Form DA-05-03.03 Statistical Analysis Plan Sponsor: Daewoong Pharmaceutical Co., Ltd.

Protocol No.: DW_DWP14012301



Statistical Analysis Plan

Protocol No.: DW_DWP14012301

미란성 위식도역류질환 환자에서 DWP14012의 유효성 및 안전성을 평가하기 위한 다기관, 무작위배정, 이중눈가림, 활성대조, 평행군, 3상, 치료적 확증 임상시험

A Multi-Center, Randomized, Double-Blind, Active-controlled, Parallel-Group, Phase 3, Therapeutic Confirmatory Study to Evaluate the Efficacy and Safety of DWP14012 in Patients with Erosive Gastroesophageal Reflux Disease

Sponsor: Daewoong Pharmaceutical Co., Ltd.

Author: An, Sung Eun

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SAP Version: V1.0, 2019-08-21 Effective Date: 2018-01-29

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Signature Page

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Why LSK Global PS?







Leading CRO in Korea 20 Years Experience in Biostatistics

Cost Effectiveness

Statistical Service Scope

Statistical Consulting and Study Design

Sample Size Estimation

(Adaptive) Randomization with IWRS

CDISC ADaM / Define-XML / Reviewer's Guide

Statistical Programming and Analysis

Statistical Report Writing

IDMC Support for Interim Analysis



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Biostatistics at LSK Global PS

Trying Best
for
Error-free Statistics











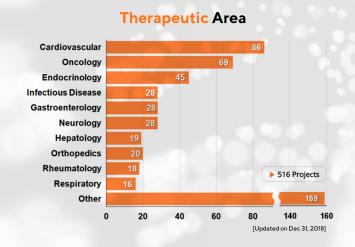
About LSK Statistics Dept.

Our Biostatics Team assists our clients in study design, sample size justification, determination of sample size, randomization, CDISC ADaM, statistical analysis (double programming) and preparation of statistical report and also offer statistical consultation services.

Statisticians with Ph.D. in statistics and managers with over 10 years of experience work together to propose the study design opti-

mal for each project and to provide statistical services necessary for IND and NDA submissions, thus addressing the needs of our clients accurately and swiftly.

Work Experience in Various Therapeutic Area



Study Design & Sample Size

- · Optimal Solution for Clinical Trials
 - · Group sequential design
 - · Futility analysis
 - · Seamless phase II/III trials
 - · Sample size re-estimation
 - · Statistical simulations

Statistical Programming

- · Specialized in Statistical Programming
 - Functional experts in the field of SASprogramming and CDISC data standards
- · In-house Developed SAS Macro
 - · Automated TLFs generation
 - · Standardized QC process
- · Improve Accuracy and Shorten Timeline

Global Data Standard Format

- · CDISC ADaM
 - · Compliance with the requirements of FDA(U.S) and PMDA(Japan)
 - · Define-XML file and Reviewer's guide

Randomization Services

- · Adaptive RDZ with IWRS
- · Stratified Block RDZ
- · Validated Randomization System
 - · Target IWRS (Target Health INC, US)
 - · Rave RTSM (Medidata, US)

Others

- · IDMC Support
- · Dry Run & Double Programming
- · Secure STAT Server System
- · Backup System for Disaster Recovery