The survey contained demographic, disease characteristic, and adherence information. A database of 1000 patients with MS was created from a random sample of 969 patients from the US National Health and Wellness Survey or Lightspeed Research panel who were categorized as 'high' adherers (negative response to all four questions or 'intentional' adherence interview, positive response). Patients were categorized as 'high' adherers (negative response to all four questions or 'intentional' adherence interview, positive response).

Adherence was measured using the 4-item Morisky Medication Adherence Scale (MMAS-4), shown in Table 1. MMAS-4 is a self-reported measure of medication-taking behavior. The MMAS-4 instrument has been shown to be a valid self-reported measure. Patients score one point for every "Yes" answer. A score of 0 indicates high adherence, a score of 1 or 2 indicates intermediate adherence, and a score of 3 or 4 indicates low adherence.

<table>
<thead>
<tr>
<th>Question number</th>
<th>Question</th>
<th>Valid responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>You feel better when you take your medication</td>
<td>Yes or No</td>
</tr>
<tr>
<td>2</td>
<td>You take your medication when you feel better</td>
<td>Yes or No</td>
</tr>
<tr>
<td>3</td>
<td>You take your medication when your doctor tells you to take it</td>
<td>Yes or No</td>
</tr>
<tr>
<td>4</td>
<td>You stop taking your medication when you feel worse</td>
<td>Yes or No</td>
</tr>
</tbody>
</table>

Table 1. Questions and scoring for the MMAS-4 scale.

Patients who were categorized as being adherent to treatment, compared with those treated with sc IFN-β-1b. Among the covariates, male sex (OR 4.37; p=0.0297), time since last relapse (years, OR 1.03; p=0.0483), frequent exercise (OR 1.06; p=0.0506), and PDDS score (OR 1.34; p=0.0110) were predictive of high adherence.

- Age, time on current therapy, out-of-pocket expenditure/month, satisfaction, and importance to the patient regarding how effective the drug is at preventing magnetic resonance imaging lesions were not significant predictors of adherence.

Logistic regression model results are shown in Table 4. After adjusting for covariates, sc IFN-β-1a-patients had greater odds of high adherence (odds ratio [OR] 2.93, p=0.0191).

- Among the covariates, male sex (OR 4.37; p=0.0297), time since last relapse (years, OR 1.03; p=0.0483), frequent exercise (OR 1.06; p=0.0506), and PDDS score (OR 1.34; p=0.0110) were predictive of high adherence.

Results

Of 969 surveyed, 80 sc IFN-β-1a and 63 sc IFN-β-1b patients met inclusion criteria (mean (standard deviation) age: 49.0 (19.4) years, 88.8% female, vs 51.3 (17.7) years, 85.3% female, respectively; p values >0.05, Table 2): The proportions of respondents treated with sc IFN-β-1a or sc IFN-β-1b who responded 'Yes' to each item on the MMAS-4 are shown in Figure 1.

The questions with the highest percentages of patients responding affirmatively were "Do you ever forget to take your medication?" and "Are you careless at times about taking your medication?"

Conclusions

- In this exploratory analysis, treatment with sc IFN-β-1a was strongly associated with high adherence relative to sc IFN-β-1b.

- A higher proportion of patients receiving sc IFN-β-1a were categorized as being adherent to treatment, compared with those treated with sc IFN-β-1b.

- The findings suggest that in patients with RRMS receiving sc IFN-β-1a or sc IFN-β-1b, suboptimal adherence is most likely to be due to the patient forgetting to take, or being careless about taking, his or her medication.

References


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Disclosures

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