Table e1. Clinical and demographic characteristics of the six patients with a relapse documented between fingolimod discontinuation and first infusion with an anti-CD20 therapy.

Var	N = 6
Sex, N (% female)	5 (83.3%)
Age, mean (SD)	34.7 (7.4)
Race, N (%)	
Asian	1 (16.7%)
Black	0 (00.0%)
White	3 (25.0%)
Other/Unknown/Declined	2 (33.0%)
Ethnicity, N (%)	
Hispanic or Latino	1 (16.7%)
Not Hispanic or Latino	5 (83.3%)
EDSS, median [IQR] – within 1yr fingolimod discontinuation	1.5 [1.5, 3.0]
EDSS, median [IQR] – within 1yr following anti-CD20 start	2.5 [1.5, 4.0]
Disease duration, mean (SD)	8.2 (4.0)
MS subtype, N (%)	
Relapsing-remitting (RR)	5 (83.3%)
Primary-progressive (PP)	1 (16.7%)
Continuous time on fingolimod*, mean days (SD); median [IQR]	1,009.2 (793.6); 855.5 [490.2, 1,358.8]
Switch to anti-CD20 following fingolimod discontinuation, N (%)	
Ocrelizumab	4 (66.7%)
Rituximab	2 (33.3%)
Duration of interval, median days [IQR]	235 [169.5, 397.2]
Time between fingolimod discontinuation and relapse, mean days (SD)	192.5 (177.3)
Reason for fingolimod discontinuation (MS subtype), N (%)	
Insurance (RR, PP)	2 (33.3%)
Adverse reaction (RR, RR)	2 (33.3%)
Other (RR, RR)	2 (33.3%)

Table e2. Clinical and demographic characteristics of the four patients with a relapse documented in the 12 months following anti-CD20 therapy initiation.

Var	N = 4
Sex, N (% female)	2 (50.0%)
Age, mean (SD)	36.3 (12.8)
Race, N (%)	
Black	1 (25.0%)
White	1 (25.0%)
Other/Unknown/Declined	2 (50.0%)
Ethnicity, N (%)	
Hispanic or Latino	1 (25.0%)
Not Hispanic or Latino	3 (75.0%)
EDSS, median [IQR] – within 1yr fingolimod discontinuation	5.5 [4.0, 6.1]
EDSS, median [IQR] – within 1yr following anti-CD20 start	5.8 [4.0, 6.6]
Disease duration, mean (SD)	16.1 (10.8)
MS subtype, N (%)	
Relapsing-remitting (RR)	3 (75.0%)
Secondary-progressive (SP)	1 (25.0%)
Number of DMTs tried before fingolimod	
Two	3 (75.0%)
Three	1 (25.0%)
Continuous time on fingolimod*, mean days (SD); median [IQR]	1,272 (889.1); 1,171 [710.5, 1,732.8]
Switch to anti-CD20 following fingolimod discontinuation, N (%)	
Ocrelizumab	2 (50.0%)
Rituximab	2 (50.0%)
Duration of interval, median days [IQR]	12.5 [9, 15]
Time between anti-CD20 start and relapse, mean days (SD)	207.8 (33.3)
Reason for fingolimod discontinuation, N (%)	
Disease breakthrough	3 (75.0%)
Adverse reaction	1 (25.0%)

Table e3. Summary of MRI findings in the 12 months following anti-CD20 initiation. Each MRI corresponds to one individual patient.

Time period	0-3m	3-6m	6-9m	9-12m
Number of MRIs	6	23	18	12
No new T2 lesions	3 (50.0%)	16 (69.6%)	14 (77.8%)	11 (91.7%)
No new T2 lesions DC reason	Pregnancy (1), adverse reaction (1), other (1)	breakthrough (13), inefficacy for progressive (2), other (1)	Breakthrough (6), adverse reaction (3), insurance (1), risk reduction (1), not reported (1), other (2)	Breakthrough (6), inefficacy for progressive (3), adverse reaction (1), not reported (1)
New T2 lesions noted	3 (50.0%)	7 (30.4%)	4 (22.2%)	1 (8.3%)
Yes new T2 lesions DC reason	Breakthrough (1), inefficacy for progressive (1), other (1)	Breakthrough (4), adverse reaction (2), other (1)	Breakthrough (1), adverse reaction (2), insurance (1)	Adverse reaction (1)

Table e4. Clinical and demographic characteristics of the patients with ALC labs available in the year following fingolimod discontinuation.

Var	Level	Labs (n = 92)	No Labs (n = 16)	Overall (n = 108)	p-value
Sex					
	Female	63 (68.5%)	11 (68.8%)	74 (68.5%)	
	Male	29 (31.5%)	5 (31.2%)	34 (31.5%)	1
Race					
	American Indian or Alaska Native	3 (3.3%)	0 (0.0%)	3 (2.8%)	
	Asian	4 (4.3%)	0 (0.0%)	4 (3.7%)	
	Black	6 (6.5%)	2 (12.5%)	8 (7.4%)	
	Other/Unknown/Declined	21 (22.8%)	2 (12.5%)	23 (21.3%)	
	White	58 (63.0%)	12 (75.0%)	70 (64.8%)	0.58
Ethnicity					
	Hispanic or Latino	13 (14.1%)	1 (6.2%)	14 (13.0%)	
	Not Hispanic or Latino	72 (78.3%)	14 (87.5%)	86 (79.6%)	
	Unknown/Declined	7 (7.6%)	1 (6.2%)	8 (7.4%)	0.66
Age, years, mean (SD)		44.1 (11.5)	47.4 (10.6)	44.6 (11.4)	0.29
Disease duration, years, mean (SD)		12.5 (7.2)	9.5 (7.3)	12.1 (7.2)	0.13
EDSS, median [IQR] - within 1y prior fingolimod d/c		3 [2.0, 4.8]	4 [2.5, 6.2]	3 [2.0, 5.4]	**0.082**
	missing	13	1	14	
EDSS, median [IQR] - within 1y following anti-CD20 start		2.5 [2, 4]	4 [3.0, 6.5]	3 [2.0, 4.8]	**0.014**
	missing	16	2	18	
MS subtype, N (%)					
	Primary-progressive (PP)	11 (12.0%)	4 (25.0%)	15 (13.9%)	
	Relapsing-remitting (RR)	65 (70.7%)	9 (56.2%)	74 (68.5%)	
	Secondary-progressive (SP)	16 (17.4%)	3 (18.8%)	19 (17.6%)	0.35
anti-CD20 initiated following fingolimod discontinuation, N (%)					
	Ocrelizumab	62 (67.4%)	10 (62.5%)	72 (66.7%)	
	Rituximab	30 (32.6%)	6 (37.5%)	36 (33.3%)	0.92
Duration of fingolimod discontinuation interval, median days [IQR]		31.5 [4, 114]	15.5 [1, 372]	28 [1.0, 115.2]	0.19
Reason for fingolimod discontinuation, N (%)					
	Adverse reaction	14 (15.2%)	1 (6.2%)	15 (13.9%)	
	Disease breakthrough	49 (53.3%)	6 (37.5%)	55 (50.9%)	
	Inefficacy for progressive	9 (9.8%)	3 (18.8%)	12 (11.1%)	
	Insurance	4 (4.3%)	0 (0.0%)	4 (3.7%)	
	JCV+	3 (3.3%)	0 (0.0%)	3 (2.8%)	
	pregnancy	2 (2.2%)	2 (12.5%)	4 (3.7%)	
	Other	9 (9.8%)	1 (6.2%)	10 (9.3%)	
	Not reported	2 (2.2%)	3 (18.8%)	5 (4.6%)	**0.027**

Annualized Relapse Rate (ARR) prior to fingolimod discontinuation, mean (SD), [RRMS only]	0.14 (0.35)	0.22 (0.44)	0.15 (0.36)	0.60