### INTRODUCTION

- Multiple sclerosis (MS) is a chronic, irreversible autoimmune disease of the central nervous system that affects close to 1 million US adults.
- Given the high medical costs and disease burden, several disease-modifying therapies (DMTs) are available which have been shown to significantly reduce relapses, slow disability progression, and improve quality of life.
- Oftalmumab (OMB) was approved in the US in Aug 2020 as the first SC DMT to be initiated prospectively once-monthly for relapse prevention.
- The AUTHORS extended study showed that nearly 90% of patients remained on OMB over the long term (up to 4 years).
- Treatment discontinuation may be overestimated if treatment occurred outside the purview of the claims data source, e.g., due to underbilling.

### BASELINE CHARACTERISTICS

- A total of 1,168 patients met inclusion criteria (OMB n=576, platform n=592). Prior to OMB, the cohort had a higher proportion of relapses and disability in the OMB group compared to platform patients and indices in 2022.
- Matching: the demographics and clinical characteristics were balanced between the two groups (Table 1). Cochrane OMB and index remained unbalanced after matching.
- Among patients, higher proportion of patients with Pyramidal symptoms and with concurrent depression symptoms compared to patients on platform self-injectable DMTs.
- After matching, MS characteristics were balanced between the two groups (Table 2). Patients on OMB had higher risk of relapse.

### RESULTS

- The source population consists primarily of commercially insured patients in the US and may not be generalizable to other payers.
- Among patients, OMB, 66.0%, 43.0%, and 74.5% of patients had MS-D1, MS-D2, and MS-D3 diagnoses, respectively (p<0.0001). This indicates a 72% improvement in persistence over platform self-injectable DMTs.
- This study also demonstrated that patients treated with OMB had significantly higher adherence at 6-month and 12-month follow-up compared to platform patients treated with platform injectables.

### DISCUSSION

- Further study is needed to understand the mechanisms behind the observed differences.
- Understanding the factors driving treatment discontinuation is crucial for improving patient outcomes and reducing healthcare costs.

### KEY OUTCOMES

- Discontinuation was defined as a ≥30-day gap in medication use, defined as a gap between the last supply date based on expected duration of treatment or death, and the next claim date for the index therapy.
- Persistence was defined as the number of days on OMB from the index date until the earliest of discontinuation, death, or end of follow-up.
- Adherence was calculated based on proportion of OMB days prescribed (PDC), adherence for OMB-c:

### STUDY METHODS

- This was a retrospective cohort study utilizing the IQVIA PharMetrics® Plus data (a longitudinal health services research database of medication use in the US).
- Adult patients diagnosed with MS and treated with or platform a OMB or injectable DMT (glatiramer acetate, interferon beta-1a, or interferon beta-1b) were identified and indexed on the first observed therapy. Patients were followed from the index date until discontinuation of the index therapy or switch to another line of therapy or 13-months post-index for persistent patients.
- Eligible patients were matched in 1:182 (27.3%) on age and sex, Dey-Charton total index (DCGI), psychiatric diagnostic groups (POD) score, number of prior MS relapses, MS disability, and use of prior DMTs.

### MS CHARACTERS

- This study was conducted to evaluate the discontinuation and adherenece to OMB and platform self-injectable DMTs (OMB vs Platform self-injectable DMTs Matched Cohort) in commercially insured US adults, over a 12-month period.

### APPLICATIONS

- In the matched cohorts, 12.9% of patients on OMB discontinued treatment, compared to 26.6% of patients on platform injectable DMTs (p<0.0001).
- Among patients, OMB, 65.5%, 52.5%, and 77.7% of patients had MS-D1, MS-D2, and MS-D3 diagnoses, respectively (p<0.0001). This indicates a 72% improvement in persistence over platform self-injectable DMTs.
- This study also demonstrated that patients treated with OMB had significantly higher adherence at 6-month and 12-month follow-up compared to platform patients treated with platform injectables.

### LIMITATIONS

- Further study is needed to understand the mechanisms behind the observed differences.
- Understanding the factors driving treatment discontinuation is crucial for improving patient outcomes and reducing healthcare costs.