Patient Preferences in Decision-Making for Stroke Prophylaxis in Atrial Fibrillation

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Introduction
- Despite increased risk of stroke, many patients with atrial fibrillation (AF) do not receive stroke prophylaxis.
- Health values are not always the same between prescribers and patients (stroke averse versus bleed averse).
- While oral antithrombotic options for stroke prophylaxis have doubled in recent years, it is still unclear which option patients prefer most for stroke prophylaxis in AF.
- In order to optimize use of effective antithrombotic therapy, it is important to educate patients on the benefits and risks of medications.
- There are currently no published studies evaluating patient preferences of antithrombotic therapy for stroke prophylaxis since the TSOCs (dabigatran, rivaroxaban, apixaban) became available.

Study Objectives
Primary Objectives:
- To gain an understanding of the factors that influence patient preferences for stroke prophylaxis in AF.
- To determine the most preferred and least preferred therapeutic options for stroke prophylaxis in AF from a patient perspective.

Secondary Objective:
- To compare treatment preferences for stroke prophylaxis before and after unblinding of drug names.

Methods
Design:
- Self-administered web-based survey.
- Participants provided with background information on AF, stroke, and possible medication complications including major bleeding.
- Elicited patient preferences by 1) ranking eleven factor statements in order of importance and 2) completing a likert scale for each statement ranging from Not Important to Very Important.
- Determined which treatment option was most and least preferred when medication names were blinded and then unblinded based on a vignette profile of the drug’s efficacy, toxicity, cost, and convenience characteristics.

Study population:
- Patients without AF identified in the Island Health permission to contact database with risk factors for AF (surrogates).

Study Criteria

<table>
<thead>
<tr>
<th>Inclusion</th>
<th>Exclusion</th>
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<tbody>
<tr>
<td>- 18 years of age and older</td>
<td>- Unable to read or write English</td>
</tr>
<tr>
<td>- CHADS2 score ≥ 1</td>
<td>- Significant cognitive impairment</td>
</tr>
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<td>- History of using an oral anticoagulant for any indication</td>
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Table 1: Participant demographics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>%</th>
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<tbody>
<tr>
<td>Age (years)</td>
<td></td>
</tr>
<tr>
<td>Less than 65</td>
<td>35</td>
</tr>
<tr>
<td>65 to 74</td>
<td>56</td>
</tr>
<tr>
<td>75 or greater</td>
<td>9</td>
</tr>
<tr>
<td>Male</td>
<td>48</td>
</tr>
<tr>
<td>Undergraduate degree or higher</td>
<td>52</td>
</tr>
<tr>
<td>Household income ≥$40,000</td>
<td>56</td>
</tr>
<tr>
<td>Taking ASA</td>
<td>52</td>
</tr>
<tr>
<td>Congestive heart failure</td>
<td>9</td>
</tr>
<tr>
<td>Hypertension</td>
<td>44</td>
</tr>
<tr>
<td>Diabetes</td>
<td>48</td>
</tr>
<tr>
<td>Previous stroke or TIA</td>
<td>4</td>
</tr>
</tbody>
</table>

Results

Potential Participants n=220
Participated in survey n=66
Excluded: Previous OAC use (n=41)
Completed survey n=23

Figure 1: Recruitment flow chart

Figure 2: Rank order of medication factor preferences (median rank; IQR)

Figure 3: Importance of medication factor preferences

Figure 4: Most preferred treatment options (%)

Figure 5: Least preferred treatment options (%)

Key Findings
Medication Factor Preferences
- Reduced stroke risk and lowest risk of brain bleed had the highest median ranking
- Medication size had the lowest median ranking
- High inter-participant variability existed between factors

Treatment Preferences
- Apixaban was the most preferred treatment option
- No treatment was the least preferred treatment option
- Unblinding treatment options did not appear to affect participants’ treatment choices

Discussion
- Consistent with findings from a recent systematic review, participant preferences regarding medication factors and treatment choices were highly variable.
- Despite many patients with AF not receiving stroke prophylaxis, few participants preferred that option, and the majority considered it the worst option.

Limitations
- Small sample size
- Participants did not have AF
- No formal statistical analysis performed

Conclusion
- Surrogate participants educated about AF placed a high importance on reducing stroke risk and limiting bleed risk.
- High inter-participant variability suggests the importance of including the patient in the decision-making process when selecting a treatment option.
- Further studies are needed to assess if the findings are replicable in patients making actual clinical decisions.

References available on request