Pediatric Postmarketing Pharmacovigilance Review

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Product Name: PAZEO (olopatadine hydrochloride ophthalmic solution) 0.7%

Pediatric Labeling
Approval Date: January 30, 2015

Application Type/Number: NDA 206276

Applicant/Sponsor: Novartis Pharmaceuticals Corporation

OSE RCM #: 2017-2198
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EXECUTIVE SUMMARY

In accordance with the Food and Drug Administration Amendments Act (FDAAA) Best Pharmaceuticals for Children Act (BPCA), the Office of Surveillance and Epidemiology (OSE) evaluated postmarketing adverse event reports with a serious outcome for PAZEO® (olopatadine hydrochloride ophthalmic solution) 0.7% in pediatric patients.

PAZEO® (olopatadine hydrochloride ophthalmic solution) 0.7% was approved on January 30, 2015, and is indicated for the treatment of ocular itching associated with allergic conjunctivitis. The approved pediatric labeling is for ocular itching associated with allergic conjunctivitis in pediatric patients 2 years of age and older.

There were no pediatric serious adverse event cases identified during this time period.

There is no evidence from these data that there are new pediatric safety concerns with this drug at this time.

We will continue to monitor adverse events associated with the use of PAZEO®.
1 INTRODUCTION

1.1 Pediatric Regulatory History

PAZEO® (olopatadine hydrochloride ophthalmic solution) 0.7% is available as an ophthalmic solution indicated for the treatment of ocular itching associated with allergic conjunctivitis.

Olopatadine hydrochloride ophthalmic solution has been available in concentrations of 0.1% and 0.2% for the treatment of allergic conjunctivitis, and itching associated with allergic conjunctivitis, respectively. PAZEO® was developed to increase the duration of efficacy over the existing marketed products.

The original application for PAZEO® included results from one Phase 3 study in patients 2 years of age or older that was the primary source of safety information for the application. The Division of Transplant and Ophthalmology Products (DTOP) medical/clinical reviewer noted that no significant safety issues were identified in the pediatric patients who were evaluated.

1.2 Highlights of Labeled Safety Issues

CONTRAINDICATIONS

None.

WARNINGS AND PRECAUTIONS

Contamination of Tip and Solution. To prevent contaminating the dropper tip and solution, do not touch the eyelids or surrounding areas with the dropper tip of the bottle.

ADVERSE REACTIONS

The most common adverse reactions (2-5%) were blurred vision, superficial punctate keratitis, dry eye, abnormal sensation in eye, and dysgeusia.

PEDIATRIC USE

The safety and effectiveness of PAZEO have been established in pediatric patients two years of age and older. Use of PAZEO in these pediatric patients is supported by evidence from adequate and well-controlled studies of PAZEO in adults and an adequate and well-controlled study evaluating the safety of PAZEO in pediatric and adult patients.

2 Postmarket Adverse Event Reports

2.1 Methods and Materials

2.1.1 FDA Adverse Event Reporting System (FAERS) Search Strategy

DPV searched the FAERS database with the strategy described in Table 2.1.1. See Appendix A for a description of the FAERS database.
Table 2.1.1 FAERS Search Strategy

<table>
<thead>
<tr>
<th>Date of Search</th>
<th>October 26, 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time Period of Search</td>
<td>January 30, 2015* - October 26, 2017†</td>
</tr>
<tr>
<td>Search Type</td>
<td>Mercado Quick Search Drug Safety Analytics</td>
</tr>
<tr>
<td>Product Names‡</td>
<td>Product Name – Pazeo</td>
</tr>
<tr>
<td></td>
<td>Verbatim Product – Pazeo</td>
</tr>
<tr>
<td></td>
<td>Pazeo 0.7% Ophthalmic Solution</td>
</tr>
<tr>
<td></td>
<td>Pazeo 0.7% Alcon</td>
</tr>
<tr>
<td></td>
<td>Pazeo Dro</td>
</tr>
<tr>
<td></td>
<td>Pazeo Eye Drops</td>
</tr>
<tr>
<td></td>
<td>Pazeo, 0.7 ml Alcon</td>
</tr>
</tbody>
</table>

Search Parameters: All ages, all outcomes, worldwide

* FDA approval date
† There may be reports received in this time period that were not captured because they had not been entered into FAERS by the time of the search.
‡ Product Active Ingredients “olopatadine and olopatadine hydrochloride” were also searched and the reports were screened for any mention of “Pazeo”. No cases were identified using this strategy.

2.2 RESULTS

2.2.1 Total Number of FAERS Reports by Age

Table 2.2.1 Total Adult and Pediatric FAERS reports* from January 30, 2015, through October 26, 2017, with PAZEQ® (olopatadine hydrochloride ophthalmic solution) 0.7%

<table>
<thead>
<tr>
<th></th>
<th>All reports (U.S.)</th>
<th>Serious† (U.S.)</th>
<th>Death (U.S.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adults (≥ 17 years)</td>
<td>63 (63)</td>
<td>5 (5)</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Pediatrics (0 - &lt;17 years)</td>
<td>2 (2)</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
</tbody>
</table>

* May include duplicates and transplacental exposures, and have not been assessed for causality
† For the purposes of this review, the following outcomes qualify as serious: death, life-threatening, hospitalization (initial or prolonged), disability, congenital anomaly, required intervention, and other serious important medical events.

2.3 SUMMARY OF FATAL PEDIATRIC ADVERSE EVENT CASES (N=0)

There were no fatal pediatric adverse event cases.

2.4 SUMMARY OF NON-FATAL PEDIATRIC SERIOUS ADVERSE EVENT CASES (N=0)

There were no pediatric serious adverse event cases identified during this time period.
3 DISCUSSION

There were no new safety signals identified, no increased severity or frequency of any labeled adverse events and there were no deaths reported in the pediatric population with PAZEO®.

4 CONCLUSION

There is no evidence from these data that there are new pediatric safety concerns with this drug at this time.

5 RECOMMENDATIONS

We will continue to monitor adverse events associated with the use of PAZEO®.
6 APPENDICES

6.1 APPENDIX A. FDA ADVERSE EVENT REPORTING SYSTEM (FAERS)

The FDA Adverse Event Reporting System (FAERS) is a database that contains information on adverse event and medication error reports submitted to FDA. The database is designed to support the FDA's postmarketing safety surveillance program for drug and therapeutic biologic products. The informatic structure of the database adheres to the international safety reporting guidance issued by the International Conference on Harmonisation. Adverse events and medication errors are coded to terms in the Medical Dictionary for Regulatory Activities (MedDRA) terminology. The suspect products are coded to valid tradenames or active ingredients in the FAERS Product Dictionary (FPD).

FAERS data have limitations. First, there is no certainty that the reported event was actually due to the product. FDA does not require that a causal relationship between a product and event be proven, and reports do not always contain enough detail to properly evaluate an event. Further, FDA does not receive reports for every adverse event or medication error that occurs with a product. Many factors can influence whether or not an event will be reported, such as the time a product has been marketed and publicity about an event. Therefore, FAERS data cannot be used to calculate the incidence of an adverse event or medication error in the U.S. population.
This is a representation of an electronic record that was signed electronically and this page is the manifestation of the electronic signature.

/s/

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11/22/2017

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