

Supplementary Materials

Treatment Patterns and Unmet Need for Patients with Progressive Multiple Sclerosis in the United States: Survey Results from 2016 to 2021

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Table S1. Reasons for selecting current DMT regimen (2018–2021)

	Active PPMS (N = 317)				Nonactive PPMS (N = 618)				Active SPMS (N = 121)				Nonactive SPMS (N = 265)			
	Infusions (n = 131)	Orals (n = 43)	Injectables (n = 25)	All ^a (n = 199)	Infusions (n = 196)	Orals (n = 75)	Injectables (n = 48)	All ^a (n = 323)	Infusions (n = 40)	Orals (n = 25)	Injectables (n = 19)	All ^a (n = 85)	Infusions (n = 81)	Orals (n = 61)	Injectables (n = 27)	All ^a (n = 173)
Effectiveness-related reasons																
Any	131 (100.0)	42 (97.7)	24 (96.0)	197 (99.0)	195 (99.5)	69 (92.0)	41 (85.4)	308 (95.4)	40 (100.0)	24 (96.0)	18 (94.7)	83 (97.7)	81 (100.0)	56 (91.8)	26 (96.3)	166 (96.0)
Slows disease progression	104 (79.4)	32 (74.4)	19 (76.0)	155 (78.9)	159 (81.1)	59 (78.7)	33 (68.8)	253 (78.3)	37 (92.5)	21 (84.0)	13 (68.4)	72 (84.7)	73 (90.1)	45 (73.8)	20 (74.1)	140 (80.9)
Reduces relapse frequency	64 (48.9)	20 (46.5)	7 (28.0)	91 (45.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	27 (67.5)	21 (84.0)	8 (42.1)	57 (67.1)	44 (54.3)	31 (50.8)	19 (70.4)	96 (55.5)
Reduces relapse severity	51 (38.9)	19 (44.2)	11 (44.0)	81 (40.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	24 (60.0)	15 (60.0)	8 (42.1)	48 (56.5)	36 (44.4)	24 (39.3)	12 (44.4)	72 (41.6)
Long-term efficacy	59 (45.0)	21 (48.8)	12 (48.0)	92 (46.2)	92 (46.9)	49 (65.3)	24 (50.0)	166 (51.4)	27 (67.5)	9 (36.0)	8 (42.1)	45 (52.9)	30 (37.0)	28 (45.9)	14 (51.9)	73 (42.2)
Reduces fatigue/weakness	19 (14.5)	9 (20.9)	6 (24.0)	34 (17.1)	35 (17.9)	13 (17.3)	10 (20.8)	58 (18.0)	3 (7.5)	2 (8.0)	2 (10.5)	7 (8.2)	7 (8.6)	11 (18.0)	3 (11.1)	21 (12.1)
Reduces inflammation	53 (40.5)	15 (34.9)	9 (36.0)	77 (38.7)	81 (41.3)	21 (28.0)	13 (27.1)	116 (35.9)	14 (35.0)	6 (24.0)	11 (57.9)	31 (36.5)	29 (35.8)	20 (32.8)	6 (22.2)	57 (33.0)
Improves balance/coordination	40 (30.5)	10 (23.3)	7 (28.0)	57 (28.6)	48 (24.5)	11 (14.7)	3 (6.3)	62 (19.2)	15 (37.5)	6 (24.0)	8 (42.1)	29 (34.1)	19 (23.5)	8 (13.1)	4 (14.8)	31 (17.9)
Reduces brain atrophy	30 (22.9)	9 (20.9)	5 (20.0)	44 (22.1)	45 (23.0)	11 (14.7)	5 (10.4)	61 (18.9)	10 (25.0)	6 (24.0)	3 (15.8)	20 (23.5)	6 (7.4)	12 (19.7)	3 (11.1)	21 (12.1)
Reduces lesions	46 (35.1)	15 (34.9)	6 (24.0)	67 (33.7)	74 (37.8)	19 (25.3)	9 (18.8)	102 (31.6)	16 (40.0)	7 (28.0)	9 (47.4)	32 (37.7)	34 (42.0)	13 (21.3)	1 (3.7)	48 (27.8)
Reduces cognitive deterioration	21 (16.0)	5 (11.6)	4 (16.0)	30 (15.1)	35 (17.9)	5 (6.7)	5 (10.4)	45 (13.9)	12 (30.0)	5 (20.0)	5 (26.3)	22 (25.9)	7 (8.6)	13 (21.3)	2 (7.4)	22 (12.7)
Effective in SPMS	19 (14.5)	2 (4.7)	0 (0.0)	21 (10.6)	29 (14.8)	3 (4.0)	2 (4.2)	34 (10.5)	22 (55.0)	12 (48.0)	6 (31.6)	41 (48.2)	47 (58.0)	16 (26.2)	4 (14.8)	68 (39.3)
Effective in PPMS	78 (59.5)	13 (30.2)	6 (24.0)	97 (48.7)	130 (66.3)	23 (30.7)	8 (16.7)	162 (50.2)	13 (32.5)	0 (0.0)	0 (0.0)	13 (15.3)	8 (9.9)	0 (0.0)	1 (3.7)	9 (5.2)

	Active PPMS (N = 317)				Nonactive PPMS (N = 618)				Active SPMS (N = 121)				Nonactive SPMS (N = 265)			
	Infusions (n = 131)	Orals (n = 43)	Injectables (n = 25)	All ^a (n = 199)	Infusions (n = 196)	Orals (n = 75)	Injectables (n = 48)	All ^a (n = 323)	Infusions (n = 40)	Orals (n = 25)	Injectables (n = 19)	All ^a (n = 85)	Infusions (n = 81)	Orals (n = 61)	Injectables (n = 27)	All ^a (n = 173)
Enhances myelin sheath	9 (6.9)	6 (14.0)	0 (0.0)	15 (7.5)	15 (7.7)	7 (9.3)	1 (2.1)	23 (7.1)	1 (2.5)	1 (4.0)	0 (0.0)	2 (2.4)	12 (14.8)	3 (4.9)	0 (0.0)	15 (8.7)
Administration-related reasons																
Any	78 (59.5)	32 (74.4)	15 (60.0)	125 (62.8)	117 (59.7)	59 (78.7)	29 (60.4)	208 (64.4)	27 (67.5)	20 (80.0)	13 (68.4)	61 (71.8)	49 (60.5)	43 (70.5)	11 (40.7)	105 (60.7)
Convenient administration	50 (38.2)	29 (67.4)	8 (32.0)	87 (43.7)	86 (43.9)	55 (73.3)	9 (18.8)	151 (46.8)	20 (50.0)	19 (76.0)	10 (52.6)	50 (58.8)	34 (42.0)	36 (59.0)	4 (14.8)	76 (43.9)
Clear and simple dosing regimen	46 (35.1)	22 (51.2)	9 (36.0)	77 (38.7)	72 (36.7)	32 (42.7)	23 (47.9)	129 (39.9)	17 (42.5)	17 (68.0)	11 (57.9)	45 (52.9)	30 (37.0)	25 (41.0)	9 (33.3)	66 (38.2)
Less frequent injections	37 (28.2)	7 (16.3)	2 (8.0)	46 (23.1)	68 (34.7)	25 (33.3)	10 (20.8)	103 (31.9)	11 (27.5)	10 (40.0)	3 (15.8)	24 (28.2)	16 (19.8)	11 (18.0)	3 (11.1)	30 (17.3)
Reduce disruption to patient's life	34 (26.0)	9 (20.9)	4 (16.0)	47 (23.6)	46 (23.5)	21 (28.0)	6 (12.5)	74 (22.9)	17 (42.5)	8 (32.0)	3 (15.8)	28 (32.9)	22 (27.2)	7 (11.5)	1 (3.7)	31 (17.9)
Safety and tolerability-related reasons																
Any	69 (52.7)	20 (46.5)	15 (60.0)	104 (52.3)	88 (44.9)	37 (49.3)	28 (58.3)	155 (48.0)	20 (50.0)	13 (52.0)	13 (68.4)	47 (55.3)	37 (45.7)	29 (47.5)	13 (48.2)	80 (46.2)
Less monitoring required	11 (8.4)	5 (11.6)	2 (8.0)	18 (9.1)	15 (7.7)	7 (9.3)	16 (33.3)	40 (12.4)	3 (7.5)	1 (4.0)	2 (10.5)	7 (8.2)	1 (1.2)	5 (8.2)	4 (14.8)	10 (5.8)
Better tolerability	18 (13.7)	11 (25.6)	7 (28.0)	36 (18.1)	23 (11.7)	1 (1.3)	17 (35.4)	54 (16.7)	4 (10.0)	3 (12.0)	6 (31.6)	13 (15.3)	5 (6.2)	13 (21.3)	7 (25.9)	26 (15.0)
Reduced injection-site reaction/pain	11 (8.4)	2 (4.7)	3 (12.0)	16 (8.0)	10 (5.1)	6 (8.0)	2 (4.2)	18 (5.6)	4 (10.0)	1 (4.0)	0 (0.0)	5 (5.9)	5 (6.2)	2 (3.3)	0 (0.0)	7 (4.1)
Reduced risk of liver damage	1 (0.8)	3 (7.0)	1 (4.0)	5 (2.5)	2 (1.0)	3 (4.0)	3 (6.3)	8 (2.5)	1 (2.5)	1 (4.0)	1 (5.3)	3 (3.5)	2 (2.5)	1 (1.6)	0 (0.0)	3 (1.7)
Lack of serious side effects	7 (5.3)	5 (11.6)	7 (28.0)	19 (9.6)	6 (3.1)	7 (9.3)	15 (31.3)	28 (8.7)	2 (5.0)	3 (12.0)	3 (15.8)	8 (9.4)	6 (7.4)	6 (9.8)	3 (11.1)	15 (8.7)
Less flu-like symptoms	17 (13.0)	7 (16.3)	5 (20.0)	29 (14.6)	27 (13.8)	10 (13.3)	8 (16.7)	45 (13.9)	3 (7.5)	2 (8.0)	7 (36.8)	12 (14.1)	14 (17.3)	8 (13.1)	0 (0.0)	22 (12.7)

	Active PPMS (N = 317)				Nonactive PPMS (N = 618)				Active SPMS (N = 121)				Nonactive SPMS (N = 265)			
	Infusions (n = 131)	Orals (n = 43)	Injectables (n = 25)	All ^a (n = 199)	Infusions (n = 196)	Orals (n = 75)	Injectables (n = 48)	All ^a (n = 323)	Infusions (n = 40)	Orals (n = 25)	Injectables (n = 19)	All ^a (n = 85)	Infusions (n = 81)	Orals (n = 61)	Injectables (n = 27)	All ^a (n = 173)
Reduced cardiac risk/less need for cardiac monitoring	9 (6.9)	4 (9.3)	1 (4.0)	14 (7.0)	10 (5.1)	3 (4.0)	2 (4.2)	15 (4.6)	0 (0.0)	1 (4.0)	3 (15.8)	4 (4.7)	6 (7.4)	0 (0.0)	0 (0.0)	6 (3.5)
Reduced risk of GI upset	18 (13.7)	4 (9.3)	2 (8.0)	24 (12.1)	19 (9.7)	2 (2.7)	5 (10.4)	26 (8.1)	2 (5.0)	4 (16.0)	4 (21.1)	10 (11.8)	6 (7.4)	10 (16.4)	0 (0.0)	16 (9.3)
Good benefit/risk balance	25 (19.1)	5 (11.6)	5 (20.0)	35 (17.6)	49 (25.0)	18 (24.0)	6 (12.5)	74 (22.9)	10 (25.0)	9 (36.0)	5 (26.3)	24 (28.2)	17 (21.0)	9 (14.8)	4 (14.8)	30 (17.3)
Avoids drug interactions	10 (7.6)	4 (9.3)	1 (4.0)	15 (7.5)	10 (5.1)	4 (5.3)	0 (0.0)	14 (4.3)	2 (5.0)	4 (16.0)	3 (15.8)	9 (10.6)	3 (3.7)	2 (3.3)	0 (0.0)	5 (2.9)
Other reasons																
Any	94 (71.8)	31 (72.1)	16 (64.0)	141 (70.9)	140 (71.4)	50 (66.7)	31 (64.6)	223 (69.0)	31 (77.5)	20 (80.0)	12 (63.2)	64 (75.3)	64 (79.0)	40 (65.6)	16 (59.3)	124 (71.7)
Patient's quality of life	59 (45.0)	19 (44.2)	12 (48.0)	90 (45.2)	83 (42.4)	38 (50.7)	17 (35.4)	139 (43.0)	24 (60.0)	18 (72.0)	6 (31.6)	49 (57.7)	38 (46.9)	23 (37.7)	10 (37.0)	74 (42.8)
Effects can be seen on MRI scan	16 (12.2)	6 (14.0)	2 (8.0)	24 (12.1)	25 (12.8)	9 (12.0)	4 (8.3)	38 (11.8)	7 (17.5)	0 (0.0)	0 (0.0)	7 (8.2)	13 (16.1)	4 (6.6)	1 (3.7)	18 (10.4)
Cost-effective therapy	2 (1.5)	1 (2.3)	3 (12.0)	6 (3.0)	7 (3.6)	1 (1.3)	5 (10.4)	14 (4.3)	2 (5.0)	2 (8.0)	2 (10.5)	6 (7.1)	1 (1.2)	1 (1.6)	2 (7.4)	6 (3.5)
Improves patient compliance	20 (15.3)	4 (9.3)	0 (0.0)	24 (12.1)	32 (16.3)	12 (16.0)	4 (8.3)	49 (15.2)	3 (7.5)	5 (20.0)	0 (0.0)	8 (9.4)	16 (19.8)	12 (19.7)	1 (3.7)	30 (17.3)
Patient request	8 (6.1)	6 (14.0)	3 (12.0)	17 (8.5)	24 (12.2)	22 (29.3)	10 (20.8)	57 (17.7)	3 (7.5)	4 (16.0)	1 (5.3)	8 (9.4)	8 (9.9)	13 (21.3)	3 (11.1)	25 (14.5)
Good trial data/evidence	55 (42.0)	6 (14.0)	7 (28.0)	68 (34.2)	86 (43.9)	12 (16.0)	7 (14.6)	105 (32.5)	16 (40.0)	7 (28.0)	8 (42.1)	31 (36.5)	41 (50.6)	10 (16.4)	4 (14.8)	56 (32.4)
In accordance with guidelines	54 (41.2)	7 (16.3)	5 (20.0)	66 (33.2)	84 (42.9)	8 (10.7)	5 (10.4)	97 (30.0)	14 (35.0)	6 (24.0)	8 (42.1)	28 (32.9)	35 (43.2)	13 (21.3)	5 (18.5)	53 (30.6)
Level of availability/insurance coverage	13 (9.9)	5 (11.6)	4 (16.0)	22 (11.1)	19 (9.7)	5 (6.7)	4 (8.3)	29 (9.0)	1 (2.5)	3 (12.0)	1 (5.3)	5 (5.9)	13 (16.1)	12 (19.7)	4 (14.8)	29 (16.8)
Patient support program	19 (14.5)	6 (14.0)	0 (0.0)	25 (12.6)	28 (14.3)	5 (6.7)	2 (4.2)	36 (11.2)	2 (5.0)	3 (12.0)	0 (0.0)	5 (5.9)	16 (19.8)	4 (6.6)	2 (7.4)	22 (12.7)

Total N values for each column correspond to the number of patients who received DMTs **and** for whom data were available

^aIncludes patients with 'other' mode of administration (active PPMS: $n = 0$, nonactive PPMS: $n = 4$, active SPMS: $n = 1$, nonactive SPMS: $n = 4$)

DMT disease-modifying treatment, *GI* gastrointestinal, *MRI* magnetic resonance imaging, *PPMS* primary progressive multiple sclerosis, *SPMS* secondary progressive multiple sclerosis

Table S2. Reasons for selecting current DMT regimen (2016–2017)

	Active PPMS (N = 219)				Nonactive PPMS (N = 429)				Active SPMS (N = 39)				Nonactive SPMS (N = 59)			
	Infusions (n = 36)	Orals (n = 58)	Injectables (n = 44)	All ^a (n = 141)	Infusions (n = 36)	Orals (n = 58)	Injectables (n = 74)	All ^a (n = 182)	Infusions (n = 10)	Orals (n = 10)	Injectables (n = 9)	All ^a (n = 30)	Infusions (n = 8)	Orals (n = 17)	Injectables (n = 12)	All ^a (n = 38)
Effectiveness-related reasons																
Any	35 (97.2)	58 (100.0)	42 (95.5)	138 (97.9)	35 (97.2)	53 (91.4)	67 (90.5)	168 (92.3)	10 (100.0)	10 (100.0)	8 (88.9)	29 (96.7)	8 (100.0)	17 (100.0)	11 (91.7)	37 (97.4)
Slows disease progression	33 (91.7)	44 (75.9)	21 (47.7)	100 (70.9)	29 (80.6)	43 (74.1)	42 (56.8)	126 (69.2)	10 (100.0)	8 (80.0)	6 (66.7)	25 (83.3)	7 (87.5)	14 (82.4)	6 (50.0)	28 (73.7)
Reduces relapse frequency	29 (80.6)	41 (70.7)	26 (59.1)	98 (69.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	9 (90.0)	7 (70.0)	6 (66.7)	23 (76.7)	6 (75.0)	10 (58.8)	9 (75.0)	25 (65.8)
Reduces relapse severity	23 (63.9)	33 (56.9)	20 (45.5)	77 (54.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	9 (90.0)	7 (70.0)	5 (55.6)	22 (73.3)	4 (50.0)	9 (52.9)	10 (83.3)	23 (60.5)
Long-term efficacy	13 (36.1)	24 (41.4)	21 (47.7)	59 (41.8)	16 (44.4)	21 (36.2)	44 (59.4)	92 (50.6)	9 (90.0)	6 (60.0)	2 (22.2)	18 (60.0)	7 (87.5)	7 (41.2)	7 (58.3)	22 (57.9)
Reduces fatigue/weakness	8 (22.2)	8 (13.8)	11 (25.0)	27 (19.2)	10 (27.8)	7 (12.1)	23 (31.1)	44 (24.2)	2 (20.0)	2 (20.0)	1 (11.1)	5 (16.7)	2 (25.0)	2 (11.8)	1 (8.3)	5 (13.2)
Reduces inflammation	26 (72.2)	27 (46.6)	17 (38.6)	72 (51.1)	22 (61.1)	17 (29.3)	21 (28.4)	69 (37.9)	6 (60.0)	4 (40.0)	1 (11.1)	11 (36.7)	2 (25.0)	4 (23.5)	2 (16.7)	8 (21.1)
Improves balance/coordination	4 (11.1)	9 (15.2)	12 (27.3)	26 (18.4)	7 (19.4)	6 (10.3)	15 (20.3)	29 (15.9)	0 (0.0)	2 (20.0)	0 (0.0)	2 (6.7)	3 (37.5)	0 (0.0)	1 (8.3)	4 (10.5)
Reduces brain atrophy	10 (27.8)	16 (27.6)	11 (25.0)	37 (26.2)	9 (25.0)	14 (24.1)	16 (21.6)	43 (23.6)	3 (30.0)	4 (40.0)	0 (0.0)	8 (26.7)	1 (12.5)	1 (5.9)	1 (8.3)	3 (7.9)
Reduces lesions	21 (58.3)	23 (39.7)	14 (31.8)	60 (42.6)	12 (33.3)	24 (41.4)	17 (23.0)	63 (34.6)	5 (50.0)	2 (20.0)	0 (0.0)	8 (26.7)	2 (25.0)	3 (17.7)	3 (25.0)	8 (21.1)
Reduces cognitive deterioration	4 (11.1)	16 (27.6)	11 (25.0)	32 (22.7)	5 (13.9)	3 (5.2)	16 (21.6)	29 (15.9)	4 (40.0)	2 (20.0)	0 (0.0)	6 (20.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Effective in SPMS	8 (22.2)	6 (10.3)	2 (4.6)	16 (11.4)	5 (13.9)	4 (6.9)	2 (2.7)	11 (6.0)	7 (70.0)	3 (30.0)	3 (33.3)	14 (46.7)	3 (37.5)	4 (23.5)	3 (25.0)	11 (29.0)
Effective in PPMS	15 (41.7)	12 (20.7)	8 (18.2)	36 (25.5)	18 (50.0)	20 (34.5)	25 (33.8)	75 (41.2)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

	Active PPMS (N = 219)				Nonactive PPMS (N = 429)				Active SPMS (N = 39)				Nonactive SPMS (N = 59)			
	Infusions (n = 36)	Orals (n = 58)	Injectables (n = 44)	All ^a (n = 141)	Infusions (n = 36)	Orals (n = 58)	Injectables (n = 74)	All ^a (n = 182)	Infusions (n = 10)	Orals (n = 10)	Injectables (n = 9)	All ^a (n = 30)	Infusions (n = 8)	Orals (n = 17)	Injectables (n = 12)	All ^a (n = 38)
Enhances myelin sheath	6 (16.7)	4 (6.9)	3 (6.8)	13 (9.2)	4 (11.1)	5 (8.6)	3 (4.1)	12 (6.6)	0 (0.0)	1 (10.0)	0 (0.0)	1 (3.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Administration-related reasons																
Any	22 (61.1)	38 (65.5)	20 (45.5)	82 (58.2)	15 (41.7)	4 (6.9)	33 (44.6)	97 (53.3)	6 (60.0)	5 (50.0)	5 (55.6)	17 (56.7)	2 (25.0)	9 (52.9)	6 (50.0)	18 (47.4)
Convenient administration	13 (36.1)	30 (51.7)	4 (9.1)	48 (34.0)	7 (19.4)	38 (65.5)	7 (9.5)	52 (28.6)	1 (10.0)	4 (40.0)	4 (44.4)	10 (33.3)	0 (0.0)	8 (47.1)	0 (0.0)	9 (23.7)
Clear and simple dosing regimen	17 (47.2)	25 (43.1)	14 (31.8)	57 (40.4)	12 (33.3)	27 (46.6)	16 (21.6)	59 (32.4)	5 (50.0)	5 (50.0)	1 (11.1)	11 (36.7)	0 (0.0)	7 (41.2)	3 (25.0)	11 (29.0)
Less frequent injections	10 (27.8)	10 (17.2)	7 (15.9)	28 (19.9)	2 (5.6)	23 (39.7)	19 (25.7)	48 (26.4)	2 (20.0)	1 (10.0)	0 (0.0)	3 (10.0)	2 (25.0)	2 (11.8)	3 (25.0)	7 (18.4)
Reduce disruption to patient's life	5 (13.9)	7 (12.1)	0 (0.0)	13 (9.2)	4 (11.1)	5 (8.6)	5 (6.8)	14 (7.7)	0 (0.0)	1 (10.0)	0 (0.0)	2 (6.7)	2 (25.0)	0 (0.0)	0 (0.0)	2 (5.3)
Safety and tolerability-related reasons																
Any	20 (55.6)	38 (65.5)	29 (65.9)	89 (63.1)	17 (47.2)	38 (65.5)	45 (60.2)	108 (59.3)	6 (60.0)	9 (90.0)	4 (44.4)	20 (66.7)	4 (50.0)	7 (41.2)	5 (41.7)	17 (44.7)
Less monitoring required	4 (11.1)	8 (13.8)	2 (4.6)	14 (9.9)	1 (2.8)	11 (19.0)	9 (12.2)	21 (11.5)	0 (0.0)	3 (30.0)	1 (11.1)	4 (13.3)	1 (12.5)	1 (5.9)	0 (0.0)	2 (5.3)
Better tolerability	1 (2.8)	10 (17.2)	5 (11.4)	17 (12.1)	2 (5.6)	10 (17.2)	19 (25.7)	31 (17.0)	1 (10.0)	5 (50.0)	1 (11.1)	8 (26.7)	2 (25.0)	3 (17.7)	2 (16.7)	8 (21.1)
Reduced injection-site reaction/pain	5 (13.9)	11 (19.0)	2 (4.6)	18 (12.8)	5 (13.9)	17 (29.3)	17 (23.0)	40 (22.0)	0 (0.0)	6 (60.0)	2 (22.2)	8 (26.7)	1 (12.5)	0 (0.0)	1 (8.3)	3 (7.9)
Reduced risk of liver damage	1 (2.8)	5 (8.6)	2 (4.6)	8 (5.7)	3 (8.3)	11 (19.0)	3 (4.1)	17 (9.3)	0 (0.0)	0 (0.0)	1 (11.0)	1 (3.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Lack of serious side effects	0 (0.0)	3 (5.2)	1 (2.3)	4 (2.8)	0 (0.0)	3 (5.2)	5 (6.8)	8 (4.4)	0 (0.0)	0 (0.0)	0 (0.0)	1 (3.3)	0 (0.0)	2 (11.8)	1 (8.3)	3 (7.9)
Less flu-like symptoms	0 (0.0)	8 (13.8)	11 (25.0)	19 (13.5)	3 (8.3)	9 (15.5)	13 (17.6)	25 (13.7)	0 (0.0)	3 (30.0)	1 (11.1)	4 (13.3)	2 (25.0)	0 (0.0)	0 (0.0)	2 (5.3)

	Active PPMS (N = 219)				Nonactive PPMS (N = 429)				Active SPMS (N = 39)				Nonactive SPMS (N = 59)			
	Infusions (n = 36)	Orals (n = 58)	Injectables (n = 44)	All ^a (n = 141)	Infusions (n = 36)	Orals (n = 58)	Injectables (n = 74)	All ^a (n = 182)	Infusions (n = 10)	Orals (n = 10)	Injectables (n = 9)	All ^a (n = 30)	Infusions (n = 8)	Orals (n = 17)	Injectables (n = 12)	All ^a (n = 38)
Reduced cardiac risk/less need for cardiac monitoring	9 (25.0)	12 (20.7)	10 (22.7)	32 (22.7)	4 (11.1)	6 (10.3)	8 (10.8)	25 (13.7)	4 (40.0)	1 (10.0)	0 (0.0)	5 (16.7)	0 (0.0)	2 (11.8)	3 (25.0)	5 (13.2)
Reduced risk of GI upset	0 (0.0)	1 (1.7)	1 (2.3)	2 (1.4)	2 (5.6)	0 (0.0)	3 (4.1)	5 (2.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Good benefit/risk balance	11 (30.6)	15 (25.9)	7 (15.9)	33 (23.4)	9 (25.0)	11 (19.0)	9 (12.2)	29 (15.9)	1 (10.0)	3 (30.0)	2 (22.2)	6 (20.0)	1 (12.5)	1 (5.9)	0 (0.0)	3 (7.9)
Avoids drug interactions	1 (2.8)	1 (1.7)	5 (11.4)	7 (5.0)	2 (5.6)	2 (3.5)	8 (10.8)	12 (6.6)	0 (0.0)	0 (0.0)	0 (0.0)	1 (3.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Other reasons																
Any	28 (77.8)	39 (67.2)	24 (54.6)	93 (66.0)	22 (61.1)	34 (58.6)	34 (46.0)	102 (56.0)	7 (70.0)	8 (80.0)	4 (44.4)	20 (66.7)	4 (50.0)	10 (58.8)	5 (42.7)	19 (50.0)
Patient's quality of life	9 (25.0)	12 (20.7)	4 (9.1)	26 (18.4)	6 (16.7)	8 (13.8)	8 (10.8)	22 (12.1)	0 (0.0)	0 (0.0)	0 (0.0)	1 (3.3)	2 (25.0)	1 (5.9)	0 (0.0)	3 (7.9)
Effects can be seen on MRI scan	12 (33.3)	6 (10.3)	4 (9.1)	22 (15.6)	8 (22.2)	3 (5.2)	6 (8.1)	19 (10.4)	2 (20.0)	1 (10.0)	0 (0.0)	3 (10.0)	0 (0.0)	1 (5.9)	1 (8.3)	2 (5.3)
Cost-effective therapy	2 (5.6)	3 (5.2)	1 (2.3)	6 (4.3)	0 (0.0)	2 (3.5)	4 (5.4)	7 (3.9)	10 (100.0)	10 (100.0)	9 (100.0)	30 (100.0)	0 (0.0)	0 (0.0)	1 (8.3)	1 (2.6)
Improves patient compliance	10 (27.8)	11 (19.0)	3 (6.8)	24 (17.0)	9 (25.0)	16 (27.6)	6 (8.1)	33 (18.1)	3 (30.0)	5 (50.0)	2 (22.2)	11 (36.7)	1 (12.5)	2 (11.8)	0 (0.0)	3 (7.9)
Patient request	4 (11.1)	14 (24.1)	1 (2.3)	19 (13.5)	5 (13.9)	15 (25.9)	8 (10.8)	28 (15.4)	0 (0.0)	1 (10.0)	0 (0.0)	1 (3.3)	1 (12.5)	6 (35.3)	1 (8.3)	8 (21.1)
Good trial data/evidence	17 (47.2)	17 (29.3)	16 (36.4)	51 (36.2)	8 (22.2)	10 (17.2)	14 (18.9)	34 (18.7)	1 (10.0)	5 (50.0)	1 (11.1)	7 (23.3)	3 (37.5)	3 (17.7)	4 (33.3)	10 (26.3)
In accordance with guidelines	14 (38.9)	14 (24.1)	19 (43.2)	48 (34.0)	8 (22.2)	11 (19.0)	12 (16.2)	37 (20.3)	6 (60.0)	3 (30.0)	1 (11.1)	10 (33.3)	2 (25.0)	2 (11.8)	1 (8.3)	5 (13.2)
Level of availability/insurance coverage	2 (5.6)	5 (8.6)	7 (15.9)	14 (9.9)	1 (2.8)	3 (5.2)	6 (8.1)	11 (6.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Patient support program	7 (19.4)	1 (1.7)	1 (2.3)	9 (6.4)	4 (11.1)	7 (12.1)	4 (5.4)	15 (8.2)	1 (10.0)	0 (0.0)	0 (0.0)	2 (6.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

Total N values for each column correspond to the number of patients who received DMTs **and** for whom data were available

DMT disease-modifying treatment, *GI* gastrointestinal, *MRI* magnetic resonance imaging, *PPMS* primary progressive multiple sclerosis, *SPMS* secondary progressive multiple sclerosis

^aIncludes patients with 'other' mode of administration (active PPMS: $n = 3$, nonactive PPMS: $n = 14$, active SPMS: $n = 1$, nonactive SPMS: $n = 1$)

Table S3. Issues with current DMT regimen (2018–2021)

	Active PPMS (N = 317)				Nonactive PPMS (N = 618)				Active SPMS (N = 121)				Nonactive SPMS (N = 265)			
	Infusions (n = 146)	Orals (n = 48)	Injectables (n = 33)	All ^a (n = 229)	Infusions (n = 217)	Orals (n = 86)	Injectables (n = 77)	All ^a (n = 385)	Infusions (n = 48)	Orals (n = 31)	Injectables (n = 28)	All ^a (n = 109)	Infusions (n = 91)	Orals (n = 67)	Injectables (n = 39)	All ^a (n = 202)
Side effect and safety-related issues																
Any	27 (18.5)	15 (31.3)	5 (15.2)	47 (20.5)	43 (19.8)	12 (14.1)	18 (23.4)	73 (19.0)	13 (27.1)	9 (29.0)	5 (17.9)	27 (24.8)	14 (15.4)	13 (19.4)	7 (18.0)	35 (17.3)
Lymphocytopenia	2 (1.4)	2 (4.2)	0 (0.0)	4 (1.8)	0 (0.0)	1 (1.2)	0 (0.0)	1 (0.3)	1 (2.1)	1 (3.2)	0 (0.0)	2 (1.8)	1 (1.1)	6 (9.0)	0 (0.0)	7 (3.5)
Thrombocytopenia	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (6.5)	0 (0.0)	2 (1.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Risk of PML	10 (6.9)	2 (4.2)	0 (0.0)	12 (5.2)	13 (6.0)	4 (4.7)	0 (0.0)	17 (4.4)	4 (8.3)	1 (3.2)	0 (0.0)	5 (4.6)	8 (8.8)	3 (4.5)	0 (0.0)	11 (5.5)
Cardiac events	1 (0.7)	0 (0.0)	0 (0.0)	1 (0.4)	0 (0.0)	1 (1.2)	0 (0.0)	1 (0.3)	0 (0.0)	1 (3.2)	0 (0.0)	1 (0.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Macular edema	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Headache	5 (3.4)	3 (6.3)	3 (9.1)	11 (4.8)	17 (7.8)	2 (2.3)	7 (9.1)	26 (6.8)	6 (12.5)	3 (9.7)	1 (3.6)	10 (9.2)	1 (1.1)	1 (1.5)	1 (2.6)	3 (1.5)
Rash	3 (2.1)	1 (2.1)	0 (0.0)	4 (1.8)	8 (3.7)	0 (0.0)	0 (0.0)	8 (2.1)	2 (4.2)	3 (9.7)	0 (0.0)	5 (4.6)	0 (0.0)	1 (1.5)	1 (2.6)	2 (1.0)
Urticaria	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.5)	0 (0.0)	1 (0.5)
Fever	2 (1.4)	0 (0.0)	0 (0.0)	2 (0.9)	4 (1.8)	2 (2.3)	2 (2.6)	8 (2.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.5)	0 (0.0)	1 (0.5)
Nausea	6 (4.1)	1 (2.1)	1 (3.0)	8 (3.5)	9 (4.2)	2 (2.3)	2 (2.6)	13 (3.4)	1 (2.1)	3 (9.7)	1 (3.6)	5 (4.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Sleep deprivation	0 (0.0)	1 (2.1)	0 (0.0)	1 (0.4)	1 (0.5)	0 (0.0)	1 (1.3)	2 (0.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Fatigue	1 (0.7)	7 (14.6)	2 (6.1)	10 (4.4)	7 (3.2)	4 (4.7)	8 (10.4)	19 (4.9)	0 (0.0)	0 (0.0)	1 (3.6)	1 (0.9)	0 (0.0)	1 (1.5)	1 (2.6)	2 (1.0)

	Active PPMS (N = 317)				Nonactive PPMS (N = 618)				Active SPMS (N = 121)				Nonactive SPMS (N = 265)			
	Infusions (n = 146)	Orals (n = 48)	Injectables (n = 33)	All ^a (n = 229)	Infusions (n = 217)	Orals (n = 86)	Injectables (n = 77)	All ^a (n = 385)	Infusions (n = 48)	Orals (n = 31)	Injectables (n = 28)	All ^a (n = 109)	Infusions (n = 91)	Orals (n = 67)	Injectables (n = 39)	All ^a (n = 202)
Injection-site reaction	2 (1.4)	0 (0.0)	0 (0.0)	2 (0.9)	5 (2.3)	0 (0.0)	10 (13.0)	15 (3.9)	0 (0.0)	0 (0.0)	2 (7.1)	2 (1.8)	1 (1.1)	0 (0.0)	1 (2.6)	2 (1.0)
Urinary tract infections	3 (2.1)	0 (0.0)	0 (0.0)	3 (1.3)	5 (2.3)	0 (0.0)	0 (0.0)	5 (1.3)	1 (2.1)	0 (0.0)	0 (0.0)	1 (0.9)	1 (1.1)	0 (0.0)	0 (0.0)	2 (1.0)
Flu-like symptoms	6 (4.1)	3 (6.3)	2 (6.1)	11 (4.8)	3 (1.4)	0 (0.0)	3 (3.9)	6 (1.6)	2 (4.2)	2 (6.5)	1 (3.6)	5 (4.6)	1 (1.1)	0 (0.0)	3 (7.7)	4 (2.0)
Pregnancy	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Cardiac risk/need for cardiac monitoring	1 (0.7)	4 (8.3)	0 (0.0)	5 (2.2)	0 (0.0)	3 (3.5)	0 (0.0)	3 (0.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.5)	0 (0.0)	1 (0.5)
Abnormal LFT results	0 (0.0)	0 (0.0)	1 (3.0)	1 (0.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	3 (9.7)	0 (0.0)	3 (2.8)	0 (0.0)	1 (1.5)	1 (2.6)	2 (1.0)
JCV status – increased risk	3 (2.1)	0 (0.0)	0 (0.0)	3 (1.3)	2 (0.9)	2 (2.3)	0 (0.0)	4 (1.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	3 (3.3)	1 (1.5)	0 (0.0)	4 (2.0)
Effectiveness and compliance-related issues																
Any	16 (11.0)	11 (22.9)	9 (27.3)	36 (15.7)	13 (6.0)	15 (17.4)	19 (24.7)	48 (12.5)	4 (8.3)	7 (22.6)	4 (14.3)	15 (13.8)	12 (13.2)	6 (9.0)	11 (28.2)	29 (14.4)
Lack of efficacy	9 (6.2)	10 (20.8)	8 (24.2)	27 (11.8)	8 (3.7)	6 (7.0)	13 (16.9)	27 (7.0)	1 (2.1)	2 (6.5)	0 (0.0)	3 (2.8)	7 (7.7)	6 (9.0)	7 (18.0)	20 (9.9)
MRI shown new T2 or gadolinium-enhancing lesions within 1 year	4 (2.7)	1 (2.1)	1 (3.0)	6 (2.6)	3 (1.4)	3 (3.5)	2 (2.6)	8 (2.1)	1 (2.1)	1 (3.2)	2 (7.1)	4 (3.7)	3 (3.3)	1 (1.5)	2 (5.1)	6 (3.0)
Increased number of lesions	1 (0.7)	1 (2.1)	0 (0.0)	2 (0.9)	1 (0.5)	1 (1.2)	0 (0.0)	2 (0.5)	0 (0.0)	2 (6.5)	0 (0.0)	2 (1.8)	1 (1.1)	1 (1.5)	0 (0.0)	2 (1.0)
Enlargement of existing lesions	0 (0.0)	1 (2.1)	0 (0.0)	1 (0.4)	0 (0.0)	1 (1.2)	1 (1.3)	2 (0.5)	0 (0.0)	1 (3.2)	0 (0.0)	1 (0.9)	1 (1.1)	0 (0.0)	0 (0.0)	1 (0.5)
Relapse severity	2 (1.4)	1 (2.1)	3 (9.1)	6 (2.6)	1 (0.5)	0 (0.0)	0 (0.0)	2 (0.5)	1 (2.1)	2 (6.5)	3 (10.7)	6 (5.5)	0 (0.0)	0 (0.0)	3 (7.7)	3 (1.5)
Relapse frequency	3 (2.1)	1 (2.1)	2 (6.1)	6 (2.6)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.3)	1 (2.1)	0 (0.0)	2 (7.1)	3 (2.8)	1 (1.1)	1 (1.5)	0 (0.0)	2 (1.0)

	Active PPMS (N = 317)				Nonactive PPMS (N = 618)				Active SPMS (N = 121)				Nonactive SPMS (N = 265)			
	Infusions (n = 146)	Orals (n = 48)	Injectables (n = 33)	All ^a (n = 229)	Infusions (n = 217)	Orals (n = 86)	Injectables (n = 77)	All ^a (n = 385)	Infusions (n = 48)	Orals (n = 31)	Injectables (n = 28)	All ^a (n = 109)	Infusions (n = 91)	Orals (n = 67)	Injectables (n = 39)	All ^a (n = 202)
Treatment holiday	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.5)	1 (1.2)	1 (1.3)	3 (0.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.1)	0 (0.0)	0 (0.0)	1 (0.5)
Patient request	2 (1.4)	1 (2.1)	1 (3.0)	4 (1.8)	5 (2.3)	2 (2.3)	3 (3.9)	10 (2.6)	2 (4.2)	1 (3.2)	0 (0.0)	3 (2.8)	3 (3.3)	0 (0.0)	0 (0.0)	3 (1.5)
Patient compliance issues	3 (2.1)	2 (4.2)	0 (0.0)	5 (2.2)	1 (0.5)	2 (2.3)	3 (3.9)	6 (1.6)	0 (0.0)	1 (3.2)	0 (0.0)	1 (0.9)	0 (0.0)	0 (0.0)	1 (2.6)	1 (0.5)
Insurance or cost-related issues																
Any	12 (8.2)	2 (4.2)	1 (3.0)	16 (7.0)	20 (9.2)	3 (3.5)	3 (3.9)	26 (6.8)	4 (8.3)	4 (12.9)	1 (3.6)	9 (8.3)	9 (9.9)	3 (4.5)	3 (7.7)	16 (7.9)
Insurance coverage	7 (4.8)	0 (0.0)	0 (0.0)	8 (3.5)	15 (6.9)	0 (0.0)	2 (2.6)	17 (4.4)	1 (2.1)	1 (3.2)	0 (0.0)	2 (1.8)	4 (4.4)	1 (1.5)	3 (7.7)	8 (4.0)
Treatment cost	7 (4.8)	1 (2.1)	1 (3.0)	9 (3.9)	14 (6.5)	1 (1.2)	3 (3.9)	18 (4.7)	1 (2.1)	3 (9.7)	1 (3.6)	5 (4.6)	5 (5.5)	1 (1.5)	1 (2.6)	8 (4.0)
Formulary changes	0 (0.0)	1 (2.1)	0 (0.0)	1 (0.4)	1 (0.5)	0 (0.0)	0 (0.0)	1 (0.3)	1 (2.1)	1 (3.2)	0 (0.0)	2 (1.8)	1 (1.1)	1 (1.5)	0 (0.0)	2 (1.0)
Formulary restrictions	1 (0.7)	1 (2.1)	0 (0.0)	2 (0.9)	2 (0.9)	2 (2.3)	0 (0.0)	4 (1.0)	2 (4.2)	0 (0.0)	1 (3.6)	3 (2.8)	5 (5.5)	1 (1.5)	0 (0.0)	6 (3.0)
Other or no issues																
Other issue	2 (1.4)	1 (2.1)	0 (0.0)	3 (1.3)	3 (1.4)	4 (4.7)	1 (1.3)	8 (2.1)	2 (4.2)	0 (0)	0 (0)	2 (1.8)	6 (6.6)	2 (3.0)	0 (0)	8 (4.0)
No current issue	97 (66.4)	21 (43.8)	20 (60.6)	138 (60.7)	146 (67.3)	58 (67.4)	41 (53.3)	245 (64.7)	30 (62.5)	16 (51.6)	20 (71.4)	66 (60.6)	61 (67.0)	44 (65.7)	20 (51.3)	125 (61.9)

Total N values for each column correspond to the number of patients who received DMTs **and** for whom data were available

DMT disease-modifying treatment, JCV John Cunningham virus, LFT liver function test, MRI magnetic resonance imaging, PML progressive multifocal leukoencephalopathy, PPMS, primary progressive multiple sclerosis, SPMS secondary progressive multiple sclerosis

^aIncludes patients with 'other' mode of administration (active PPMS: n = 2, nonactive PPMS: n = 5, active SPMS: n = 2, nonactive SPMS: n = 5)

Table S4. Issues with current DMT regimen (2016–2017)

	Active PPMS (N = 219)				Nonactive PPMS (N = 429)				Active SPMS (N = 39)				Nonactive SPMS (N = 59)			
	Infusions (n = 43)	Orals (n = 62)	Injectables (n = 49)	All ^a (n = 159)	Infusions (n = 40)	Orals (n = 65)	Injectables (n = 92)	All ^a (n = 212)	Infusions (n = 11)	Orals (n = 11)	Injectables (n = 10)	All ^a (n = 33)	Infusions (n = 9)	Orals (n = 18)	Injectables (n = 15)	All ^a (n = 43)
Side effect and safety-related issues																
Any	15 (34.9)	19 (30.7)	18 (36.7)	53 (33.3)	14 (35.0)	18 (27.7)	28 (30.4)	69 (32.6)	7 (63.6)	1 (9.1)	6 (60.0)	14 (42.4)	5 (55.6)	5 (27.8)	2 (13.3)	12 (27.9)
Lymphocytopenia	1 (2.3)	4 (6.5)	0 (0.0)	5 (3.1)	0 (0.0)	8 (12.3)	0 (0.0)	8 (3.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (11.1)	0 (0.0)	2 (4.7)
Thrombocytopenia	1 (2.3)	0 (0.0)	0 (0.0)	1 (0.6)	1 (2.5)	0 (0.0)	0 (0.0)	1 (0.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Risk of PML	7 (16.3)	4 (6.5)	0 (0.0)	11 (6.9)	7 (17.5)	8 (12.3)	0 (0.0)	15 (7.1)	2 (18.2)	1 (9.1)	0 (0.0)	3 (9.1)	3 (33.3)	3 (16.7)	0 (0.0)	6 (14.0)
Cardiac events	0 (0.0)	3 (4.8)	0 (0.0)	3 (1.9)	0 (0.0)	1 (1.5)	0 (0.0)	1 (0.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Macular edema	1 (2.3)	2 (3.2)	0 (0.0)	3 (1.9)	0 (0.0)	1 (1.5)	0 (0.0)	1 (0.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.6)	0 (0.0)	1 (2.3)
Headache	4 (9.3)	2 (3.2)	4 (8.2)	11 (6.9)	2 (5.0)	1 (1.5)	5 (5.4)	16 (7.6)	5 (45.5)	0 (0.0)	0 (0.0)	5 (15.2)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Rash	2 (4.7)	1 (1.6)	0 (0.0)	3 (1.9)	1 (2.5)	0 (0.0)	0 (0.0)	1 (0.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Urticaria	1 (2.3)	0 (0.0)	0 (0.0)	1 (0.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Fever	0 (0.0)	0 (0.0)	4 (8.2)	4 (2.5)	1 (2.5)	0 (0.0)	4 (4.4)	7 (3.3)	3 (27.3)	0 (0.0)	0 (0.0)	3 (9.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Nausea	1 (2.3)	1 (1.6)	3 (6.1)	6 (3.8)	0 (0.0)	4 (6.2)	5 (5.4)	15 (7.1)	2 (18.2)	0 (0.0)	1 (10.0)	3 (9.1)	0 (0.0)	1 (5.6)	0 (0.0)	1 (2.3)
Sleep deprivation	1 (2.3)	1 (1.6)	2 (4.1)	4 (2.5)	1 (2.5)	1 (1.5)	1 (1.1)	3 (1.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Fatigue	5 (11.6)	4 (6.5)	6 (12.2)	15 (9.4)	4 (10.0)	2 (3.1)	15 (16.3)	28 (13.2)	3 (27.3)	0 (0.0)	2 (20.0)	5 (15.2)	2 (22.2)	2 (11.1)	1 (6.7)	5 (11.6)

	Active PPMS (N = 219)				Nonactive PPMS (N = 429)				Active SPMS (N = 39)				Nonactive SPMS (N = 59)			
	Infusions (n = 43)	Orals (n = 62)	Injectables (n = 49)	All ^a (n = 159)	Infusions (n = 40)	Orals (n = 65)	Injectables (n = 92)	All ^a (n = 212)	Infusions (n = 11)	Orals (n = 11)	Injectables (n = 10)	All ^a (n = 33)	Infusions (n = 9)	Orals (n = 18)	Injectables (n = 15)	All ^a (n = 43)
Injection-site reaction	0 (0.0)	0 (0.0)	7 (14.3)	7 (4.4)	1 (2.5)	3 (4.6)	8 (8.7)	13 (6.1)	0 (0.0)	0 (0.0)	3 (30.0)	3 (9.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Urinary tract infections	0 (0.0)	0 (0.0)	1 (2.0)	1 (0.6)	1 (2.5)	0 (0.0)	0 (0.0)	1 (0.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (11.1)	0 (0.0)	0 (0.0)	1 (2.3)
Flu-like symptoms	1 (2.3)	1 (1.6)	3 (6.1)	6 (3.8)	2 (5.0)	2 (3.1)	8 (8.7)	15 (7.1)	0 (0.0)	0 (0.0)	2 (20.0)	2 (6.1)	0 (0.0)	0 (0.0)	2 (13.3)	2 (4.7)
Pregnancy	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Cardiac risk/need for cardiac monitoring	0 (0.0)	2 (3.2)	0 (0.0)	2 (1.3)	0 (0.0)	1 (1.5)	0 (0.0)	1 (0.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Abnormal LFT results	1 (2.3)	1 (1.6)	1 (2.0)	3 (1.9)	0 (0.0)	4 (6.2)	0 (0.0)	4 (1.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (6.7)	1 (2.3)
JCV status – increased risk	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Effectiveness and compliance-related issues																
Any	14 (32.6)	22 (35.5)	11 (22.5)	48 (30.2)	18 (45.0)	19 (29.2)	25 (27.2)	64 (30.2)	2 (18.2)	4 (36.4)	2 (20.0)	8 (24.2)	0 (0.0)	4 (22.2)	6 (40.0)	11 (25.6)
Lack of efficacy	7 (16.3)	13 (21.0)	5 (10.2)	26 (16.4)	12 (30.0)	14 (21.5)	19 (20.7)	47 (22.2)	1 (9.1)	1 (9.1)	0 (0.0)	2 (6.1)	0 (0.0)	3 (16.7)	3 (20.0)	7 (16.3)
MRI shown new T2 or gadolinium-enhancing lesions within 1 year	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Increased number of lesions	8 (18.6)	12 (19.4)	3 (6.1)	23 (14.5)	7 (17.5)	5 (7.7)	5 (5.4)	17 (8.0)	2 (18.2)	1 (9.1)	0 (0.0)	3 (9.1)	0 (0.0)	0 (0.0)	2 (13.3)	2 (4.7)
Enlargement of existing lesions	7 (16.3)	5 (8.1)	3 (6.1)	15 (9.4)	7 (17.5)	8 (12.3)	3 (3.3)	18 (8.5)	1 (9.1)	1 (9.1)	1 (10.0)	3 (9.1)	0 (0.0)	0 (0.0)	1 (6.7)	1 (2.3)
Relapse severity	5 (11.6)	4 (6.5)	1 (2.0)	10 (6.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Relapse frequency	6 (14.0)	2 (3.2)	2 (4.1)	10 (6.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (18.2)	0 (0.0)	1 (10.0)	3 (9.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

	Active PPMS (N = 219)				Nonactive PPMS (N = 429)				Active SPMS (N = 39)				Nonactive SPMS (N = 59)			
	Infusions (n = 43)	Orals (n = 62)	Injectables (n = 49)	All ^a (n = 159)	Infusions (n = 40)	Orals (n = 65)	Injectables (n = 92)	All ^a (n = 212)	Infusions (n = 11)	Orals (n = 11)	Injectables (n = 10)	All ^a (n = 33)	Infusions (n = 9)	Orals (n = 18)	Injectables (n = 15)	All ^a (n = 43)
Treatment holiday	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Patient request	3 (7.0)	4 (6.5)	1 (2.0)	8 (5.0)	3 (7.5)	2 (3.1)	3 (3.3)	8 (3.8)	0 (0.0)	1 (9.1)	0 (0.0)	1 (3.0)	0 (0.0)	1 (5.6)	1 (6.7)	2 (4.7)
Patient compliance issues	0 (0.0)	0 (0.0)	1 (2.0)	1 (0.6)	1 (2.5)	2 (3.1)	2 (2.2)	5 (2.4)	0 (0.0)	0 (0.0)	2 (20.0)	2 (6.1)	0 (0.0)	0 (0.0)	1 (6.7)	1 (2.3)
Insurance or cost-related issues																
Any	9 (20.9)	2 (3.2)	1 (2.0)	13 (8.2)	7 (17.5)	2 (3.1)	2 (2.2)	21 (9.9)	6 (55.6)	1 (9.1)	2 (20.0)	9 (27.3)	0 (0.0)	1 (5.6)	0 (0.0)	1 (2.3)
Insurance coverage	5 (11.6)	1 (1.6)	1 (2.0)	8 (5.0)	5 (12.5)	0 (0.0)	1 (1.1)	16 (7.6)	5 (54.5)	1 (9.1)	1 (10.0)	7 (21.2)	0 (0.0)	1 (5.6)	0 (0.0)	1 (2.3)
Treatment cost	7 (16.3)	2 (3.2)	0 (0.0)	10 (6.3)	4 (10.0)	1 (1.5)	0 (0.0)	15 (7.1)	5 (54.5)	1 (9.1)	1 (10.0)	7 (21.2)	0 (0.0)	1 (5.6)	0 (0.0)	1 (2.3)
Formulary changes	1 (2.3)	0 (0.0)	0 (0.0)	1 (0.6)	0 (0.0)	0 (0.0)	1 (1.1)	1 (0.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Formulary restrictions	1 (2.3)	1 (1.6)	0 (0.0)	2 (1.3)	2 (5.0)	2 (3.1)	0 (0.0)	5 (2.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Other or no issues																
Other issue	0 (0.0)	0 (0.0)	0 (0)	0 (0.0)	2 (5.0)	2 (3.1)	2 (2.2)	6 (2.8)	0 (0.0)	0 (0.0)	0 (0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0)	0 (0.0)
No current issue	21 (48.8)	28 (45.2)	25 (51.0)	74 (46.5)	18 (45.0)	36 (55.4)	49 (53.3)	103 (48.6)	4 (36.4)	6 (54.6)	4 (40.0)	14 (42.4)	4 (44.4)	9 (50.0)	8 (53.3)	21 (48.4)

Total N values for each column correspond to the number of patients who received DMTs **and** for whom data were available

DMT disease-modifying treatment, JCV John Cunningham virus, LFT liver function test, MRI magnetic resonance imaging, PML progressive multifocal leukoencephalopathy, PPMS primary progressive multiple sclerosis, SPMS secondary progressive multiple sclerosis

^aIncludes patients with 'other' mode of administration (active PPMS: n = 5, nonactive PPMS: n = 15, active SPMS: n = 1, nonactive SPMS: n = 1)

Table S5. Areas for improvement related to current DMT regimen (2018–2021)

	Active PPMS (N = 317)				Nonactive PPMS (N = 618)				Active SPMS (N = 121)				Nonactive SPMS (N = 265)			
	Infusions (n = 131)	Orals (n = 43)	Injectables (n = 25)	All ^a (n = 199)	Infusions (n = 196)	Orals (n = 75)	Injectables (n = 48)	All ^a (n = 323)	Infusions (n = 40)	Orals (n = 25)	Injectables (n = 19)	All ^a (n = 85)	Infusions (n = 81)	Orals (n = 61)	Injectables (n = 27)	All ^a (n = 173)
Effectiveness-related																
Any	95 (72.5)	31 (72.1)	17 (68.0)	143 (71.9)	155 (79.1)	63 (84.0)	32 (66.7)	254 (78.6)	26 (65.0)	20 (80.0)	12 (63.2)	59 (69.4)	62 (76.5)	53 (86.9)	20 (74.1)	139 (80.4)
Slows disease progression	56 (42.8)	20 (46.5)	13 (52.0)	89 (44.7)	91 (46.4)	33 (44.0)	21 (43.8)	147 (45.5)	15 (37.5)	10 (40.0)	6 (31.6)	32 (37.7)	32 (39.5)	36 (59.0)	15 (55.6)	87 (50.3)
Reduces relapse frequency	11 (8.4)	7 (16.3)	5 (20.0)	23 (11.6)	7 (3.6)	2 (2.7)	3 (6.3)	13 (4.0)	8 (20.0)	9 (36.0)	1 (5.3)	18 (21.2)	5 (6.2)	16 (26.2)	11 (40.7)	32 (18.5)
Reduces relapse severity	11 (8.4)	7 (16.3)	3 (12.0)	21 (10.6)	9 (4.6)	2 (2.7)	2 (4.2)	14 (4.3)	8 (20.0)	9 (36.0)	0 (0.0)	17 (20.0)	5 (6.2)	14 (23.0)	8 (29.6)	27 (15.6)
Long-term efficacy	22 (16.8)	8 (18.6)	4 (16.0)	34 (17.1)	32 (16.3)	11 (14.7)	14 (29.2)	59 (18.3)	7 (17.5)	8 (32.0)	3 (15.8)	18 (21.2)	11 (13.6)	11 (18.0)	8 (29.6)	32 (18.5)
Reduces fatigue/weakness	9 (6.9)	5 (11.6)	1 (4.0)	15 (7.5)	18 (9.2)	7 (9.3)	5 (10.4)	30 (9.3)	3 (7.5)	1 (5.3)	0 (0.0)	4 (4.7)	0 (0.0)	7 (11.5)	4 (14.8)	12 (6.9)
Reduces inflammation	10 (7.6)	5 (11.6)	1 (4.0)	16 (8.0)	18 (9.2)	5 (6.7)	8 (16.7)	32 (9.9)	1 (2.5)	5 (20.0)	1 (5.3)	7 (8.2)	0 (0.0)	9 (14.8)	3 (11.1)	13 (7.5)
Improves balance/coordination	17 (13.0)	8 (18.6)	4 (16.0)	29 (14.6)	21 (10.7)	11 (14.7)	10 (20.8)	43 (13.3)	4 (10.0)	1 (4.0)	0 (0.0)	5 (5.9)	2 (2.5)	8 (13.1)	1 (3.7)	13 (7.5)
Reduces brain atrophy	30 (22.9)	7 (16.3)	2 (8.0)	39 (19.6)	47 (24.0)	9 (12.0)	7 (14.6)	64 (19.8)	5 (12.5)	7 (28.0)	3 (15.8)	15 (17.7)	26 (32.1)	16 (26.2)	0 (0.0)	44 (25.4)
Reduces lesions	8 (6.1)	2 (4.7)	3 (12.0)	13 (6.5)	12 (6.1)	7 (9.3)	4 (8.3)	25 (7.7)	3 (7.5)	7 (28.0)	1 (5.3)	11 (12.9)	3 (3.7)	13 (21.3)	1 (3.7)	18 (10.4)
Reduces cognitive deterioration	16 (12.2)	6 (14.0)	2 (8.0)	24 (12.1)	25 (12.8)	9 (12.0)	2 (4.2)	36 (11.2)	1 (2.5)	4 (16.0)	2 (10.5)	7 (8.2)	6 (7.4)	13 (21.3)	1 (3.7)	20 (11.6)
Effective in SPMS	6 (4.6)	5 (11.6)	3 (12.0)	14 (7.0)	10 (5.1)	16 (21.3)	10 (20.8)	38 (11.8)	5 (12.5)	5 (20.0)	0 (0.0)	10 (11.8)	15 (18.5)	15 (24.6)	5 (18.5)	37 (21.4)
Effective in PPMS	10 (7.6)	9 (20.9)	5 (20.0)	24 (12.1)	35 (17.9)	24 (32.0)	15 (31.3)	75 (23.2)	1 (2.5)	2 (8.0)	3 (15.8)	6 (7.1)	8 (9.9)	6 (9.8)	3 (11.1)	17 (9.8)

	Active PPMS (N = 317)				Nonactive PPMS (N = 618)				Active SPMS (N = 121)				Nonactive SPMS (N = 265)			
	Infusions (n = 131)	Orals (n = 43)	Injectables (n = 25)	All ^a (n = 199)	Infusions (n = 196)	Orals (n = 75)	Injectables (n = 48)	All ^a (n = 323)	Infusions (n = 40)	Orals (n = 25)	Injectables (n = 19)	All ^a (n = 85)	Infusions (n = 81)	Orals (n = 61)	Injectables (n = 27)	All ^a (n = 173)
Enhances myelin sheath	12 (9.2)	6 (14.0)	2 (8.0)	20 (10.1)	20 (10.2)	10 (13.3)	7 (14.6)	38 (11.8)	2 (5.0)	1 (4.0)	0 (0.0)	3 (3.5)	5 (6.2)	6 (9.8)	1 (3.7)	13 (7.5)
Safety and tolerability-related																
Any	48 (36.6)	17 (39.5)	6 (24.0)	71 (35.7)	73 (37.2)	29 (38.7)	20 (41.7)	124 (38.4)	18 (45.0)	12 (48.0)	6 (31.6)	36 (42.4)	24 (29.6)	27 (44.3)	7 (25.9)	60 (34.7)
Less monitoring required	26 (19.9)	10 (23.3)	3 (12.0)	39 (19.6)	37 (18.9)	15 (20.0)	2 (4.2)	55 (17.0)	6 (15.0)	3 (12.0)	1 (5.3)	10 (11.8)	19 (23.5)	16 (26.2)	3 (11.1)	39 (22.5)
Better tolerability	7 (5.3)	2 (4.7)	0 (0.0)	9 (4.5)	9 (4.6)	7 (9.3)	2 (4.2)	18 (5.6)	2 (5.0)	0 (0.0)	0 (0.0)	2 (2.4)	2 (2.5)	2 (3.3)	2 (7.4)	6 (3.5)
Reduced injection-site reaction/pain	5 (3.8)	1 (2.3)	1 (4.0)	7 (3.5)	7 (3.6)	5 (6.7)	12 (25.0)	25 (7.7)	0 (0.0)	2 (8.0)	1 (5.3)	3 (3.5)	0 (0.0)	1 (1.6)	0 (0.0)	1 (0.6)
Reduced risk of liver damage	1 (0.8)	4 (9.3)	1 (4.0)	6 (3.0)	2 (1.0)	3 (4.0)	6 (12.5)	12 (3.7)	1 (2.5)	3 (12.0)	0 (0.0)	4 (4.7)	1 (1.2)	4 (6.6)	1 (3.7)	6 (3.5)
Lack of serious side effects	16 (12.2)	8 (18.6)	1 (4.0)	25 (12.6)	32 (16.3)	10 (13.3)	4 (8.3)	47 (14.6)	7 (17.5)	3 (12.0)	0 (0.0)	10 (11.8)	5 (6.2)	13 (21.3)	0 (0.0)	18 (10.4)
Less flu-like symptoms	5 (3.8)	0 (0.0)	1 (4.0)	6 (3.0)	5 (2.6)	5 (6.7)	6 (12.5)	16 (5.0)	2 (5.0)	2 (8.0)	2 (10.5)	6 (7.1)	2 (2.5)	0 (0.0)	3 (11.1)	5 (2.9)
Reduced cardiac risk/less need for cardiac monitoring	2 (1.5)	6 (14.0)	0 (0.0)	8 (4.0)	1 (0.5)	7 (9.3)	1 (2.1)	9 (2.8)	2 (5.0)	2 (8.0)	2 (10.5)	6 (7.1)	0 (0.0)	2 (3.3)	0 (0.0)	2 (1.2)
Reduced risk of GI upset	4 (3.1)	3 (7.0)	0 (0.0)	7 (3.5)	2 (1.0)	8 (10.7)	3 (6.3)	13 (4.0)	2 (5.0)	2 (8.0)	0 (0.0)	4 (4.7)	0 (0.0)	4 (6.6)	1 (3.7)	5 (2.9)
Good benefit/risk balance	0 (0.0)	2 (4.7)	1 (4.0)	3 (1.5)	6 (3.1)	1 (1.3)	2 (4.2)	9 (2.8)	3 (7.5)	2 (8.0)	0 (0.0)	5 (5.9)	3 (3.7)	2 (3.3)	2 (7.4)	8 (4.6)
Avoids drug interactions	1 (0.8)	1 (2.3)	0 (0.0)	2 (1.0)	1 (0.5)	3 (4.0)	0 (0.0)	4 (1.2)	1 (2.5)	1 (4.0)	2 (10.5)	4 (4.7)	1 (1.2)	1 (1.6)	0 (0.0)	2 (1.2)
Administration-related																
Any	24 (18.3)	6 (14.0)	10 (40.0)	40 (20.1)	30 (15.3)	7 (9.3)	18 (37.5)	56 (17.3)	6 (15.0)	4 (16.0)	2 (10.5)	12 (14.1)	14 (17.3)	6 (9.8)	12 (44.4)	32 (18.5)

	Active PPMS (N = 317)				Nonactive PPMS (N = 618)				Active SPMS (N = 121)				Nonactive SPMS (N = 265)			
	Infusions (n = 131)	Orals (n = 43)	Injectables (n = 25)	All ^a (n = 199)	Infusions (n = 196)	Orals (n = 75)	Injectables (n = 48)	All ^a (n = 323)	Infusions (n = 40)	Orals (n = 25)	Injectables (n = 19)	All ^a (n = 85)	Infusions (n = 81)	Orals (n = 61)	Injectables (n = 27)	All ^a (n = 173)
Convenient administration	14 (10.7)	1 (2.3)	5 (20.0)	20 (10.1)	15 (7.7)	4 (5.3)	6 (12.5)	25 (7.7)	4 (10.0)	1 (4.0)	0 (0.0)	5 (5.9)	8 (9.9)	3 (4.9)	8 (29.6)	19 (11.0)
Clear and simple dosing regimen	4 (3.1)	4 (9.3)	2 (8.0)	10 (5.0)	8 (4.1)	3 (4.0)	3 (6.3)	14 (4.3)	2 (5.0)	3 (12.0)	0 (0.0)	5 (5.9)	5 (6.2)	4 (6.6)	2 (7.4)	11 (6.4)
Less frequent injections	8 (6.1)	2 (4.7)	5 (20.0)	15 (7.5)	3 (1.5)	3 (4.0)	8 (16.7)	14 (4.3)	0 (0.0)	2 (8.0)	1 (5.3)	3 (3.5)	6 (7.4)	1 (1.6)	6 (22.2)	13 (7.5)
Reduce disruption to patient's life	5 (3.8)	5 (11.6)	3 (12.0)	13 (6.5)	8 (4.1)	2 (2.7)	9 (18.8)	20 (6.2)	1 (2.50)	2 (8.0)	1 (5.3)	4 (4.7)	4 (4.9)	1 (1.6)	0 (0.0)	5 (2.9)
Other																
Any	41 (31.3)	12 (27.9)	8 (32.0)	61 (30.7)	51 (26.0)	23 (30.7)	16 (33.3)	93 (28.8)	13 (32.5)	7 (28.0)	3 (15.8)	23 (27.1)	17 (21.0)	16 (26.2)	6 (22.2)	40 (23.1)
Patient's quality of life	17 (13.0)	3 (7.0)	1 (4.0)	21 (10.6)	13 (6.6)	9 (12.0)	6 (12.5)	28 (8.7)	3 (7.5)	1 (4.0)	2 (10.5)	6 (7.1)	5 (6.2)	6 (9.8)	2 (7.4)	13 (7.5)
Effects can be seen on MRI scan	1 (0.8)	4 (9.3)	1 (4.0)	6 (3.0)	4 (2.0)	4 (5.3)	3 (6.3)	12 (3.7)	0 (0.0)	1 (4.0)	0 (0.0)	1 (1.2)	2 (2.5)	6 (9.8)	0 (0.0)	8 (4.6)
Cost-effective therapy	19 (14.5)	6 (14.0)	3 (12.0)	28 (14.1)	18 (9.2)	4 (5.3)	7 (14.6)	30 (9.3)	6 (15.0)	2 (8.0)	1 (5.3)	9 (10.6)	10 (12.4)	6 (9.8)	1 (3.7)	18 (10.4)
Improves patient compliance	1 (0.8)	1 (2.3)	1 (4.0)	3 (1.5)	3 (1.5)	3 (4.0)	3 (6.3)	9 (2.8)	0 (0.0)	1 (4.0)	0 (0.0)	1 (1.2)	0 (0.0)	3 (4.9)	0 (0.0)	4 (2.3)
Patient request	3 (2.3)	3 (7.0)	1 (4.0)	7 (3.5)	6 (3.1)	2 (2.7)	3 (6.3)	12 (3.7)	2 (5.0)	0 (0.0)	1 (5.3)	3 (3.5)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Good trial data/evidence	2 (1.5)	1 (2.3)	2 (8.0)	5 (2.5)	9 (4.6)	8 (10.7)	4 (8.3)	22 (6.8)	3 (7.5)	2 (8.0)	1 (5.3)	6 (7.1)	3 (3.7)	1 (1.6)	1 (3.7)	5 (2.9)
In accordance with guidelines	3 (2.3)	2 (4.7)	1 (4.0)	6 (3.0)	9 (4.6)	3 (4.0)	5 (10.4)	18 (5.6)	2 (5.0)	1 (4.0)	0 (0.0)	3 (3.5)	1 (1.2)	1 (1.6)	0 (0.0)	2 (1.2)
Level of availability/insurance coverage	10 (7.6)	4 (9.3)	1 (4.0)	15 (7.5)	12 (6.1)	6 (8.0)	5 (10.4)	25 (7.7)	5 (12.5)	1 (4.0)	0 (0.0)	6 (7.1)	2 (2.5)	1 (1.6)	3 (11.1)	6 (3.5)
Patient support program	2 (1.5)	0 (0.0)	3 (12.0)	5 (2.5)	4 (2.0)	0 (0.0)	2 (4.2)	6 (1.9)	1 (2.5)	3 (12.0)	0 (0.0)	4 (4.7)	1 (1.2)	0 (0.0)	0 (0.0)	1 (0.6)

Total *N* values for each column correspond to the number of patients who received DMTs **and** for whom data were available

DMT disease-modifying treatment, *GI* gastrointestinal, *MRI* magnetic resonance imaging, *PPMS* primary progressive multiple sclerosis, *SPMS* secondary progressive multiple sclerosis

^aIncludes patients with 'other' mode of administration (active PPMS: *n* = 0, nonactive PPMS: *n* = 4, active SPMS: *n* = 1, nonactive SPMS: *n* = 4)

Table S6. Areas for improvement related to current DMT regimen (2016–2017)

	Active PPMS (N = 219)				Nonactive PPMS (N = 429)				Active SPMS (N = 39)				Nonactive SPMS (N = 59)			
	Infusions (n = 36)	Orals (n = 58)	Injectables (n = 44)	All ^a (n = 141)	Infusions (n = 36)	Orals (n = 58)	Injectables (n = 74)	All ^a (n = 182)	Infusions (n = 10)	Orals (n = 10)	Injectables (n = 9)	All ^a (n = 30)	Infusions (n = 8)	Orals (n = 17)	Injectables (n = 12)	All ^a (n = 38)
Effectiveness-related																
Any	26 (72.2)	48 (82.8)	40 (90.9)	116 (82.3)	32 (88.9)	47 (81.0)	67 (90.5)	151 (83.0)	4 (40.0)	6 (60.0)	8 (88.9)	19 (63.3)	3 (37.5)	12 (70.6)	11 (91.7)	27 (71.1)
Slows disease progression	12 (33.3)	30 (51.7)	26 (59.1)	69 (48.9)	17 (47.2)	27 (46.6)	43 (58.1)	90 (49.5)	2 (20.0)	4 (40.0)	5 (55.6)	12 (40.0)	1 (12.5)	4 (23.5)	8 (66.7)	13 (34.2)
Reduces relapse frequency	7 (19.4)	18 (31.0)	14 (31.8)	39 (27.7)	7 (19.4)	4 (6.9)	9 (12.2)	20 (11.0)	0 (0.0)	2 (20.0)	3 (33.3)	6 (20.0)	0 (0.0)	3 (17.7)	4 (33.3)	7 (18.4)
Reduces relapse severity	6 (16.7)	12 (20.7)	12 (27.3)	30 (21.3)	5 (13.9)	3 (5.2)	5 (6.8)	13 (7.1)	0 (0.0)	3 (30.0)	4 (44.4)	8 (26.7)	0 (0.0)	2 (11.8)	3 (25.0)	5 (13.2)
Long-term efficacy	11 (30.6)	20 (34.5)	15 (34.1)	46 (32.6)	12 (33.3)	23 (39.7)	27 (36.5)	63 (34.6)	1 (10.0)	1 (10.0)	2 (22.2)	5 (16.7)	1 (12.5)	7 (41.2)	4 (33.3)	12 (31.6)
Reduces fatigue/weakness	6 (16.7)	11 (19.0)	16 (36.4)	33 (23.4)	5 (13.9)	7 (12.1)	23 (31.1)	35 (19.2)	0 (0.0)	1 (10.0)	2 (22.2)	4 (13.3)	2 (25.0)	3 (17.7)	2 (16.7)	7 (18.4)
Reduces inflammation	3 (8.3)	10 (17.2)	5 (11.4)	18 (12.8)	4 (11.1)	10 (17.2)	15 (20.3)	30 (16.5)	0 (0.0)	1 (10.0)	0 (0.0)	1 (3.3)	0 (0.0)	2 (11.8)	3 (25.0)	5 (13.2)
Improves balance/coordination	5 (13.9)	11 (19.0)	3 (6.8)	19 (13.5)	5 (13.9)	7 (12.1)	14 (18.9)	26 (14.3)	0 (0.0)	1 (10.0)	0 (0.0)	1 (3.3)	0 (0.0)	1 (5.9)	2 (16.7)	4 (10.5)
Reduces brain atrophy	6 (16.7)	11 (19.0)	3 (6.8)	20 (14.2)	10 (27.8)	8 (13.8)	13 (17.6)	32 (17.6)	0 (0.0)	2 (20.0)	1 (11.1)	3 (10.0)	0 (0.0)	4 (23.5)	2 (16.7)	7 (18.4)
Reduces lesions	2 (5.6)	10 (17.2)	3 (6.8)	15 (10.6)	7 (19.4)	8 (13.8)	8 (10.8)	25 (13.7)	1 (10.0)	2 (20.0)	0 (0.0)	4 (13.3)	0 (0.0)	1 (5.9)	1 (8.3)	2 (5.3)
Reduces cognitive deterioration	8 (22.2)	7 (12.1)	0 (0.0)	16 (11.4)	5 (13.9)	6 (10.3)	7 (9.5)	19 (10.4)	1 (10.0)	2 (20.0)	0 (0.0)	3 (10.0)	0 (0.0)	1 (5.9)	0 (0.0)	2 (5.3)
Effective in SPMS	8 (22.2)	8 (13.8)	2 (4.6)	19 (13.5)	5 (13.9)	9 (15.5)	5 (6.8)	19 (10.4)	1 (10.0)	2 (20.0)	2 (22.2)	6 (20.0)	2 (25.0)	5 (29.4)	2 (16.7)	9 (23.7)
Effective in PPMS	13 (36.1)	10 (17.2)	6 (13.6)	30 (21.3)	17 (47.2)	26 (44.8)	13 (17.6)	57 (31.3)	0 (0.0)	2 (20.0)	0 (0.0)	2 (6.7)	0 (0.0)	0 (0.0)	2 (16.7)	2 (5.3)

	Active PPMS (N = 219)				Nonactive PPMS (N = 429)				Active SPMS (N = 39)				Nonactive SPMS (N = 59)			
	Infusions (n = 36)	Orals (n = 58)	Injectables (n = 44)	All ^a (n = 141)	Infusions (n = 36)	Orals (n = 58)	Injectables (n = 74)	All ^a (n = 182)	Infusions (n = 10)	Orals (n = 10)	Injectables (n = 9)	All ^a (n = 30)	Infusions (n = 8)	Orals (n = 17)	Injectables (n = 12)	All ^a (n = 38)
Enhances myelin sheath	2 (5.6)	5 (8.6)	0 (0.0)	7 (5.0)	2 (5.6)	3 (5.2)	5 (6.8)	10 (5.5)	0 (0.0)	1 (10.0)	1 (11.1)	2 (6.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Safety and tolerability-related																
Any	18 (50.0)	24 (41.4)	9 (20.5)	51 (36.2)	10 (27.8)	23 (39.7)	22 (29.7)	55 (30.2)	3 (30.0)	5 (50.0)	4 (44.4)	13 (43.3)	4 (50.0)	4 (23.5)	3 (25.0)	11 (29.0)
Less monitoring required	8 (22.2)	6 (10.3)	3 (6.8)	17 (12.1)	5 (13.9)	10 (17.2)	1 (1.4)	16 (8.8)	1 (10.0)	0 (0.0)	0 (0.0)	1 (3.3)	2 (25.0)	1 (5.9)	1 (8.3)	4 (10.5)
Better tolerability	8 (22.2)	9 (15.5)	2 (4.6)	19 (13.5)	5 (13.9)	6 (10.3)	6 (8.1)	17 (9.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	3 (37.5)	0 (0.0)	1 (8.3)	4 (10.5)
Reduced injection-site reaction/pain	1 (2.8)	2 (3.5)	4 (9.1)	7 (5.0)	2 (5.6)	2 (3.5)	6 (8.1)	10 (5.5)	0 (0.0)	1 (10.0)	2 (22.2)	3 (10.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Reduced risk of liver damage	0 (0.0)	2 (3.5)	1 (2.3)	3 (2.1)	0 (0.0)	1 (1.7)	8 (10.8)	9 (5.0)	0 (0.0)	0 (0.0)	2 (22.2)	2 (6.7)	0 (0.0)	1 (5.9)	0 (0.0)	1 (2.6)
Lack of serious side effects	4 (11.1)	9 (15.5)	0 (0.0)	13 (9.2)	1 (2.8)	5 (8.6)	1 (1.4)	7 (3.9)	1 (10.0)	0 (0.0)	0 (0.0)	2 (6.7)	1 (12.5)	0 (0.0)	0 (0.0)	1 (2.6)
Less flu-like symptoms	1 (2.8)	3 (5.2)	0 (0.0)	4 (2.8)	0 (0.0)	3 (5.2)	7 (9.5)	10 (5.5)	0 (0.0)	3 (30.0)	0 (0.0)	4 (13.3)	0 (0.0)	1 (5.9)	0 (0.0)	1 (2.6)
Reduced cardiac risk/less need for cardiac monitoring	3 (8.3)	0 (0.0)	0 (0.0)	3 (2.1)	1 (2.8)	5 (8.6)	1 (1.4)	7 (3.9)	1 (10.0)	0 (0.0)	1 (11.1)	2 (6.7)	1 (12.5)	0 (0.0)	2 (16.7)	3 (7.9)
Reduced risk of GI upset	1 (2.8)	3 (5.2)	0 (0.0)	4 (2.8)	0 (0.0)	2 (3.5)	1 (1.4)	3 (1.7)	0 (0.0)	2 (20.0)	0 (0.0)	2 (6.7)	0 (0.0)	1 (5.9)	0 (0.0)	1 (2.6)
Good benefit/risk balance	2 (5.6)	4 (6.9)	0 (0.0)	6 (4.3)	3 (8.3)	0 (0.0)	2 (2.7)	5 (2.8)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.9)	0 (0.0)	1 (2.6)
Avoids drug interactions	0 (0.0)	1 (1.7)	0 (0.0)	1 (0.7)	0 (0.0)	1 (1.7)	0 (0.0)	1 (0.6)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Administration-related																
Any	5 (13.9)	4 (6.9)	7 (15.9)	16 (11.4)	3 (8.3)	3 (5.2)	17 (23.0)	23 (12.6)	1 (10.0)	0 (0.0)	1 (11.1)	3 (10.0)	1 (12.5)	0 (0.0)	2 (16.7)	3 (7.9)

	Active PPMS (N = 219)				Nonactive PPMS (N = 429)				Active SPMS (N = 39)				Nonactive SPMS (N = 59)			
	Infusions (n = 36)	Orals (n = 58)	Injectables (n = 44)	All ^a (n = 141)	Infusions (n = 36)	Orals (n = 58)	Injectables (n = 74)	All ^a (n = 182)	Infusions (n = 10)	Orals (n = 10)	Injectables (n = 9)	All ^a (n = 30)	Infusions (n = 8)	Orals (n = 17)	Injectables (n = 12)	All ^a (n = 38)
Convenient administration	3 (8.3)	0 (0.0)	3 (6.8)	6 (4.3)	2 (5.6)	3 (5.2)	5 (6.8)	10 (5.5)	1 (10.0)	0 (0.0)	0 (0.0)	2 (6.7)	1 (12.5)	0 (0.0)	0 (0.0)	1 (2.6)
Clear and simple dosing regimen	1 (2.8)	1 (1.7)	2 (4.6)	4 (2.8)	0 (0.0)	2 (3.5)	5 (6.8)	7 (3.9)	1 (10.0)	0 (0.0)	0 (0.0)	1 (3.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Less frequent injections	1 (2.8)	3 (5.2)	6 (13.6)	10 (7.1)	0 (0.0)	2 (3.5)	12 (16.2)	14 (7.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (16.7)	2 (5.3)
Reduce disruption to patient's life	0 (0.0)	0 (0.0)	2 (4.6)	2 (1.4)	2 (5.6)	1 (1.7)	4 (5.4)	7 (3.9)	0 (0.0)	0 (0.0)	1 (11.1)	1 (3.3)	1 (12.5)	0 (0.0)	0 (0.0)	1 (2.6)
Other																
Any	15 (41.7)	17 (29.3)	4 (9.1)	37 (26.2)	12 (33.3)	21 (36.2)	13 (17.6)	56 (30.8)	7 (70.0)	2 (20.0)	1 (11.1)	11 (36.7)	2 (25.0)	1 (5.9)	3 (25.0)	6 (15.8)
Patient's quality of life	0 (0.0)	2 (3.5)	1 (2.3)	3 (2.1)	2 (5.6)	3 (5.2)	2 (2.7)	7 (3.9)	0 (0.0)	0 (0.0)	0 (0.0)	1 (3.3)	0 (0.0)	1 (5.9)	1 (8.3)	2 (5.3)
Effects can be seen on MRI scan	0 (0.0)	2 (3.5)	0 (0.0)	2 (1.4)	2 (5.6)	1 (1.7)	5 (6.8)	8 (4.4)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.9)	0 (0.0)	1 (2.7)
Cost-effective therapy	13 (36.1)	7 (12.1)	1 (2.3)	22 (15.6)	6 (16.7)	14 (24.1)	2 (2.7)	30 (16.5)	6 (60.0)	2 (20.0)	0 (0.0)	8 (26.7)	2 (25.0)	2 (11.8)	0 (0.0)	4 (10.5)
Improves patient compliance	0 (0.0)	3 (5.2)	2 (4.6)	5 (3.6)	0 (0.0)	3 (5.2)	0 (0.0)	3 (1.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Patient request	1 (2.8)	2 (3.5)	1 (2.3)	4 (2.8)	1 (2.8)	1 (1.7)	4 (5.4)	6 (3.3)	0 (0.0)	0 (0.0)	0 (0.0)	1 (3.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Good trial data/evidence	2 (5.6)	3 (5.2)	0 (0.0)	5 (3.6)	5 (13.9)	7 (12.1)	5 (6.8)	17 (9.3)	1 (10.0)	0 (0.0)	0 (0.0)	1 (3.3)	0 (0.0)	0 (0.0)	1 (8.3)	1 (2.7)
In accordance with guidelines	1 (2.8)	1 (1.7)	0 (0.0)	2 (1.4)	0 (0.0)	2 (3.5)	5 (6.8)	7 (3.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Level of availability/insurance coverage	6 (16.7)	4 (6.9)	1 (2.3)	12 (8.5)	4 (11.1)	4 (6.9)	5 (6.8)	23 (12.6)	4 (40.0)	1 (10.0)	1 (11.1)	6 (20.0)	0 (0.0)	1 (5.9)	0 (0.0)	1 (2.7)
Patient support program	1 (2.8)	0 (0.0)	1 (2.3)	2 (1.4)	0 (0.0)	1 (1.7)	3 (4.1)	4 (2.2)	0 (0.0)	0 (0.0)	0 (0.0)	1 (3.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

Total *N* values for each column correspond to the number of patients who received DMTs **and** for whom data were available

DMT disease-modifying treatment, *GI* gastrointestinal, *MRI* magnetic resonance imaging, *PPMS* primary progressive multiple sclerosis, *SPMS* secondary progressive multiple sclerosis

^aIncludes patients with 'other' mode of administration (active PPMS: *n* = 3, nonactive PPMS: *n* = 14, active SPMS: *n* = 1, nonactive SPMS: *n* = 1)