

**Medical Officer's Review of NDA 20-408
BPCA Summary**

Proprietary Name: **Trusopt Ophthalmic Solution 2%**

Established Name: **dorzolamide HCL ophthalmic solution**

Sponsor: **Merck & Co. Inc
BLA-20, P.O. Box 2
West Point, PA 19486**

NDA Supplement: **SE5**

Proposed Indication: **Treatment of increased intraocular pressure in
pediatric patients with glaucoma or ocular
hypertension**

Date of Submission: **October 16, 2003**
Date of Review: **April 14, 2004**

BPCA Summary

I. Recommendations

A. Recommendation on Approvability

NDA 20-408 /SE5-033 is recommended for approval. The clinical study contained in this supplement supports the use of dorzolamide 2% in the pediatric population. The benefits of using this drug product outweigh the risks in the treatment of elevated intraocular pressure in pediatric patients.

B. Recommendation on Phase 4 Studies and/or Risk Management Steps

There are no recommendations for phase 4 studies.

CLINICAL REVIEW

Executive Summary Section

II. Summary of Clinical Findings

A. Brief Overview of Clinical Program

Dorzolamide HCL was approved in 1994 as the first topical carbonic anhydrase inhibitor for the treatment of elevated intraocular pressure (IOP) in patients with ocular hypertension or glaucoma. To date the safety and effectiveness of this product has not been established in the pediatric population.

Currently, the only approved drug for the treatment of elevated IOP in the pediatric population is brimonidine tartrate ophthalmic solution. This drug product is labeled for pediatric patients over the age of 2 years old.

A pediatric written request for dorzolamide 2% was issued by the Agency in 1999 with subsequent amendments in 2000 and 2002. The sponsor has conducted a 12-week multicenter, randomized, masked, active-control trial comparing dorzolamide 2% to timolol GFS in response to this written request. The primary objective of the written request and submitted trial was to obtain data on the safety and clinical response of dorzolamide 2% in the pediatric population.

B. Efficacy

The clinical response data contained in this supplement demonstrates that dorzolamide 2% effectively lowers IOP in the pediatric population. IOP is lowered approximately 7-9mmHg in this population with a baseline IOP of approximately 30 mmHg.

C. Safety

Dorzolamide 2% is safe for use in the pediatric population below the age of 6 years old. Overall, less than 2.5% of patients in the dorzolamide 2% treatment group discontinued from the study due to an adverse event. The safety profile of dorzolamide is similar to that seen in adults. The types of adverse events seen are those commonly expected with topical ophthalmic medications.

D. Dosing

Dosing for this pediatric trial was based on the currently labeled dosing frequency for adult patients. No further dose ranging was warranted. The currently labeled dosing level and frequency is safe in the pediatric population.

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E. Special Populations

The sponsor has adequately addressed the safety and clinical response of this drug product in two age cohorts. The two age cohorts analyzed were: “patients < 2 years old” and “patients \geq 2 years but <6 years old”. The effects of gender, race, age and iris color were analyzed during the review of the original NDA. Gender effects were not analyzed in this pediatric supplement because the study population is not large enough to perform this analysis and no effects were found in the original NDA submission. There is no additional data needed in other populations for this drug product. Safety and efficacy have been adequately characterized in the target populations.

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/s/

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