BACKGROUND AND OBJECTIVES

• The economic impact of rhythm control treatments was calculated using a model developed in Microsoft Excel 2010 (Microsoft Corp., Redmond, WA).
• Different treatment scenarios (Figure 1) were compared to assess the economic benefits of AADs (dronedarone, amiodarone, sotalol, flecainide, propafenone, and dofetilide, and ablation) (Table 1).

METHODS

• The incident population with paroxysmal and persistent AFib was estimated from the observational patient-level data, the National Cardiovascular Data Registry (NCDR), and the Clinical Outcomes Utilizing reason codes and Event Sequence (CURES) database.
• A 30% increase in index ablation costs increased PPPY savings for AADs by $8,830 (group) vs. ablation.
• A 30% increase in proarrhythmia costs increased PPPY savings for AADs (group) before ablation by $2,048, $1,340, and $592, from base case, respectively.

ASSUMPTIONS

• Ablation assumptions
• Ablation target population was estimated from the observational patient-level data, the NCDR, and the CURES database.
• Ablation assumptions: procedures related to rhythm control or ablation (including proarrhythmia costs, sedation, anesthesia, and consultation costs) were included in the model.
• The incidence of rhythm control treatments was calculated using a model developed in Microsoft Excel 2010 (Microsoft Corp., Redmond, WA).

RESULTS

• The total costs PPPY as the difference between budgets of AADs from ablation (group) (Figure 2).
• The total costs PPPY as the difference between budgets of AADs vs. ablation before AADs.

Figure 1. Framework of the rhythm control economic model

Figure 2. Tornado diagram - Sensitivity analysis results (direct comparison scenario)

Table 3. AE risk of treatments used in direct comparison scenario and cost savings when compared with ablation

Table 4. AE risk of treatments (non-temporal and temporal scenarios) and cost savings vs. ablation

AADs (group): Budget Impact PPPY, $

Table 1. WAC costs of AADs

Table 2. Risk: AEs and ablation procedural costs

Figure 3. Framework of the rhythm control economic model

CONCLUSIONS

• Use of AADs, individual or in combination with ablation, resulted in comparable clinical outcomes and overall cost savings due to high procedural costs of ablation.

List of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Text</th>
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<tbody>
<tr>
<td>AF</td>
<td>Atrial fibrillation</td>
</tr>
<tr>
<td>AAD</td>
<td>Antiarrhythmic drug</td>
</tr>
<tr>
<td>Atrial flutter</td>
<td>Atrial fibrillation</td>
</tr>
<tr>
<td>AV</td>
<td>Atrioventricular</td>
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<tr>
<td>BTT</td>
<td>Biventricular temporary cardiac pacing</td>
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<tr>
<td>CABG</td>
<td>Coronary artery bypass grafting</td>
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<tr>
<td>CEA</td>
<td>Carotid endarterectomy</td>
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<tr>
<td>ECG</td>
<td>Electrocardiogram</td>
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<td>EPX</td>
<td>Electrophysiology</td>
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<tr>
<td>PCI</td>
<td>Percutaneous coronary intervention</td>
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<tr>
<td>TEG</td>
<td>Tegafur</td>
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<tr>
<td>TIA</td>
<td>Transient ischemic attack</td>
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<td>VT</td>
<td>Ventricular tachycardia</td>
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<td>ZD</td>
<td>Zidovudine</td>
</tr>
<tr>
<td>OWSA</td>
<td>Office of the Secretary of the Army</td>
</tr>
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</table>

ACKNOWLEDGMENTS:

• The authors wish to thank the following: Sanofi for providing Sanofi data for analysis.
• End-stage renal disease (ESRD) is defined as requiring intermittent dialysis or a functioning transplant.

DISCLOSURES:

• The authors report that they have received honoraria from Sanofi for the development of the study. LF and VP were employees of AstraZeneca during the conduct of this study. RP, SP, SC, and AIT are employees of Sanofi and are stockholders of Sanofi stock.

Poster #EE230

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