm#ther_biological).

RxNorm

RxNorm contains the names of prescription and many OTC drugs available in the United States. RxNorm includes generic and branded:

- Clinical drugs – pharmaceutical products given to (or taken by) a patient with therapeutic or diagnostic intent
- Drug packs – packs that contain multiple drugs, or drugs designed to be administered in a specified sequence

Radiopharmaceuticals, contrast media, food, dietary supplements, and medical devices, such as bandages and crutches, are all out of scope for RxNorm

(<http://www.nlm.nih.gov/research/umls/rxnorm/overview.html>).

Division of Medication Errors Prevention and Analysis proprietary name consultation requests

This is a list of proposed and pending names that is generated by the Division of Medication Error Prevention and Analysis from the Access database/tracking system.

APPENDICES

Appendix A

FDA's Proprietary Name Risk Assessment evaluates proposed proprietary names for misbranding and safety concerns.

1. **Misbranding Assessment:** For prescription drug products, OPDP assesses the name for misbranding concerns. For over-the-counter (OTC) drug products, the misbranding assessment of the proposed name is conducted by DNDP. OPDP or DNDP evaluates proposed proprietary names to determine if the name is false or misleading, such as by making misrepresentations with respect to safety or efficacy. For example, a fanciful proprietary name may misbrand a product by suggesting that it has some unique effectiveness or composition when it does not (21 CFR 201.10(c)(3)). OPDP or DNDP provides their opinion to DMEPA for consideration in the overall acceptability of the proposed proprietary name.
2. **Safety Assessment:** The safety assessment is conducted by DMEPA, and includes the following:
 - a. Preliminary Assessment: We consider inclusion of USAN stems or other characteristics that when incorporated into a proprietary name may cause or contribute to medication errors (i.e., dosing interval, dosage form/route of administration, medical or product name abbreviations, names that include or suggest the composition of the drug product, etc.) See prescreening checklist below in Table 2*. DMEPA defines a medication error as any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional, patient, or consumer. ^g

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

***Table 2- Prescreening Checklist for Proposed Proprietary Name**

	Answer the questions in the checklist below. Affirmative answers to any of these questions indicate a potential area of concern that should be carefully evaluated as described in this guidance.
Y/N	Is the proposed name obviously similar in spelling and pronunciation to other names?
	Proprietary names should not be similar in spelling or pronunciation to proprietary names, established names, or ingredients of other products.
Y/N	Are there inert or inactive ingredients referenced in the proprietary name?
	Proprietary names should not incorporate any reference to an inert or inactive ingredient in a way that might create an impression that the ingredient's value is greater than its true functional role in the formulation (21 CFR 201.10(c)(4)).
Y/N	Does the proprietary name include combinations of active ingredients?
	Proprietary names of fixed combination drug products should not include or suggest the name of one or more, but not all, of its active ingredients (see 21 CFR 201.6(b)).
Y/N	Is there a United States Adopted Name (USAN) stem in the proprietary name?
	Proprietary names should not incorporate a USAN stem in the position that USAN designates for the stem.
Y/N	Is this proprietary name used for another product that does not share at least one common active ingredient?
	Drug products that do not contain at least one common active ingredient should not use the same (root) proprietary name.
Y/N	Is this a proprietary name of a discontinued product?
	Proprietary names should not use the proprietary name of a discontinued product if that discontinued drug product does not contain the same active ingredients.

- b. Phonetic and Orthographic Computer Analysis (POCA): Following the preliminary screening of the proposed proprietary name, DMEPA staff evaluates the proposed name against potentially similar names. In order to identify names with potential similarity to the proposed proprietary name, DMEPA enters the proposed proprietary name in POCA and queries the name against the following drug reference databases, Drugs@fda, CernerRxNorm, and names in the review pipeline using a 55% threshold in POCA. DMEPA reviews the combined orthographic and phonetic matches and group the names into one of the following three categories:
- Highly similar pair: combined match percentage score $\geq 70\%$.
 - Moderately similar pair: combined match percentage score $\geq 55\%$ to $\leq 69\%$.

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

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

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

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

a low similarity name to the moderate similarity category and review according to the moderately similar name pair checklist.

- c. FDA Prescription Simulation Studies: DMEPA staff also conducts a prescription simulation studies using FDA health care professionals.

Four separate studies are conducted within the Centers of the FDA for the proposed proprietary name to determine the degree of confusion of the proposed proprietary name with marketed U.S. drug names (proprietary and established) due to similarity in visual appearance with handwritten prescriptions, verbal pronunciation of the drug name or during computerized provider order entry. The studies employ healthcare professionals (pharmacists, physicians, and nurses), and attempts to simulate the prescription ordering process. The primary Safety Evaluator uses the results to identify vulnerability of the proposed name to be misinterpreted by healthcare practitioners during written, verbal, or electronic prescribing.

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

- d. Comments from Other Review Disciplines: DMEPA requests the Office of New Drugs (OND) and/or Office of Generic Drugs (OGD), ONDQA or OBP for their comments or concerns with the proposed proprietary name, ask for any clinical issues that may impact the DMEPA review during the initial phase of the name review. Additionally, when applicable, at the same time DMEPA requests concurrence/non-concurrence with OPDP's decision on the name. The primary Safety Evaluator addresses any comments or concerns in the safety evaluator's assessment.

The OND/OGD Regulatory Division is contacted a second time following our analysis of the proposed proprietary name. At this point, DMEPA conveys their decision to accept or reject the name. The OND or OGD Regulatory Division is requested to provide any further information that might inform DMEPA's final decision on the proposed name.

Additionally, other review disciplines opinions such as ONDQA or OBP may be considered depending on the proposed proprietary name.

When provided, DMEPA considers external proprietary name studies conducted by or for the Applicant/Sponsor and incorporates the findings of these studies into the overall risk assessment.

The DMEPA primary reviewer assigned to evaluate the proposed proprietary name is responsible for considering the collective findings, and provides an overall risk assessment of the proposed proprietary name.

Table 3. Highly Similar Name Pair Checklist (i.e., combined Orthographic and Phonetic score is $\geq 70\%$).

Answer the questions in the checklist below. Affirmative answers to some of these questions suggest that the pattern of orthographic or phonetic differences in the names may render the names less likely to confusion, provided that the pair does not share a common strength or dose.			
<u>Orthographic Checklist</u>		<u>Phonetic Checklist</u>	
Y/N	Do the names begin with different first letters? <i>Note that even when names begin with different first letters, certain letters may be confused with each other when scripted.</i>	Y/N	Do the names have different number of syllables?
Y/N	Are the lengths of the names dissimilar* when scripted? <i>*FDA considers the length of names different if the names differ by two or more letters.</i>	Y/N	Do the names have different syllabic stresses?
Y/N	Considering variations in scripting of some letters (such as z and f), is there a different number or placement of upstroke/downstroke letters present in the names?	Y/N	Do the syllables have different phonologic processes, such as vowel reduction, assimilation, or deletion?
Y/N	Is there different number or placement of cross-stroke or dotted letters present in the names?	Y/N	Across a range of dialects, are the names consistently pronounced differently?
Y/N	Do the infixes of the name appear dissimilar when scripted?		
Y/N	Do the suffixes of the names appear dissimilar when scripted?		

Table 4: Moderately Similar Name Pair Checklist (i.e., combined score is $\geq 55\%$ to $\leq 69\%$).

Step 1	Review the DOSAGE AND ADMINISTRATION and HOW SUPPLIED/STORAGE AND HANDLING sections of the prescribing information (or for OTC drugs refer to the Drug Facts label) to determine if strengths and doses of the name pair overlap or are very similar. Different strengths and doses for products whose names are moderately similar may decrease the risk of confusion between the moderately similar name pairs. Name pairs that have overlapping or similar strengths or doses have a higher potential for confusion and should be evaluated further (see Step 2). Because the strength or dose could be used to express an order or prescription for a particular drug product, overlap in one or both of these components would be reason for further evaluation. For single strength products, also consider circumstances where the strength may not be expressed. For any i.e. drug products comprised of more than one active ingredient, consider whether the strength or dose may be expressed using only one of the components. To determine whether the strengths or doses are similar to your proposed product, consider the following list of factors that may increase confusion: • Alternative expressions of dose: 5 mL may be listed in the prescribing information, but the dose may be expressed in metric weight (e.g., 500 mg) or in non-metric units (e.g., 1 tsp, 1 tablet/capsule). Similarly, a strength or dose of 1000 mg may be expressed, in practice, as 1 g, or vice versa. • Trailing or deleting zeros: 10 mg is similar in appearance to 100 mg which may potentiate confusion between a name pair with moderate similarity. • Similar sounding doses: 15 mg is similar in sound to 50 mg
Step 2	Answer the questions in the checklist below. Affirmative answers to some of these questions suggest that the pattern of orthographic or phonetic differences in the names may reduce the likelihood of confusion for moderately similar names <u>with</u> overlapping or similar strengths or doses.

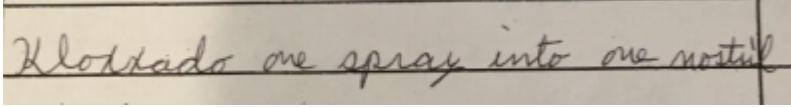
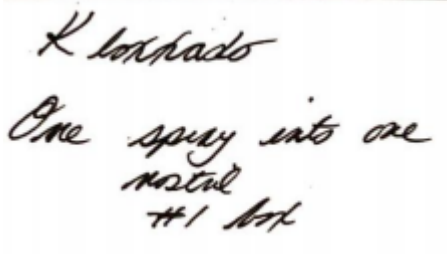
	Orthographic Checklist (Y/N to each question) - Do the names begin with different first letters? Note that even when names begin with different first letters, certain letters may be confused with each other when scripted. - Are the lengths of the names dissimilar* when scripted? *FDA considers the length of names different if the names differ by two or more letters. - Considering variations in scripting of some letters (such as z and f), is there a different number or placement of upstroke/downstroke letters present in the names? - Is there different number or placement of cross-stroke or dotted letters present in the names? - Do the infixes of the name appear dissimilar when scripted? - Do the suffixes of the names appear dissimilar when scripted?	Phonetic Checklist (Y/N to each question) - Do the names have different number of syllables? - Do the names have different syllabic stresses? - Do the syllables have different phonologic processes, such vowel reduction, assimilation, or deletion? - Across a range of dialects, are the names consistently pronounced differently?
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Table 5: Low Similarity Name Pair Checklist (i.e., combined score is $\leq 54\%$).

Names with low similarity are generally acceptable unless there are data to suggest that the name might be vulnerable to confusion (e.g., prescription simulation study suggests that the name is likely to be misinterpreted as a marketed product). In these instances, we would reassign a low similarity name to the moderate similarity category and review according to the moderately similar name pair checklist.

Appendix B: Prescription Simulation Samples and Results

Figure 1. Kloxxado Study (Conducted on February 19, 2021)

Handwritten Medication Order/Prescription	Verbal Prescription
<u>Medication Order:</u> 	Kloxxado One spray into one nostril. Dispense: #1 box
<u>Outpatient Prescription:</u> 	
CPOE Study Sample (displayed as sans-serif, 12-point, bold font)	
Kloxxado	

FDA Prescription Simulation Responses (Aggregate Report)

Study Name: Kloxxado

80 People Responded

Total	24	14	25	17	
INTERPRETATION	OUTPATIENT	CPOE	VOICE	INPATIENT	TOTAL
CLOCKODO	0	0	1	0	1
CLOCKS-AUTO	0	0	1	0	1
CLOGSAUTO	0	0	1	0	1
CLOXADO	0	0	3	0	3
CLOXATO	0	0	1	0	1
CLOXAUTO	0	0	2	0	2
CLOXODO	0	0	1	0	1
CLOXOTO	0	0	2	0	2
CLOXOTTO	0	0	2	0	2
FLOX AUTO	0	0	1	0	1
FLOXADO	0	0	4	0	4
FLOX-AUTO	0	0	1	0	1
FLOXOTTO	0	0	1	0	1
KLOAXXADO	0	0	0	1	1
KLOKSOTTO	0	0	1	0	1
KLOX AUTO	0	0	1	0	1
KLOXADO	1	0	0	0	1
KLOX-OTO	0	0	1	0	1
KLOXPADS	1	0	0	0	1
KLOXXADO	22	14	0	15	51
KLOZTOTO	0	0	1	0	1
KOXXADO	0	0	0	1	1

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

No.	Proposed name: Kloxxado Established name: Naloxone hydrochloride Dosage form: nasal spray Strength(s): 8 mg/0.1 mL Usual Dose: one spray into one nostril	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.	Kloxxado	100	Name is 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 (%)
1.	Euflexxa	56
2.	Perloxx	56

Appendix E: Moderately Similar Names (e.g., combined POCA score is $\geq 55\%$ to $\leq 69\%$) with overlap or numerical similarity in Strength and/or Dose

No.	Proposed name: Kloxxado Established name: Naloxone hydrochloride Dosage form: nasal spray Strength(s): 8 mg/0.1 mL Usual Dose: one spray into one nostril	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.	Ofloxacin	55	This name pair has sufficient orthographic and phonetic differences.

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

No.	Name	POCA Score (%)
1.	Oxaydo	54
2.	Alodox	48
3.	Aldioxa	45
4.	Dicloxacillin	47
5.	Klonopin	44
6.	Clonazepam	42
7.	Exalgo	42
8.	Xarelto	30
9.	Kyprolis	24

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.	Cloxapen	59	Brand discontinued with no generic equivalents available. ANDA 061806 withdrawn FR effective 06/04/2018 and ANDA 062233 withdrawn FR effective 04/07/1999.
2.	Tyloxapol	59	Product is not a drug. It is one of the ingredients used in aerosol inhalations
3.	Clofazlam	58	International product marketed in Brazil, Belgium, and Japan.
4.	(b) (4) ***	58	(b) (4)
5.	Toloxatone	56	International product formerly marketed in Italy and France

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

No.	Name	POCA Score (%)
1.	Clofexamide	57
2.	(b) (4) ***	56
3.	Clopixol	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

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Division of Medication Error Prevention and Analysis (DMEPA)
Office of Medication Error Prevention and Risk Management (OMEPRM)
Office of Surveillance and Epidemiology (OSE)
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Date of This Review:	January 27, 2021
Application Type and Number:	NDA 212045
Product Name and Strength:	(b) (4) (naloxone) nasal spray, 8 mg
Product Type:	Combination Product (Drug-Device)
Rx or OTC:	Prescription (Rx)
Applicant/Sponsor Name:	Hikma Pharmaceuticals USA Inc. (Hikma)
Panorama #:	2020-43677122
DMEPA Safety Evaluator:	Zahra Farshneshani, PharmD
DMEPA Team Leader:	Valerie S. Vaughan, PharmD
DMEPA Deputy Director:	Irene Z. Chan, PharmD, BCPS

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ZAHRA FARSHNESHANI
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IRENE Z CHAN on behalf of VALERIE S VAUGHAN
01/27/2021 04:29:42 PM

IRENE Z CHAN
01/27/2021 04:30:01 PM

PROPRIETARY NAME REVIEW

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

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Date of This Review:	March 10, 2020
Application Type and Number:	NDA 212045
Product Name and Strength:	(b) (4) (naloxone hydrochloride) nasal spray, 8 mg/0.1 mL
Product Type:	Combination Product (Drug-Device)
Rx or OTC:	Prescription (Rx)
Applicant/Sponsor Name:	Hikma Pharmaceuticals (Hikma)
Panorama #:	2020-37566087
DMEPA Safety Evaluator:	Cameron Johnson, PharmD
DMEPA Team Leader:	Otto L. Townsend, PharmD
DMEPA Deputy Director:	Irene Z. Chan, PharmD, BCPS

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PROPRIETARY NAME REVIEW

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

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Date of This Review:	July 29, 2019
Application Type and Number:	NDA 212045
Product Name and Strength:	(b) (4) (naloxone) nasal spray, 8 mg/0.1 mL
Product Type:	Combination Product (Drug-Device)
Rx or OTC:	Prescription (Rx)
Applicant/Sponsor Name:	Insys Therapeutics, Inc. (Insys)
Panorama #:	2019-31589157
DMEPA Safety Evaluator:	Cameron Johnson, PharmD
DMEPA Team Leader:	Otto L. Townsend, PharmD
DMEPA Deputy Director:	Irene Z. Chan, PharmD, BCPS

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DANIELLE M HARRIS on behalf of IRENE Z CHAN
07/30/2019 06:48:42 AM