

Draft Guidance on Doxycycline

This draft guidance, once finalized, will represent the Food and Drug Administration's (FDA's) current thinking on this topic. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. You can use an alternative approach if the approach satisfies the requirements of the applicable statutes and regulations. If you want to discuss an alternative approach, contact the Office of Generic Drugs.

Active ingredient: Doxycycline

Form/Route: Capsule/Oral

Recommended studies: 2 studies

1. Type of study: Fasting
Design: Single-dose, two-way crossover in vivo
Strength: 150 mg
Subjects: Healthy males and nonpregnant females, general population.

2. Type of study: Fed
Design: Single-dose, two-way crossover in vivo
Strength: 150 mg
Subjects: Healthy males and nonpregnant females, general population.
Additional Comments: Please refer to the Amantadine Hydrochloride Tablet Draft Guidance for additional information regarding fed studies.

Analytes to measure (in appropriate biological fluid): Doxycycline in plasma

Bioequivalence based on (90% CI): Doxycycline

Waiver request of in vivo testing: 50 mg and 100 mg based on (i) acceptable bioequivalence studies on the 150 mg strength, (ii) acceptable in vitro dissolution testing of all strengths, and (iii) proportional similarity of the formulations across all strengths.

Please refer to the Mirtazapine Tablet Draft Guidance for additional information regarding waivers of in vivo testing.

Please note that Monodox® Capsules, 50 mg, 75 mg, and 100 mg and Doxycycline Capsules USP, 50 mg, 100 mg, and 150 mg are the subject of two separate reference products. Two separate applications must be submitted comparing to the appropriate reference products. An applicant may request a waiver of in vivo bioequivalence testing for the 75 mg strength using Monodox® Capsules as RLD provided that it (1) submits an ANDA containing acceptable in vivo studies on the 150 mg strength using Doxycycline Capsules as RLD; (2) cross-references the NDA for the 75 mg strength using Monodox® Capsules as RLD; and (3) meets the criteria of

21 CFR §320.22(d)(2). Please refer to the Guidance for Industry, *Variations in Drug Products that May Be Included in a Single ANDA* located at: <http://www.fda.gov/cder/guidance>.

Dissolution test method and sampling times:

Please note that a **Dissolution Methods Database** is available to the public at the OGD website at <http://www.accessdata.fda.gov/scripts/cder/dissolution/>. Please find the dissolution information for this product at this website. Please conduct comparative dissolution testing on 12 dosage units each of all strengths of the test and reference products. Specifications will be determined upon review of the application.