

**CENTER FOR DRUG EVALUATION AND
RESEARCH**

APPLICATION NUMBER:

204820Orig1s000

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: | June 18, 2014 |
| Application Type and Number: | NDA 204820 |
| Product Name and Strength: | Mitigare (Colchicine) Capsules, 0.6 mg |
| Product Type: | Single Ingredient |
| Rx or OTC: | Rx |
| Applicant/Sponsor Name: | West-Ward Pharmaceutical Corp. |
| Submission Date: | April 15, 2014 |
| Panorama #: | 2014-17223 |
| DMEPA Primary Reviewer: | Sherly Abraham, R.Ph |
| DMEPA Associate Director: | Lubna Merchant, M.S., PharmD |

Contents

| | | |
|-----|--------------------------------|---|
| 1 | INTRODUCTION..... | 1 |
| 1.1 | Regulatory History..... | 1 |
| 1.2 | Product Information..... | 1 |
| 2 | RESULTS..... | 1 |
| 2.1 | Promotional Assessment..... | 1 |
| 2.2 | Safety Assessment..... | 2 |
| 3 | CONCLUSIONS..... | 3 |
| 3.1 | Comments to the Applicant..... | 3 |
| 4 | REFERENCES..... | 4 |
| | APPENDICES..... | 5 |

1 INTRODUCTION

This review evaluates the proposed proprietary name, Mitigare, from a safety and promotional 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 for this product.

1.1 REGULATORY HISTORY

The sponsor previously submitted the proposed proprietary name, (b) (4), on October 11, 2012. We found this name unacceptable. Subsequently, they submitted the name Mitigare for our evaluation. Although on March 6, 2013, we found the name acceptable, Division of Pulmonary, Allergy, and Rheumatology Products (DPARP) issued a complete response to their application. On April 15, 2014, the applicant resubmitted a new proprietary name review request with the resubmission to the complete response.

1.2 PRODUCT INFORMATION

The following product information is provided in the April 15, 2014, proprietary name submission.

- Intended Pronunciation: miti'gare'
- Active Ingredient: Colchicine, USP
- Indication of Use: Prophylaxis of gout flares in adults and adolescents older than 16 years of age.
- Route of Administration: Oral
- Dosage Form: Capsules
- Strength: 0.6 mg
- Dose and Frequency: 0.6 mg (1 capsule) once or twice daily.
- How Supplied: Bottles of 100 capsules and bottles of 1000 capsules
- Storage: 20° C to 25°C (68°F to 77°F)
- Container and Closure Systems: Child resistant closure

2 RESULTS

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

2.1 PROMOTIONAL ASSESSMENT

The Office of Prescription Drug Promotion (OPDP) determined the proposed name is acceptable from a promotional perspective. DMEPA and the Division of Pulmonary, Allergy, and Rheumatology Products (DPARP) concurred with the findings of OPDP's promotional 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 name¹.

2.2.2 Components of the Proposed Proprietary Name

The Applicant indicated in their submission that the proposed name, Mitigare, is intended meaning. 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 are misleading or can contribute to medication error.

2.2.3 FDA Name Simulation Studies

One hundred sixteen practitioners participated in DMEPA's prescription studies. The interpretations did not overlap with any currently marketed products nor did the misinterpretations sound or look similar to any currently marketed products or any products in the pipeline. Fourteen outpatient study participants misinterpreted 'g' for 's'. Sixteen inpatient participants misinterpreted 'a' for 'u'. Six voice mail participants misinterpreted 'it' for 'ed'. Appendix B contains the results from the verbal and written prescription studies.

2.2.4 Comments from Other Review Disciplines at Initial Review

In response to the OSE, May 8, 2014 e-mail, the Division of Pulmonary, Allergy, and Rheumatology Products (DPARP) 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 $\geq 50\%$ retrieved from our POCA search 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 $\geq 70\%$ | 1 |
| Moderately similar name pair: combined match percentage score $\geq 50\%$ to $\leq 69\%$ | 177 |
| Low similarity name pair: combined match percentage score $\leq 49\%$ | 0 |

¹USAN stem search conducted on June 10, 2014.

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

Our analysis of the 178 names contained in Table 1 determined none of the names will pose a risk for confusion as described in Appendices C through G.

2.2.7 Communication of DMEPA's Analysis at Midpoint of Review

DMEPA communicated our findings to the Division of the Division of Pulmonary, Allergy, and Rheumatology Products via e-mail on June 12, 2014. At that time we also requested additional information or concerns that could inform our review. Per e-mail correspondence from the DPARP on June 16, 2014, they stated no additional concerns with the proposed proprietary name, Mitigare.

3 CONCLUSIONS

The proposed proprietary name is acceptable from both a promotional and safety perspective.

If you have further questions or need clarifications, please contact Sarah Harris, OSE project manager, at (240)- 402-4774.

3.1 COMMENTS TO THE APPLICANT

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

If any of the proposed product characteristics as stated in your April 15, 2014, submission are altered, the name must be resubmitted for review.

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.

APPENDICES

Appendix A

FDA's Proprietary Name Risk Assessment considers the promotional and safety aspects of a proposed proprietary name.

1. **Promotional Assessment:** For prescription drug products, the promotional review of the proposed name is conducted by OPDP. For over-the-counter (OTC) drug products, the promotional review of the proposed name is conducted by DNCE. OPDP or DNCE evaluates proposed proprietary names to determine if they are overly fanciful, so as to misleadingly imply unique effectiveness or composition, as well as to assess whether they contribute to overstatement of product efficacy, minimization of risk, broadening of product indications, or making of unsubstantiated superiority claims. OPDP or DNCE 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.²

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

| | Affirmative answers to these questions indicate a potential area of concern. |
|-----|---|
| Y/N | Does the name have obvious Similarities in Spelling and Pronunciation to other Names? |
| Y/N | Are there Manufacturing Characteristics in the Proprietary Name? |
| Y/N | Are there Medical and/or Coined Abbreviations in the Proprietary Name? |
| Y/N | Are there Inert or Inactive Ingredients referenced in the Proprietary Name? |
| Y/N | Does the Proprietary Name include combinations of Active Ingredients |
| Y/N | Is there a United States Adopted Name (USAN) Stem in the Proprietary Name? |
| Y/N | Is this the same Proprietary Name for Products containing Different Active Ingredients? |
| Y/N | Is this a Proprietary Name of a discontinued product? |

² National Coordinating Council for Medication Error Reporting and Prevention.
<http://www.nccmerp.org/aboutMedErrors.html>. Last accessed 10/11/2007.

- 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 $\geq 70\%$.
 - Moderately similar pair: combined match percentage score $\geq 50\%$ to $\leq 69\%$.
 - Low similarity: combined match percentage score $\leq 49\%$.

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. Based on our root cause analysis of post marketing experience errors, we find the expression of strength and dose, which is often located in close proximity to the drug name itself on prescriptions and medication orders, is an important factor in mitigating or potentiating confusion between similarly named drug pairs. The ability of other product characteristics to mitigate confusion is limited (e.g., route, frequency, dosage form, etc.).

- For highly similar names, there is little that can mitigate a medication error, including product differences such as strength and dose. Thus, proposed proprietary names that have a combined score of ≥ 70 percent are likely to be rejected by FDA. (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, 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 (e.g., route, frequency, dosage form, etc.) to mitigate confusion may be limited when the strength or dose overlaps. FDA will review these 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 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 (See Table 5).

- 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 $\geq 70\%$).

| Answer the questions in the checklist below. Affirmative answers to 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 do not share a common strength or dose (see Step 1 of the Moderately Similar Checklist). | | | |
|--|---|---------------------------|---|
| <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 <i>z</i> and <i>f</i>), 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 $\geq 50\%$ to $\leq 69\%$).

| | |
|---------------|--|
| <p>Step 1</p> | <p>Review the DOSAGE AND ADMINISTRATION and HOW SUPPLIED/STORAGE AND HANDLING sections of the prescribing information (or for OTC drugs refer to the Drug Facts label) to determine if strengths and doses of the name pair overlap or are very similar. Different strengths and doses for products whose names are moderately similar may decrease the risk of confusion between the moderately similar name pairs. Name pairs that have overlapping or similar strengths have a higher potential for confusion and should be evaluated further (see Step 2).</p> <p>For single strength products, also consider circumstances where the strength may not be expressed.</p> <p>For any combination drug products, consider whether the strength or dose may be expressed using only one of the components.</p> <p>To determine whether the strengths or doses are similar to your proposed product, consider the following list of factors that may increase confusion:</p> <ul style="list-style-type: none"> ○ 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 |
| <p>Step 2</p> | <p>Answer the questions in the checklist below. Affirmative answers to these questions suggest that the pattern of orthographic or phonetic differences in the names may render the names less likely to confusion between moderately similar names with overlapping or similar strengths or doses.</p> |

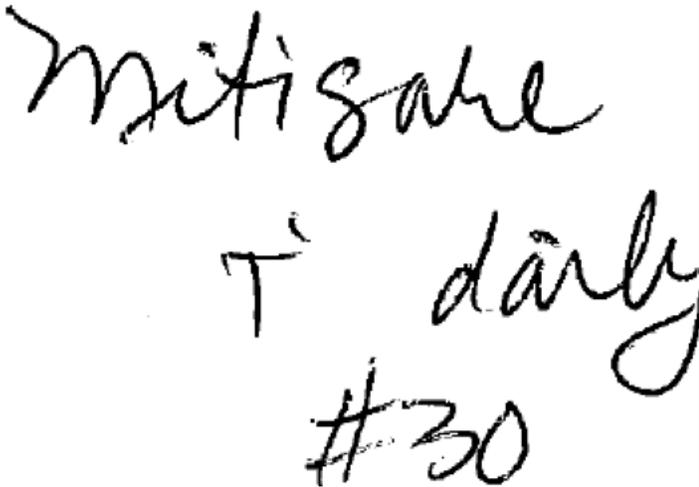
| | |
|--|--|
| <p>Orthographic Checklist (Y/N to each question)</p> <ul style="list-style-type: none"> • Do the names begin with different first letters? <p>Note that even when names begin with different first letters, certain letters may be confused with each other when scripted.</p> <ul style="list-style-type: none"> • Are the lengths of the names dissimilar* when scripted? <p>*FDA considers the length of names different if the names differ by two or more letters.</p> <ul style="list-style-type: none"> • Considering variations in scripting of some letters (such as <i>z</i> and <i>f</i>), 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? | <p>Phonetic Checklist (Y/N to each question)</p> <ul style="list-style-type: none"> • Do the names have different number of syllables? • Do the names have different syllabic stresses? • Do the syllables have different phonologic processes, such as 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 $\leq 49\%$).

In most circumstances, these names are viewed as sufficiently different to minimize confusion. Exceptions to this would occur in circumstances where there are data that suggest a name with low similarity might be vulnerable to confusion with your proposed name (for example, misinterpretation of the proposed name as a marketed product 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. Mitigare Study (Conducted on April 30, 2014)

| Handwritten Requisition Medication Order | Verbal Prescription |
|---|--|
| <p><u>Medication Order:</u> </p> | |
| <p><u>Outpatient Prescription:</u> </p> | <p>Mitigare #30 i QD</p> |

FDA Prescription Simulation Responses (Aggregate 1 Rx Studies Report)

274 People Received Study
116 People Responded

Study Name: Mitigare

| | Total | 44 | 33 | 39 | |
|-----------------------|-------------------|--------------|------------------|--------------|--|
| INTERPRETATION | OUTPATIENT | VOICE | INPATIENT | TOTAL | |
| ;MITIGARE | 1 | 0 | 0 | 1 | |
| MATIGURE | 0 | 0 | 1 | 1 | |
| MEDAGARE | 0 | 1 | 0 | 1 | |
| MEDAIGARA | 0 | 1 | 0 | 1 | |
| MEDIGARA | 0 | 1 | 0 | 1 | |
| MEDIGARAY | 0 | 2 | 0 | 2 | |
| MEDIGARE | 0 | 6 | 0 | 6 | |
| MEDIGARI | 0 | 1 | 0 | 1 | |
| MEDIGARRE | 0 | 1 | 0 | 1 | |
| METAGARAY | 0 | 3 | 0 | 3 | |
| METIGARE | 0 | 0 | 3 | 3 | |
| METIGURE | 0 | 0 | 1 | 1 | |
| MIDAGARAY | 0 | 1 | 0 | 1 | |
| MIDIGARA | 0 | 1 | 0 | 1 | |
| MIDIGARAY | 0 | 3 | 0 | 3 | |
| MIDIGARE | 0 | 3 | 0 | 3 | |
| MINAGARAY | 0 | 1 | 0 | 1 | |
| MITGURE | 0 | 0 | 1 | 1 | |
| MITIGARE | 27 | 5 | 16 | 48 | |
| MITIGURE | 0 | 0 | 16 | 16 | |
| MITISANE | 1 | 0 | 0 | 1 | |
| MITISARE | 14 | 0 | 0 | 14 | |
| MITIZARE | 1 | 0 | 0 | 1 | |
| NITIGURE | 0 | 0 | 1 | 1 | |
| VIDIGARAY | 0 | 2 | 0 | 2 | |
| VITIGARE | 0 | 1 | 0 | 1 | |

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

| No. | Proposed name: Strength(s): Usual Dose: | POCA Score (%) | Orthographic and/or phonetic differences in the names sufficient to prevent confusion |
|-----|---|-------------------|---|
| 1. | Mitigare | 100 | Proposed proprietary name subject of this review. |

Appendix D: Moderately Similar Names (i.e., combined POCA score is $\geq 50\%$ to $\leq 69\%$) with no overlap or numerical similarity in Strength and/or Dose

| No. | Proposed Name | POCA Score (%) |
|-----|---------------|-------------------|
| 1. | Metadate | 68 |
| 2. | Otic care | 64 |
| 3. | (b) (4) *** | 66 |
| 4. | Vesicare | 64 |
| 5. | Mycinaire | 62 |
| 6. | Methadose | 60 |
| 7. | Micaderm | 59 |
| 8. | Matulane | 58 |
| 9. | Megace | 58 |
| 10. | Recticare | 58 |
| 11. | Aplicare | 56 |
| 12. | Masiviera*** | 56 |
| 13. | Megatope | 56 |
| 14. | Methagual | 56 |
| 15. | Amitiza | 55 |
| 16. | Medicort | 55 |
| 17. | Mafenide | 54 |
| 18. | Maxivate | 54 |

| | | |
|-----|--------------|----|
| 19. | Medicaine | 54 |
| 20. | Medidiol 10 | 54 |
| 21. | Metrogel | 54 |
| 22. | Micro-guard | 54 |
| 23. | Multitrace-4 | 54 |
| 24. | Multitrace-5 | 54 |
| 25. | Neutragard | 53 |
| 26. | Menostar | 52 |
| 27. | Methacort 40 | 52 |
| 28. | Methacort 80 | 52 |
| 29. | Methimazole | 52 |
| 30. | Minivelle | 52 |
| 31. | Mitrazol | 52 |
| 32. | (b) (4) *** | 52 |
| 33. | Maxair | 51 |
| 34. | (b) (4) *** | 51 |
| 35. | Micardis | 51 |
| 36. | Minipress | 51 |
| 37. | Mycomar | 51 |
| 38. | Mag-tab SR | 50 |
| 39. | Maltose | 50 |
| 40. | Medidex | 50 |
| 41. | Medipred | 50 |
| 42. | Metadate CD | 50 |
| 43. | Mexar | 50 |
| 44. | Miconazole 3 | 50 |
| 45. | Miconazole 7 | 50 |
| 46. | Microderm | 50 |
| 47. | Minitabs | 50 |
| 48. | Mintuss DR | 50 |
| 49. | Misodel*** | 50 |

Appendix E: Moderately Similar Names (i.e., combined POCA score is $\geq 50\%$ to $\leq 69\%$) with overlap or numerical similarity in Strength and/or Dose

| No. | Proposed name: Mitigare Strength(s): 0.6 mg Usual Dose: 1-2 tablets or 0.6 mg to 1.2 mg once daily | POCA Score (%) | Prevention of Failure Mode In the conditions outlined below, the following combination of factors, are expected to minimize the risk of confusion between these two names |
|-----|---|-------------------|---|
| 1. | Mitotane | 66 | <p>Orthographic: The infixes of this name pair provide sufficient orthographic differences.</p> <p>Phonetic: The name have different number of syllables (Mitigare has two vs. Mitotane has three). Mitigare has the additional ‘ga’ sounds vs. Mitotane has the additional middle sound ‘t’.</p> |
| 2. | Metadate ER | 63 | <p>Orthographic: The suffixes of this name pair provide sufficient orthographic differences.</p> <p>Phonetic: Metadate has two different sounds with ‘da’ and ‘te’ that is not found in Mitigare.</p> |
| 3. | Mytelase | 60 | <p>Orthographic: The infix in Mytelase has a downstroke (y) which is absent from Mitigare. Mytelase has an additional upstroke with ‘l’ which is absent with Mitigare.</p> <p>Phonetic: The ending sounds ‘gare’ vs ‘lase’ sounds different when spoken.</p> |
| 4. | Medicone | 58 | <p>Orthographic: The suffixes of this name pair provide sufficient orthographic differences.</p> <p>Phonetic: The first and last syllables in the name pair sounds different when spoken.</p> |
| 5. | Mytab Gas | 57 | <p>Orthographic: The length of this name pair is dissimilar when scripted. Mytab without the modifier has five letters compared to Mitigare with eight letters.</p> <p>Phonetic: The ending sounds ‘gare’ vs. ‘tab’ sounds different when spoken.</p> |

| | | | |
|-----|-----------|----|---|
| 6. | Methadone | 56 | <p>Strength: Proposed product is available in two different strengths.</p> <p>Orthographic: The infixes and suffixes of this name pair have sufficient orthographic differences.</p> <p>Phonetic: The ending sounds ‘gare’ vs. ‘done’ sounds different when spoken.</p> |
| 7. | Midamor | 56 | <p>Orthographic: The suffixes of this name pair have sufficient orthographic differences.</p> <p>Phonetic: The ending sounds ‘gare’ vs. ‘mor’ sounds different when spoken. Additionally, it has a ‘da’ middle sound compared to ‘ti’ middle sound.</p> |
| 8. | Magonate | 55 | <p>Orthographic: The suffixes of this name pair provide sufficient orthographic differences.</p> <p>Phonetic: The ending sounds ‘gare’ vs. ‘done’ sounds different when spoken.</p> |
| 9. | Medivert | 54 | <p>Orthographic: The infixes and suffixes of this name pair have sufficient orthographic differences.</p> <p>Phonetic: The ending sounds ‘gare’ vs. ‘very’ sounds different when spoken.</p> |
| 10. | Mitride | 54 | <p>Orthographic: The suffixes of this name pair have sufficient orthographic differences.</p> <p>Phonetic: The ending sounds ‘gare vs. ‘ide’ sounds different when spoken.</p> |
| 11. | Manganese | 52 | <p>Orthographic: The suffixes of this name pair have sufficient orthographic differences.</p> <p>Phonetic: The ending sounds ‘gare vs. ‘nese’ sounds different when spoken.</p> |
| 12. | Mexitil | 52 | <p>Orthographic: The suffixes of this name pair have sufficient orthographic differences.</p> <p>Phonetic: The ending sounds ‘gare’ vs. ‘til’ sounds different when spoken.</p> |

| | | | |
|-----|------------|----|---|
| 13. | Migrazone | 52 | <p>Orthographic: The infixes and suffixes of this name pair have sufficient orthographic differences.</p> <p>Phonetic: The ending sounds 'gare vs. 'zone' sounds different when spoken.</p> |
| 14. | Migrex | 52 | <p>Orthographic: The infixes and suffixes of this name pair have sufficient orthographic differences.</p> <p>Phonetic: The ending sounds 'gare vs. 'rex' sounds different when spoken.</p> |
| 15. | Multigen | 52 | <p>Orthographic: The infixes and suffixes of this name pair have sufficient orthographic differences.</p> <p>Phonetic: The ending sounds 're' vs. 'en' sounds different when spoken.</p> |
| 16. | Maldemar | 50 | <p>Orthographic: The infixes and suffixes of this name pair have sufficient orthographic differences.</p> <p>Phonetic: The ending sounds 'gare' vs. 'mar' sounds different when spoken.</p> |
| 17. | Miconazole | 50 | <p>Orthographic: The length of this name pair is dissimilar when scripted. Miconazole has ten letters compared to Mitigare with eight letters.</p> <p>Phonetic: The ending sounds 'gare' vs. 'zole' sounds different when spoken.</p> |
| 18. | Mevacor | 50 | <p>Orthographic: The infixes and suffixes of this name pair have sufficient orthographic differences.</p> <p>Phonetic: The middle sounds 'tig' vs. 'va' and the ending sounds 'gare' vs. 'cor' sounds different when spoken.</p> |
| 19. | Migratine | 50 | <p>Orthographic: The infixes and suffixes of this name pair have sufficient orthographic differences.</p> <p>Phonetic: The middle sounds 'tig' vs. 'gra' and the ending sounds 'gare' vs. 'tine' sounds different when spoken.</p> |

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. | Meti-Derm | 67 | Discontinued product with no generic equivalent available. |
| 2. | Denti Care | 66 | Name found in RxNorm. No product characteristics available in common drug references. |
| 3. | Tussicare*** | 64 | Name identified in 'Name entered by safety evaluator' database. Unable to find this name in any internal database. |
| 4. | Meditize | 63 | Name found in RxNorm. No product characteristics available in common drug references. |
| 5. | Metazone | 62 | Name found in RxNorm. No product characteristics available in common drug references. |
| 6. | (b) (4) *** | 62 | Proposed name for IND (b) (4) found unacceptable by DMEPA (OSE#2012-1196). Applicant has not submitted another name. |
| 7. | Epicare | 60 | Name found in RxNorm. No product characteristics available in common drug references. |
| 8. | Neutracare | 60 | Discontinued product with no generic equivalent available. |
| 9. | Septicare | 60 | Name found in RxNorm. No product characteristics available in common drug references. |
| 10. | Matmate | 59 | Name found in RxNorm. No product characteristics available in common drug references. |
| 11. | (b) (4) *** | 59 | Name identified in 'Name entered by |

| | | | |
|-----|-------------|----|--|
| | | | safety evaluator' database. Unable to find this name in any internal database. |
| 12. | Masti-Clear | 58 | Name found in RxNorm. No product characteristics available in common drug references. |
| 13. | (b) (4) *** | 58 | Proposed name for IND (b) (4) found unacceptable by DMEPA (OSE#2012-57). Applicant has not submitted another name. |
| 14. | (b) (4) *** | 58 | Name identified in 'Name entered by safety evaluator' database. Unable to find this name in any internal database. |
| 15. | Nitrogard | 58 | Discontinued product with no generic equivalent available. |
| 16. | Lacticare | 57 | Discontinued product with no generic equivalent available. |
| 17. | Minogal | 57 | Name found in RxNorm. No product characteristics available in common drug references. |
| 18. | Barri-Care | 56 | Name found in RxNorm. No product characteristics available in common drug references. |
| 19. | Magagel | 56 | Discontinued product with no generic equivalent available. |
| 20. | Metaprel | 56 | Discontinued product with no generic equivalent available. |
| 21. | Metomidate | 56 | Name found in RxNorm. No product characteristics available in common drug references. |
| 22. | (b) (4) *** | 56 | Name identified in 'Name entered by safety evaluator' database. Proposed NDA (b) (4) has a 'refuse to file' status in DARRTS. If the applicant were to resubmit this application, this name would be evaluated at that time. |
| 23. | Minidiab | 56 | Name found in RxNorm. No product characteristics available in common drug references. |

| | | | |
|-----|-------------|----|---|
| 24. | Oto Care | 56 | Name found in RxNorm. No product characteristics available in common drug references. |
| 25. | Pediacare | 56 | Name found in RxNorm. No product characteristics available in common drug references. |
| 26. | Sensi-Care | 56 | Name found in RxNorm. No product characteristics available in common drug references. |
| 27. | Meritate | 55 | Name found in RxNorm. No product characteristics available in common drug references. |
| 28. | Minizide | 55 | Discontinued product with no generic equivalent available. |
| 29. | Motifene | 55 | Name found in RxNorm. No product characteristics available in common drug references. |
| 30. | Calcitare | 54 | Name found in RxNorm. No product characteristics available in common drug references. |
| 31. | Gingicare | 54 | Name found in RxNorm. No product characteristics available in common drug references. |
| 32. | Meijer | 54 | Name found in RxNorm. No product characteristics available in common drug references. |
| 33. | Metazem | 54 | Name found in RxNorm. No product characteristics available in common drug references. |
| 34. | Metronidale | 54 | Name found in RxNorm. No product characteristics available in common drug references. |
| 35. | Muslecare | 54 | Name found in RxNorm. No product characteristics available in common drug references. |
| 36. | Panakare | 54 | Name found in RxNorm. No product characteristics available in common drug references. |
| 37. | Mectizan | 53 | Name found in RxNorm. No product characteristics available in common |

| | | | |
|-----|-------------|----|---|
| | | | drug references. |
| 38. | Meticorten | 53 | Discontinued product with no generic equivalent available. |
| 39. | Micronase | 53 | Discontinued product with no generic equivalent available. |
| 40. | Minidyne | 53 | Discontinued product with no generic equivalent available. |
| 41. | Femcare | 52 | Discontinued product with no generic equivalent available. |
| 42. | Folicare | 52 | Name found in RxNorm. No product characteristics available in common drug references. |
| 43. | Immiticide | 52 | Name found in RxNorm. No product characteristics available in common drug references. |
| 44. | Ivercare | 52 | Name found in RxNorm. No product characteristics available in common drug references. |
| 45. | Medi-Quik | 52 | Discontinued product with no generic equivalent available. |
| 46. | Metacam | 52 | Name found in RxNorm. No product characteristics available in common drug references. |
| 47. | Metaglip | 52 | Discontinued product with no generic equivalent available. |
| 48. | Metimyd | 52 | Discontinued product with no generic equivalent available. |
| 49. | (b) (4) *** | 52 | Name identified in 'Name entered by safety evaluator' database. Unable to find this name in any internal database. |
| 50. | Micaved | 52 | Name found in RxNorm. No product characteristics available in common drug references. |
| 51. | (b) (4) *** | 52 | Name identified in 'Name entered by safety evaluator' database. Unable to find this name in any internal database. |

| | | | |
|-----|-------------|----|---|
| 52. | Minica | 52 | Name found in RxNorm. No product characteristics available in common drug references. |
| 53. | Murine Ear | 52 | Discontinued product with no generic equivalent available. |
| 54. | Myciguent | 52 | Discontinued product with no generic equivalent available. |
| 55. | Renakare | 52 | Name found in RxNorm. No product characteristics available in common drug references. |
| 56. | Soft Care | 52 | Name found in RxNorm. No product characteristics available in common drug references. |
| 57. | Metandren | 51 | Discontinued product with no generic equivalent available. |
| 58. | Della Care | 50 | Name found in RxNorm. No product characteristics available in common drug references. |
| 59. | Ecocare | 50 | Name found in RxNorm. No product characteristics available in common drug references. |
| 60. | Ecocare 250 | 50 | Name found in RxNorm. No product characteristics available in common drug references. |
| 61. | Ecocare 350 | 50 | Name found in RxNorm. No product characteristics available in common drug references. |
| 62. | Ecocare 370 | 50 | Name found in RxNorm. No product characteristics available in common drug references. |
| 63. | Encare | 50 | Discontinued product with no generic equivalent available. |
| 64. | Madopar | 50 | Name found in RxNorm. No product characteristics available in common drug references. |
| 65. | Magtrate | 50 | Discontinued product with no generic equivalent available. |
| 66. | Mantadine | 50 | Name found in RxNorm. No product characteristics available in common |

| | | | |
|-----|------------|----|---|
| | | | drug references. |
| 67. | Mata Balm | 50 | Name found in RxNorm. No product characteristics available in common drug references. |
| 68. | Mazanor | 50 | Discontinued product with no generic equivalent available. |
| 69. | Medipren | 50 | Discontinued product with no generic equivalent available. |
| 70. | Menadione | 50 | Discontinued product with no generic equivalent available. |
| 71. | Menfegol | 50 | Name found in RxNorm. No product characteristics available in common drug references. |
| 72. | Mepergan | 50 | Discontinued product with no generic equivalent available. |
| 73. | Metacresol | 50 | Name found in RxNorm. No product characteristics available in common drug references. |
| 74. | Methadex | 50 | Discontinued product with no generic equivalent available. |
| 75. | Methixene | 50 | Name found in RxNorm. No product characteristics available in common drug references. |
| 76. | Mexate | 50 | Discontinued product with no generic equivalent available. |
| 77. | Micotil | 50 | Name found in RxNorm. No product characteristics available in common drug references. |
| 78. | MigraTen | 50 | Discontinued product with no generic equivalent available. |
| 79. | Mi-Omega | 50 | Discontinued product with no generic equivalent available. |
| 80. | Moist SURE | 50 | Name found in RxNorm. No product characteristics available in common drug references. |
| 81. | Motion-Aid | 50 | Name found in RxNorm. No product characteristics available in common drug references. |
| 82. | Mydrilate | 50 | Name found in RxNorm. No product |

| | | | |
|-----|----------|----|---|
| | | | characteristics available in common drug references. |
| 83. | NexGard | 50 | Name found in RxNorm. No product characteristics available in common drug references. |
| 84. | Sebucare | 50 | Discontinued product with no generic equivalent available. |

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

| No. | Proposed Name | POCA Score (%) |
|-----|---------------|----------------|
| 1. | 3M Avagard | 58 |
| 2. | Benicar | 54 |
| 3. | Bicisate | 54 |
| 4. | Topicale | 54 |
| 5. | Betanate | 53 |
| 6. | Unifiber | 53 |
| 7. | Betapace | 52 |
| 8. | Betapar | 52 |
| 9. | Neptazane | 52 |
| 10. | Nicabate | 52 |
| 11. | Nitetime | 52 |
| 12. | Nitro-par | 52 |
| 13. | Oticair | 52 |
| 14. | Patanase | 52 |
| 15. | Pfizer-E | 52 |
| 16. | Dimetane | 51 |
| 17. | Tinaspore | 51 |
| 18. | Betaderm | 50 |
| 19. | Betagan | 50 |
| 20. | Bidnase | 50 |

| | | |
|-----|-------------|----|
| 21. | Buminate | 50 |
| 22. | Nitro-Dur | 50 |
| 23. | Tapazole | 50 |
| 24. | Tetradure | 50 |
| 25. | Visine L.R. | 50 |

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

/s/

SHERLY ABRAHAM
06/18/2014

LUBNA A MERCHANT
06/18/2014

**Department of Health and Human Services
Public Health Service
Food and Drug Administration
Center for Drug Evaluation and Research
Office of Surveillance and Epidemiology
Office of Medication Error Prevention and Risk Management**

Proprietary Name Review--Final

Date: May 1, 2013

Reviewer(s): Lissa C. Owens, PharmD
Division of Medication Error Prevention and Analysis

Team Leader: Lubna Merchant, M.S., PharmD
Division of Medication Error Prevention and Analysis

Drug Name(s) and Strength(s): Mitigare (Colchicine) Capsules, 0.6 mg

Application Type/Number: NDA 204820

Applicant/sponsor: West-Ward Pharmaceutical Corp.

OSE RCM #: 2013-626

*** This document contains proprietary and confidential information that should not be released to the public.***

CONTENTS

| | | |
|---|-----------------------------|---|
| 1 | INTRODUCTION..... | 3 |
| 2 | METHODS AND DISCUSSION..... | 3 |
| 3 | CONCLUSIONS..... | 3 |
| 4 | REFERENCES..... | 4 |

1 INTRODUCTION

This re-assessment of the proposed proprietary name, Mitigare is written in response to the anticipated approval of this NDA within 90 days from the date of this review. DMEPA found the proposed name, *Mitigare* , acceptable in OSE Review RCM # 2012-2930 dated March 6, 2013.

2 METHODS AND DISCUSSION

For re-assessments of proposed proprietary names, DMEPA searches a standard set of databases and information sources (see section 4) to identify names with orthographic and phonetic similarity to the proposed name that have been approved since the previous OSE proprietary name review. For this review we used the same search criteria described in OSE Review RCM # 2012-2930. We note that none of the proposed product characteristics were altered. However, we evaluated the previously identified names of concern considering any lessons learned from recent post-marketing experience, which may have altered our previous conclusion regarding the acceptability of the proposed proprietary name. The searches of the databases yielded no new names, thought to look or sound similar to Mitigare and represent a potential source of drug name confusion.

Additionally, DMEPA searched the USAN stem list to determine if the name contains any USAN stems as of the last USAN updates. The Safety Evaluator did not identify any United States Adopted Names (USAN) stems in the proposed proprietary name, as of April 30, 2013.

3 CONCLUSIONS

The re-evaluation of the proposed proprietary name, Mitigare, did not identify any vulnerability that would result in medication errors with any additional names. Thus, DMEPA has no objection to the proprietary name, Mitigare, for this product at this time.

DMEPA considers this a final review; however, if approval of the NDA is delayed beyond 90 days from the date of this review, the Division of Pulmonary, Allergy, and Rheumatology Products, should notify DMEPA because the proprietary name must be re-reviewed prior to the new approval date.

If you have further questions or need clarifications, please contact Nichelle Rashid, OSE project manager, at 301-796-3904.

4 REFERENCES

1. **OSE Reviews** Owens, Lissa., OSE RCM #2012-2930, Proprietary Name Review for Mitigare (NDA 204820), March 6, 2013
2. **Drugs@FDA** (<http://www.accessdata.fda.gov/scripts/cder/drugsatfda/index.cfm>)
Drugs@FDA contains most of the drug products approved 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](#), [generic drugs](#), [therapeutic biological products](#), [prescription](#) and [over-the-counter](#) human drugs and [discontinued drugs](#) and “[Chemical Type 6](#)” approvals.
3. **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.
4. **Division of Medication Error Prevention and Analysis Proprietary Name Consultation Request**
Compiled list of proposed proprietary names submitted to the Division of Medication Error Prevention and Analysis for review. The list is generated on a weekly basis from the Access database/tracking system.

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

/s/

LISSA C OWENS
05/01/2013

LUBNA A MERCHANT
05/02/2013

**Department of Health and Human Services
Public Health Service
Food and Drug Administration
Center for Drug Evaluation and Research
Office of Surveillance and Epidemiology
Office of Medication Error Prevention and Risk Management**

Proprietary Name Review

Date: March 6, 2013

Reviewer(s): Lissa C. Owens, PharmD
Division of Medication Error Prevention and Analysis

Team Leader: Lubna Merchant, M.S., PharmD
Division of Medication Error Prevention and Analysis

Division Director: Carol Holquist, RPh
Division of Medication Error Prevention and Analysis

Drug Name(s) and Strength(s): Mitigare (Colchicine) Capsules, 0.6 mg

Application Type/Number: NDA 204820

Applicant/Sponsor: West-Ward Pharmaceutical Corp.

OSE RCM #: 2012-2930

*** This document contains proprietary and confidential information that should not be released to the public.***

CONTENTS

| | | |
|-----|--------------------------------|---|
| 1 | INTRODUCTION..... | 1 |
| 1.1 | Regulatory History..... | 1 |
| 1.2 | Product Information..... | 1 |
| 2.2 | Safety Assessment..... | 2 |
| 2 | CONCLUSIONS..... | 3 |
| 2.1 | Comments to the Applicant..... | 4 |
| 3 | REFERENCES..... | 5 |
| | APPENDICES..... | 8 |

1 INTRODUCTION

This review evaluates the proposed proprietary name, Mitigare, from a safety and promotional perspective. The sources and methods used to evaluate the proposed name are outlined in the reference section and Appendix A respectively.

1.1 REGULATORY HISTORY

The proposed product is a 505(b)(2) application. The RLD is Colcrys, NDA 022351 which was approved on July 30, 2009. Colchicine was marketed as an unapproved drug product for several years prior to approval.

The proposed name, (b) (4) was reviewed previously for this product and found unacceptable. A teleconference was held on November 14, 2012 to inform the Applicant of our concerns and (b) (4) was withdrawn. Subsequently, the Applicant submitted the name Mitigare for our evaluation.

1.2 PRODUCT INFORMATION

The following product information is provided in the December 12, 2012 proprietary name submission.

- Active Ingredient: Colchicine
- Indication of Use: Prophylaxis of gout flares
- Route of Administration: Oral
- Dosage Form: Capsules
- Strength: 0.6 mg
- Dose and Frequency: 1 to 2 capsules per day
- How Supplied: Bottles of 100 capsules and bottles of 1000 capsules
- Storage: 20°C to 25°C (68°F to 77°F)

2. RESULTS

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

2.1 PROMOTIONAL ASSESSMENT

The Office of Prescription Drug Promotion OPDP determined the proposed name is acceptable from a promotional perspective. The Division of Pulmonary, Allergy and Rheumatology Products concurred with the initial findings of OPDP's promotional assessment of the proposed name.

However, DMEPA expressed concerns that the proposed proprietary name might imply "mitigate" which is defined as to mitigate, to soothe, or relieve and overstate the efficacy of the drug product. OPDP responded on December 20, 2012 to DMEPA's concern stating that they did consider the meaning of 'Mitigare' in their evaluation. They did not believe the name implied mitigate and did not feel that the name overstates the efficacy

of this product for the proposed indication. DMEPA aligned with OPDP and the Division.

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

The December 17, 2012 search of the United States Adopted Name (USAN) stems did not identify that a USAN stem is present in the proposed proprietary name.

2.2.2 Components of the Proposed Proprietary Name

The Applicant indicated in their submission that the proposed name, Mitigare, is a derivative of release and the intended meaning is mitigate. This derivation was provided to OPDP for consideration in their analysis of the promotional aspects of this name. DMEPA notes that this proprietary name is comprised of a single word that is not comprised of or contain components (i.e. a modifier, route of administration, dosage form, dosing interval) that are misleading or can contribute to medication error.

2.2.4 FDA Name Simulation Studies

Eighty-three practitioners participated in DMEPA's prescription studies. The interpretations did not overlap with any currently marketed products. Additionally, the interpretations did not appear or sound similar to any currently marketed products or products in the pipeline. Forty-four (inpatient: n=25, outpatient: n=19) participants interpreted the name correctly as Mitigare, Ten (voice n=10) participants interpreted the name as Medigar, and Eight (inpatient: n=1, voice: n=7) participants interpreted the name as Mitigar. See Appendix C for the complete listing of interpretations from the verbal and written prescription studies.

2.2.5 Comments from Other Review Disciplines

In response to the OSE, January 17, 2013 e-mail, the Division of Pulmonary, Allergy and Rheumatology Products (DPARP) did not forward any comments or concerns relating to the proposed name at the initial phase of the proprietary name review.

2.2.6 Failure Mode and Effects Analysis of Similar Names

Appendix B lists possible orthographic and phonetic misinterpretations of the letters appearing in the proposed proprietary name, Mitigare. Table 1 lists the names with orthographic, phonetic, or spelling similarity to the proposed proprietary name, Mitigare identified by the primary reviewer, the Expert Panel Discussion (EPD), and other review disciplines. Table 1 also includes the names identified from the Applicant's Assessment not identified by DMEPA and that require further evaluation.

| Table 1: Collective List of Potentially Similar Names (DMEPA, EPD, Other Disciplines, and External Name Study) | | | | | |
|---|---------------|-------------|---------------|-------------|---------------|
| Look Similar | | | | | |
| <i>Name</i> | <i>Source</i> | <i>Name</i> | <i>Source</i> | <i>Name</i> | <i>Source</i> |
| Mitosol | Both | Mitogard | DMEPA | Mitrazol | DMEPA |
| Mifeprex | DMEPA | Metaglip | DMEPA | Amitiza | DMEPA |
| Mitiglinide*** | DMEPA | Mutifol | DMEPA | Natzim LA | DMEPA |
| Motofen | DMEPA | Metaprel | DMEPA | Millipred | DMEPA |
| Milpan | DMEPA | Methergine | DMEPA | Methylin | DMEPA |
| Metrogel | DMEPA | Mitoquinone | DMEPA | Mitotane | DMEPA |
| Vitacare | DMEPA | Maxidone | DMEPA | Mefoxin | DMEPA |
| Mirapex | DMEPA | (b) (4) *** | DMEPA | Metopirone | DMEPA |
| Witepsol | DMEPA | Natazia | DMEPA | Nitrogard | DMEPA |
| Zelapar | DMEPA | Meclizine | DMEPA | Multigen | DMEPA |
| Sound Similar | | | | | |
| Vesicare | DMEPA | | | | |

Our analysis of the thirty-one names contained in Table 1 considered the information obtained in the previous sections along with their product characteristics. We determined that there were no names that would pose a risk for confusion as described in Appendices D through E.

2.2.7 Communication of DMEPA’s Final Decision to Other Disciplines

DMEPA communicated our findings to the Division of Pulmonary, Allergy and Rheumatology Products via e-mail on February 4, 2013. At that time we also requested additional information or concerns that could inform our review. Per e-mail correspondence from the Division of Pulmonary, Allergy and Rheumatology Products on February 4, 2013, they stated no additional concerns with the proposed proprietary name, Mitigare.

2 CONCLUSIONS

The proposed proprietary name is acceptable from both a promotional and safety perspective.

If you have further questions or need clarifications, please contact Nichelle Rashid, OSE project manager, at 301-796-3904.

2.1 COMMENTS TO THE APPLICANT

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

The proposed proprietary name will be re-reviewed 90 days prior to approval of the NDA. The results are subject to change. If any of the proposed product characteristics as stated in your December 12, 2012 submission are altered, the name must be resubmitted for review.

3 REFERENCES

1. ***Micromedex Integrated Index*** (<http://csi.micromedex.com>)

Micromedex contains a variety of databases covering pharmacology, therapeutics, toxicology and diagnostics.

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

POCA is a database which was created for the Division of Medication Error Prevention and Analysis, FDA. As part of the name similarity assessment, proposed names are evaluated via a phonetic/orthographic algorithm. The proposed proprietary name is converted into its phonemic representation before it runs through the phonetic algorithm. Likewise, an orthographic algorithm exists which operates in a similar fashion.

3. ***Drug Facts and Comparisons, online version, St. Louis, MO***
(<http://factsandcomparisons.com>)

Drug Facts and Comparisons is a compendium organized by therapeutic course; it contains monographs on prescription and OTC drugs, with charts comparing similar products. This database also lists the orphan drugs.

4. ***FDA Document Archiving, Reporting & Regulatory Tracking System [DARRTS]***

DARRTS is a government database used to organize Applicant and Sponsor submissions as well as to store and organize assignments, reviews, and communications from the review divisions.

5. ***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.

6. ***Drugs@FDA*** (<http://www.accessdata.fda.gov/scripts/cder/drugsatfda/index.cfm>)

Drugs@FDA contains most of the drug products approved 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, generic drugs, therapeutic biological products, prescription and over-the-counter human drugs and discontinued drugs and "Chemical Type 6" approvals.

7. ***U.S. Patent and Trademark Office*** (<http://www.uspto.gov>)

USPTO provides information regarding patent and trademarks.

8. ***Clinical Pharmacology Online*** (www.clinicalpharmacology-ip.com)

Clinical Pharmacology contains full monographs for the most common drugs in clinical use, plus mini monographs covering investigational, less common,

combination, nutraceutical and nutritional products. It also provides a keyword search engine.

9. Data provided by Thomson & Thomson's SAEGIS™ Online Service, available at (www.thomson-thomson.com)

The Pharma In-Use Search database contains over 400,000 unique pharmaceutical trademarks and trade names that are used in about 50 countries worldwide. The data is provided under license by IMS HEALTH.

10. Natural Medicines Comprehensive Databases (www.naturaldatabase.com)

Natural Medicines contains up-to-date clinical data on the natural medicines, herbal medicines, and dietary supplements used in the western world.

11. Access Medicine (www.accessmedicine.com)

Access Medicine® from McGraw-Hill contains full-text information from approximately 60 titles; it includes tables and references. Among the titles are: Harrison's Principles of Internal Medicine, Basic & Clinical Pharmacology, and Goodman and Gilman's The Pharmacologic Basis of Therapeutics.

12. USAN Stems (<http://www.ama-assn.org/ama/pub/about-ama/our-people/coalitions-consortiums/united-states-adopted-names-council/naming-guidelines/approved-stems.shtml>)

USAN Stems List contains all the recognized USAN stems.

13. Red Book (www.thomsonhc.com/home/dispatch)

Red Book contains prices and product information for prescription, over-the-counter drugs, medical devices, and accessories.

14. Lexi-Comp (www.lexi.com)

Lexi-Comp is a web-based searchable version of the Drug Information Handbook.

15. Medical Abbreviations (www.medilexicon.com)

Medical Abbreviations dictionary contains commonly used medical abbreviations and their definitions.

16. CVS/Pharmacy (www.CVS.com)

This database contains commonly used over the counter products not usually identified in other databases.

17. Walgreens (www.walgreens.com)

This database contains commonly used over the counter products not usually identified in other databases.

18. Rx List (www.rxlist.com)

RxList is an online medical resource dedicated to offering detailed and current pharmaceutical information on brand and generic drugs.

19. Dogpile (www.dogpile.com)

Dogpile is a [Metasearch](#) engine that searches multiple search engines including Google, Yahoo! and Bing, and returns the most relevant results to the search.

20. Natural Standard (<http://www.naturalstandard.com>)

Natural Standard is a resource that aggregates and synthesizes data on complementary and alternative medicine.

APPENDICES

Appendix A

FDA's Proprietary Name Risk Assessment considers the promotional and safety aspects of a proposed proprietary name. The promotional review of the proposed name is conducted by OPDP. OPDP evaluates proposed proprietary names to determine if they are overly fanciful, so as to misleadingly imply unique effectiveness or composition, as well as to assess whether they contribute to overstatement of product efficacy, minimization of risk, broadening of product indications, or making of unsubstantiated superiority claims. OPDP provides their opinion to DMEPA for consideration in the overall acceptability of the proposed proprietary name.

The safety assessment is conducted by DMEPA. DMEPA staff search a standard set of databases and information sources to identify names that are similar in pronunciation, spelling, and orthographically similar when scripted to the proposed proprietary name. Additionally, 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.). 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.¹

Following the preliminary screening of the proposed proprietary name, DMEPA gathers to discuss their professional opinions on the safety of the proposed proprietary name. This meeting is commonly referred to the Center for Drug Evaluation and Research (CDER) Expert Panel discussion. DMEPA also considers other aspects of the name that may be misleading from a safety perspective. DMEPA staff conducts a prescription simulation studies using FDA health care professionals. 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. DMEPA bases the overall risk assessment on the findings of a Failure Mode and Effects Analysis (FMEA) of the proprietary name and misleading nature of the proposed proprietary name with a focus on the avoidance of medication errors.

DMEPA uses the clinical expertise of its staff to anticipate the conditions of the clinical setting where the product is likely to be used based on the characteristics of the proposed product. DMEPA considers the product characteristics associated with the proposed product throughout the risk assessment because the product characteristics of the

¹ National Coordinating Council for Medication Error Reporting and Prevention.
<http://www.nccmerp.org/aboutMedErrors.html>. Last accessed 10/11/2007.

proposed may provide a context for communication of the drug name and ultimately determine the use of the product in the *usual* clinical practice setting.

Typical product characteristics considered when identifying drug names that could potentially be confused with the proposed proprietary name include, but are not limited to; established name of the proposed product, proposed indication of use, dosage form, route of administration, strength, unit of measure, dosage units, recommended dose, typical quantity or volume, frequency of administration, product packaging, storage conditions, patient population, and prescriber population. DMEPA considers how these product characteristics may or may not be present in communicating a product name throughout the medication use system. Because drug name confusion can occur at any point in the medication use process, DMEPA considers the potential for confusion throughout the entire U.S. medication use process, including drug procurement, prescribing and ordering, dispensing, administration, and monitoring the impact of the medication.²

The DMEPA considers the spelling of the name, pronunciation of the name when spoken, and appearance of the name when scripted. DMEPA compares the proposed proprietary name with the proprietary and established name of existing and proposed drug products and names currently under review at the FDA. DMEPA compares the pronunciation of the proposed proprietary name with the pronunciation of other drug names because verbal communication of medication names is common in clinical settings. DMEPA examines the phonetic similarity using patterns of speech. If provided, DMEPA will consider the Sponsor's intended pronunciation of the proprietary name. However, DMEPA also considers a variety of pronunciations that could occur in the English language because the Sponsor has little control over how the name will be spoken in clinical practice. The orthographic appearance of the proposed name is evaluated using a number of different handwriting samples. DMEPA applies expertise gained from root-cause analysis of postmarketing medication errors to identify sources of ambiguity within the name that could be introduced when scripting (e.g., "T" may look like "F," lower case 'a' looks like a lower case 'u,' etc). Additionally, other orthographic attributes that determine the overall appearance of the drug name when scripted (see Table 1 below for details).

² Institute of Medicine. Preventing Medication Errors. The National Academies Press: Washington DC. 2006.

Table 1. Criteria Used to Identify Drug Names that Look- or Sound-Similar to a Proposed Proprietary Name.

| Type of Similarity | Considerations when Searching the Databases | | |
|---------------------------|--|--|---|
| | <i>Potential Causes of Drug Name Similarity</i> | <i>Attributes Examined to Identify Similar Drug Names</i> | <i>Potential Effects</i> |
| Look-alike | Similar spelling | Identical prefix Identical infix Identical suffix Length of the name Overlapping product characteristics | <ul style="list-style-type: none"> Names may appear similar in print or electronic media and lead to drug name confusion in printed or electronic communication Names may look similar when scripted and lead to drug name confusion in written communication |
| | Orthographic similarity | Similar spelling Length of the name/Similar shape Upstrokes Down strokes Cross-strokes Dotted letters Ambiguity introduced by scripting letters Overlapping product characteristics | <ul style="list-style-type: none"> Names may look similar when scripted, and lead to drug name confusion in written communication |
| Sound-alike | Phonetic similarity | Identical prefix Identical infix Identical suffix Number of syllables Stresses Placement of vowel sounds Placement of consonant sounds Overlapping product characteristics | <ul style="list-style-type: none"> Names may sound similar when pronounced and lead to drug name confusion in verbal communication |

Lastly, DMEPA considers the potential for the proposed proprietary name to inadvertently function as a source of error for reasons other than name confusion. Post-marketing experience has demonstrated that proprietary names (or components of the proprietary name) can be a source of error in a variety of ways. Consequently, DMEPA considers and evaluates these broader safety implications of the name throughout this assessment and the medication error staff provides additional comments related to the

safety of the proposed proprietary name or product based on professional experience with medication errors.

1. Database and Information Sources

DMEPA searches the internet, several standard published drug product reference texts, and FDA databases to identify existing and proposed drug names that may sound-alike or look-alike to the proposed proprietary name. A standard description of the databases used in the searches is provided in the reference section of this review. To complement the process, the DMEPA uses a computerized method of identifying phonetic and orthographic similarity between medication names. The program, Phonetic and Orthographic Computer Analysis (POCA), uses complex algorithms to select a list of names from a database that have some similarity (phonetic, orthographic, or both) to the trademark being evaluated. Lastly, DMEPA reviews the USAN stem list to determine if any USAN stems are present within the proprietary name. The individual findings of multiple safety evaluators are pooled and presented to the CDER Expert Panel. DMEPA also evaluates if there are characteristics included in the composition that may render the name unacceptable from a safety perspective (abbreviation, dosing interval, etc.).

2. Expert Panel Discussion

DMEPA gathers CDER professional opinions on the safety of the proposed product and discussed the proposed proprietary name (Expert Panel Discussion). The Expert Panel is composed of Division of Medication Errors Prevention (DMEPA) staff and representatives from the Office of Prescription Drug Promotion (OPDP). We also consider input from other review disciplines (OND, ONDQA/OBP). The Expert Panel also discusses potential concerns regarding drug marketing and promotion related to the proposed names.

The primary Safety Evaluator presents the pooled results of the database and information searches to the Expert Panel for consideration. Based on the clinical and professional experiences of the Expert Panel members, the Panel may recommend additional names, additional searches by the primary Safety Evaluator to supplement the pooled results, or general advice to consider when reviewing the proposed proprietary name.

3. FDA Prescription Simulation Studies

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.

4. 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.

5. Safety Evaluator Risk Assessment of the Proposed Proprietary Name

The primary Safety Evaluator applies his/her individual expertise gained from evaluating medication errors reported to FDA, considers all aspects of the name that may be misleading or confusing, conducts a Failure Mode and Effects Analysis, and provides an overall decision on acceptability dependent on their risk assessment of name confusion. Failure Mode and Effects Analysis (FMEA) is a systematic tool for evaluating a process and identifying where and how it might fail.³ When applying FMEA to assess the risk of a proposed proprietary name, DMEPA seeks to evaluate the potential for a proposed proprietary name to be confused with another drug name because of name confusion and, thereby, cause errors to occur in the medication use system. FMEA capitalizes on the predictable and preventable nature of medication errors associated with drug name confusion. FMEA allows the Agency to identify the potential for medication errors due to orthographically or phonetically similar drug names prior to approval, where actions to overcome these issues are easier and more effective than remedies available in the post-approval phase.

In order to perform an FMEA of the proposed name, the primary Safety Evaluator must analyze the use of the product at all points in the medication use system. Because the proposed product is has not been marketed, the primary Safety Evaluator anticipates the use of the product in the usual practice settings by considering the clinical and product

³ Institute for Healthcare Improvement (IHI). Failure Mode and Effects Analysis. Boston. IHI:2004.

characteristics listed in Section 1.2 of this review. The Safety Evaluator then analyzes the proposed proprietary name in the context of the usual practice setting and works to identify potential failure modes and the effects associated with the failure modes.

In the initial stage of the Risk Assessment, the Safety Evaluator compares the proposed proprietary name to all of the names gathered from the above searches, Expert Panel Discussion, and prescription studies, external studies, and identifies potential failure modes by asking:

“Is the proposed proprietary name convincingly similar to another drug name, which may cause practitioners to become confused at any point in the usual practice setting? And are there any components of the name that may function as a source of error beyond sound/look-alike?”

An affirmative answer indicates a failure mode and represents a potential for the proposed proprietary name to be confused with another proprietary or established drug name because of look- or sound-alike similarity or because of some other component of the name. If the answer to the question is no, the Safety Evaluator is not convinced that the names possess similarity that would cause confusion at any point in the medication use system, thus the name is eliminated from further review.

In the second stage of the Risk Assessment, the primary Safety Evaluator evaluates all potential failure modes to determine the likely *effect* of the drug name confusion, by asking:

“Could the confusion of the drug names conceivably result in medication errors in the usual practice setting?”

The answer to this question is a central component of the Safety Evaluator’s overall risk assessment of the proprietary name. If the Safety Evaluator determines through FMEA that the name similarity would not ultimately be a source of medication errors in the usual practice setting, the primary Safety Evaluator eliminates the name from further analysis. However, if the Safety Evaluator determines through FMEA that the name similarity could ultimately cause medication errors in the usual practice setting, the Safety Evaluator will then recommend the use of an alternate proprietary name.

Moreover, DMEPA will object to the use of proposed proprietary name when the primary Safety Evaluator identifies one or more of the following conditions in the Overall Risk Assessment:

- a. OPDP finds the proposed proprietary name misleading from a promotional perspective, and the Review Division concurs with OPDP’s findings. The Federal Food, Drug, and Cosmetic Act provides that labeling or advertising can misbrand a product if misleading representations are made or suggested by statement, word, design, device, or any combination thereof, whether through a PROPRIETARY name or otherwise [21 U.S.C 321(n); See also 21 U.S.C. 352(a) & (n)].
- b. DMEPA identifies that the proposed proprietary name is misleading because of similarity in spelling or pronunciation to another proprietary or established name of a different drug or ingredient [CFR 201.10.(C)(5)].

- c. FMEA identifies the potential for confusion between the proposed proprietary name and other proprietary or established drug name(s), and demonstrates that medication errors are likely to result from the drug name confusion under the conditions of usual clinical practice.
- d. The proposed proprietary name contains an USAN (United States Adopted Names) stem.
- e. DMEPA identifies a potential source of medication error within the proposed proprietary name. For example, the proprietary name may be misleading or, inadvertently, introduce ambiguity and confusion that leads to errors. Such errors may not necessarily involve confusion between the proposed drug and another drug product but involve a naming characteristic that when incorporated into a proprietary name, may be confusing, misleading, cause or contribute to medication errors.

If DMEPA objects to a proposed proprietary name on the basis that drug name confusion could lead to medication errors, the primary Safety Evaluator uses the FMEA process to identify strategies to reduce the risk of medication errors. DMEPA generally recommends that the Sponsor select an alternative proprietary name and submit the alternate name to the Agency for review. However, in rare instances FMEA may identify plausible strategies that could reduce the risk of medication error of the currently proposed name. In that instance, DMEPA may be able to provide the Sponsor with recommendations that reduce or eliminate the potential for error and, thereby, would render the proposed name acceptable.

In the event that DMEPA objects to the use of the proposed proprietary name, based upon the potential for confusion with another proposed (but not yet approved) proprietary name, DMEPA will provide a contingency objection based on the date of approval. Whichever product, the Agency approves first has the right to use the proprietary name, while DMEPA will recommend that the second product to reach approval seek an alternative name.

The threshold set for objection to the proposed proprietary name may seem low to the Applicant/Sponsor. However, the safety concerns set forth in criteria a through e above are supported either by FDA regulation or by external healthcare authorities, including the Institute of Medicine (IOM), World Health Organization (WHO), the Joint Commission, and the Institute for Safe Medication Practices (ISMP). These organizations have examined medication errors resulting from look- or sound-alike drug names, confusing, or misleading names and called for regulatory authorities to address the issue prior to approval. Additionally, DMEPA contends that the threshold set for the Proprietary Name Risk Assessment is reasonable because proprietary drug name confusion is a predictable and preventable source of medication error that, in many instances, the Agency and/or Sponsor can identify and rectify prior to approval to avoid patient harm.

Furthermore, post-marketing experience has demonstrated that medication errors resulting from drug name confusion are notoriously difficult to rectify post-approval. Educational and other post-approval efforts are low-leverage strategies that have had limited effectiveness at alleviating medication errors involving drug name confusion. Sponsors have undertaken higher-leverage strategies, such as drug name changes, in the

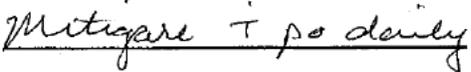
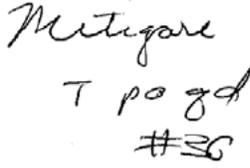
past but at great financial cost to the Sponsor and at the expense of the public welfare, not to mention the Agency's credibility as the authority responsible for approving the error-prone proprietary name. Moreover, even after Sponsors' have changed a product's proprietary name in the post-approval phase, it is difficult to eradicate the original proprietary name from practitioners' vocabulary, and as a result, the Agency has continued to receive reports of drug name confusion long after a name change in some instances. Therefore, DMEPA believes that post-approval efforts at reducing name confusion errors should be reserved for those cases in which the potential for name confusion could not be predicted prior to approval.

Appendix B: Letters and Letter Strings with Possible Orthographic or Phonetic Misinterpretation

| Letters in Name, | Scripted May Appear as | Spoken May Be Interpreted as |
|------------------|-----------------------------------|------------------------------|
| Upper Case 'M' | N, U, V, R, W, B | None |
| lower case 'm' | n, nn, m, v, vi, w, wi, onc, z | None |
| lower case 'i' | e, j, l, | y |
| lower case 't' | b, f, r, x, d, l | d |
| lower case 'g' | o,q, j, s, y | k |
| lower case 'a' | c, ce, ci, cl, d, e, el er, o, u, | e, i, y, o |
| lower case 'r' | s, n, e, v | None |
| lower case 'e' | a, I, l, p, o, u | Any vowel |
| Letter strings | | |
| Mit | Mut, Mia | None |
| Iti | iri, eri, eu, iu, | None |
| Tig | tuy, tey, | None |
| Are | Ane, ani, ari, dre, dri, | R |
| re | u, n | None |

Appendix C: Prescription Simulation Samples and Results

Figure 1. Mitigare Study (Conducted on 12/31/12)

| Handwritten Requisition Medication Order | Verbal Prescription |
|---|--|
| <p><u>Medication Order:</u> </p> | <p>Mitigare #30 1 po daily</p> |
| <p><u>Outpatient Prescription:</u> </p> | |

FDA Prescription Simulation Responses (Aggregate 1 Rx Studies Report)

| | Total | 28 | 29 | 26 |
|-----------------------|------------------|--------------|-------------------|--------------|
| INTERPRETATION | INPATIENT | VOICE | OUTPATIENT | TOTAL |
| MEDAGAR | 0 | 1 | 0 | 1 |
| MEDEGARD | 0 | 1 | 0 | 1 |
| MEDIGAR | 0 | 10 | 0 | 10 |
| MEDIGARD | 0 | 1 | 0 | 1 |
| METIGAR | 0 | 1 | 1 | 2 |
| METIGARE | 0 | 0 | 2 | 2 |
| METIGORE | 0 | 0 | 1 | 1 |
| MIDAGAR | 0 | 1 | 0 | 1 |
| MIDEGAR | 0 | 1 | 0 | 1 |
| MIDICAR | 0 | 1 | 0 | 1 |
| MIDIGAR | 0 | 4 | 0 | 4 |
| MINIGAR | 0 | 1 | 0 | 1 |
| MITAGARE | 0 | 0 | 1 | 1 |
| MITIGAR | 1 | 7 | 0 | 8 |
| MITIGARE | 25 | 0 | 19 | 44 |
| MITIGASE | 1 | 0 | 0 | 1 |
| MITIGORE | 0 | 0 | 1 | 1 |
| MITIZARE | 1 | 0 | 0 | 1 |
| MITIZORE | 0 | 0 | 1 | 1 |

Appendix D: Proprietary names not likely to be confused or not used in usual practice settings for the reasons described.

| No. | Proprietary Name | Active Ingredient | Similarity to Mitigare | Failure preventions |
|-----|------------------|------------------------------|------------------------|--|
| 1. | Mitogard | Cyclosporin A | Look and Sound | Orphan drug found on USPTO. No dosing information is available in common drug references. The name has not been submitted to the Agency. |
| 2. | Zelapar | Selegiline Hydrochloride | Look | The pair have sufficient orthographic differences |
| 3. | Vesicare | Solifenacin Succinate | Sound | The pair have sufficient phonetic differences |
| 4. | Amitiza | Lubiprostone | Look | The pair have sufficient orthographic differences |
| 5. | Milpan | Glands, assorted | Look | Product found on Redbook. No dosing information found in common drug references. |
| 6. | Witepsol | Hydrogenated coco-glycerides | Look | Pharmaceutical ingredient in the base of progesterone suppositories. |
| 7. | (b) (4) *** | (b) (4) | Look | IND (b) (4) the name was denied based on the orthographic similarity to Metrogel. Metrogel is evaluated in Appendix E. No new name has been submitted. |

Appendix E: Risk of medication errors due to product confusion minimized by dissimilarity of the names and/ or use in clinical practice for the reasons described.

| No. | Proposed name: Mitigare (Colchicine) Dosage Form(s): Capsules Strength(s): 0.6 mg Usual Dose: 1 to 2 capsules by mouth daily | Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion Causes (could be multiple) | 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. | Mitosol (Mitomycin) Solution, 0.2 mg/vial <u>Usual Dose:</u> Apply fully saturated sponges equally to the treatment area for 2 minutes using surgical forceps. | <u>Orthographic:</u> The pair have the same beginning letter string 'Mit' <u>Strength:</u> Both are single strength products | <u>Orthographic:</u> The ending letter strings, 'gare' vs. 'osol' may look different when scripted due to the upstroke letter 'l' at the end of Mitosol which is not present in Mitigare. <u>Dose:</u> 1 to 2 capsules vs. Apply sponges <u>Frequency:</u> daily vs. one time <u>Setting of Use:</u> Mitosol is only used in surgery |
| 2. | Meclizine Tablets, 12.5 mg, 25 mg, 50 mg <u>Usual Dose:</u> 25 mg to 100 mg by mouth daily in divided doses, or 1 tablet 1 hour prior to embarkation and repeat every 24 hours | <u>Orthographic:</u> The pair have similar beginning letter strings, 'Mi' and 'Me' <u>Route:</u> Both are oral <u>Dosage Form:</u> Both are tablets | <u>Strength:</u> Single strength which may be omitted from the prescription or medication order vs. Multiple strengths which must be indicated on the prescription or medication order. There are no overlapping strengths or numerical similarity. |
| 3. | Matzim LA (Diltiazem Hydrochloride) Extended-release Tablets, 120 mg, 180 mg, 240 mg, 300 mg, 360, 420 mg <u>Usual Dose:</u> 1 tablet by mouth daily | <u>Orthographic:</u> The pair have similar beginning letter strings, 'Mit' and 'Mat'. <u>Route:</u> Both are oral <u>Dosage Form:</u> Both are tablets <u>Frequency:</u> Both daily | <u>Strength:</u> Single strength which may be omitted from the prescription or medication order vs. Multiple strengths which must be indicated on the prescription or medication order. There are no overlapping strengths or numerical similarity. |

| No. | Proposed name: Mitigare (Colchicine) Dosage Form(s): Capsules Strength(s): 0.6 mg Usual Dose: 1 to 2 capsules by mouth daily | Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion Causes (could be multiple) | 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 |
|-----|---|--|--|
| 4. | (b) (4) | | |
| 5. | Motofen (Difenoxin Hydrochloride and Atropine Sulfate) Tablets, 1 mg/0.025 mg <u>Usual Dose:</u> 2 tablets initially, then 1 tablet after each loose stool or 1 tablet every 3 to 4 hours as needed. | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Mot' <u>Strength:</u> Both are single strength products <u>Route:</u> Both are oral <u>Dosage Form:</u> Both are tablets | <u>Frequency:</u> Daily vs. 1 tablet after every loose stool or every 3 to 4 hours |
| 6. | Mifeprex (Mifepristone) Tablets, 200 mg <u>Usual Dose:</u> 3 tablets by mouth as a single dose | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Mif' <u>Strength:</u> Both are single strength products <u>Route:</u> Both are oral <u>Dosage Form:</u> Both are tablets | <u>Dose:</u> 1 to 2 capsules vs. 3 tablets <u>Frequency:</u> Daily vs. one time dose |

| No. | Proposed name: Mitigare (Colchicine) Dosage Form(s): Capsules Strength(s): 0.6 mg Usual Dose: 1 to 2 capsules by mouth daily | Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion Causes (could be multiple) | 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. | Metrogel (Metronidazole) Gel, 1% <u>Usual Dose:</u> Apply and rub in a thin film to affected area(s) once daily | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Met' <u>Strength:</u> Both are single strength products | <u>Orthographic:</u> The ending letter strings, 'gare' vs. 'ogel' may look different when scripted due to the upstroke letter 'l' in Metrogel not present in Mitigare. <u>Dose:</u> 1 to 2 tablets vs. Apply a thin layer |
| 8. | Vitacare (Multivitamin and Minerals) Tablets <u>Usual Dose:</u> One tablet by mouth daily | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Vit'. The pair have the same ending letter strings, 'are' <u>Strength:</u> Both are single strength products <u>Route:</u> Both are oral <u>Dosage Form:</u> Both are tablets | <u>Orthographic:</u> The ending letter strings, 'gare' vs. 'care' may look different when scripted due to the downstroke letter 'g' in Mitigare not present in Vitacare. |
| 9. | Mirapex (Pramipexole Dihydrochloride) Tablets, 0.125 mg, 0.25 mg, 0.5 mg, 0.75 mg, 1 mg, 1.5 mg <u>Usual Dose:</u> 1 tablet by mouth 1 to 3 times daily | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Mir' <u>Route:</u> Both are oral <u>Dosage Form:</u> Both are tablets | <u>Strength:</u> Single strength which may be omitted from the prescription or medication order vs. Multiple strengths which must be indicated on the prescription or medication order. There are no overlapping strengths or numerical similarity. |

| No. | Proposed name: Mitigare (Colchicine) Dosage Form(s): Capsules Strength(s): 0.6 mg Usual Dose: 1 to 2 capsules by mouth daily | Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion Causes (could be multiple) | 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 |
|-----|---|--|--|
| 10. | Multigen (Vitamin B complex, iron, and Vitamin C) Tablets, 150 mg-2 mg-0.01 mg-70 mg-50 mg-75 mg <u>Usual Dose:</u> 1 tablet by mouth daily | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mi' and 'Mu' <u>Strength:</u> Both are single strength products <u>Route:</u> Both are oral <u>Dosage Form:</u> Both are tablets <u>Frequency:</u> Both are daily | <u>Orthographic:</u> The infix 'iga' vs. 'Iti' look different when scripted due to the additional upstroke letter 'l' in Multigen. |
| 11. | Natazia (Estradiol Valerate and Estradiol Valerate/Dienogest) Tablets, 3 mg, 1 mg, 2 mg/2 mg, 2 mg/3 mg <u>Usual Dose:</u> One tablet by mouth daily | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Nat' <u>Strength:</u> Both are single strength products <u>Route:</u> Both are oral <u>Dosage Form:</u> Both are tablets <u>Frequency:</u> Both are daily | <u>Orthographic:</u> The ending letter strings, 'gare' vs. 'azia' may look different when scripted. The 'z' in Natazia may or may not be scripted as a downstroke letter. |
| 12. | Metaglip (Glipizide and Metformin Hydrochloride) Tablets, 2.5 mg/250 mg, 2.5 mg/500 mg, 5 mg/500 mg <u>Usual Dose:</u> 1 tablet by mouth twice daily | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Met' <u>Route:</u> Both are oral <u>Dosage Form:</u> Both are tablets | <u>Orthographic:</u> The ending letter strings, 'gare' vs. 'glip' look different when scripted due to the downstroke letter 'p' at the end of Metaglip and the upstroke letter 'l' in Metaglip not present in Mitigare. <u>Strength:</u> Single strength which may be omitted from the prescription or medication order vs. Multiple strengths which must be indicated on the prescription or medication order. There are no overlapping strengths or numerical similarity. |

| No. | Proposed name: Mitigare (Colchicine) Dosage Form(s): Capsules Strength(s): 0.6 mg Usual Dose: 1 to 2 capsules by mouth daily | Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion Causes (could be multiple) | 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 |
|-----|--|--|--|
| 13. | Mutifol Plus (Multivitamins) Tablets <u>Usual Dose:</u> 1 tablet by mouth daily | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Mut' <u>Strength:</u> Both are single strength products <u>Route:</u> Both are oral <u>Dosage Form:</u> Both are tablets <u>Frequency:</u> Both are daily | <u>Orthographic:</u> The ending letter strings, 'gare' vs. 'ifol' look different when scripted due to the upstroke letter 'l' at the end of Mutifol not present in Mitigare. |
| 14. | Metaprel (Metaproterenol Sulfate) Tablets: 10 mg, 20 mg, Syrup: 10 mg/5 mL, Inhalation Solution: 0.4%, 0.6% <u>Usual Dose:</u> Tablets: 1 tablet by mouth 3 to 4 times a day Syrup: 1 to 2 teaspoonfuls 3 to 4 times daily Solution: 1 vial via nebulization 3 to 4 times a day | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Met' <u>Route:</u> Both are oral | <u>Orthographic:</u> The ending letter strings, 'gare' vs. 'prel' look different when scripted due to the upstroke letter 'l' at the end of Metaprel not present in Mitigare. <u>Strength:</u> Single strength which may be omitted from the prescription or medication order vs. Multiple strengths which must be indicated on the prescription or medication order. There are no overlapping strengths or numerical similarity. <u>Frequency:</u> Daily vs. 3 to 4 times a day |
| 15. | Methergine (Methylergonovine Maleate) Tablets, 0.2 mg Usual Dose: 1 tablet 3 to 4 times daily in the puerperium for a maximum of 1 week | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Met' <u>Strength:</u> Both are single strength products <u>Route:</u> Both are oral <u>Dosage Form:</u> Both are tablets | <u>Orthographic:</u> Methergine contains an additional upstroke letter 'h' that is not present in Mitigare giving the pair different shapes. <u>Frequency:</u> Daily vs. 3 to 4 times daily |

| No. | Proposed name: Mitigare (Colchicine) Dosage Form(s): Capsules Strength(s): 0.6 mg Usual Dose: 1 to 2 capsules by mouth daily | Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion Causes (could be multiple) | 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 |
|-----|---|--|---|
| 16. | Mitoquinone (Coenzyme Q-10) Tablets Usual Dose: 100 mg to 3000 mg per day | <u>Orthographic:</u> The pair have the same beginning letter string 'Mit' <u>Strength:</u> Both are single strength products <u>Route:</u> Both are oral <u>Dosage Form:</u> Both are tablets | <u>Orthographic:</u> Mitigare (8 letters) appears shorter when scripted than Mitoquinone (11 letters). |
| 17. | Maxidone (Hydrocodone Bitartrate and Acetaminophen) Tablets, 10 mg/750 mg Usual Dose: One tablet by mouth every 4 to 6 hours as needed | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Max' <u>Strength:</u> Both are single strength products <u>Route:</u> Both are oral <u>Dosage Form:</u> Both are tablets | <u>Orthographic:</u> The ending letter strings, 'gare' vs. 'done' look different when scripted due to the downstroke letter 'g' in Mitigare not present in Maxidone, and the upstroke letter 'd' in Maxidone not present in Mitigare. <u>Frequency:</u> Daily vs. every 4 to 6 hours |
| 18. | Nitrogard (Nitroglycerine) Sustained-release Capsules, 2.5 mg, 6.5 mg Usual Dose: 1 capsule by mouth 3 to 4 times daily | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Nit' <u>Route:</u> Both are oral | <u>Orthographic:</u> The ending letter strings, 'gare' vs. 'gard' may look different when scripted due to the upstroke letter 'd' at the end of Nitrogard not present in Mitigare. <u>Strength:</u> Single strength which may be omitted from the prescription or medication order vs. Multiple strengths which must be indicated on the prescription or medication order. |

| No. | Proposed name: Mitigare (Colchicine) Dosage Form(s): Capsules Strength(s): 0.6 mg Usual Dose: 1 to 2 capsules by mouth daily | Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion Causes (could be multiple) | 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. | Metopirone (Metyrapone) Capsules, 250 mg <u>Usual Dose:</u> single test: 30 mg/kg at midnight with yogurt or milk multiple test: 250 mg to 750 mg every 4 hours for 6 doses | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Met' <u>Strength:</u> Both are single strength products <u>Route:</u> Both are oral | <u>Orthographic:</u> The ending letter strings, 'gare' vs. 'rone' look different when scripted due to the downstroke letter 'g' not present in Metopirone. <u>Frequency:</u> Daily vs. once or every 4 hours for 6 doses |
| 20. | Mitrazol (Mitrazol Nitrate) Powder, 2% <u>Usual Dose:</u> Apply to affected area(s) morning and night as directed | <u>Orthographic:</u> The pair have the same beginning letter string 'Mit' <u>Strength:</u> Both are single strength products | <u>Orthographic:</u> The ending letter strings, 'gare' vs. 'azol' look different when scripted due to the upstroke letter 'l' at the end of Mitrazol and the 'present in Mitigare. <u>Dose:</u> 1 to 2 capsules vs. apply |
| 21. | Millipred (Prednisolone Sodium Phosphate) Solution, 10 mg/5 mL <u>Usual Dose:</u> Take 2.5 mL to 30 mL daily in divided doses | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Mil' <u>Strength:</u> Both are single strength products <u>Route:</u> Both are oral | <u>Orthographic:</u> The ending letter strings, 'gare' vs. p'red' may look different when scripted due to the upstroke letter 'd' at the end of Millipred not present in Mitigare. <u>Dose:</u> 1 to 2 capsules vs. 2.5 mL to 30 mL |

| No. | Proposed name: Mitigare (Colchicine) Dosage Form(s): Capsules Strength(s): 0.6 mg Usual Dose: 1 to 2 capsules by mouth daily | Failure Mode: Incorrect Product Ordered/ Selected/Dispensed or Administered because of Name confusion Causes (could be multiple) | 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 |
|-----|---|--|--|
| 22. | Methylin (Methylphenidate Hydrochloride) Oral Solution: 5 mg/5 mL, 10 mg/5 mL Tablets: 10 mg <u>Usual Dose:</u> Solution & Tablets:5 mg by mouth twice daily then increase by 5 mg to 10 mg weekly | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Met' <u>Route:</u> Both are oral | <u>Orthographic:</u> The ending letter strings, 'gare' vs. 'ylin' may look different when scripted due to the uptstroke letter 'l' in Methylin not present in Mitigare. <u>Strength:</u> Single strength which may be omitted from the prescription or medication order vs. Multiple strengths which must be indicated on the prescription or medication order. There are no overlapping strengths or numerical similarity. |
| 23. | Mitotane Tablets, 500 mg <u>Usual Dose:</u> 2 gram to 16 gram by mouth three to four times daily | <u>Orthographic:</u> The pair have the same beginning letter string 'Mit' <u>Strength:</u> Both are single strength products <u>Route:</u> Both are oral <u>Dosage Form:</u> Both are tablets | <u>Orthographic:</u> The ending letter strings, 'gare' vs. 'tane' may look different when scripted due to the downstroke letter 'g' in Mitigare not present in Mitotane. <u>Dose:</u> 1 to 2 capsules vs. XX grams |
| 24. | Mefoxin (Cefoxitin Sodium) Injection 1 g/vial, 2 g/vial Usual Dose: 1 to 2 grams every 6 to 8 hours | <u>Orthographic:</u> The pair have similar beginning letter strings 'Mit' and 'Mef' | <u>Orthographic:</u> The ending letter strings, 'gare' vs. 'oxin' may look different when scripted due to the downstroke letter 'g' in Mitigare not present in Mefoxin. <u>Strength:</u> Single strength which may be omitted from the prescription or medication order vs. Multiple strengths which must be indicated on the prescription or medication order. There are no overlapping strengths or numerical similarity. <u>Frequency:</u> Daily vs. every 6 to 8 hours |

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

/s/

LISSA C OWENS
03/06/2013

LUBNA A MERCHANT
03/06/2013

CAROL A HOLQUIST
03/06/2013

MEMORANDUM

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
FOOD AND DRUG ADMINISTRATION
CENTER FOR DRUG EVALUATION AND RESEARCH

Type of Meeting: Proprietary Name Review

Meeting Date: November 14, 2012, 11:00 am
Meeting Location: FDA White Oak, Bldg 22, Room 3201, Teleconference

Application: NDA 204820
Proposed Proprietary Name: (b) (4)
Established Name: Colchicine
Applicant: West-Ward Pharmaceuticals, Corp

Meeting Chair: Lubna Merchant, Team Leader, DMEPA
Meeting Recorder: Nichelle Rashid, Safety Regulatory Health Project Manager

FDA Attendees:

Office of Surveillance and Epidemiology

Lubna Merchant, Team Leader, DMEPA
Lissa Owens, Safety Evaluator, DMEPA
Nichelle Rashid, Safety Regulatory Health Project Manager

Office of New Drugs

Keith Hull, Clinical Director

Applicant Attendees:

West-Ward Pharmaceuticals, Corp

Michael Raya, President and CEO
Brian Hoffman, Vice President, Corporate Development
Spiro Gavaris, Senior Director, Marketing and Oral Sales
Clark Sullivan, Legal Counsel, Arnall, Golden, Gregory
Susan Todd, Senior Manager, Regulatory Affairs

Background:

DMEPA requested this teleconference to inform West-Ward Pharmaceuticals of preliminary concerns identified during the review of the proposed proprietary name,

(b) (4)

Product Information:

(b) (4) (colchicine) is indicated in the prophylaxis of gout flares. It will be available as a 0.6 mg capsule to be taken as 1 to 2 capsules by mouth daily.

Meeting Objectives:

This is a courtesy call to notify West-Ward Pharmaceuticals of DMEPA's preliminary findings and safety concerns with regards to the proposed proprietary name, (b) (4), submitted on October 11, 2012.

Discussion:

DMEPA's preliminary review has identified that the proposed proprietary name, (b) (4), is unacceptable from a look-alike and sound-alike perspective for the following reasons:

1. (b) (4)
- 2.
- 3.

Alternate Name: (b) (4)

In DMEPA's preliminary assessment of the alternate name, (b) (4) we find it orthographically similar to the marketed product, Colcrys. The pair shares the identical (b) (4) and have (b) (4) in similar positions. In addition to orthographic similarities the pair shares the same overlapping characteristics including, dose, route, of administration, frequency of administration, strength, and indication.

Regulatory Options:

1. Wait for DMEPA to complete the review of (b) (4) by the OSE PDUFA goal date of 01/09/13 and issue a formal decision (most likely denial).
2. Withdraw the proposed name (b) (4), and submit another name for review, with consideration to our recommendation regarding (b) (4)

Questions:

West-Ward Pharmaceuticals, Inc. asked if there is a limit to the number of names that can be submitted to the Agency. DMEPA stated that there is no limit on the number of names that can be submitted; however, only one name would be reviewed at a time. DMEPA would conduct a preliminary review of the names for promotional assessment. However, a full safety assessment of the alternate names would not be performed until they are officially submitted.

Conclusions:

West-Ward Pharmaceuticals, Corporation will withdraw the proposed proprietary name, (b) (4) and submit a new name for review.

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

/s/

NICHELE E RASHID
11/26/2012