Observed Real-World Diagnosis and Specialist Visit Patterns in Newly Diagnosed and Relapsing MS Patients

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Objective: To describe real-world pre-index diagnosis specialist visits and diagnosis code patterns in newly diagnosed Multiple Sclerosis patients.

Methods

A retrospective analysis of administrative U.S. claims data identified Multiple Sclerosis patients with claims activity between 2017 and 2025. Patients were stratified into quintiles using age at MS index date. The MS index date was defined as the date of first observed claim with ICD-10 code G35. Patients were required to have at least 3 claims with G35, separated by at least 12 months. To ensure a new diagnosis of MS or a new relapse, patients were required to have at least 36 months of claims activity before MS index date. The prevalence of diagnoses and specialist visits 36 months before MS index date were calculated within each quintile.

Results

The final study population included 50,669 Multiple Sclerosis patients (79% Female). The mean age at MS index was 30.39 years (SD 6.26) in the youngest quintile and 74 years (SD 5.28) in the eldest. Of females in the youngest quintile (n=8,494), 26% had a pregnancy related ICD-10 code. In the youngest quintile (n=10,209), 50% had anxiety disorders, 34% had depression, and 34% had paresthesia of skin (vs 9% in eldest). The prevalence of acute vaginitis decreases, from 19% in the youngest quintile, as age at MS index increases (3rd quintile – 6%, eldest – 3%). The prevalence of urinary tract infections increases from 23% in the youngest quintile to 34% in the eldest. Visits to Ophthalmology and Cardiovascular Disease specialists were most common in the eldest quintile (43% and 41% respectively) while visits to Neurologists were more common in younger quintiles. Emergency Room visits were prevalent in the youngest quintiles.

Conclusions

There is meaningful variation in the conditions with which would-be MS patients were diagnosed in the 3 years leading up to their MS index date. Younger MS patients were more likely to have sought care for disturbances of skin sensation, anxiety disorders, acute pharyngitis. Emergency Medicine usage and Neurologist, visits were generally higher in the younger quintiles. While older patients had a higher prevalence of Type 2 Diabetes, Hypothyroidism, and Disorders of lipoprotein metabolism. Further research should seek to quantify the prevalence of these conditions and rates of visits in comparison to Non-MS patients. It would be valuable to understand how the journey to MS diagnosis differs from a Non-MS journey in hopes of earlier detection and treatment intervention.

Figure 1. Diagnoses with Similar Prevalence Across Age Groups

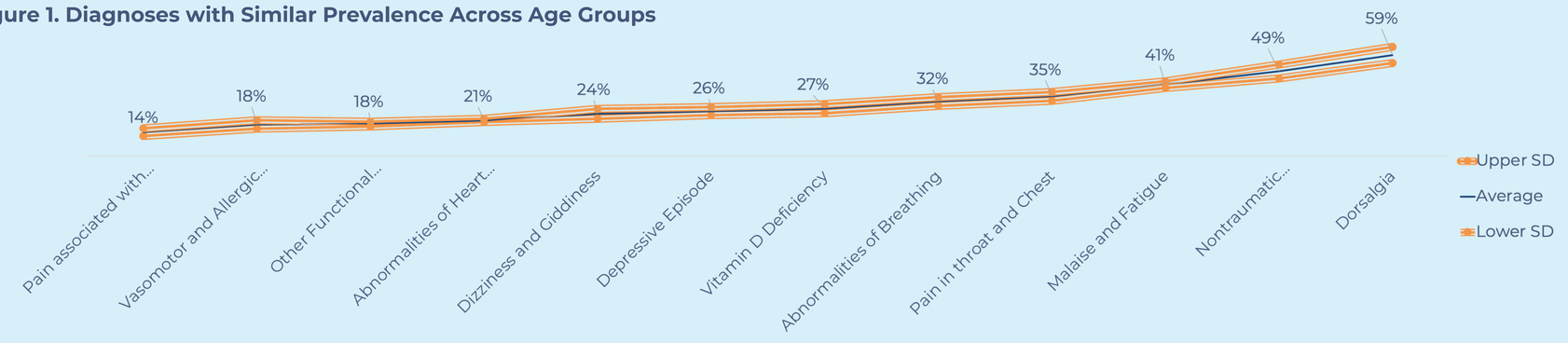

Figure 2. Diagnoses Generally More Prevalent in Younger MS Patients

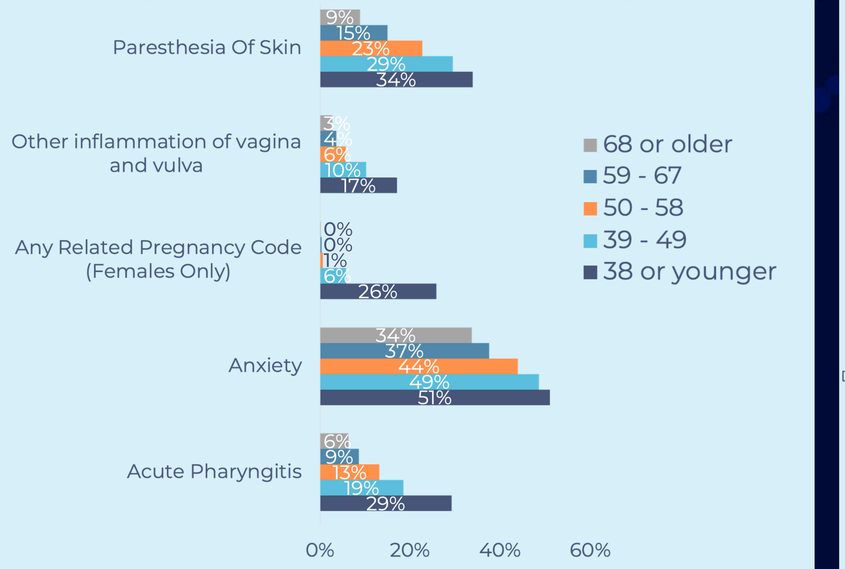

Figure 3. Diagnoses Generally More Prevalent in Older MS Patients

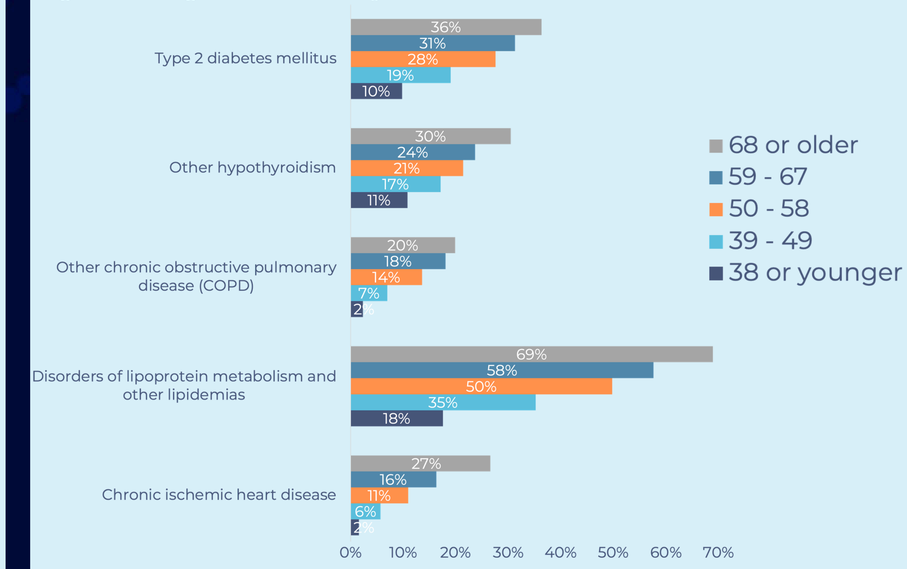

Figure 4. Visit Rate By Specialty 3 years before MS Diagnosis