Guidance on Hydromorphone Hydrochloride

This guidance represents 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: Hydromorphone hydrochloride

Dosage Form; Route: Tablet; oral

Recommended Study: Two studies

1. Type of study: Fasting

Design: Single-dose, two-way crossover in-vivo

Strength: 8 mg

Subjects: Healthy males and nonpregnant females, general population

Additional comments: A clear plan for continuous respiratory monitoring from the time of dosing past the time of expected peak effect of the drug (i.e. at least 3 hours from dosing) should be included. Standard operating procedures (SOPs) should be in place for assessing and treating ventilatory depression, and personnel qualified to

treat ventilatory emergencies should be immediately available.

2. Type of study: Fed

Design: Single-dose, two-way crossover in-vivo

Strength: 8 mg

Subjects: Healthy males and nonpregnant females, general population

Additional comments: Please see comments above.

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

Bioequivalence based on (90% CI): Hydromorphone

Waiver request of in-vivo testing: 2 mg and 4 mg based on (i) acceptable bioequivalence studies on the 8 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 on the FDA-Recommended Dissolution Methods web site, available to the public at the following location: http://www.accessdata.fda.gov/scripts/cder/dissolution/. 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 abbreviated new drug application (ANDA).