APPENDIX

Candidate covariates

Demographics
1. Age, years
2. Race – African American/Hispanic/White/Others
3. Gender – Male/Female
4. Level of Education – Some School/High School Graduate/College Graduate/Post Graduate
5. Payer/Insurance – Medicare or Medicaid/private/Others

Medical History
1. Smoking – Current/Recent or Former/Non-smoker
2. Cancer – Yes/No
3. Hypertension – Yes/No
4. Osteoporosis – Yes/No
5. Diabetes – Yes/No
6. Hip Fracture – Yes/No
7. Hyperthyroidism – Yes/No
8. Hypothyroidism – Yes/No
9. GI Bleed – Yes/No
10. Obstructive Sleep Apnea – Yes/No
11. Dialysis – Yes/No
12. Hyperlipidemia – Yes/No
13. Anemia – Yes/No
14. Cognitive Impairment/Dementia – Yes/No
15. Frailty – Yes/No
16. Liver Disease – Yes/No
17. COPD – Yes/No
18. Alcohol Abuse – Yes/No
19. Drug Abuse – Yes/No

Cardiovascular History
1. Family History of AF – Yes/No
2. Peripheral Vascular Disease – Yes/No
3. Sinus Node Dysfunction/Sick Sinus Syndrome – Yes/No
4. Stroke or TIA – Yes/No
5. Congestive Heart Failure (CHF) – No CHF/NYHA Class I/NYHA Class II/NYHA Class III or NYHA Class IV
6. Significant Valvular Disease – Yes/No
7. Prior Valve Replacement/Repair – Yes/No

Coronary Artery Disease History
1. History of Coronary Artery Disease – Yes/No
2. Prior MI – Yes/No
3. Prior CABG – Yes/No
4. Any PCI – Yes/No

Vital Signs & AF status
1. Height, cm
2. Weight, kg
3. Heart Rate, bpm
4. Diastolic Blood Pressure, mmHG
5. Systolic Blood Pressure, mmHG
6. Body Mass Index, kg/m²
7. Intraventricular Conduction – RBBB/LBBB/Non-specific IVCD or Unknown-Ventricularly Paced/none

Echocardiographic Assessment (TTE or TEE)
1. LVEF – Normal (≥50%)/Mild dysfunction (>40%, <50%)/Moderate dysfunction (≥30%, <40%)/Severe dysfunction (<30%)
2. LAD Type – Normal/Mild enlargement/Moderate enlargement/Severe enlargement

Laboratory Data
1. eGFR (MDRD), mg/dl
2. Hematocrit, %
3. Atrial Fibrillation or Atrial Flutter in the most recent 12 Lead EKG – Yes/No

**Atrial Fibrillation Diagnosis**

1. EHRA Score – No symptoms/Mild/Severe/Disabling
2. AF management strategy – Rate Control/Rhythm Control
3. Prior Cardioversions – Yes/No
4. Prior antiarrhythmic drug – Yes/No
5. Catheter Ablation of AF – Yes/No

**Functional Status**

1. Functional Status – Living independently/Living with assistance or Resides in assisted living facility or Resides in skilled nursing home or Bedbound

**Provider or Site**

1. PI/Site Specialty – Cardiology/Electrophysiology/Family Practice or Internal Medicine
### Table - Predictors of AF progression, including treatment variables

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>Adjusted OR (95% CI)</th>
<th>tValue</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atrial Fibrillation or Atrial Flutter on baseline electrocardiogram</td>
<td>2.35 (1.99,2.78)</td>
<td>10.10</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Heart Rate ≤ 80, bpm (per 10 decrease)</td>
<td>0.85 (0.80,0.89)</td>
<td>5.61</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>NYHA Class III/IV vs. No heart failure</td>
<td>1.59 (1.26,2.01)</td>
<td>3.91</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>Age, years (per 10 increase)</td>
<td>1.13 (1.06,1.20)</td>
<td>3.80</td>
<td>0.0001</td>
</tr>
<tr>
<td>NYHA Class II vs. No heart failure</td>
<td>1.38 (1.15,1.65)</td>
<td>3.53</td>
<td>0.0004</td>
</tr>
<tr>
<td>Moderate left atrial enlargement vs. No enlargement</td>
<td>1.35 (1.14,1.60)</td>
<td>3.47</td>
<td>0.0005</td>
</tr>
<tr>
<td>Prior Cardioversions</td>
<td>1.26 (1.10,1.44)</td>
<td>3.28</td>
<td>0.0010</td>
</tr>
<tr>
<td>African American vs. White</td>
<td>0.59 (0.43,0.82)</td>
<td>-3.18</td>
<td>0.0015</td>
</tr>
<tr>
<td>Mild left atrial enlargement vs. No enlargement</td>
<td>1.24 (1.08,1.44)</td>
<td>2.97</td>
<td>0.0031</td>
</tr>
<tr>
<td>Severe left atrial enlargement vs. No enlargement</td>
<td>1.33 (1.09,1.62)</td>
<td>2.78</td>
<td>0.0061</td>
</tr>
<tr>
<td>NYHA Class I vs. No heart failure</td>
<td>1.23 (1.03,1.49)</td>
<td>2.23</td>
<td>0.0256</td>
</tr>
<tr>
<td>Sinus Node Dysfunction/Sick Sinus Syndrome</td>
<td>1.24 (1.01,1.50)</td>
<td>2.11</td>
<td>0.0352</td>
</tr>
<tr>
<td>Anemia</td>
<td>0.82 (0.68,0.99)</td>
<td>-2.08</td>
<td>0.0374</td>
</tr>
<tr>
<td>Persistent AF vs. Paroxysmal AF</td>
<td>0.94 (0.73,1.21)</td>
<td>-0.49</td>
<td>0.6229</td>
</tr>
<tr>
<td>Hispanic vs. White</td>
<td>1.07 (0.49,2.31)</td>
<td>0.17</td>
<td>0.8649</td>
</tr>
<tr>
<td>Other race vs. White</td>
<td>0.97 (0.59,1.58)</td>
<td>-0.13</td>
<td>0.8977</td>
</tr>
</tbody>
</table>

*Significant interaction between risk factor and baseline AF type. Odds ratio (OR) and 95% CI are attained by combining results from the 5 imputed data sets.

AF = atrial fibrillation; BPM = beats per minute; CI=confidence interval; NYHA = New York Heart Association.