Follow-up outcomes

DMD adherence

A categorical measure representing the annual medication possession ratio (MPR) during the follow-up period was evaluated to measure adherence to the index DMD route of administration (yes, self-injectable).

Discontinuation and switching

A categorical measure representing three mutually exclusive treatment outcomes was evaluated and defined as follows:

- Discontinuation was defined as the absence of the index DMD for at least 90 days during follow-up, without evidence of the DMD in the claim database.
- Reminiscing on the index DMD was defined as no evidence of the index DMD for a 90-day gap during follow-up.
- A continuous measure of average time to discontinuation was assessed among patients who discontinued their index DMD.

Descriptive analysis

A basic demographic and clinical characteristics were evaluated for patients in both cohorts.

Results

A total of 444 patients with an oral DMD and 5238 patients with a self-injectable DMD met the inclusion criteria and were included in the assessment (Figure 1).

Predictors of nonadherence

In both cohorts, the majority of patients who switched to another DMD switched to a self-injectable. No patients in the oral DMD cohort switched to another oral DMD, although only 25 patients in the oral cohort had switched. The presence of depression was associated with a significantly higher likelihood of being nonadherent to therapy (OR 1.22; p < 0.005). Among patients who discontinued their index DMD, the average time to discontinuation was similar in both cohorts (116.2 [interquartile range 56–152] vs 116.2 [interquartile range 56–152]; p < 0.001).

Limitations

A fixed MPR was utilized on a variable MPR log, dichotomizing at last treated day, which may impact results by underestimating adherence in either cohort.

Conclusions

In unadjusted analyses, adherence to therapy appeared relatively similar between the cohorts of patients with MS initiating treatment with an oral versus a self-injectable DMD.

While a higher proportion of patients in the self-injectable DMD cohort switched therapies (p < 0.05), a higher proportion also remained on treatment in the self-injectable DMD cohort (p < 0.05). In adjusted analyses, male sex and older age were associated with a lower risk of nonadherence, whereas comorbid depression was associated with a higher risk of nonadherence.

Table 2. Baseline demographic and clinical characteristics of patients with MS newly initiating a DMD.

Table 3. Adherence and discontinuation characteristics among patients with MS newly initiating a DMD.