CENTER FOR DRUG EVALUATION AND RESEARCH

APPLICATION NUMBER:

203098Orig1s000

STATISTICAL REVIEW(S)

U.S. Department of Health and Human Services
Food and Drug Administration
Center for Drug Evaluation and Research
Office of Translational Science
Office of Biostatistics

ADDENDUM TO STATISTICAL REVIEW

NDA/Serial Number:	203098
Drug Name:	Testosterone gel (b) (4)
Indication(s):	Testosterone replacement in hypogonadal men
Applicant:	Perrigo Israel Pharmaceuticals Ltd.
Date(s):	Submission Date: 7/05/2011
	PDUFA Due Date: 5/04/2012
Review Priority:	Standard
Biometrics Division:	Division of Biometrics III
Statistical Reviewer:	Kate Dwyer, Ph.D.
Concurring Reviewers:	Mahboob Sobhan, Ph.D.
Medical Division:	Division of Reproductive and Urologic Drug Products
Clinical Team:	Donald McNellis, M.D., Medical Reviewer
	Suresh Kaul, M.D., Team Leader
Project Manager:	Jeannie Roule

This addendum updates the statistical review of this NDA for Testosterone gel (b) (4).

At the request of DRUP and DCP3, DBGC conducted inspections of the clinical and analytical portions of the bioequivalence study (BE): Study 03-0415-001 "A Randomized, Single-Dose, Three-Way Crossover Relative Bioavailability Study of Testosterone Gel Formulations in Hypogonadal Men". A Form 483 was issued because there were no records for time or dosing of subjects for study period 3. DBGC recommend that data from study period 3 should be excluded from statistical evaluation. This results in sample size for the BE analysis changed from 24 to 8. Therefore, from a statistical perspective, bioequivalence of Testosterone gel (b) (4) to the reference listed drug Androgel® cannot be established due to inadequate sample size.

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/s/

KATE L DWYER
04/26/2012

MAHBOOB SOBHAN
04/26/2012

U.S. Department of Health and Human Services
Food and Drug Administration
Center for Drug Evaluation and Research
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STATISTICAL REVIEW AND EVALUATION

CLINICAL STUDIES

NDA/Serial Number:	203098
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Statistical Reviewer:	Kate Dwyer, Ph.D.
Concurring Reviewers:	Mahboob Sobhan, Ph.D.
Medical Division:	Division of Reproductive and Urologic Drug Products
Clinical Team:	Donald McNellis, M.D., Medical Reviewer
	Audrey Gassman, M.D., Team Leader
Project Manager:	Jeannie Roule

Keywords: NDA review, clinical studies

This 505(b) (2) submission is cross-referencing FDA's previous findings of the safety and efficacy data on testosterone gel (b) (4) indicated for hypogonadal men. There was no new clinical efficacy data submitted in support of this submission. Therefore, no statistical review was necessary.

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/s/

KATE L DWYER
04/26/2012

MAHBOOB SOBHAN
04/26/2012

STATISTICS FILING CHECKLIST FOR A NEW NDA/BLA

NDA Number: 203098 **Applicant:** Perrigo Israel Pharmaceuticals Ltd. **Stamp Date:** 7/05/2011

Drug Name: Testosterone Gel, (b) (4) **NDA Type:** Standard

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

	Content Parameter	Yes	No	NA	Comments
1	Index is sufficient to locate necessary reports, tables, data, etc.	X			
2	ISS, ISE, and complete study reports are available (including original protocols, subsequent amendments, etc.)	X			
3	Safety and efficacy were investigated for gender, racial, and geriatric subgroups investigated (if applicable).			X	
4	Data sets in EDR are accessible and do they conform to applicable guidances (e.g., existence of define.pdf file for data sets).	X			

IS THE STATISTICAL SECTION OF THE APPLICATION FILEABLE? Yes

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

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

Kate Dwyer, Ph.D. September 2, 2011
Reviewing Statistician Date

Mahboob Sobhan, Ph.D. September 2, 2011
Supervisor/Team Leader Date

File name: 5_Statistics Filing Checklist for a New NDA_BLA110207

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/s/

KATE L DWYER
09/02/2011

MAHBOOB SOBHAN
09/02/2011