CONCLUSIONS

• This retrospective analysis using Canadian private claims data showed that the percentage of patients deemed compliant and treated with fingolimod was similar to teriflunomide after 6 month periods, but higher than for other DMTs.

• The discontinuation rate was higher for fingolimod, but lower compared to other DMTs over the short-term (after 6 months and 12 months periods).

• The discontinuation rate with fingolimod was the lowest across all DMTs over 24-month periods.

• These findings demonstrate that for patients who receive escalation therapy, discontinuation is less likely with fingolimod versus natalizumab.

• These findings may inform MS management strategies which may lead to improved clinical and economic outcomes.

INTRODUCTION

• Current pharmacoeconomic management of relapse-remitting multiple sclerosis (RRMS) includes the use of oral, injectable, or infusible Disease-Modifying Therapies (DMTs). Achieving therapeutic goals in chronic conditions such as MS requires strict adherence to the medication and administration schedule.

• Patients who have been persistent with and adherent to DMTs have a lower risk of relapse,1,2 reduced healthcare resource utilization,3,4 reduced frequency of MS-related hospitalization and improved healthrelated quality of life compared with those who have not.5

• Once-daily oral fingolimod (GILENYA®), a sphingosine 1-phosphate receptor (S1PR) modulator, is approved in Canada for the treatment of relapsing-remitting multiple sclerosis.6 More than 134,000 patients have been treated with fingolimod both in clinical trial and post-marketing settings; total patient exposure now exceeds 289,000 patient-years.5

• Recent real-world analyses using data from US administrative claims data bases have demonstrated higher rates of persistence in patients initiating oral fingolimod therapy than in those using injectable or infusible DMTs.7

OBJECTIVE

• This analysis evaluated the compliance and discontinuation rates in patients treated with fingolimod versus those treated with other oral, injectable or infusible therapeutic options. The objective was to compare compliance and discontinuation rates in Canadian patients with RRMS treated with DMTs.

DESIGN/METHODS

• This non-interventional, retrospective analysis was based on private claims from patient cohorts accessed through IMS Brogan Rx Dynamics®. Patients had to at least one prescription filled for each DMT (oral: fingolimod, dimethyl fumarate (DMF), teriflunomide, injectable: interferon beta-1a, interferon beta-1b, glatiramer acetate; infusible: natalizumab).

• Patients were deemed compliant if the medication possession ratio (MPR) was ≥80%. The MPR was calculated by dividing Actual Usage Days using days supplied by Ideal Usage Days. Actual Usage Days refers to the number of days a patient has supply left to cover a full product or stopped therapy in the market.

• The discontinuation rate was calculated based on patients who stopped therapy or who were switched to another DMT.

• Both compliance and discontinuation rates were collected at 6-month intervals after starting a new DMT. Discontinuation rates were also observed for 12 and 24 month periods.

• Period for compliance cohorts were from May 2012 to September 2015 (rolling 36 months total). Period for discontinuation cohorts were from January 2012 to October 2015.

RESULTS

• The compliance data were collected for 11,348 patients (fingolimod, n=1,476; dimethyl fumarate (DMF), n=2,800; teriflunomide, n=1,113; natalizumab, n=589; BRACE, n=5,370) (Figure 1).

• The percentage of patients with MPR ≥80% across Canadian provinces after 6 month periods was higher for fingolimod (77%) and teriflunomide (77%), compared to other DMTs, including dimethyl fumarate (62%) natalizumab (69%), and BRACE (55%) (Figure 1).

• Discontinuation rates after 6 months periods across Canada were lowest for patients treated with fingolimod (24%, n=1,534) or teriflunomide (24%, n=1,194), compared to dimethyl fumarate (27%, n=3,029), natalizumab (34%, n=628) and BRACE (48%, n=7,605) (Figure 2).

• Fingolimod continued to have the lowest discontinuation rate across Canada after 24 month periods as compared to other DMTs; fingolimod (26%, n=518), dimethyl fumarate (36%, n=376), natalizumab (53%, n=276), and BRACE (58%, n=2,904) (Figure 3).

DISCUSSION

• The findings highlight the low rate of discontinuation in patients treated with fingolimod compared to other DMTs over a 24-month period which was not available due to recent launch.

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