

## Appendix 2.2.1 Risks and Benefits of AF Treatments

Treatment Category	Treatment Option	Benefits	Risks
Rhythm Control	Electrical Cardioversion	<ul style="list-style-type: none"> <li>• Immediate relief of symptoms</li> <li>• Rapid return to sinus rhythm</li> </ul>	<ul style="list-style-type: none"> <li>• Patient must be anesthetized</li> <li>• Possibility of AF recurrence</li> <li>• Risk of thrombosis before and after procedure so patient requires anticoagulation</li> </ul>
	Pharmacological Cardioversion	<ul style="list-style-type: none"> <li>• Relief of symptoms</li> <li>• Return to sinus rhythm</li> </ul>	<ul style="list-style-type: none"> <li>• Patient may require hospitalization and monitoring when drugs are first administered</li> <li>• Drugs may lose effectiveness over time, with possibility of AF recurrence</li> <li>• Patient can develop new abnormal heart rhythms</li> <li>• Patient likely still needs anticoagulation</li> </ul>
	Catheter Ablation	<ul style="list-style-type: none"> <li>• Minimally invasive</li> <li>• Alternative for patients who have resisted or failed other treatments</li> </ul>	<ul style="list-style-type: none"> <li>• Practitioner experience important</li> <li>• Likelihood of repeat procedures</li> <li>• Lower success rates in patients with chronic AF and/or structural heart disease</li> </ul>

<b>Treatment Category</b>	<b>Treatment Option</b>	<b>Benefits</b>	<b>Risks</b>
Rhythm Control	Cox-Maze Surgery	<ul style="list-style-type: none"> <li>• Alternative for patients with intolerable symptoms or those that fail other treatments</li> </ul>	<ul style="list-style-type: none"> <li>• Highly invasive; requires general anesthetic</li> <li>• Usually only done in patients undergoing other cardiac surgery</li> <li>• Comparatively high rates of comorbidities and/or mortality</li> </ul>
	Implantable Atrial Defibrillators	<ul style="list-style-type: none"> <li>• Potential long-term solution for maintaining sinus rhythm</li> <li>• Can operate automatically or be controlled by the patient when AF occurs</li> </ul>	<ul style="list-style-type: none"> <li>• Relatively large size (inconvenient to patients)</li> <li>• Shocks are usually painful</li> <li>• Patient may still need anticoagulation</li> </ul>
Rate Control	Pharmacological Rate Control	<ul style="list-style-type: none"> <li>• Reduces workload of the heart</li> <li>• May be associated with lower rates of hospitalization, adverse effects, and mortality than rhythm control drugs</li> </ul>	<ul style="list-style-type: none"> <li>• Patient required to take anticoagulants indefinitely</li> <li>• May not be as effective long term</li> </ul>
	Catheter Ablation of the AV Node	<ul style="list-style-type: none"> <li>• Long-term solution for managing ventricular rate</li> <li>• More effective than medication in reducing palpitations, controlling dyspnea, and improving quality of life</li> </ul>	<ul style="list-style-type: none"> <li>• No improvement in cardiac performance</li> <li>• Patient required to take anticoagulants indefinitely</li> <li>• Pacemaker requires life-long management</li> </ul>

Treatment Category	Treatment Option	Benefits	Risks
Thromboembolic Risk	Pharmacological Therapy	<ul style="list-style-type: none"> <li>• Reduces the risk of stroke and mortality</li> </ul>	<ul style="list-style-type: none"> <li>• Patients may experience severe bleeding complications</li> <li>• Some therapies need frequent blood tests</li> </ul>