



## DMT Switching in Multiple Sclerosis (US)

### OVERVIEW

The US multiple sclerosis (MS) market has become fiercely competitive with the introduction of multiple disease-modifying therapies (DMTs), including Genentech's Ocrevus for relapsing forms of MS (RMS) and primary progressive MS (PPMS), over the past several years. Pipeline therapies, such as Novartis' Mayzent, the first potential secondary progressive MS (SPMS) therapy, and EMD Serono's Mavenclad, an oral induction therapy, could further transform patient management. While the availability of multiple therapeutic tools is theoretically beneficial to the patient and neurologist, deciphering which treatment is best for which patient and when to switch therapies is a major challenge. With diagnosis occurring earlier in the disease course, the possibility of cycling through multiple therapies is a reality for a substantial subset of MS patients. Understanding when, why, and to which product a neurologist will transition a patient is critical to building an effective commercial strategy for both first-line and later-line therapies.

**RealWorld Dynamix™: DMT Switching in MS (US)** blends attitudinal and demographic physician survey data with patient record data to uncover how practice type and setting and certain beliefs influence the treatment pathway and to understand how marketed DMTs are being used by physicians and for what patient types. The report also captures physician's perspectives about products in development and the impact they will have on the current treatment paradigm among recently switched patients.

### SAMPLE & METHODOLOGY

**Spherix Global Insights** conducts an online survey with ~200 US neurologists combined with a large-scale patient record audit of over 1,000 of their MS patients that were switched to a different DMT within the past three months. Each neurologist completes an in-depth retrospective review of their last 3-7 patients who meet specific study criteria. Respondents are recruited from the Spherix Network, a proprietary group of clinical neurologists meeting our strict screening criteria. Our relationship with this network leads to more engaged respondents resulting in higher quality output. Additionally, this gives us the opportunity to more easily revisit physicians in order to uncover even more insight on strategically important findings.

### KEY QUESTIONS ANSWERED

- How has switching patterns changed compared to previous years? Has oral DMTs and Ocrevus moved up in the treatment algorithm like neurologists perceive?
- What are the most frequently prescribed agents for efficacy/safety/tolerability/patient/payer-driven switches?
- How do second-line switches differ from third and later line switches? How much time do patients spend on their previous agent before switching?
- What is the profile of a patient being switched from first-line injectable DMT versus oral DMT? Where do patients go if being switched from first-line induction therapy?
- How does switching decisions differ between MS subtypes?
- What is the opportunity cost for each brand (e.g., where would their brand have been selected if the first choice was not available)?
- Are neurologists willing to sacrifice safety risk for more efficacy in certain populations of MS patients? How does anti-JC virus antibody serostatus shape the patient pathway?
- What is the patient profile for switching to Novartis' Mayzent? EMD Serono's Mavenclad? Celgene's ozanimod? Biogen/Alkermes' diroximel fumarate?

### Products Profiled

#### Commercial Products

Bayer (Betaseron), Biogen [Avonex, Plegridy, Tecfidera, Tysabri, (historically) Zinbryta (with AbbVie)], EMD Serono (Rebif), Genentech (Ocrevus, Rituxan), Genzyme (Aubagio, Lemtrada), Mylan (generic glatiramer acetate), Novartis (Gilenya, Extavia), Sandoz (Glatopa), Teva (Copaxone)

#### Pipeline Agents

AB Science (masitinib), Biogen [diroximel fumarate (with Alkermes)], Celgene (ozanimod), EMD Serono (Mavenclad), J&J/Actelion (ponesimod), MedDay (MD-1003), MediciNova (ibudilast), Novartis (Mayzent\*, ofatumumab), TG Therapeutics (ublituximab)

\*Could move to commercial products based upon regulatory outcomes

### Key Dates

- April Publication

Note: a three day embargo is placed on delivery to non-manufacturers allowing clients time to digest the findings before public dissemination

### Deliverables

- PowerPoint report
- Frequency table & summary statistics
- On-site presentation
- Access to de-identified database through Spherix analytics team
- Proprietary questions in physician survey

### Related Reports

- RealWorld Dynamix™: DMT New Starts in Multiple Sclerosis US
- RealWorld Dynamix™: Progressive Forms of Multiple Sclerosis US
- RealWorld Dynamix™: DMT Switching in Multiple Sclerosis EU
- RealTime Dynamix™: Multiple Sclerosis US
- RealTime Dynamix™: Multiple Sclerosis EU