## Appendix 2.2.1
### Risks and Benefits of AF Treatments

<table>
<thead>
<tr>
<th>Treatment Category</th>
<th>Treatment Option</th>
<th>Benefits</th>
<th>Risks</th>
</tr>
</thead>
</table>
| Rhythm Control     | Electrical Cardioversion | • Immediate relief of symptoms  
                      | • Rapid return to sinus rhythm                                           | • Patient must be anesthetized  
                      |                                                                 | • Possibility of AF recurrence  
                      |                                                                 | • Risk of thrombosis before and after procedure so patient requires anticoagulation |
|                    | Pharmacological Cardioversion | • Relief of symptoms  
                      | • Return to sinus rhythm                                                 | • Patient may require hospitalization and monitoring when drugs are first administered  
                      |                                                                 | • Drugs may lose effectiveness over time, with possibility of AF recurrence  
                      |                                                                 | • Patient can develop new abnormal heart rhythms  
                      |                                                                 | • Patient likely still needs anticoagulation |
|                    | Catheter Ablation       | • Minimally invasive  
                      | • Alternative for patients who have resisted or failed other treatments | • Practitioner experience important  
                      |                                                                 | • Likelihood of repeat procedures  
<pre><code>                  |                                                                 | • Lower success rates in patients with chronic AF and/or structural heart disease |
</code></pre>
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| Rhythm Control     | Cox-Maze Surgery                  | • Alternative for patients with intolerable symptoms or those that fail other treatments                                                                                                                 | • Highly invasive; requires general anesthetic  
• Usually only done in patients undergoing other cardiac surgery  
• Comparatively high rates of comorbidities and/or mortality                                                                                                                                 |
|                    | Implantable Atrial Defibrillators | • Potential long-term solution for maintaining sinus rhythm  
• Can operate automatically or be controlled by the patient when AF occurs                                                                                                                                | • Relatively large size (inconvenient to patients)  
• Shocks are usually painful  
• Patient may still need anticoagulation                                                                                                                                                       |
| Rate Control       | Pharmacological Rate Control      | • Reduces workload of the heart  
• May be associated with lower rates of hospitalization, adverse effects, and mortality than rhythm control drugs                                                                                       | • Patient required to take anticoagulants indefinitely  
• May not be as effective long term                                                                                                                                                                   |
|                    | Catheter Ablation of the AV Node  | • Long-term solution for managing ventricular rate  
• More effective than medication in reducing palpitations, controlling dyspnea, and improving quality of life                                                                                       | • No improvement in cardiac performance  
• Patient required to take anticoagulants indefinitely  
• Pacemaker requires life-long management                                                                                                                                                         |
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<tbody>
<tr>
<td>Thromboembolic Risk</td>
<td>Pharmacological Therapy</td>
<td>• Reduces the risk of stroke and mortality</td>
<td>• Patients may experience severe bleeding complications.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Some therapies need frequent blood tests</td>
</tr>
</tbody>
</table>