MEDICAL COSTS AVOIDED FOR PREVENTION OF STROKE WITH USE OF NOACS: ESTIMATES FOR THE REAL-WORLD

Poster Contributions
Hall C
Saturday, March 29, 2014, 10:00 a.m.-10:45 a.m.

Session Title: Arrhythmias and Clinical EP: State of the Art Anticoagulation for Atrial Fibrillation
Presentation Number: 1109-120

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Background: Results of randomized clinical trials (RCT) demonstrate that novel oral anticoagulants (NOAC) are effective therapies for preventing stroke in non-valvular atrial fibrillation (NVAF).

OBJECTIVE: To estimate the change in medical costs associated with each NOAC (apixaban, dabigatran, and rivaroxaban) instead of warfarin in a real world, NVAF population.

Methods: Patients with NVAF during 2007-2010 were selected from a Medco population of U.S. health plans. Stroke and major bleeding excluding intracranial hemorrhage (MBEIH) events were identified using diagnosis codes on medical claims. Real-world (RW) reference event rates were calculated during periods of warfarin exposure. RW event rates for NOACs were estimated by multiplying the corresponding relative risk (RR) from the RCTs by each reference rate. Absolute risk reductions (ARR) or the number of events avoided were then estimated. Changes in medical costs associated with each NOAC were calculated by applying the ARR to the one-year incremental cost for each event.

Results: Results are summarized in TABLE. Compared to RW warfarin, use of apixaban and dabigatran resulted in total (stroke plus MBEIH) medical cost reductions of $1,245 and $555 respectively during a patient year (PY). Rivaroxaban resulted in a medical cost increase of $144.

TABLE:

<table>
<thead>
<tr>
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<th>RW Event Rate per 100 PYs Warfarin Exposure</th>
<th>Apixaban vs. Warfarin</th>
<th>Dabigatran vs. Warfarin</th>
<th>Rivaroxaban vs. Warfarin</th>
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<tbody>
<tr>
<td></td>
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<td></td>
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<tr>
<td>Stroke</td>
<td>5.3</td>
<td>-0.011</td>
<td>-$493</td>
<td>-0.018</td>
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<td></td>
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<tr>
<td>MBEIH</td>
<td>10.0</td>
<td>-0.021</td>
<td>-$752</td>
<td>+0.007</td>
</tr>
</tbody>
</table>

*Positive values indicate an increase in events with NOAC vs. warfarin, **Positive values indicate an increase in costs with NOAC vs. warfarin, PY = person years

Conclusions: If RRRs demonstrated in RCTs persist in RW, apixaban would confer the greatest medical cost savings vs. warfarin, resulting from significantly lower rates of both stroke and MBEIH.