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Draft Guidance on Lamotrigine

October 2024

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Active Ingredient: Lamotrigine

Dosage Form: Tablet

Route: Oral

Strengths: 25 mg, 100 mg, 150 mg, 200 mg

Recommended Study: One in vivo bioequivalence study with pharmacokinetic endpoints

1. Type of study: Fasting
   Design: Single-dose, two-treatment, two-period crossover in vivo
   Strength: Single dose of 50 mg (2 x 25 mg)
   Subjects: Healthy males and non-pregnant, non-lactating females
   Additional comments: Due to safety concerns, studies on the highest strength are not recommended.

Analyte to measure: Lamotrigine in plasma

Utilize a validated analytical method such as LC-MS/MS to reliably measure plasma lamotrigine concentrations. A lower limit of quantitation of 10 ng/mL is recommended to adequately characterize the pharmacokinetics at 50 mg study dose.

Bioequivalence based on (90% CI): Lamotrigine

Waiver request of in vivo testing: 100 mg, 150 mg and 200 mg strengths, based on (i) acceptable bioequivalence study on the 25 mg strength, (ii) acceptable in vitro dissolution testing of all strengths, and (iii) proportional similarity of the formulations across all strengths

Dissolution test method and sampling times: The dissolution information for this drug product can be found in the FDA's Dissolution Methods database, http://www.accessdata.fda.gov/scripts/cder/dissolution/. Conduct comparative dissolution testing on 12 dosage units for each of all strengths of the test product and reference listed drug (RLD).[1] Specifications will be determined upon review of the abbreviated new drug application.

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[1] If the RLD is not available, refer to the most recent version of the FDA guidance for industry on *Referencing Approved Drug Products in ANDA Submissions.*