Overview

Useful For
Optimizing dosage
Assessing toxicity
Monitoring compliance

Method Name
Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS)

NY State Available
Yes

Specimen

Specimen Type
Serum Red

Specimen Required
Collection Container/Tube: Red top
Submission Container/Tube: Plastic vial
Specimen Volume: 1.5 mL
Collection Instructions:
1. Draw blood immediately before next scheduled dose.
2. Centrifuge within 2 hours of draw and aliquot to remove serum from spun RBCs.

Forms
If not ordering electronically, complete, print, and send a Therapeutics Test Request (T831) with the specimen.

Reject Due To
Gross hemolysis OK
Gross lipemia OK
Gross icterus OK

Specimen Minimum Volume
0.5 mL

Specimen Stability Information

<table>
<thead>
<tr>
<th>Specimen Type</th>
<th>Temperature</th>
<th>Time</th>
<th>Special Container</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum Red</td>
<td>Refrigerated (preferred)</td>
<td>28 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ambient</td>
<td>28 days</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frozen</td>
<td>28 days</td>
<td></td>
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</tbody>
</table>
Clinical & Interpretive

Clinical Information
Flecainide (Tambocor) is a Class I cardiac antiarrhythmic agent indicated for treatment of paroxysmal supraventricular dysrhythmia, paroxysmal atrial fibrillation/flutter, and life-threatening ventricular dysrythmias. After oral administration, flecainide is nearly completely absorbed and peak concentrations are attained in approximately 3 hours. The half-life averages approximately 20 hours, but is widely variable (12 to 27 hours) and steady-state concentrations are typically achieved in approximately 5 days. Flecainide is eliminated from blood by hepatic metabolism, as well as renal clearance; significant changes in either organ system will cause impaired clearance. Common adverse effects include dizziness, visual disturbances, and dyspnea. Mild-to-moderate toxicity is associated with dizziness, visual disturbances, headache, nausea, fatigue, palpitations, and chest pain. Visual hallucinations and dysarthria may occur at toxic serum concentrations. Death can occur from hypotension, respiratory failure, and asystole.

Reference Values
Trough Value
0.2-1.0 mcg/mL: Therapeutic concentration
>1.0 mcg/mL: Toxic concentration

Interpretation
Flecainide is most effective in premature ventricular contractions suppression at serum concentrations in the range of 0.2 to 1.0 mcg/mL. Serum concentrations above 1.0 mcg/mL are associated with a high rate of cardiac adverse experiences such as conduction defects or bradycardia.

Cautions
Specimens that are obtained from gel tubes or anticoagulate collections can cause assay interference.

Clinical Reference

Performance
Method Description
Protein is precipitated from serum and following centrifugation the supernatant is diluted and analyzed by LC-MS/MS. (Unpublished Mayo Method)

PDF Report
No

Specimen Retention Time
14 days

Performing Laboratory Location
Rochester

Fees & Codes

Test Classification
This test was developed, and its performance characteristics determined by Mayo Clinic in a manner consistent with CLIA requirements. This test has not been cleared or approved by the US Food and Drug Administration.

CPT Code Information
80181