Patient Characteristics and Treatment Patterns Prior to Initiating Cladribine Tablets: A US Retrospective Commercial Claims Analysis



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CONCLUSIONS



The most common prior DMTs for patients taking cladribine tablets were ocrelizumab, dimethyl fumarate, and fingolimod



Medications for spasticity/tremor and depression were the most frequently taken medications in the year prior to initiating cladribine tablets



These results provide a better understanding of real-world patient characteristics and treatment patterns among US commercially insured patients receiving cladribine tablets



BACKGROUND

- Real-world evidence for utilization of cladribine tablets in the US is emerging
- Understanding the characteristics of patients taking cladribine tablets and any prior treatment patterns is beneficial to healthcare providers to determine the most appropriate therapies for their patients with MS
- To our knowledge, this is the first study that utilized data from commercially insured patients in the US to examine patient characteristics and baseline treatments in patients that initiated cladribine tablets



OBJECTIVE

 To evaluate patient characteristics and treatment patterns prior to initiating cladribine tablets



METHODS

- Patients aged 18-63 years with ≥1 cladribine tablets claim from 4/1/2019-6/30/2021 (cladribine tablets initiation = index date), ≥2 MS diagnoses ≥30 days apart from 1/1/2012–6/30/2021, and continuous commercial insurance 12 months prior to index date were included from the IQVIA PharMetrics® Plus database
- Patient characteristics evaluated were age, sex, geographic region, CCI score, select comorbidities, all-cause and MS-related ER visits and hospitalizations occurring in the 1-year pre-index period, prior DMT, and other medication use
- All endpoints were analyzed descriptively. Means (SD) or medians (IQRs) were reported for continuous variables, and counts and percentages (%) were reported for categorical variables



RESULTS

- There were 380 patients who met inclusion criteria (**Table 1**)
- Mean (SD) age of patients was 45.8 (9.7) years, 77.1% were female, and US geographical distribution of the patients was 38.9% South, 30.3% Midwest, 22.6% East, and 8.2% West (**Table 2**)
- Mean (SD) CCI score was 0.57 (1.1), and common comorbidities in the 1-year pre-index period are provided in Table 3
- Baseline MS-related and all-cause healthcare resource use in the 1 year prior to starting cladribine tablets is provided in **Table 4**
- About two-thirds of patients (66.8%) had ≥1 DMT during the 1-year pre-index period, as shown in **Figure 1**
- Patients also had other medication use in the 1-year pre-index period, including prescriptions for spasticity/ tremor medications (41.3%), antidepressants (41.1%), oral glucocorticoids (36.6%), and others (Figure 2)

Table 1. Patient selection and attrition

Criteria	atients (n)	Excluded (%)
≥1 claim for (cladribine) tablets at any time (date of initiation = index date)	686	NA
Exclude if index date after 6/30/2021	634	7.6
≥2 MS diagnosis ≥30 days apart between 1/1/2012-6/30/2021	612	3.5
≥12 months continuous medical and pharmacy eligibility pre-index	439	28.3
Aged 18–63 years	402	8.4
Exclude if code indicating pregnancy 1-year pre-index	382	5.0
Exclude if POS codes of hospice, inpatient mental health, or inpatient rehabilitation 1-year pre-index	380	0.5

Table 2. Patient baseline demographic characteristics (n=380)

Demographic characteristic	
Age, years	
Mean (SD)	45.8 (9.7)
Median (min-max; IQR)	47 (20-62; 39-53)
Sex, n (%)	
Female	293 (77.1)
Male	87 (22.9)
US geographic region, n (%)	
South	148 (38.9)
Midwest	115 (30.3)
East	86 (22.6)
West	31 (8.2)



Table 3. Patient baseline clinical characteristics (n=380)

0.57 (1.1)
144 (37.9)
33 (8.7)
28 (7.4)
26 (6.8)
23 (6.1)
13 (3.4)
13 (3.4)
11 (2.9)
10 (2.6)
10 (2.6)
8 (2.1)

Table 4. Patient baseline healthcare resource use in the 1 year prior to starting cladrihine tablets (n=380)

Healthcare resource/event	
ER visits	
All-cause, n (%)	94 (24.7)
All-cause, mean number (SD) per patient with visit	3.2 (1.8)
MS-related, n (%)	9 (2.4)
MS-related, mean number (SD) per patient with visit	2.3 (1.7)
Hospitalizations, n (%)	
All-cause	33 (8.7)
MS-related	15 (3.9)
MS relapses*, n (%)	20 (5.3)

*Relapses are measured as MS-related hospitalizations or ER visits.

Figure 1. Last DMT use prior to initiating cladribine tablets (n=254*)

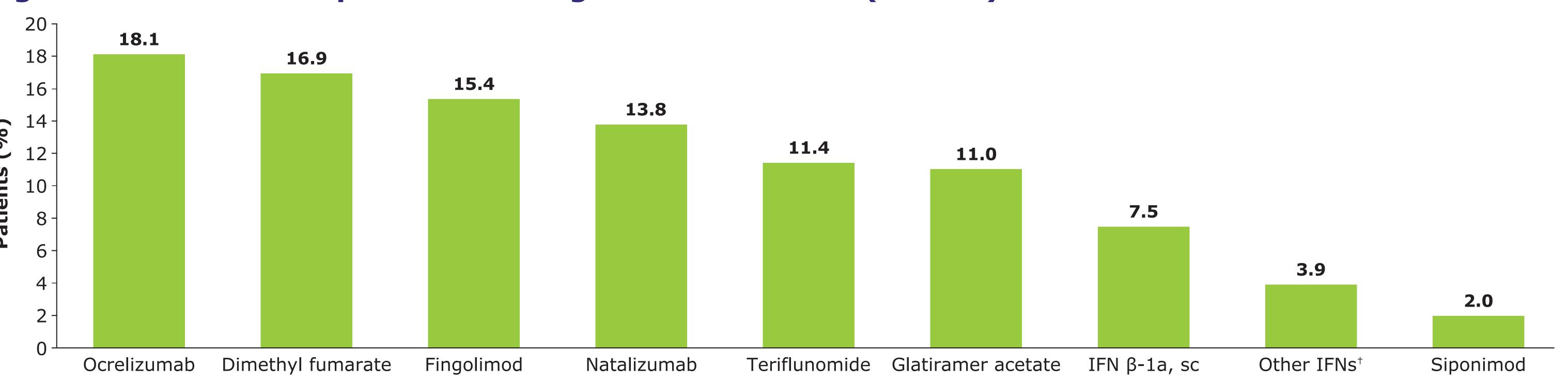
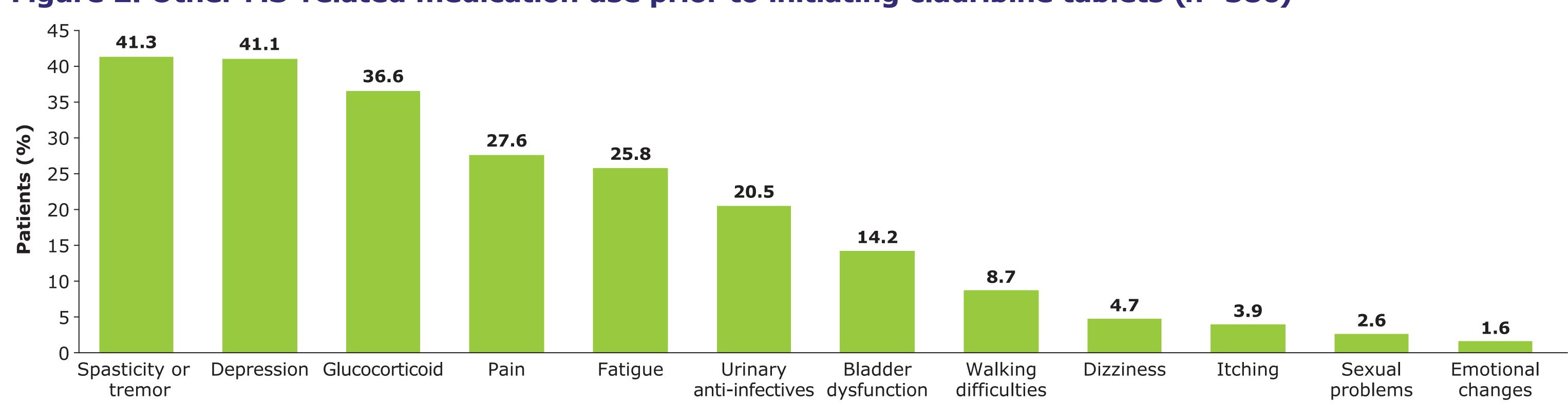


Figure 2. Other MS-related medication use prior to initiating cladribine tablets (n=380)





- Use of administrative claims only provides information about dispensed medications and does not provide information about whether patients took the medication
- Relapse rates as measured by hospitalization and ER visits reflect severe events and may under-report milder relapses
- Patients in this study had commercial health insurance and findings may not be generalizable to patients with other types of insurance

Abbreviations: CCI, Charlson Comorbidity Index; DMT, disease-modifying therapy; ER, emergency room; IFN, interferon; im, intramuscular; IQR, interquartile range; MS, multiple sclerosis; NA, not applicable; PEG, pegylated; POS, place of service; sc, subcutaneous; SD, standard deviation; US, United States. the poster was provided by Natalie C. Edwards, MSc, of Health Services Consulting Corporation, and Rebecca Harris, PhD, and Dena McWain of the poster was provided their location, and Rebecca Harris, PhD, and Dena McWain of the poster and provided their location, and Rebecca Harris, PhD, and Dena McWain of the poster and provided their location, and Rebecca Harris, PhD, and Dena McWain of the poster and provided their location, and Rebecca Harris, PhD, and Rebecca Harris, PhD, and Dena McWain of the poster and provided their location of the poster and provided the po final approval of all content.