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Draft Guidance on Ethinyl Estradiol; Levonorgestrel

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This guidance, which interprets the Agency's regulations on bioequivalence at 21 CFR part 320, provides product-specific recommendations on, among other things, the design of bioequivalence studies to support abbreviated new drug applications (ANDAs) for the referenced drug product. FDA is publishing this guidance to further facilitate generic drug product availability and to assist the generic pharmaceutical industry with identifying the most appropriate methodology for developing drugs and generating evidence needed to support ANDA approval for generic versions of this product.

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This is a new draft product-specific guidance for industry on generic ethinyl estradiol; levonorgestrel.

Active Ingredients: Ethinyl estradiol; Levonorgestrel

Dosage Form; Route: Tablet; oral

Recommended Study: One study

1. Type of study: Fasting
   Design: Single-dose, two- treatment, two-period crossover in vivo
   Strength: 0.02 mg; 0.1 mg
   Subjects: Non-pregnant, non-lactating females, general population
   Additional comments: Swallow the whole tablet with 240 mL of water on an empty stomach. Ensure an adequate washout period between treatments in the crossover study due to the long elimination half-life of levonorgestrel.

Analytes to measure: Ethinyl estradiol and levonorgestrel in plasma

Bioequivalence based on (90% CI): Ethinyl estradiol and levonorgestrel

Waiver request of in vivo testing: Not applicable

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 the test and reference products. Specifications will be determined upon evaluation of the abbreviated new drug application.

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