

Draft Guidance on Omeprazole Magnesium

This draft guidance, when finalized, will represent the current thinking of the Food and Drug Administration (FDA, or the Agency) on this topic.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

Active Ingredient: Omeprazole magnesium

Dosage Form; Route: Granules for delayed release suspension; oral

Recommended Studies: Two studies

1. Type of study: Fasting
Design: Single-dose, two-treatment, two-period crossover in vivo
Strength: EQ 10 mg Base/packet
Subjects: Males and non-pregnant females, general population
Additional comments: None

2. Type of study: Fed
Design: Single-dose, two-treatment, two-period crossover in vivo
Strength: EQ 10 mg Base/packet
Subjects: Males and non-pregnant females, general population
Additional comments: None

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

Bioequivalence based on (90% CI): Omeprazole

Additional strengths: Bioequivalence of EQ 2.5 mg Base/packet to the corresponding reference product strength may be demonstrated based on principles laid out in the FDA guidance on "Bioequivalence Studies with Pharmacokinetic Endpoints for Drugs Submitted Under an ANDA."¹

Dissolution test method and sampling times:

For modified-release drug products, FDA recommends that applicants develop specific discriminating dissolution methods. Applicants may also use the dissolution method set forth in any related official United States Pharmacopeia (USP) drug product monograph, or in the FDA's database (available at <http://www.accessdata.fda.gov/scripts/cder/dissolution/>), provided adequate dissolution data supporting the discriminating ability of such a method. If a new dissolution method is developed for the modified-release drug product, FDA recommends that

¹ <https://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/ucm064964.htm>

the submission includes the dissolution method development and validation report with the complete information/data supporting the proposed method. 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.

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) or gastric (G) tube. Conduct the in vitro feeding tube studies including comparative recovery testing, particle size distribution study, comparative acid resistance stability testing, and sedimentation volume testing. Refer to the Lansoprazole Delayed-Release Orally Disintegrating Tablet Draft Guidance for additional information regarding procedures of in vitro feeding tube studies.

Testing tube: NG tube (6 French); G tube (12 French)

Testing strength: EQ 2.5 mg Base/packet and EQ 10 mg Base/packet

Dispersion medium: EQ 2.5 mg Base/packet in 5 mL and EQ 10 mg Base/packet in 15 mL water with different pH values (e.g., pH 5.5, 7.0 and 8.5)

Incubation time: 0 and 30 minutes

Testing conditions for acid resistance stability testing: 300 mL of 0.1 N HCl maintained at $37 \pm 0.5^\circ\text{C}$; USP Apparatus II at 100 rpm. Analyze the amount of omeprazole released at 120 minutes