This draft guidance, when finalized, will represent the current thinking of the Food and Drug Administration (FDA, or the Agency) on this topic. It does not establish any rights for any person and is not binding on FDA or the public. You can use an alternative approach if it satisfies the requirements of the applicable statutes and regulations. To discuss an alternative approach, contact the Office of Generic Drugs.

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.

The contents of this document do not have the force and effect of law and are not meant to bind the public in any way, unless specifically incorporated into a contract. This document is intended only to provide clarity to the public regarding existing requirements under the law. FDA guidance documents, including this guidance, should be viewed only as recommendations, unless specific regulatory or statutory requirements are cited. The use of the word should in FDA guidances means that something is suggested or recommended, but not required.

In May 2017, FDA issued a draft product-specific guidance for industry on generic apixaban. We are now issuing revised draft guidance for industry that replaces the previously issued guidance.

**Active Ingredient:** Apixaban

**Dosage Form; Route:** Tablet; oral

**Recommended Studies:** Two studies

1. **Type of study:** Fasting  
   Design: Single-dose, two-treatment, two-period crossover in vivo  
   Strength: 5 mg  
   Subjects: Healthy males and non-pregnant, non-lactating females  
   Additional comments: None

2. **Type of study:** Fed  
   Design: Single-dose, two-treatment, two-period crossover in vivo  
   Strength: 5 mg  
   Subjects: Healthy males and non-pregnant, non-lactating females  
   Additional comments: None
**Analyte to measure:** Apixaban in plasma

**Bioequivalence based on (90% CI):** Apixaban

**Waiver request of in vivo testing:** 2.5 mg strength based on (i) acceptable bioequivalence studies on the 5 mg strength, (ii) acceptable in vitro dissolution testing of both strengths, and (iii) proportional similarity of the formulations between both 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 both strengths of the test and reference products. Specifications will be determined upon review of the abbreviated new drug application.

**Product-specific testing conditions for in vitro feeding tube studies:** The approved labeling for the reference product states that the product may be administered by a nasogastric (NG) tube. Conduct the in vitro feeding tube studies including comparative recovery testing and sedimentation volume and redispersibility testing. For general procedures of in vitro feeding tube studies, refer to the most recent version of the FDA guidance for industry on *Oral Drug Products Administered Via Enteral Feeding Tube: In Vitro Testing and Labeling Recommendations.*

- **Testing tube:** NG tube (8 French)
- **Testing strength:** 5 mg
- **Dispersion media:** 1. 60 mL of water; 2. 60 mL of 5% dextrose in water
- **Incubation times:** 0 and 15 minutes

**Revision History:** Recommended June 2013; Revised May 2017, February 2022

**Unique Agency Identifier:** PSG_202155

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*a For the most recent version of a guidance, check the FDA guidance web page at https://www.fda.gov/regulatory-information/search-fda-guidance-documents*