

**Draft Guidance on Amantadine Hydrochloride**

**October 2025**

This draft guidance, when finalized, will represent the current thinking of the Food and Drug Administration (FDA, or the Agency) on this topic.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.

In general, FDA's guidance documents do not establish legally enforceable responsibilities. Instead, guidances describe the Agency's current thinking on a topic and should be viewed only as recommendations, unless specific regulatory or statutory requirements are cited. The use of the word *should* in Agency guidances means that something is suggested or recommended, but not required.

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**Active Ingredient:** Amantadine hydrochloride

**Dosage Form:** Capsule, extended release

**Route:** Oral

**Strengths:** EQ 68.5 mg Base, EQ 137 mg Base

**Recommended Studies:** Three in vivo bioequivalence studies with pharmacokinetic endpoints

1. Type of study: Fasting  
Design: Single-dose, two-treatment, two-period crossover in vivo  
Strength: EQ 137 mg Base  
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: EQ 137 mg Base  
Subjects: Healthy males and non-pregnant, non-lactating females  
Additional comments: None
3. Type of study: Fasting, sprinkle in applesauce  
Design: Single-dose, two-treatment, two-period crossover in vivo  
Strength: EQ 137 mg Base  
Subjects: Healthy males and non-pregnant, non-lactating females  
Additional comments: None

**Analyte to measure:** Amantadine in plasma

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

**Additional strengths:** Bioequivalence of the EQ 68.5 mg Base strength to the corresponding reference listed drug (RLD)<sup>1</sup> strength may be demonstrated based principles laid out in the most recent version of the FDA guidance for industry on *Bioequivalence Studies with Pharmacokinetic Endpoints for Drugs Submitted Under an ANDA*.<sup>a</sup>

**Dissolution test method and sampling times:** For modified release drug products, applicants should develop specific discriminating dissolution methods. Alternatively, applicants may use the dissolution method set forth in any related official United States Pharmacopeia (USP) drug product monograph, or in the FDA's database, <http://www.accessdata.fda.gov/scripts/cder/dissolution/>, provided that applicants submit adequate dissolution data supporting the discriminating ability of such a method. If a new dissolution method is developed, submit the dissolution method development and validation report with the complete information/data supporting the proposed method. Conduct comparative dissolution testing on 12 dosage units for each strength of the test product and RLD. Specifications will be determined upon review of the abbreviated new drug application.

In addition to the method above, submit dissolution profiles on 12 dosage units for each strength of the test product and RLD generated using USP Apparatus 1 at 100 rpm and/or Apparatus 2 at 50 rpm in at least three dissolution media (e.g., pH 1.2, 4.5, and 6.8 buffer). Agitation speeds may be increased if appropriate. It is acceptable to add a small amount of surfactant if necessary. Include early sampling times of 1, 2, and 4 hours and continue every 2 hours until at least 80% of the drug is released to provide assurance against premature release of drug (dose dumping) from the formulation.

**Alcohol dose dumping studies:** None

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**Document History:** Recommended September 2018; Revised October 2025

**Unique Agency Identifier:** PSG\_208944

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<sup>a</sup> For the most recent version of a guidance, check the FDA guidance website at <https://www.fda.gov/regulatory-information/search-fda-guidance-documents>.

<sup>1</sup> 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*.