

**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

*APPLICATION NUMBER:*

**202763Orig1s000**

**STATISTICAL REVIEW(S)**

## Memorandum of Statistical Review

**NDA/BLA Serial Number:** 202763

**Drug Name:** Testosterone Gel 1%

**Indication(s):** Replacement therapy in adult males for conditions associated with a deficiency or absence of endogenous testosterone

**Applicant:** Teva Pharmaceuticals USA

**Date(s):** Submission date: January 14, 2011  
PDUFA date: February 14, 2012

**Review Priority:** Standard

  

**Biometrics Division:** Division of Biometrics III

**Statistical Reviewer:** Jia Guo, Ph.D.

**Concurring Reviewers:** Mahboob Sobhan, Ph.D.

  

**Medical Division:** Division of Reproductive and Urologic Products, HFD-580

**Clinical Team:** Guodong Fang, M.D.  
Mark Hirsch, M.D.

**Project Manager:** Jennifer Mercier

This submission contained information from a bioequivalence study, an irritation and sensitization study, a hand-washing study and a transfer study of testosterone gel 1% for replacement therapy in males for conditions associated with a deficiency or absence of endogenous testosterone.

The efficacy evaluation was based on the bioequivalence study, for which the review was conducted by the clinical pharmacology reviewer. No further statistical review for efficacy was conducted by the statistical reviewer.

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/s/  
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JIA GUO  
01/18/2012

MAHBOOB SOBHAN  
01/24/2012

## STATISTICS FILING CHECKLIST FOR A NEW NDA/BLA

**NDA Number: 202763**

**Applicant: TEVA**

**Stamp Date: 01-14-2011**

**Drug Name: Testosterone Gel NDA/BLA Type: New  
1%**

On **initial** overview of the NDA/BLA application for RTF:

	<b>Content Parameter</b>	<b>Yes</b>	<b>No</b>	<b>NA</b>	<b>Comments</b>
1	Index is sufficient to locate necessary reports, tables, data, etc.	√			
2	ISS, ISE, and complete study reports are available (including original protocols, subsequent amendments, etc.)	√			ISS and ISE are not applicable
3	Safety and efficacy were investigated for gender, racial, and geriatric subgroups investigated.			√	
4	Data sets in EDR are accessible and conform to applicable guidances (e.g., existence of define.pdf file for data sets).	√			

**IS THE STATISTICAL SECTION OF THE APPLICATION FILEABLE? Yes** \_\_\_\_\_

If the NDA/BLA is not fileable from the statistical perspective, state the reasons and provide comments to be sent to the Applicant.

Please identify and list any potential review issues to be forwarded to the Applicant for the 74-day letter.

<b>Content Parameter (possible review concerns for 74-day letter)</b>	<b>Yes</b>	<b>No</b>	<b>NA</b>	<b>Comment</b>
Designs utilized are appropriate for the indications requested.	√			
Endpoints and methods of analysis are specified in the protocols/statistical analysis plans.	√			
Interim analyses (if present) were pre-specified in the protocol and appropriate adjustments in significance level made. DSMB meeting minutes and data are available.			√	
Appropriate references for novel statistical methodology (if present) are included.	√			
Safety data organized to permit analyses across clinical trials in the NDA/BLA.			√	
Investigation of effect of dropouts on statistical analyses as described by applicant appears adequate.	√			

**There are no review issues noted at this time.**

## STATISTICS FILING CHECKLIST FOR A NEW NDA/BLA

### Brief summary of controlled clinical trials

The following table contains information on the relevant trials contained in the submission.

Type of Study	Study Identifier	Objective(s) of the Study	Study Design and Type of Control	Test Product(s); Dosage Regimen; Route of Administration	Number of Subjects	Healthy Subjects or Diagnosis of Patients	Duration of Treatment	Study Status; Type of Report
Bioequivalence	70343	Determine the bioequivalence between a new (generic) drug product and a marketed reference product under fasting conditions	Multiple-centre, Bioequivalence, Open-label Randomized, 2-way crossover study.	Testosterone 1% Topical Gel	93 (90 Completed)	Hypogonadal Adult Male Subject	Single-Dose	Completed
Irritation and Sensitization	10936025	Compare cumulative skin irritation and sensitization potential between two new (generic) products and two marketed reference products.	Multiple Site, Multiple-Application, Double-Blind, Randomized, Two Phase Irritation and Sensitization Study	Testosterone 1% Topical Gel	265 (233 included in PPPI and 222 included in PPPS)	Healthy Adult Male Subjects	Multiple-Dose	Completed
Hand-Washing	CRI-00018704	Quantify and compare the amount of residual drug remaining on the hands between a new (generic) product and a marketed reference product.	Open-label, Two Period, Crossover, pivotal study on healthy adult male subjects	10 g of Testosterone 1% Topical Gel in each study period, topical	48 (46 Completed)	Healthy Adult Male Subjects	Single-Dose	Completed
BA Transfer	MIFX10001	Quantify and compare the relative bioavailability between a new (generic) product and a marketed reference product in female subjects following direct transfer from healthy male subjects	Open-label, Randomized, Four Period, Four Treatment Crossover Study.	Testosterone 1% Topical Gel	A vs. C 48 male and female couples (47 couples completed)	Healthy Adult Male and Female Subjects	Single-Dose	Completed
				Testosterone 1% Topical Gel	B vs. D 48 male and female couples (43 couples completed)			

Jia Guo, Ph.D.

Reviewing Statistician

March 7, 2011

Date

Mahboob Sobhan, Ph.D.

Supervisor/Team Leader

March 7, 2011

Date

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/s/  
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JIA GUO  
03/07/2011

MAHBOOB SOBHAN  
03/07/2011