Contains Nonbinding Recommendations

Draft Guidance on Alendronate Sodium

This draft guidance, once finalized, will represent the Food and Drug Administration's (FDA's) current thinking on this topic.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: Alendronate Sodium

Form/Route: Tablets/Oral

Recommended studies: 1 study

1. Type of study: fasting
   Design: single-dose, two-way crossover *in-vivo*
   Strength: 70 mg
   Subjects: Normal healthy males and females, general population.
   Additional Comments:

Analytes to measure (in appropriate biological fluid): Alendronate in urine

Bioequivalence based on (90% CI): Alendronate

The bioequivalence study should be based on urinary excretion data. The following pharmacokinetic parameters should be calculated:

Ae (amount of drug excreted during each collection interval)
Total Ae (0-48) (total amount of drug excreted over the entire period of sample collection)
Re (rate of drug excretion),
Rmax (maximum excretion rate)
Tmax (time of the maximum excretion rate)

All parameters should be calculated using a non-compartmental model. The statistical analysis using ANOVA should be performed on Total Ae (0-48) and Rmax. The 90% confidence interval criteria should be applied to these parameters and should be within the limits of 80-125%.

Waiver request of in-vivo testing: 5 mg, 10 mg, 35 mg, and 40 mg based on (i) acceptable bioequivalence study on the 70 mg strength, (ii) proportionally similar across all strengths, and (iii) acceptable in vitro dissolution testing of all strengths.

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.fda.gov/cder/ogd/index.htm. 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.