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*Draft – Not for Implementation*

## **Draft Guidance on Clomipramine Hydrochloride**

**October 2024**

This draft guidance, when finalized, will represent the current thinking of the Food and Drug Administration (FDA, or the Agency) on this topic.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

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<b>Active Ingredient:</b>	Clomipramine hydrochloride
<b>Dosage Form:</b>	Capsule
<b>Route:</b>	Oral
<b>Strengths:</b>	25 mg, 50 mg, 75 mg
<b>Recommended Studies:</b>	Two options: (1) Biopharmaceutics Classification System (BCS)-based biowaiver or (2) one in vivo bioequivalence study with pharmacokinetic endpoints

### **I. Option 1: BCS Class I-based biowaiver**

A waiver request of in vivo testing for all the strengths of this product may be considered provided that the appropriate documentation regarding high solubility, high permeability and rapid dissolution as detailed in the most recent version of the FDA guidance for industry on *M9 Biopharmaceutics Classification System-Based Biowaivers<sup>a</sup>* is submitted in the application. Applicants may use the information contained in the approved labeling of the reference listed drug (RLD). Peer reviewed articles may not contain the necessary details of the testing for the Agency to make a judgment regarding the quality of the studies. A decision regarding the acceptability of the waiver request can only be made upon assessment of the data submitted in the application.

## II. Option 2: One in vivo bioequivalence study with pharmacokinetic endpoints

1. Type of study: Fasting  
Design: Single-dose, two-treatment, two-period crossover in vivo  
Strength: 25 mg  
Subjects: Healthy males and non-pregnant, non-lactating females  
Additional comments: The study design (e.g., inclusion/exclusion criteria), procedures (e.g., safety monitoring), and concomitant medications (drug interactions) should address all of the elements related to subject safety specified in the RLD label.

**Analytes to measure:** Clomipramine and its active metabolite, desmethyl clomipramine, in plasma

Submit the metabolite data as supportive evidence of comparable therapeutic outcome. For the metabolite, the following data should be submitted: individual and mean concentrations, individual and mean pharmacokinetic parameters, and geometric means and ratios of means for AUC and C<sub>max</sub>.

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

**Waiver request of in vivo testing:** 50 mg and 75 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 RLD.<sup>1</sup> Specifications will be determined upon review of the abbreviated new drug application.

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**Document History:** Recommended September 2015; Revised October 2024

**Unique Agency Identifier:** PSG\_019906

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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*.