

# Patient reported motivations for medication switching and/or adherence challenges among patients diagnosed with Multiple Sclerosis

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## WHAT WE KNOW AND WHAT WE DON'T

### We know that...

Multiple sclerosis (MS) is a chronic, progressive, inflammatory, autoimmune disease that destroys myelinated axons in the central nervous system (CNS). It is characterized by episodes of worsening symptoms or relapses [1]. The progression of the disease is variable, but most patients (85%) initially experience relapsing remitting MS (RRMS), which is often characterized by relapsing episodes and worsening of symptoms including but not limited to: numbness, weakness, balance or coordination problems, and cognitive impairment, and is followed by periods of full or partial remission [2]. In addition to the significant burden of relapses upon the patient, the majority of costs, both direct and indirect, arise from relapses and the consequent neurological impairments and disability [3].

Pharmacologic treatments are necessary for symptom management as well as affecting the underlying disease process of RRMS, i.e., reducing patients' relapse rates, progression of disability and lesion burden, while improving Quality of Life (QoL). There are a number of treatment options for patients with RRMS, offering different combinations of efficacy, safety, tolerability and dosing frequencies.

Patient adherence to medications can help reduce or lessen relapses; however, non-adherence is a recognized problem in patients with MS. It is estimated that up to 25% of RRMS patients are non-adherent to their DMT [4]. The literature and data available on this topic is narrow and may not provide a complete picture as to why patients do not fully adhere to their treatment.

The result of non-adherence to treatment may have a negative impact on the patient's outcome and quality of life by reducing the efficacy of treatment and increasing the progression of the disease. Non-adherence can be caused by a number of factors and the need to figure out and gain a *better* understanding why patients are non-adherent to their therapy is crucial.

### We don't know...

From the voice of the clinician AND patient: WHY a patient switches or stops taking their medication for MS.

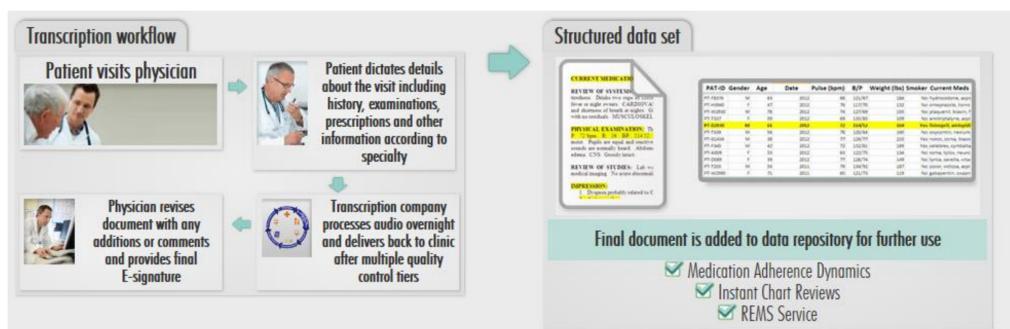
## QUESTIONS OF INTEREST

The objectives of this study were to:

- ❖ Better understand patients' reason(s) for their adherence and non-adherence
- ❖ Better understand patients' reason(s) for switching medications

## DATA

The data presented in this study represent an interaction between the clinician and patient and can be used to better understand not just **IF** but **WHY** patients are not adherent. RealHealthData works with medical transcription companies across the country to build a database of detailed narrative medical records, providing a unique perspective on patient conditions and physician interaction.



## METHODS

We extracted 150 records for MS patients from Amplity Health's unique database of physician-patient interactions. Using Atlas.ti, we analyzed these records to uncover trends for medication switches and/or non-adherence, i.e., when, why and how patients stopped, what if anything they took as a replacement or an addition as well as to the patients' reaction(s) to new medication or non-medication. Concepts were identified and those reported more frequently are presented here.

## RESULTS

Patients' ages ranged from 18-45, with a majority visiting Neurologists (69%) followed by Internal/Family medicine (5%) and Cardiologists (4%). The sample was geographically representative with patients living in New York (21%), New Jersey (19%), California (16%), Washington (14%), West Virginia (14%) and Florida (8%). Patients' functional disability was similar to the general MS population, with a noted variability of motor skills. The medications prescribed to these patients included: Copaxone (22%), Tysabri (19%), Gilenya (17%), Extavia/Betaseron (15%), Rebif (14%), Tecfidera (10%) and Aubagio (3%) [Figure 1]. Analyzing the transcripts, the patients' reported reasons for switching and/or non-adherence included: fever (45%), build-up of scar tissue from continued injections (35%), not feeling as if their medication is working (32%), kidney distress (26%), experiencing a relapse (19%) and insomnia (18%) [Figure 2].

Figure 1: Drugs Prescribed

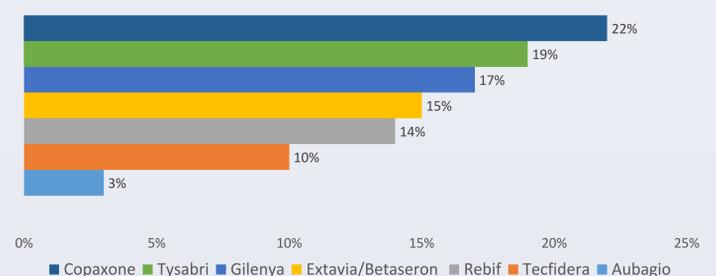
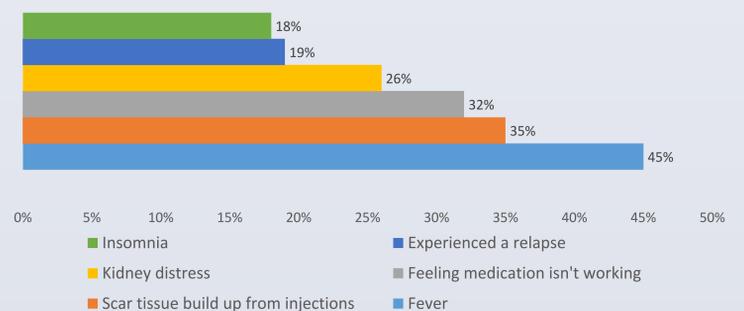


Figure 2: Reasons for Switching/Non-Adherence



Two other interesting discoveries the researchers uncovered (as they relate directly to symptoms and managing MS) included:

- ❖ 66% of patients reported their pain as a 6 or 8 (on a scale out of 10)
- ❖ 72% reported actively taking supplements in addition to their prescribed medications

## CONCLUSIONS

Although the efficacy of DMTs has been shown in several clinical studies and the benefits of these therapeutic agents are substantial for a MS patient, non-adherence to these treatments is a current recognized problem [5]. Without conducting separate surveys of clinicians or patients, we identified (from the clinicians' and patients' voices) reasons for non-adherence or switching. In addition, we learned new information regarding the actual reported pain scores of patients with MS as well as the knowledge that many patients are taking supplements to help manage some of their symptoms of MS and keep it under control.

The more that is known about patients' reasons for their behavior, the more we can actively plan and organize patient-centric research, development and outreach. Using clinician-patient interaction data can add tremendous value to outcomes researchers and healthcare decision makers.

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## ACKNOWLEDGMENTS

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