What Prompts a Switch in Disease Modifying Therapy

Amber R. Saltier, MPH; Tula Tyry, PhD; Daniel Belletti, MA; MPH; Manoj Malhotra, MD; Ruth Ann Marion, MD; PhD; Robert Fox, MD; Gary R. Cutter, PhD
University of Alabama at Birmingham, Birmingham, AL; Barrow Neurological Institute, Phoenix, AZ; Novartis Pharmaceuticals Corporation; University of Manitoba, Winnipeg, CAN; Cleveland Clinic Foundation, Cleveland, OH

INTRODUCTION

• The risk-benefit profiles of first generation drugs are well characterized
• Newer disease modifying therapies (DMTs) carry different risks
• The proper drug choice is complicated by many issues, for example, varied risk tolerance and disability levels.
• Reasons that patients are switching DMTs and other topics surrounding this discussion are of interest to clinicians and researchers.
• The North American Research Committee on Multiple Sclerosis (NARCOMS) registry provides a means to track participants therapy changes over time and to gather additional information from these participants.

OBJECTIVE

To investigate the reasons patients switch DMTs and to identify main patient characteristics associated with the decision.

METHODS

• A supplemental survey was conducted among participants who reported a DMT switch in 2011.
• Of the 10,821 unique participants who answered either update survey, 621 (6.5%) potentially switched and were eligible to receive the supplements.
• A switch was defined as changing from an approved DMT to another DMT in either biannual survey completed in 2011. Eligibility was defined as having a relapsing disease course, and responding affirmatively to a single question about whether their DMT has changed in the past 6 months.

• To reduce survey burden, demographic and disease history of all study participants were obtained from the NARCOMS database.
• The survey asked participants to identify their current DMT, the length of use, frequency of administration, and perceived efficacy of that DMT. Also, participants reported which DMT they had taken immediately prior to their current DMT, how long they were on that DMT as well as other DMTs used in the past.

• The primary reason and secondary reasons for the switch were recorded in addition to circumstances relating to the discussion with their physician to switch DMT.
• With the exception of age and disease duration, all variables were dichotomous variables. Descriptive statistics are presented to summarize the data. Chi square and logistic regression was used to look at differences in subgroups.

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RESULTS

• Of the 681 eligible candidates who were sent the supplemental surveys, 470 (68.6%) responded.
• Of these, 150 respondents did not fully meet the inclusion criteria: 10 reasons that patients switched in a clinical trial, 73 switched before September 2010, 63 did not actually change medication (i.e. dose or frequency changes or stopped medication instead), and 12 described themselves as not experiencing a primary progressive disease course.

• Characteristics of the respondents (n=319) included in the analysis are presented in Table 1.
• The most commonly reported DMTs to which respondents switched were fingolimod (n=132; 41.4%), natalizumab (n=165, 52.0%) and glatiramer acetate (n=36; 11.5%) (Figure 1).
• Many respondents who switched to fingolimod (60.3%), natalizumab (68.6%), and glatiramer acetate (58.3%) had been on their prior DMTs for a year or longer.
• The origin of the discussion to switch was split equally between the responder initiating the conversation (48.8%) and the physician suggesting the idea (48.6%). This was not significantly different by gender (p=0.17), age (p=0.86), disease duration (p=0.61) or PDDS level (p=0.34).

CONCLUSIONS

• Most respondents (89%) felt they had adequate information at the time of the switch about the treatment they were switching to.

• However, at the time the survey 26% of the respondents would consider switching back to their previous medications or trying something else.

• Doctor’s recommendation (24.9%) was the most frequently reported main reason to switch medications followed by lack of efficacy (43% or 13.6%).

Figure 1. Respondent’s past therapy stratified by the current therapy.

Table 2. Main reasons for switching by most recent past therapy and current therapy

<table>
<thead>
<tr>
<th>Current Therapy</th>
<th>Most Recent Past Therapy</th>
<th>Year-on-year 2011-2012</th>
<th>Long-term 2006-2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMT</td>
<td>n=319</td>
<td>n=470</td>
<td>n=681</td>
</tr>
<tr>
<td>Natalizumab</td>
<td>165 (52.0%)</td>
<td>132 (41.4%)</td>
<td>111 (16.6%)</td>
</tr>
<tr>
<td>Fingolimod</td>
<td>132 (41.4%)</td>
<td>132 (41.4%)</td>
<td>106 (15.6%)</td>
</tr>
<tr>
<td>Glatiramer Acetate</td>
<td>36 (11.5%)</td>
<td>36 (11.5%)</td>
<td>30 (4.4%)</td>
</tr>
<tr>
<td>Other</td>
<td>28 (8.8%)</td>
<td>28 (8.1%)</td>
<td>28 (4.1%)</td>
</tr>
</tbody>
</table>

• Patients reported taking a significant role in initiating the discussion of changing DMT, although physician recommendations regarding the specific therapy are still weighed heavily.

• Self reported reasons for changing DMT vary depending on the current DMT.

• Long term follow-up of these participants will provide valuable information on both their disease trajectory and satisfaction and effectiveness of their new medication.