P441

A Cross-Sectional Survey Evaluating Cladribine Tablets Treatment Patterns Among Patients With Multiple Sclerosis Across the US Enrolled in the MS LifeLines Patient Support Program

Jacqueline Nicholas,[1] deMauri S. Mackie,[2] Halley Costantino,[2] Lori Lebson,[3] Emily Mulvihill,[2] Amy L. Phillips[4]

[1]OhioHealth Multiple Sclerosis Center, Columbus, OH, USA; [2]Cerner Enviza, Malvern, PA, USA; [3]US Medical Affairs – Neurology & Immunology, EMD Serono, Rockland, MA, USA; [4]North America Evidence and Value Development, EMD Serono, Rockland, MA, USA

CONCLUSIONS

Patients primarily saw their neurologists in person (81.4%), although some (15.1%) had virtual visits. Most (75.1%) expressed that they had social support

Switches to cladribine tablets occurred from oral (36.2%), self-injectable (24.3%), and infusion (24.2%) DMTs

In this cross-sectional survey of 602 patients at different timepoints during their cladribine tablets treatment regimen (at least half were at the point where they had completed Year 2, Month 2), few patients switched to another DMT (4.7%)

BACKGROUND

- Real-world evidence for cladribine tablets in patients with MS continues to emerge

OBJECTIVE

To better understand the patient characteristics and treatment patterns among patients with MS enrolled in the MS LifeLines patient support program

METHODS

- Enrollees from MS LifeLines from 5/12/2021–8/29/2022 were invited to participate in an internet-based survey
- Enrollees were included if they self-reported physician-diagnosed relapsing MS, initiated cladribine tablets, were aged ≥18 years, and consented to participating in the survey
- Information collected included demographics, clinical characteristics, MS treatment/disease history, prior DMTs, and cladribine tablets treatment patterns
- Findings were analyzed descriptively

RESULTS

Baseline demographics

- Among 602 patients initiating cladribine tablets between 4/2019–8/2022 and completing the survey from 7/7/2022–8/29/2022 (**Table 1**):
  - mean (SD) age was 47.8 (11.9) years
  - 81.6% of patients were female
  - race/ethnicity was 76.9% White, 8.1% Black/African American, and 7.0% Hispanic/Latino/Spanish

MS disease characteristics

- Most patients reported having RRMS (87.4%) or SPMS (9.8%) (**Table 2**)
- Median (range) age at start of MS symptoms was 30.0 (6.0-67.0) years, and time of diagnosis was 35.0 (7.0-68.0)
- Most patients reported not experiencing a relapse in the past year (60.3%)
- Among those reporting a relapse in the past year (39.7%), the mean (SD) number of relapses was 2.1 (2.1)

Table 1. Baseline demographic characteristics

	Cladribine tablets (N=602)	
Age, years		
Mean (SD)	47.8 (11.9)	
Median (min – max)	48.0 (20.0–78.0)	
	n	**%**
Biological sex		
Male	111	18.4%
Female	491	81.6%
Race/ethnicity (calculated)		
Hispanic	42	7.0%
White	463	76.9%
Black or African American	49	8.1%
Asian or Asian American	5	0.8%
American Indian/Alaska Native	1	0.2%
Multirace	12	2.0%
Some other race or origin	5	0.8%
Decline to answer	25	4.2%
Education (grouped)		
Less than college/university degree	275	45.7%
College/university degree	325	53.9%
Don't know/decline to answer	2	0.3%
Annual household income (grouped)		
<$25,000	75	12.5%
$25,000 to <$50,000	109	18.1%
$50,000 to <$100,000	175	29.1%
$100,000 +	154	25.6%
Don't know/decline to answer	89	14.8%
US Census region of residence		
Northeast	96	15.9%
Midwest	154	25.6%
South	273	45.3%
West	79	13.1%

RESULTS, CONT.

Table 2. MS disease characteristics

	Cladribine tablets (N=602)	
	n	**%**
Current MS diagnosis		
Clinically isolated syndrome (CIS)	1	0.2%
Relapsing-remitting MS (RRMS)	526	87.4%
Active secondary progressive MS (SPMS)	59	9.8%
Non-active secondary progressive MS (SPMS)	8	1.3%
Primary progressive MS (PPMS)	8	1.3%
Age, Median (min - max)		
Start of MS symptoms	30.0 (6.0–67.0)	
Time of MS diagnosis	35.0 (7.0–68.0)	
Start of DMT	35.0 (7.0–68.0)	
Time since most recent relapse in years (among those who have ever experienced a MS relapse)		
n	490	
Mean (SD)	2.8 (4.3)	
Median (min – max)	0.9 (0.0–27.0)	
I have not experienced a relapse, n (%)	112	18.6%
Experienced a MS relapse in the past year		
Yes, n (%)	239	39.7%
No, n (%)	363	60.3%
Number of MS relapses over the past year		
n	602	
Mean (SD)	0.8 (1.7)	
Median (min – max)	0.0 (0.0–15.0)	
Number of MS relapses over the past year, among those with at least one		
n	239	
Mean (SD)	2.1 (2.1)	
Median (min – max)	1.0 (1.0–15.0)	

Internet and neurologist access and availability of support

- Patients' most recent visit to their neurologist was in-person (81.4%) or virtually (15.1%) (**Table 3**)
- The mean (SD) time to travel to their neurologist's office was 1.1 (2.5) hours
- Approximately three-quarters of patients (75.1%) had social support, most commonly from their spouse or significant other (79.2%), child (27.4%), parent (21.9%), friend or neighbor (14.6%), or sibling (12.2%)
- Most patients used a mobile phone (61.8%) or laptop (20.3%) to complete the survey

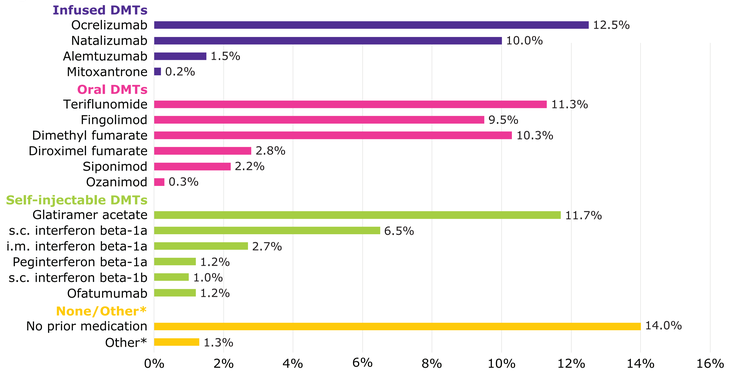
Table 3. Internet and neurologist access and availability of support

	Cladribine tablets (N=602)	
Time to travel from home to neurologist's office (hours)		
n	490	
Mean (SD)	1.1 (2.5)	
Median (min – max)	1.00 (0.0–40.0)	
	n	**%**
Format of most recent visit with neurologist		
In-person	490	81.4%
Virtual visit	91	15.1%
Telephone visit	21	3.5%
Social support		
Yes	452	75.1%
No	150	24.9%
Relationship to social support [more than one could be selected]		
Spouse or significant other	358	79.2%
Child	124	27.4%
Grandchild	7	1.5%
Parent	99	21.9%
Sibling	55	12.2%
Other relative	22	4.9%
Friend or neighbor	66	14.6%
Other	15	3.3%
Device(s) used to complete survey [more than one could be selected]		
Mobile phone	372	61.8%
Tablet	47	7.8%
Laptop	122	20.3%
Desktop computer	75	12.5%
At-home internet access		
Yes	593	98.5%
No	9	1.5%

Switching to cladribine tablets

- Switches to cladribine tablets occurred from oral (36.4%), self-injectable (24.3%), and infusion (24.2%) DMTs (**Figure 1**)

Figure 1. Treatment switched to cladribine tablets

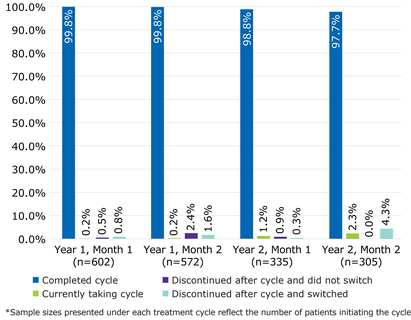


*Patients stated the following for "other": rituximab (n=5), corticosteroids (n=2), or methotrexate (n=1).

Completion and discontinuation of cladribine tablets

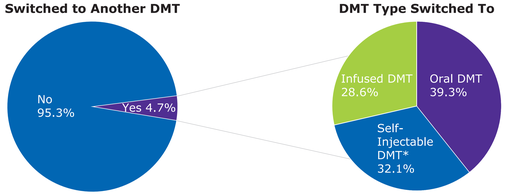
- As this was a cross-sectional survey, patients were at different time points of the 2-year cladribine tablets treatment regimen (**Figure 2**)
- Nearly all patients completed or were planning to complete their currently initiated treatment cycle, and very few required a switch to another DMT (**Figure 2**):
  - Year 1, month 1 (n=602, 100% initiated, 99.8% completed, 0.5% discontinued without switching, 0.8% switched);
  - Year 1, month 2 (n=572, 95.0% initiated, 99.8% completed, 2.4% discontinued without switching, 1.6% switched);
  - Year 2, month 1 (n=335, 55.6% initiated, 98.8% completed, 0.9% discontinued without switching, 0.3% switched); and
  - Year 2, month 2 (n=305, 50.7% initiated, 97.7% completed, 4.3% switched)

Figure 2. Cycle of cladribine tablets completed*



*Sample sizes presented under each treatment cycle reflect the number of patients initiating the cycle.

Figure 3. Switching to DMTs after cladribine tablets discontinuation



*Among these 9 patients, 6 patients switched to ofatumumab and 3 patients switched to glatiramer acetate.

- Of the 28 patients from the total cohort who switched to another DMT (4.7%), 39.3% switched to an oral DMT, 32.1% switched to a self-injectable DMT, and 28.6% switched to an infused DMT (**Figure 3**). The mean (SD) time to switch was 16.6 (11.0) months
- The mean (SD) time to switch from cladribine tablets initiation was 16.6 (11.0) months

LIMITATIONS

Limitations of this study include the lack of a control group, patient recall and reporting bias, and that the time points may vary from patient to patient

The observed results may not be generalized to other patient populations (ie, patients not participating in the MS LifeLines Patient Support Program) due to potential differences in data source populations, indications, treatment practices, and endpoint definitions

Abbreviations: CIS, clinically isolated syndrome; **DMT**, disease-modifying therapy; **i.m.**, intramuscular; **max**, maximum; **min**, minimum; **MS**, multiple sclerosis; **PPMS**, primary progressive MS; **RRMS**, relapsing-remitting MS; **s.c.**, subcutaneous; **SPMS**, secondary progressive MS.

Acknowledgments: This study was sponsored by EMD Serono, Inc., Rockland, MA, USA (CrossRefFunder ID: 10.13039/100004755), who reviewed and provided feedback on the poster. The authors thank Natalie C. Edwards, MSc of Health Services Consulting Corporation for drafting the poster. Writing and editorial support was provided by Kelly Cameron of Ashfield MedComms (New York, NY, USA), an Inizio company. The authors had full editorial control of the poster and provided their final approval of all content.

Disclosures: JN: Received grant support from EMD Serono. **DSM, HC,** and **EM:** Employees of Cerner Enviza. Cerner Enviza received funding from EMD Serono. **LL** and **ALP:** Employees of EMD Serono, Rockland, MA, USA.

Presented at the Americas Committee for Treatment and Research in Multiple Sclerosis (ACTRIMS) Forum 2023 | February 23–25, 2023