CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

208603Orig1s000

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)

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Date of This Review:	February 29, 2016
Application Type and Number:	NDA 208603
Product Name and Strength:	Arymo ER (morphine sulfate) Extended-release tablets 15 mg, 30 mg, 60 mg
Product Type:	Single Ingredient
Rx or OTC:	Rx
Applicant/Sponsor Name:	Egalet
Panorama #:	2015-2442978
DMEPA Primary Reviewer:	James Schlick, RPh, MBA
DMEPA Team Leader:	Vicky Borders-Hemphill, PharmD

Contents

1 INTRODUCTION

This review evaluates the proposed proprietary name, Arymo ER, from a safety and misbranding perspective. The sources and methods used to evaluate the proposed name are outlined in the reference section and Appendix A respectively. The Applicant did not submit an external name study for this proposed proprietary name.

1.1 REGULATORY HISTORY

The Applicant previously submitted the proposed proprietary name, Arymo*** on May 19, 2014. The Division of Medication Error Prevention and Analysis (DMEPA) found the name, Arymo***, acceptable.[1] However, in our comments to Egalet, we recommended they consider a modifier to distinguish the extended-release nature of their product from currently marketed immediate-release morphine products. After consideration, Egalet submitted the name, Arymo ER, under the current NDA application.

1.2 PRODUCT INFORMATION

The following product information is provided in the December 31, 2015 proprietary name submission.

- Intended Pronunciation: AIR ĭ mow
- Active Ingredient: morphine sulfate
- Indication of Use: Pain relief
- Route of Administration: Oral
- Dosage Form: Extended-release Tablets
- Strengths:
  - Previous Review under IND 117317; RCM No. 2014-17367: (b) (4)
  - Current Review: 15 mg, 30 mg, 60 mg
- Dose and Frequency: 15 mg to 120 mg every 8 to 12 hours
- How Supplied/ Container and Closure Systems: 100 count bottle
- Storage: Room temperature

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[1] Schlick, J. Proprietary Name Review for Arymo IND 117317. Silver Spring (MD): FDA, CDER, OSE, DMEPA (US); 2014-Nov-6. RCM No. 2014-17367.

2 RESULTS

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

2.1 MISBRANDING ASSESSMENT

The Office of Prescription Drug Promotion (OPDP) determined that the proposed name would not misbrand the proposed product. DMEPA and the Division of Analgesia, Anesthesia, and Addiction Products (DAAAP) concurred with the findings of OPDP's assessment of the proposed name.

2.2 SAFETY ASSESSMENT

The following aspects were considered in the safety evaluation of the name.

2.2.1 United States Adopted Names (USAN) Search

There is no USAN stem present in the proprietary name[2].

2.2.2 Components of the Proposed Proprietary Name

The Applicant did not provide a derivation or intended meaning for the proposed root name, Arymo in their submission. This proprietary name is comprised of the root name, Arymo, and the modifier, 'ER'. Egalet indicated that the modifier is an acronym to denote the product is an extended-release dosage form.

We evaluated the need for a modifier to distinguish Egalet's proposed extended-release morphine product from currently marketed immediate-release morphine products in a previous review.[3] Our analysis indicated that a modifier could add an incremental measure of safety by communicating that the drug is an extended-release formulation.

We recommended that Egalet consider adding a modifier, and after consideration, they chose the modifier 'ER'. According to ISMP's List of Products with Drug Name Suffixes, the modifier 'ER' has been used for other modified-release dosage formulations to distinguish the dosing schedule from currently marketed immediate release formulations, and has been used to signal "every 12 hour", "twice daily", "once daily", and "three times daily" dosing schedules. This product is dosed every 8 to 12 hours; therefore, the use of the modifier "ER" is consistent with the dosing frequency for other products marketed with the ER modifier. We are not aware of any errors relating to misinterpretation of "ER". Thus, we find the use of this modifier to be appropriate.

2.2.3 FDA Name Simulation Studies

Sixty-two practitioners participated in DMEPA's prescription studies. 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 verbal and written prescription studies.

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[2]USAN stem search conducted on December 23, 2015.

[3] Schlick, J. Proprietary Name Review for Arymo IND 117317. Silver Spring (MD): FDA, CDER, OSE, DMEPA (US); 2014-Nov-6. RCM No. 2014-17367.

2.2.4 Comments from Other Review Disciplines at Initial Review

In response to the OSE, January 13, 2016 e-mail, the Division of Analgesia, Anesthesia, and Addiction Products (DAAAP) did not forward any comments or concerns relating to the proposed proprietary name at the initial phase of the review.

2.2.5 Phonetic and Orthographic Computer Analysis (POCA) Search Results

Table 1 lists the number of names with the combined orthographic and phonetic score of ≥50% retrieved from our POCA search[4] organized as highly similar, moderately similar or low similarity for further evaluation.

Table 1. POCA Search Results	**Number of Names**
Highly similar name pair: combined match percentage score ≥70%	1
Moderately similar name pair: combined match percentage score ≥50% to ≤ 69%	110
Low similarity name pair: combined match percentage score ≤49%	0

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

Our analysis of the 111 names contained in Table 1 determined 111 names will not pose a risk for confusion as described in Appendices C through H.

2.2.7 Communication of DMEPA's Analysis at Midpoint of Review

DMEPA communicated our findings to the Division of Analgesia, Anesthesia, and Addiction products (DAAAP) via e-mail on February 16, 2016. At that time we also requested additional information or concerns that could inform our review. Per e-mail correspondence from DAAAP on February 29, 2016, they stated no additional concerns with the proposed proprietary name, Arymo ER.

3 CONCLUSIONS

The proposed proprietary name is acceptable.

If you have any questions or need clarifications, please contact Wendy Brown, OSE project manager, at 240-402-9140.

3.1 COMMENTS TO THE APPLICANT

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

If any of the proposed product characteristics as stated in your December 31, 2015 submission are altered prior to approval of the marketing application, the name must be resubmitted for review.

[4] POCA search conducted on December 23, 2015.

4 REFERENCES

1. ***USAN Stems (http://www.ama-assn.org/ama/pub/physician-resources/medical-science/united-states-adopted-names-council/naming-guidelines/approved-stems.page)***

   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.

3. ***Electronic Drug Registration and Listing System (eDRLS) database***

The electronic Drug Registration and Listing System (eDRLS) was established to supports the FDA's Center for Drug Evaluation and Research (CDER) goal to establish a common Structured Product Labeling (SPL) repository for all facilities that manufacture regulated drugs. The system is a reliable, up-to-date inventory of FDA-regulated, drugs and establishments that produce drugs and their associated information.

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. [5]

[5] National Coordinating Council for Medication Error Reporting and Prevention. http://www nccmerp.org/aboutMedErrors.html. Last accessed 10/11/2007.

***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 medical and/or coined abbreviations in the proprietary name?**
	Proprietary names should not incorporate medical abbreviations (e.g., QD, BID, or others commonly used for prescription communication) or coined abbreviations that have no established meaning.
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 50% 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 ≥50% to ≤ 69%.
   - Low similarity: combined match percentage score ≤49%.

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 with overlapping or similar strengths or doses represent an area for concern for FDA. The dosage and strength information is often located in close proximity to the drug name itself on prescriptions and medication orders, and it 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, etc.) may be limited when the strength or dose overlaps. We review such names further, to determine whether sufficient differences exist to prevent confusion. (See Table 4).
- Names with low similarity that have no overlap or similarity in strength and dose are generally acceptable (See Table 5) unless there are data to suggest that the name might be vulnerable to confusion (e.g., prescription simulation study suggests that the name is likely to be misinterpreted as a marketed product). In these instances, we would reassign a low similarity name to the moderate similarity category and review according to the moderately similar name pair checklist.

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

Three 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 or verbal pronunciation of the drug name. 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 orthographic or phonetic vulnerability of the proposed name to be misinterpreted by healthcare practitioners.

In order to evaluate the potential for misinterpretation of the proposed proprietary name in handwriting and verbal communication of the name, inpatient medication orders and/or outpatient prescriptions are written, each consisting of a combination of marketed and unapproved drug products, including the proposed name. These orders are optically scanned and one prescription is delivered to a random sample of participating health professionals via e-mail. In addition, a verbal prescription is recorded on voice mail. The voice mail messages are then sent to a random sample of the participating health professionals for their interpretations and review. After receiving either the written or verbal prescription orders, the participants record their interpretations of the orders which are recorded electronically.

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 ≥ 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 4: Moderately Similar Name Pair Checklist (i.e., combined score is ≥50% 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 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?

Table 5: Low Similarity Name Pair Checklist (i.e., combined score is ≤49%).

In most circumstances, these names are viewed as sufficiently different to minimize confusion. Exceptions to this would occur in circumstances where, for example, there are data that suggest a name with low similarity is nonetheless misinterpreted as a marketed product name in a prescription simulation study. In such instances, FDA 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. Arymo ER Study (Conducted on January 20, 2016)

Handwritten Requisition Medication Order	Verbal Prescription
Medication Order: Arymo ER po q12hrs	Arymo ER 60 mg Take 2 tablets po every 12 hours Dispense 120
Outpatient Prescription: Arymo ER 60mg Take 2 tablets po q12hrs #120	

FDA Prescription Simulation Responses (Aggregate 1 Rx Studies Report)

239 People Received Study
77 People Responded

Study Name: Arymo ER

Total	29	22	26	
INTERPRETATION	**OUTPATIENT**	**VOICE**	**INPATIENT**	**TOTAL**
AEREMO ER	0	1	0	1
AERIMO ER	0	1	0	1
ARAMO ER	0	3	0	3
AREGMO ER	0	0	3	3
AREMO ER	0	2	0	2
ARIGME ER	0	0	1	1
ARIMO ER	0	1	0	1
ARIMO ER	0	4	0	4
ARYMA ER	1	0	1	2
ARYME ER	1	0	0	1
ARYMO ER	24	1	18	43
ARYMS ER	0	0	2	2
ARYNO ER	3	0	1	4
ERAMO ER	0	1	0	1
ERANMO ER	0	1	0	1
EREMO ER	0	2	0	2
ERIMO ER	0	4	0	4
GERMO ER	0	1	0	1

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

No.	**Proposed name: Arymo ER** **Established name: morphine sulfate** **Dosage form: Extended-release Tablets** **Strength(s): 15 mg, 30 mg, 60 mg** **Usual Dose: 15 mg to 120 mg (1-2 tablets) orally every 8 to 12 hours**	**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.	arymo***	100	Root name that is the subject of this review

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Appendix D: Moderately Similar Names (e.g., combined POCA score is ≥50% to ≤69%) with no overlap or numerical similarity in Strength and/or Dose

No.	Name	POCA Score (%)
1.	Eryderm	66
2.	Erypar	65
3.	Armonair***	64
4.	Ergomar	62
5.	Remular	62 phonetic = 70
6.	Atryn	61
7.	Aridol	60
8.	Arranon	58
9.	Erymax	58
10.	(b) (4) ***	58
11.	(b) (4) ***	56
12.	Aramine	56
13.	Almora	54
14.	Auro Ear	54
15.	Ery-Sol	54
16.	Erygel	53
17.	Akrinol	52
18.	Anolor	52
19.	Arimidex	52
20.	(b) (4) ***	52
21.	Arzerra	52
22.	Eryped	52
23.	Eryped 200	52
24.	Eryped 400	52
25.	Auroto	51
26.	Amilomer	50

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No.	Name	POCA Score (%)
27.	Carylderm	50

Appendix E: Moderately Similar Names (e.g., combined POCA score is ≥50% to ≤69%) with overlap or numerical similarity in Strength and/or Dose

No.	**Proposed name: Arymo ER** **Established name: morphine sulfate** **Dosage form: Extended-release Tablets** **Strength(s): 15 mg, 30 mg, 60 mg** **Usual Dose: 15 mg to 120 mg (1-2 tablets) orally every 8 to 12 hours**	**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.	(b) (4) *** ***	64 Phonetic = 77	The prefixes of this name pair have sufficient orthographic differences. The first syllable of this name pair sounds different, and Arymo contains an extra syllable. The name (b) (4) ***, submitted under IND (b) (4), was withdrawn on (b) (4) The name (b) (4) *** was found acceptable on (b) (4) under IND (b) (4)
2.	rymed	58	The prefixes and suffixes of this name pair have sufficient orthographic differences. The first syllable and last syllables of this name pair sound different, and Arymo contains an extra syllable.
3.	rymed-Tr	58	The prefixes and suffixes of this name pair have sufficient orthographic differences. Rymed TR has a modifier which may afford difference if included. The first syllable and last syllables of this name pair sound different, and Arymo contains an extra syllable.
4.	Eryzole	56	The suffixes of this name pair have sufficient orthographic differences. The third syllables of this name pair sound different
5.	(b) (4) ***	54	The infixes of this name pair have sufficient orthographic differences. The first and second syllables of this name pair sound different.
6.	Afrinol	52	The prefixes, infixes, and suffixes of this name pair have sufficient orthographic differences The second syllables of this name pair sound different

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No.	Proposed name: Arymo ER Established name: morphine sulfate Dosage form: Extended-release Tablets Strength(s): 15 mg, 30 mg, 60 mg Usual Dose: 15 mg to 120 mg (1-2 tablets) orally every 8 to 12 hours	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
7.	Apriso	52	The infixes of this name pair have sufficient orthographic differences. The letter string 'riso' after the downstroke letter 'p' in Apriso does not look similar to the letter string 'mo' after the down stroke letter 'y' in Arymo. The second and third syllables of this name pair sound different
8.	Arava	52	The infixes of this name pair have sufficient orthographic differences. The third syllables of this name pair sound different. Additionally, if the modifier 'ER' is spoken, that also offers phonetic difference between the name pair.
9.	(b) (4) ***	51	The infixes of this name pair have sufficient orthographic differences. The first syllable and last syllables of this name pair sound different, and Arymo contains an extra syllable.

Appendix F: Low Similarity Names (e.g., combined POCA score is ≤49%)

No.	Name	POCA Score (%)
1.	N/A	N/A

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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.	Urimar	67 phonetic = 71	Unable to find product characteristics in commonly used drug databases.
2.	Airomir	63	Salbutamol inhaler product marketed in multiple foreign countries
3.	Erymin	62	Unable to find product characteristics in commonly used drug databases.
4.	Artemether	61	Name identified in RxNorm database. Unable to find product characteristics in commonly used drug databases
5.	Avima	57	Name identified in RxNorm database. Unable to find product characteristics in commonly used drug databases.
6.	rymed-D	56	Unable to find product characteristics in commonly used drug databases.
7.	Argon	54	Unable to find product characteristics in commonly used drug databases.
8.	Arm-A-Med	53	Unable to find product characteristics in commonly used drug databases.
9.	Amber	52	Lynestrenol product formerly marketed in the Philipines
10.	Argan Oil	52	Name identified in RxNorm database. Unable to find product characteristics in commonly used drug databases
11.	(b) (4) ***	50	Name identified in Names Entered by SE database. This name was found unacceptable under OSE RCM# (b) (4) A request for review of an alternate ((b) (4) **) proprietary name was submitted on (b) (4)

Appendix H: Names not likely to be confused due to notable spelling, orthographic and phonetic differences.

No.	Name	POCA Score (%)
1.	Ramodar	64
2.	Primor	62
3.	Primor 120	62
4.	Primor 1200	62
5.	Primor 240	62
6.	Primor 600	62
7.	Rimso-50	62
8.	Carbomer	60
9.	Carbomer 1342	60
10.	Carbomer-934	60
11.	Carbomer-940	60
12.	Carbomer-980	60
13.	Oramorph	60
14.	Reno-30	60
15.	Reno-60	60
16.	Ironmar	56
17.	(b) (4) ***	56
18.	Renese-R	56
19.	Wart Remover	55
20.	Zymar	55
21.	Paramol	54
22.	Dymelor	53
23.	Remeron	53
24.	Carmol	52
25.	Carmol 10	52
26.	Carmol-20	52
27.	Carmol-40	52

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No.	Name	POCA Score (%)
28.	Dermazor	52
29.	Duramorph	52
30.	Erythrolar	52
31.	Fiormor	52
32.	Marinol	52
33.	(b) (4) ***	52
34.	Phazyme	52
35.	Primacor	52
36.	Ri-Mag	52
37.	Ri-Mox	52
38.	Ryna-12	52
39.	Teramine Er	52
40.	Zanosar	52
41.	Bellamor	51
42.	Errin	51
43.	Marinol	51
44.	Murine Ear	51
45.	Oramorph Sr	51
46.	Orso	51
47.	Vaprino	51
48.	Carbomer-974P	50
49.	Carimune	50
50.	Chromonar	50
51.	Demser	50
52.	Duromorph	50
53.	Mazanor	50
54.	Merrem	50
55.	Otimar	50

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

No.	Name	POCA Score (%)
56.	Patiromer	50
57.	Reme-T	50
58.	Remular-S	50
59.	Reno-M-30	50
60.	Reno-M-60	50
61.	Rhemu	50
62.	Ryneze	50
63.	Torem	50

Appendix I: Names identified in the eDRLS database not likely to be confused due to notable spelling, orthographic and phonetic differences.

No.	Name
1.	N/A

This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.

/s/

JAMES H SCHLICK
02/29/2016

BRENDA V BORDERS-HEMPHILL
02/29/2016