# Real-World Disease Burden and Treatment Experiences of Patients With MS in the US: Results From the vsMS™ Survey

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## OBJECTIVE

 To evaluate the impact of MS, beliefs about MS, and treatment experiences of MS patients in the US subpopulation of vsMS participants

### INTRODUCTION

- vsMS is a global, electronic, anonymous survey of patients living with MS and care partners, designed to evaluate the impact of MS on their daily lives and their experiences with treatment
- Disability associated with relapse is a primary contributor to the burden of MS, but other factors such as fatigue, cognitive impairment, and emotional and social burden also disrupt the day-to-day lives of those living with the disease<sup>1,2</sup>
- Treatment guidelines recommend use of an appropriate disease-modifying therapy (DMT) for MS,<sup>3</sup> the primary goal being to reduce the relapse rate and mitigate long-term disease progression and cumulative disability<sup>4,5</sup>
- A number of studies have investigated DMT use from the patient's viewpoint<sup>6-9</sup>; however, systematic data on patient perspectives of their treatment experience, as well as their beliefs about MS and the impact of the disease, have been lacking
- Greater understanding of patients' views on the burden and treatment of MS in a real-world setting may improve overall patient care and treatment outcomes

### METHODS

- The development of the survey questionnaire was overseen and guided by a steering committee of expert MS clinicians
- The survey was conducted during July and August 2015, and included patients with RRMS and care partners living in Australia, Canada, France, Italy, Spain, the UK, and the US
   Data reported here are from the US subpopulation
- Criteria for participation for individuals with MS included: age ≥18 years, literacy in the local language, and diagnosis of RRMS
- · Participants completed a 20-minute electronic survey
- Individuals were identified and recruited via survey panels managed by a third party (Kantar Health, New York, NY)
- Survey findings for care partners are reported elsewhere<sup>10</sup>

# RESULTS

#### **Participant Characteristics**

- Of the 1075 participants with RRMS who completed the vsMS survey, 605 (56.3%) were from the US
- Mean age at symptom onset for US participants was 32.3 years
- Time since MS diagnosis
- Within the past <5 years: 14.7%</li>
- Within the past 5 to <10 years: 22.6%</li>
- Within the past 10–15 years: 24.0%
- Within the past >15 years: 38.7%Relapses in previous 12 months:
- Relapses in previous 12 n – None: 51.7%
- None: 51.7%
  1 relapse: 26.6%
- 2 relapses: 11.4%
- >2 relapses: 10.2%

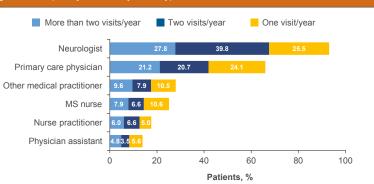
- CONCLUSIONS
- This survey highlights that patients value healthcare visits, but a majority delayed starting an MS DMT after diagnosis even though 68% were recommended by their neurologist to start treatment immediately, and 86% agreed that disease progression is more likely if treatment is delayed
- Patients considered reduction of disease activity and improved mobility very/extremely important factors when choosing a DMT, but after starting therapy, fewer patients expected to have improvements in mobility

### RESULTS

#### **HCP Visits and Current Therapies**

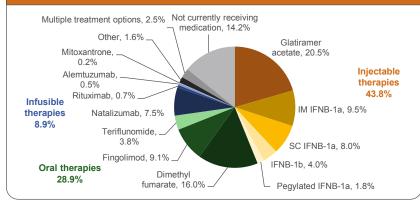
- 95.7% of patients agreed that regular visits to a HCP were important
- Patients reported visiting HCPs frequently for their MS (Figure 1)

### Figure 1. Frequency of Visits by HCP Type



- 85.8% of participants with RRMS were currently receiving a DMT; 14.2% were not currently receiving medication (Figure 2)
- 67.6% of participants reported that their neurologist suggested to start treatment immediately after diagnosis
  - Only 38.2% of participants actually began treatment immediately following diagnosis
- Of patients not starting treatment immediately, 31.9% delayed less than 1 year, 15.2% delayed from 1 to less than 2 years, and 52.9% delayed 2 years or more

### Figure 2. RRMS Patients' Current Therapies



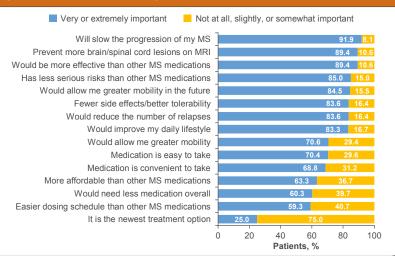
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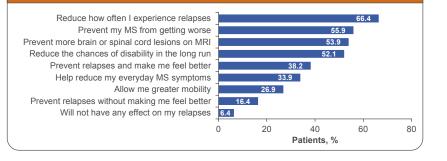
#### Reasons for not starting treatment immediately following diagnosis included: no medications available when diagnosed (16.9%), neurologist recommended waiting before starting treatment (13.6%), and several factors relating to a lack of understanding the risks of not treating MS with DMT: patients did not think treatment was needed (12.5%), patients wanted to see how they felt without taking it (10.2%), patients wanted to try alternative therapy or lifestyle modification (10.3%), and patients did not like the way the medication was administered (6.9%)

- Efficacy, particularly regarding slowing disease progression and preventing MRI lesions, and safety, were the main considerations driving choice of DMT (Figure 3)
- Patients' expectations for therapy included reduction or prevention of disease worsening, and retaining function; fewer patients expected improvements in symptoms or mobility (Figure 4)

#### Figure 3. Factors When Considering Different MS Treatments



#### Figure 4. Patients' Expectations of MS Treatments After Starting Therapy



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These data confirm the negative impact of MS on activities of daily living, and identify misconceptions about MS among patients in the US

#### Impact of Disease and Beliefs About MS

- Since diagnosis, many patients experienced an increase in the burden of MS, including worsening energy level, physical functioning, ability to exercise, and ability to fulfill professional goals (Figure 5)
- · 40.2% reported an increasing impact of MS on daily activities over the prior 24 months
- 86.4% of patients believed that disease progression was more likely if treatment was not started early, in spite of fewer than half starting treatment immediately after diagnosis (Figure 6)
   Approximately app heli michicoly believed that relapse would pet hele to the transmission of the started terms when the transmission of the started terms when terms wh
- Approximately one half mistakenly believed that relapses would not lead to irreversible damage

### Figure 5. Physical, Social, and Emotional Burden of MS

Changed for the worse Did not chan since diagnosis	nge	Changed for	or the better	since diagnosis
Level of energy			74.0	21.7 4.3
Physical functioning			58.8 3	35.7 <mark>5.5</mark>
Ability to exercise	-	52.7	36.4	10.9
Outlook	-	45.6	38.7	15.7
Ability to fulfill professional goals	-	48.4	42.0	9.6
Emotional well-being	-	42.5	47.1	10.4
Ability to process information	-	42.3	51.4	6.3
Time for social activities	-	39.5	48.9	11.6
Financial well-being	-	38.7	48.3	13.1
Ability to cope with stress	-	37.7	40.0	22.3
Self-esteem	32	2.7	49.8	17.5
Roles in life with family, friends, work	3	4.0	52.7	13.2
Time for family activities	26.4		51.7	21.8
Relationship with friends	23.6		58.0	18.3
Abilty to have/take care of children	22.5		69.4	8.1
Relationship with family	15.5	59.	8	24.6
		10		
	0 20	40	60	80 100
	Patients, %			

