Objective

- Comparison of long-term adherence and persistence between patients receiving fingolimod (FTY) and injectable disease modifying therapies (DMTs) specifically glatiramer acetate (GA) and intramuscular interferon beta-1a (IFN-beta-1a).

Background

- Disease modifying therapies (DMTs) are the mainstay of treatment for patients with relapsing-remitting multiple sclerosis (RRMS).
- Previous studies demonstrate that adherence to subcutaneous or intramuscular DMTs can be a challenge for patients.1
- Glatiramer acetate (GA) and intramuscular interferon beta-1a (IFN-beta-1a) are commonly used injectable DMTs with a combined market share of over 50%.1
- Fingolimod is the first oral DMT approved by the FDA that provides a once-a-day dosing option for patients.1
- Currently, there are limited data comparing long-term adherence and persistence between patients receiving injectable and oral DMTs.

Methodology

- This retrospective study was conducted using medical and pharmacy claims data from four regional health plans.
- Patients aged ≥18 years with a diagnosis of multiple sclerosis (ICD-9: 340) and at least 1 claim for FTY, GA, or IFN-beta-1a during the identification period (1/1/2011-12/31/2011) and 1 additional claim during the follow-up period were included in this study.
- Index date was defined as the date of first claim for the specified drug of interest during the identification period.
- Patients were required to have continuous enrollment in medical and pharmacy benefits during the entire study period (48 months), which included a baseline period prior to the index date (12 months) and a follow-up period post the index date (36 months).
- Patient characteristic and demographic information were collected during the baseline period.
- Adherence was measured by proportion of days covered (PDC), and persistence was defined as having no gap >60 days of days covered (PDC), and persistence was defined as having no gap >60 days post the index date (36 months).

Results

Patient Comorbidities

<table>
<thead>
<tr>
<th>Comorbidity</th>
<th>Product</th>
<th>IFN-beta-1a</th>
<th>GA</th>
<th>FTY</th>
<th>p-value</th>
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</thead>
<tbody>
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<td>Adherent</td>
<td>IFN-beta-1a</td>
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<td>0.0047</td>
<td>0.0004</td>
<td></td>
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<tr>
<td>Non-adherent</td>
<td>IFN-beta-1a</td>
<td>0.0004</td>
<td>0.0047</td>
<td>0.0004</td>
<td></td>
</tr>
</tbody>
</table>

MS-Related Symptoms

- FTY patients were more adherent compared to DMT patients during the 16-month follow-up period (PDC: 67% vs 57%; p < 0.0001). The proportion of patients with PDC >80% was 51% for FTY and 19% for DMT (p < 0.0001).

Adherence Over 16 months

- At the end of the 16-month study period, a higher proportion of FTY patients (19%) remained on therapy compared to iDMT patients (4%; p < 0.0001).

Conclusion

- In this real-world setting, FTY patients had greater long-term adherence and persistence to treatment compared to iDMT patients.
- Use of therapies demonstrating a favorable rate of adherence may result in improved clinical outcomes by reducing relapse rates and delaying disease progression.
- Before selecting a therapy for RRMS patients, treatment selection should incorporate the real-world patient experience of long-term adherence and persistence in order to maximize clinical benefit.

Limitations

- FTY was only licensed for a limited number of patients (≥18 years).
- Disease modifying therapies (DMTs) specifically glatiramer acetate (GA) and intramuscular interferon beta-1a (IFN-beta-1a).

Disclosures

- This research was conducted by Magellan Rx Management, Newport, RI with external funding by Novartis Pharmaceutical Corp.

References


Acknowledgement:

The authors thank Thomas Algazzino (Novartis Pharmaceuticals Corp) for his contribution to the research project. The authors thank Jina Park, University of Maryland for her technical assistance on this poster.

AMCP Nexus 2015 | Orlando, FL