

Patient and healthcare professional perspectives of immune dynamics and MS disease-modifying therapies mode of action throughout COVID-19 pandemic

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Background and objective

- DMTs for RMS modulate or deplete immune cells, including B and T cells¹
- HCPs and patients consider many factors when selecting a DMT in a shared decision model, including efficacy, frequency/route of administration and safety
- Patient understanding of MoA and DMT effects on immune system function and dynamics may be challenging to understand²
- This understanding could be further influenced by the COVID-19 pandemic, including risk interpretation and DMT administration preferences

Objective

To assess the involvement of patients in MS treatment selection and the importance of patient understanding of MoA using a patient narrative approach, and to design a preliminary qualitative survey to inform future studies

DMT, Disease Modifying Therapies; HCP, Healthcare Professional; MoA, Mechanism of Action; MS, Multiple Sclerosis; RMS, Relapsing Multiple Sclerosis

1. Greenfield AL, Hauser SL. B-cell Therapy for Multiple Sclerosis: Entering an era. *Ann Neurol.* 2018;83(1):13-26.

2. Burtchell J, Fetty K, Miller K, Minden K, Kantor D. Two Sides to Every Story: Perspectives from Four Patients and a Healthcare Professional on Multiple Sclerosis Disease Progression. *Neurol Ther.* 2019;8(2):185-205

Methods: Survey design and distribution

- A preliminary qualitative survey was developed to explore factors most important to patients when considering DMTs, including:
 - Patient understanding of immunological aspects of MS
 - MoAs
 - Preferences for route of administration
 - Provision of MS clinical information
- Perspectives were sought from HCPs and patients on how this dialog has changed throughout the COVID-19 pandemic
- Survey was distributed by email to three patients and a caregiver

This survey was designed to follow a patient narrative approach and gather qualitative insights from a small number of respondents as a preliminary measure to inform future studies

Results



Results are based on qualitative survey results and email correspondence from two adults with RMS, an adolescent with MS and her caregiver



Overall, respondents felt they understood the general role of the immune system in MS, and the role of DMTs, but had poorer understanding of B and T cell functions and impact of DMTs, and their MoAs



Safety and efficacy were equally the most important variables when considering a new DMT



Face-to-face discussions between patients and HCPs were preferred to noninteractive materials; HCP authors (three neurologists and an MS physician assistant) agreed that more face-to-face clinic time for dialog is needed



Patient independence was a key factor in preferences for methods of administration



Respondents reported an increase in MoA conversations in light of COVID-19

Results

“I feel that the most important things are safety and [efficacy]. There’s not much of a point in taking medication that won’t work very well for you. I also kind of feel that knowing how the medications work goes hand in hand with safety.”

– DC

Results

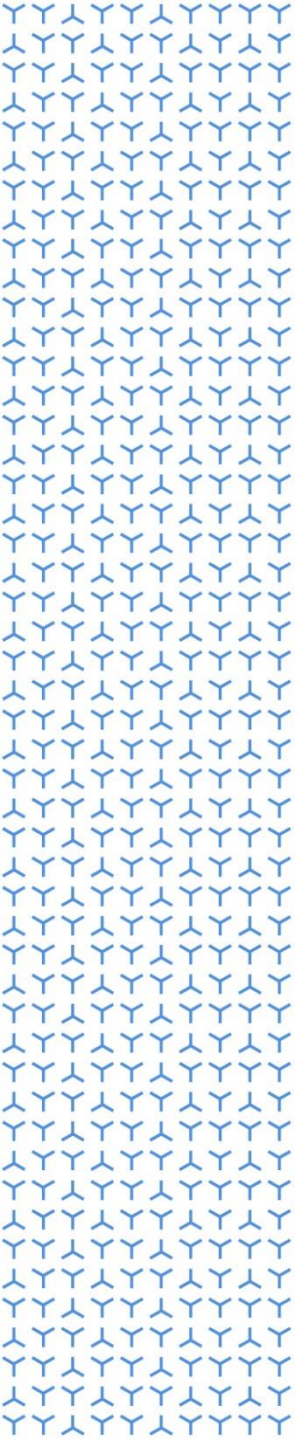
“I’ve always been curious about the mechanism of action with any drug I take, whether it’s for a migraine or for MS. I feel like knowing how drugs work allows me to make better informed choices when it comes to selecting treatments. Understanding the mechanism of action can also shed more light on why certain side effects may be likely to occur. Knowledge is power and when you have a chronic illness like MS it’s important to learn all you can about every aspect of the disease and how it’s treated.” – JB

Results

“I think it is important to use the mode of learning that is effective for the patient. ... Watching and seeing a video is the most effective strategy for me to learn. It is important for the care professional to meet the [patient] where they best learn to communicate about the disease-modifying treatments” – TS

Conclusions

- **While safety and efficacy are important in patients' considerations of DMTs, there is a clear need to increase understanding of MoAs when starting or switching DMTs**
- **Immunological knowledge has become increasingly important during the COVID-19 pandemic**
- **The preliminary qualitative survey can be used to inform future studies of what is needed to improve communication between HCPs and patients on DMT MoAs**



Thank you