Contains Nonbinding Recommendations

**Guidance on Bisoprolol Fumarate**

This guidance represents 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.

<table>
<thead>
<tr>
<th>Active ingredient:</th>
<th>Bisoprolol Fumarate</th>
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</thead>
<tbody>
<tr>
<td>Form/Route:</td>
<td>Tablets/Oral</td>
</tr>
<tr>
<td>Recommended studies:</td>
<td>2 studies</td>
</tr>
</tbody>
</table>

1. Type of study: Fasting  
   Design: Single-dose, two-way crossover *in-vivo*  
   Strength: 10 mg  
   Subjects: Normal healthy males and females, general population.  
   Additional Comments:  

2. Type of study: Fed  
   Design: Single-dose, two-way crossover *in-vivo*  
   Strength: 10 mg  
   Subjects: Normal healthy males and females, general population.  
   Additional comments:  

**Analytes to measure:** Bisoprolol in plasma

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

**Waiver request of in-vivo testing:** 5 mg based on (i) acceptable bioequivalence studies on the 10 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 conduct comparative dissolution testing on 12 dosage units of all strengths of the test and reference products using the following USP method.

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