

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**203567Orig1s000**

**MEDICAL REVIEW(S)**

## CLINICAL REVIEW RESUBMISSION

Application Type 505(b)(1)  
Application Number(s) 203-567  
Priority or Standard Standard

Submit Date(s) 20-DEC-2013  
Received Date(s) 20-DEC-2013  
PDUFA Goal Date 20-JUN-2014  
Division / Office DDDP/ODE III

Reviewer Name(s) Gary Chiang MD, MPH  
Review Completion Date 8-MAY-2014

Established Name efinaconazole  
(Proposed) Trade Name Jublia™  
Therapeutic Class antifungal  
Applicant Dow Pharmaceutical Sciences

Formulation(s) Topical solution 10%  
Dosing Regimen Once daily  
Indication(s) Onychomycosis  
Intended Population(s) Adults 18 years and older

Template Version: [March 6, 2009](#)

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## 1 Recommendations/Risk Benefit Assessment

### 1.1 Recommendation on Regulatory Action

Dow Pharmaceutical Sciences has re-submitted a New Drug Application for JUBLIA™ (efinaconazole solution, 10%) with a proposed indication of once daily topical treatment of onychomycosis of the toenail (tinea unguium) in patients 18 years and older. The applicant successfully demonstrated safety and efficacy in two adequate and well controlled clinical trials for the treatment of onychomycosis in patients 18 years and older, when used once daily for 48 weeks.

The original NDA was submitted on July 26, 2012 and this submission received a complete response due to Chemistry Manufacturing and Control (CMC) deficiencies on May 13, 2013, principally related to leakage of the container closure system [REDACTED] (b)(4). The nonclinical, clinical pharmacology and clinical programs submitted with the original application were found generally acceptable though labeling negotiations were not initiated once it became clear that the bottle leakage would preclude approval of the application.

On December 20, 2013 the applicant re-submitted their NDA to with a new container closure system to address the CMC deficiencies. The applicant has redesigned the container closure system and provided data that no leakage has occurred. No new nonclinical information was provided, and no new clinical pharmacology or clinical trials were conducted for this resubmission.

The critical CMC review issues that concluded with a Complete Response from the first review cycle have been resolved. The new container closure system has been found to be acceptable for marketing and the applicant has provided appropriate information to provide sufficient data to assure the identity, strength, purity, and quality of the drug product. The new bottle with a brush applicator dispenses drug product with similar quantity and distribution as the container/closure system used in the Phase 3 clinical trials so that additional clinical trials are not required.

This reviewer is in agreement with the CMC recommendation for approval, and the clinical recommendation is for approval of this application.

### 1.2 Risk Benefit Assessment

The risk to benefit assessment for this application is primarily based on the clinical trial results, which were extensively reviewed in the initial cycle and documented in the clinical review dated April 13, 2013. In the two pivotal Phase 3 clinical trials, the most common adverse events associated with the drug product were application site reactions (application site dermatitis and application site vesicles). There were no deaths or serious adverse events attributed to the drug product. In the two combined pivotal Phase 3 clinical trials, a greater percentage of subjects in the JUBLIA™ group relative to the Vehicle group achieved “Complete Cure” (clinical cure as well as mycological cure) at Week 52 (16.6% versus 4.3%, respectively), demonstrating that the drug product was effective in treating toenail onychomycosis.

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