Multiple Sclerosis (MS) Prevalence, Disease-Modifying Drug (DMD) Therapy Use and Adherence, and Total Medical and Pharmacy Claims Expense Associated with MS in a 15 Million Commercially Insured Population

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• MS is classified based on initial disease course into: Relapsing-Remitting MS (RRMS), Progressive-Relapsing MS (PRMS), Primary Progressive MS (PPMS), and Secondary Progressive MS (SPMS).

Despite MS drugs being a leading driver of pharmacy benefit costs, there is limited published information on prevalence, disease course, use of disease-modifying drugs (DMDs), and adherence, all of which impact utilization, cost, and clinical outcomes. This study uses a large claims database to: (1) estimate prevalence of newly diagnosed and MS using clinical and/or diagnostic codes; (2) identify use and adherence to DMDs; and (3) assess total medical and pharmacy claims cost by member.

Methods

• Prevalence: This study used a large US health plan database to estimate prevalence of newly diagnosed and MS using clinical and/or diagnostic codes. All new claims within the database from 2015 to 2016 (n=17,534,526) were included.

• Disease-modifying drug use and adherence: This study used the medical and pharmacy claims databases to identify use and adherence to DMDs. A claims-based approach was used to identify DMD use and adherence, and claims from all members continuously enrolled for four years who had at least one DMD claim were included.

• Total medical and pharmacy claims cost: This study used the medical and pharmacy claims databases to identify total medical and pharmacy claims cost by member. A claims-based approach was used to identify total medical and pharmacy claims cost.

Results

• Prevalence: Of the 17,534,526 members in the study, 15,427,908 (87.8%) had claims and were included in the analysis. The prevalence of new diagnosis of MS was 142.2 per 100,000 members, which is approximately 78.2% of the prevalence of MS in the US population (206.9 per 100,000). This suggests that a substantial proportion of MS cases are not identified.

• Disease-modifying drug use and adherence: Of the 15,427,908 members with claims, 8,356 (0.05% of total members) had at least one MS diagnosis code and were included in the analysis.

• Total medical and pharmacy claims cost: The mean total health care cost was $37,244 PPPY (per patient per year) for all MS members, i.e., those with and without DMD utilization, of which $45,231 (71.6%) was drug cost, and $9,013 (28.4%) was non-drug cost.

Conclusions

• There is a need for additional research to understand the true prevalence of MS and to assess the impact of treatment on clinical outcomes.

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References


