SUPPLEMENTARY MATERIALS

SUPPLEMENTARY TABLE 1 Objective adherence rates for injectable DMTs

Author, year	DMT(s)	Sample size	Adherence measure	Adherence: Cut-off score (≥80 unless specified)				Adherence:	
				<8 months	12 months	24 months	>36 months	<8 months	12 months
Agashivala, 2013 [41]	IFNβ-1b, IFNβ-1a, GA	*n*=1,643	MPR, PDC		**MPR (≥80):** 77.4%; **PDC (≥80):** 49.9%				**MPR:** *M*=0.87, *SD*=0.16; **PDC**: *M*=0.68, *SD*=0.31
Bayas, 2015 [37]	IFNβ-1a s.c.	*N*=912 (safety population)	Electronic Autoinjector		**Autoinjector (>95):** 84.3%; **Autoinjector (<75):** 2.1%				**Autoinjector:** *M*=0.97, *SD*=0.73
Bruce, 2010 [14]	GA, IFNβ-1a, IFNβ-1b	*N*=67	MEMS	**MEMS (≥80):** 82.0%					

Cerghet, 2010 [44]	GA, IFNβ-1a, IFNβ-1b	*n*=111	MPR	**MPR:** *M*=0.78, *SD*=0.27
Cohan, 2018 [45]	IFNβ-1a, IFNβ-1b	*n*=531 (no switch); *n*=117 (switch)	MPR, PDC	**Stable users: MPR:** *M*=0.92, *SD*=NR **Switchers: MPR:** *M*=0.78, *SD*=NR **Stable users: PDC:** *M*=0.86, SD=NR **Switchers: PDC:** *M*=0.74, *SD*=NR
Cohen, 2015 [46]	GA, IFNβ-1a, IFNβ-1b	*n*=2,410	MPR	**MPR (≥80):** 79.0%;

Defer, 2018 [49]	IFNβ-1a s.c.	*n*=253	Electronic Autoinjector					
Deftereos, 2018	IFNβ-1a s.c	*n*=62	Electronic Autoinjector					**Autoinjector:** *M*=0.98, *SD*=0.57
Degli Esposti, 2017 [40]	IFNβ-1a, IFNβ-1b, GA	*N*=1,698	MPR		**MPR (≥80):** 65.0%			
Devonshire, 2016 [51]	IFNβ-1a s.c.	*n*=158	Electronic Autoinjector	**Autoinjector (≥80):** 82.9%			**Autoinjector:** *M*=0.89, *SD*=0.20	
Duquette, 2019 [9]	IFNβ-1a, IFNβ-1b, GA	*n*=4,607 (6-month); *n*=2,711 (12-month);	MPR	**MPR: (≥80):** 53.0%	**MPR: (≥80):** 47.0%	**MPR: (≥80):** 35.0%		

		n=2,712 (24-month)				
Evans, 2017 [54]; 2016 [55]	IFNβ-1a, IFNβ-1b, GA	*N*=4,746 (2017); *N*=4,830 (2016)	MPR, PDC	**MPR: (≥80):** 75.1%. **PDC: (≥80):** 76.4%		**PDC (≥80):** 42.4%
Fernández, 2016 [57]	IFNβ-1a s.c.	*N*=258	Electronic Autoinjector			**Autoinjector (≥80):** 86.8%
Gerber, 2017 [59]	IFNβ-1a, IFNβ-1b, GA	*n*=2,709	MPR	**MPR (≥80):** 62.3%		
Hansen, 2015 [10]	IFNβ-1a, IFNβ-1b, GA	*N*=50,057	MPR		**MPR (≥80):** 39.9%	
Jones, 2013 [60]	GA	*N*=5,825	MPR		**MPR (≥80):** 74.3%	

Kleinman, 2010 [61]	IFNβ-1a, IFNβ-1b, GA	*N*=358	MPR				**MPR:** *M*=0.74; SD=0.28
Kleiter, 2017 [62]	IFNβ-1b s.c.	*n*=143	Electronic Autoinjector	**Autoinjector (≥80):** 80.5%			
Kozma, 2014 [63]	IFNβ-1a, IFNβ-1b, GA	*N*=4,606	PDC		**PDC (≥80):** 67.3%		
Krol, 2017 [64]	IFNβ-1a s.c.	*N*=1,682	Electronic Autoinjector			**Autoinjector (≥80):** 82.9%	
Lafata, 2008 [19]	GA, IFNβ-1a, IFNβ-1b	*N*=224	MPR				

Lugaresi, 2012 [66]	IFNβ-1a s.c.	*n*=119	Electronic Autoinjector	**Autoinjector (≥80):** 88.2%				
McKay, 2017 [67]	IFNβ-1a, IFNβ-1b, GA	*N*=135	MPR			**MPR (≥80):** 57.0%		
Melesse, 2017 [35]	IFNβ-1a, IFNβ-1b, GA	*N*=721	PDC		**PDC (≥80):** 80.0%;		**PDC (≥80):** 86.0%	
Moccia, 2015 [69]	IFNβ-1a s.c	*N*=114	Electronic Autoinjector				**Autoinjector (≥80):** 95.6%	
Munsell, 2017 [70]	IFNβ-1a, IFNβ-1b, GA	*n*=7,207	MPR		**MPR (≥80):** 54.1%			**MPR:** *M*=0.69, *SD*=0.30
Oleen-Burkey, 2011 [71]	GA	*N*=839	MPR			**MPR (≥80):** 44.3%		

Pedersen, 2018 [73]	IFNβ-1a s.c.	*n*=54	Electronic Autoinjector	**Autoinjector (≥80):** 93.0%				
Sabido-Espin, 2017 [75]	IFNβ-1a s.c	*N*=5,956	MPR			**MPR (≥80):** 51.7%		
Sanchiricо, 2019 [76]	GA, IFNβ-1a, IFNβ-1b,	*n*=7,072	PDC		**PDC (≥80):** 90.0%			
Settle, 2016 [30]	IFNβ-1a i.m.	*n*=13	IC, MPR				**Routine care (IC, MPR):** *M*=0.95, *SD*=0.11	
Shao, 2018 [78]	IFNβ-1a, IFNβ-1b, GA	*n*=6,003	PDC		**PDC (≥80):** 76.4%			
Solsona, 2017 [80]	IFNβ-1a s.c.	*N*=110	Electronic Autoinjector			**Autoinjector (≥80):** 90.0%		
Steinberg, 2010 [36]	IFNβ-1a, IFNβ-1b	*n*=1,606	MPR		**MPR (≥85):** 27.0%	**MPR (≥85):** 40.0%	**MPR (≥85):** 41.0%	**MPR:** *M*=0.72, *SD*=0.20

Stockl, 2010 [81]	IFNβ-1a, IFNβ-1b, GA	*n*=312	MPR		**SP/RP.** **MPR:** *M*=0.89 *SD*=0.17
Tan, 2011 [82]	IFNβ-1a, IFNβ-1b, GA	*n*=2,446	MPR	**MPR (≥80):** 59.6%;	
Williams, 2018 [85]	GA	*n*=109 (Hispanic); *n*=139 (African American)	MPR, PDC	**Hispanic MPR (≥80):** 65.1%; **PDC (≥80):** 53.2%. **African American MPR (≥80):** 62.6%;	**Hispanic MPR:** *M*=0.80, *SD*=0.24; **PDC:** *M*=0.71, *SD*=0.28. **African American MPR:** *M*=0.80, *SD*=0.22;

						PDC (≥80): 46.0%				**PDC:** *M*=0.67, *SD*=0.29
Zecca, 2017 [38]	IFNβ-1a s.c	*n*=53	Electronic Autoinjector				**Autoinjector (< 90%):** 28.3%; **Autoinjector (90–99.9%):** 24.0%; Autoinjector **(100%):** 37.7%			
Zhang, 2017 [86]	IFNβ-1a, IFNβ-1b, GA	*N*=801	PDC				**PDC (≥80):** 74.7%			
				Autoinjector: *n*=4, range, 80.5-93.0% **MEMS:** *n*=1, *M*=82.0%	**MPR:** *n*=7, range, 47.0-77.4% **PDC:** *n*=6, range, 46.0-90.0%	**MPR:** *n*=7, range, 35.0-79.0% **PDC:** *n*=2, range,	**MPR:** *n*=1, *M*=51.7% **PDC:** *n*=2, range, 42.4-86.0%	**Autoinjector:** *n*=1, *M*=0.89 **IC/MPR**: *n*=1, *M*=0.95	**MPR:** *n*=8, range, 0.69-0.92 **PDC:** *n*=3, range, 0.67-0.86 **Autoinjector:** *n*=2,

	MPR: *n*=1, *M*=53.0%	67.3-74.7%	**Autoinjector:** *n*=4, range, 82.9-95.6%	range, 0.97-0.98	

M=mean, *SD*=standard deviation, *N*=total sample, *n*=subgroup, NR=not reported

Note: Studies reporting data for multiple subgroups were classified as a single study. Sample sizes included are reported statistics, not total sample, unless specified; Unless otherwise stated, IF and subcutaneous administration. All studies are observational unless otherwise stated. Only baseline and preintervention data are reported for intervention studies. Where required, means and combined excluding IV medications data, using weighted sample group statistics through an online calculator: https://www.statstodo.com/CombineMeansSDs_Pgm.php.

Abbreviations: GA=glatiramer acetate; IC=injection count; IFNβ-1a=interferon beta-1a; IFNβ-1a i.m=interferon beta-1a intramuscular; IFNβ-1a s.c=interferon beta-1a subcutaneous; IFNβ-1b= MEMS=medication event monitoring system; MPR=medication possession ratio; PDC=-proportion of days covered; PC=pill count

N=40

SUPPLEMENTARY TABLE 2 Objective adherence rates for oral DMTs

Author, year	DMT(s)	Sample size	Adherence measure	Adherence: Cut-off score (≥80 unless specified)	Adherence: *M, SD*	Comments
<8 months						

Aungst, 2019 [42]	DMF	*n*=25	PC, MEMS		**PC:** *M*=0.91, *SD*=0.14; **MEMS:** *M*=0.90, *SD*=0.19	Examined adherence over 6-month period; defined pill count as pill count compliance, and measured medication cap compliance via MEMS
Duquette, 2019 [9]	FTY, DMF, TFN	*n*=7,305	MPR	**MPR (≥80):** 74.0%		Examined adherence over 6 months
12 months						
Agashivala, 2013 [41]	FTY	*n*=248	MPR, PDC	**MPR (≥80):** 88.9%; **PDC (≥80):** 70.2%	**MPR:** *M*=0.91, *SD*=0.09; **PDC:** *M*=0.81, *SD*=0.23	New oral DMT users
Aungst, 2019 [42]	DMF	*n*=25	PC, MEMS		**PC:** *M*=0.89, *SD*=0.19; **MEMS:** *M*=0.84, *SD*=0.34	Defined pill count as Pill count compliance, and measures medication cap compliance via MEMS
Burks, 2017 [13]	FTY, DMF, TFN	*n*=1,018	PDC	**PDC (≥80):** 61.4%	**PDC:** *M*=0.73, *SD*=0.29	
Duquette, 2019 [9]	FTY, DMF, TFN	*n*=4,567	MPR	**MPR (≥80):** 73.3%		
Gerber, 2017 [59]	FTY, DMF, TFN	*n*=72	MPR	**MPR (≥80):** 66.7%		

Johnson, 2017 [12]	FTY, DMF, TFN	*N*=1,498	PDC, MPR	**MPR (≥80):** 77.3%; **PDC (≥80):** 62.9%	**MPR:** *M*=0.90, *SD*=0.14; **PDC:** *M*=0.74, *SD*=0.31	
Sanchirico, 2019 [76]	FTY, DMF, TFN	*n*=7,072	PDC	**PDC (≥80):** 94.0%		
Munsell, 2017 [70]	FTY, DMF, TFN	*n*=1,175	MPR	**MPR (≥80):** 53.0%	**MPR:** *M*=0.68, *SD*=0.30	Newly initiated treatment
Schreiber, 2018 [77]	FTY	*n*=126	PC		**PC:** *M*=0.99, *SD*=0.07	Intervention study, but only observational data reported
Vieira, 2019 [83]	FTY, TFN	*N*=4,563	MPR, PDC	**MPR (≥80):** 89.2%; **PDC (≥80):** 60.4%	**MPR:** *M*=0.92, *SD*=0.09; **PDC:** *M*=0.73, *SD*=0.28	
Williams, 2018 [85]	FTY	*n*=62 (Hispanic); *n*=71 (African American)	MPR, PDC	**Hispanic: MPR (≥80):** 80.7%; **PDC (≥80):** 71.0%. **African American: MPR (≥80):** 70.4%; **PDC (≥80):** 63.4%	**Hispanic: MPR:** *M*=0.88, *SD*=0.12; **PDC:** *M*=0.83, *SD*=0.18 **African American: MPR**: *M*=0.83, *SD*=0.20; **PDC:** M=0.78, *SD*=0.24	Hispanic and African American subgroups
				MPR: *n*=7, range, 53.0-89.2% **PDC:** *n*=6, range, 60.4-94.0%	**MPR:** *n*=5, range, 0.68-0.92 **PDC**: *n*=5, range, 0.73-0.83 **PC:** *n*=2, range, 0.89-0.99 **MEMS:** *n*=1, 0.84	
24 months						

Duquette, 2019 [9]	FTY, DMF, TFN	*n*=3,029	MPR	**MPR (≥80):** 64.7%	
Zimmer, 2017 [88]	FTY	*N*=76	PDC, PC	**Perfect (100%):** 41.1% **Optimal (> 96.2%):** 88.2% **suboptimal (< 96.2%, but > 85.8%)**: 11.8%, **nonadherent (< 85.8%)**: 0%	Excluded patients that did not remain on treatment, *n*=19 recorded as nonpersistent and *n*=3 as unknown

M=mean, *SD*=standard deviation, *N*=total sample, *n*=subgroup

Note: Studies reporting data for multiple subgroups were classified as a single study. Sample sizes included are reported statistics, not total sample, unless specified. All studies are observational unless otherwise stated. Only baseline and preintervention data are reported for intervention studies. Where required, means and standard deviations were combined excluding IV medications data, using sample group statistics through an online calculator: https://www.statstodo.com/CombineMeansSDs_Pgm.php.

Abbreviations: DMF=dimethyl fumarate; FTY=fingolimod; MEMS=medication monitoring event system; MPR=medication possession ratio; PC=pill count; PDC=proportion of days covered; TFN=teriflunomide.

N=12

SUPPLEMENTARY TABLE 3 Discontinuation rates for oral and injectable DMTs

Author, year	Definition of discontinuation	Study length	Sample size	DMT(s)	Oral	Injectable	Comments

<12 Months							
Duquette, 2019 [9]	>30-day gap	6 months	*n*=7,712 (oral); *n*=5,379 (injectable)	IFNβ-1a, IFNβ-1b, GA, FTY, DMF, TFN	**FTY, DMF, TFN:** 28.0%	**IFNβ-1a, IFNβ-1b, GA:** 49.0%	
Evans, 2012 [56]	>90-day gap	<6 months	*N*=1,896	IFNβ-1a, IFNβ-1b, GA		**IFNβ-1a, IFNβ-1b, GA:** 5.0%	
Evans, 2016 [55]	>90-day gap	<6 months	*N*=4,830	IFNβ-1a, IFNβ-1b, GA		**IFNβ-1a, IFNβ-1b, GA:** 9.3%	
Stockl, 2010 [81]	>30-day gap	8 months	*n*=312	IFNβ-1a, IFNβ-1b, GA		**SP/RP:** 25.0%	
					Overall: *n*=1, 28.0% **>30-day gap:** *n*=1, 28.0%	**Overall:** *n*=4**,** range, 5.0-49.0% **>30-day gap:** *n*=2, range, 25.0-49.0% **>90-day gap:** *n*=2, range, 5.0-9.3%	
12 Months							
Agashivala, 2013 [41]	> 60-day gap	12 months	*n*=248 (oral); *n*=1,643 (injectable)	FTY, IFNβ-1b, IFNβ-1a, GA	**1st DMT: FTY:** 30.2%. **2nd+ DMT**: **FTY:** 21.1%	**1st DMT: IFNβ-1b, IFNβ-1a, GA:** 37.0% **2nd+ DMT: IFNβ-1b, IFNβ-1a, GA:** 35.0%	1st DMT are people who started their first DMT; 2nd+ DMT are people who

							switched to a subsequent DMT
Burks, 2017 [13]	>90-day gap	12 months	*n*=1,018	TFN, FTY, DMF	**TFN, FTY, DMF:** 16.9%		Injectable data contained intravenous, thus, were not included
Cohan, 2018 [45]	Discontinuation	12 months	*N*=708	IFNβ-1a, IFNβ-1b		**IFNβ-1a, IFNβ-1b:** 15.2%	Discontinuation rate for patients stable on any IFN beta therapy
Duquette, 2019 [9]	>30-day gap	12 months	*n*=5,995 (oral); *n*=4,433 (injectable)	IFNβ-1a, IFNβ-1b, GA, FTY, DMF, TFN	**FTY, DMF, TFN:** 26.3%	**IFNβ-1a, IFNβ-1b, GA:** 44.0%	
Evans, 2016 [55]	>90-day gap	12 months	*N*=4,830	IFNβ-1a, IFNβ-1b, GA		**IFNβ-1a, IFNβ-1b, GA:** 17.6%	
Munsell, 2017 [70]	>90-day gap	12 months	*n*=1,175 (oral*);* *n*=7,207 (injectable)	IFNβ-1a, IFNβ-1b, GA, TFN, FTY, DMF	**TFN, FTY, DMF:** 28.2%	**IFNβ-1a, IFNβ-1b, GA:** 26.6%	
Prosperini, 2019 [74]	Discontinuation	12 months	Prematching: *N*=621; PEG, *n*=196,	PEG, DMF, TFN	**DMF, TFN:** 15.8%	**PEG:** 28.6%	Pre and postmatching cohorts examined

			DMF, *n*=265, TFN, *n*=160.			
Sabido-Espin, 2017 [75]	>90-day gap	12 months	*N*=5,956	IFNβ-1a s.c		**IFNβ-1a s.c:** 20.6%
Warrender-Sparkes, 2016 [84]	>90-day gap	12 months	*n*=45 (oral); *n*=2,527 (injectable)	IFNβ-1a, IFNβ-1b, GA, FTY	**FTY:** 10.5%;	**IFNβ-1a, IFNβ-1b, GA:** 20.6%
Smith, 2015 [79]	Discontinuation	*M*=554.2 days	*N*=8,107	IFNβ-1a		**IFNβ-1a:** 26.4%
Gerber, 2017 [59]	>90-day gap	12 months	*n*=72 (oral); *n*=2,709 (injectable)	IFNβ-1a, IFNβ-1b, GA, FTY, TFN, DMF	**FTY, TFN, DMF:** 33.3%	**IFNβ-1a, IFNβ-1b, GA:** 50.8%
					Overall: *n*=7, range, 10.5-33.3% **>30-day gap:** *n*=1, 26.3% **>60-day gap:** *n*=1, range, 21.1%-30.2% **>90-day gap:** *n*=4, range, 10.5%-33.3% **Discontinuation:** *n*=1, 15.8%	**Overall:** *n*=10, range, 15.2%-50.8% **>30-day gap:** *n*=1, 44.0% **>60-day gap:** *n*=1, range, 35.0%-37.0% **>90-day gap:** n=5, range, 17.6%-50.8%

						Discontinuation: *n*=3, range, 15.2%-28.6%	
24 Months							
Bonafede, 2013 [39]	>59-day gap	24 months	*n*=5,710	IFNβ-1a, IFNβ-1b, GA		**IFNβ-1a, IFNβ-1b, GA:** 8.7%	55.3% had a treatment gap >60 days; Fingolimod excluded as an index therapy
Braune, 2016 [43]	Discontinuation	24 months; PM: *M*=1037.8 (461.2) days	*N*=433; Propensity matched: *n*=198 (99 FTY, 99 iDMT)	IFNβ-1a, IFNβ-1b, GA; FTY	**FTY:** 12.1%	**IFNβ-1a, IFNβ-1b, GA:** 36.4%	Only provides discontinuation data for propensity matched sample of *n*=198
Condé, 2019 [47]	Discontinuation	24 months	*N*=346	DMF, TFN	**DMF, TFN:** 33.1%		
D'Amico, 2019 [48]	>60-day gap	24 months	*N*=903	DMF, TFN	**DMF, TFN:** 8.9%		
Duquette, 2019 [9]	>30-day gap	24 months	*n*=3,435 (oral); *n*=4,353 (injectable)	IFNβ-1a, IFNβ-1b, GA, FTY, DMF, TFN	**FTY, DMF, TFN:** 34.0%	**IFNβ-1a, IFNβ-1b, GA:** 57.0%	
Eriksson, 2018 [52]	>60-day gap	Median, 2.5 years	*N*=400	DMF	**DMF:** 31.0%		

Ernst, 2017 [53]	>30-day gap	24 months	*n*=307 (oral); *n*=143 (injectable)	IFNβ-1a s.c., DMF	**DMF:** 8.1%	**IFNβ-1a s.c:** 11.9%;	
Sabido-Espin, 2017 [75]	>90-day gap	24 months	*N*=5,956	IFNβ-1a s.c		**IFNβ-1a s.c:** 22.6%	
Zimmer, 2017 [88]	Discontinuation	24 months	*N*=98	FTY	**FTY:** 1.0% (complete discontinuation)		19 participants who discontinued fingolimod, eight switched directly to alternative therapy, five interrupted treatment for pregnancy, and six stopped treatment without immediate intention to initiate an alternative treatment. Post hoc analysis showed that all except for one initiated alternative

							treatment at a later time
Fernández-Fournier, 2015 [58]	Discontinuation	Median: 34 months	*N*=155	GA		**GA:** 6.3%	
					Overall: *n*=7, range, 1.0%-34.0% **>30-day gap:** *n*=2, range, 8.1%-34.0% **>60-day gap:** *n*=2, range, 8.9%-31.0% **Discontinuation:** *n*=3, range, 1.0%-33.1%	**Overall:** *n*=6, range, 6.3%-57.0% **>30-day gap:** *n*=2, range, 11.9%-57.0% **>59-day gap:** *n*=1, 8.7% **>90-day gap:** *n*=1, 22.6% **Discontinuation:** *n*=2, range, 6.3%-36.4%	
36 Months +							
Lebrun-Frenay, 2019 [65]	Discontinuation	Up to 5 years	*n*=852	GA		**GA:** 53.6%	
Sabido-Espin, 2017 [75]	>90-day gap	36 months	*N*=5,956	IFNβ-1a s.c		**IFNβ-1a s.c:** 30.6%	
Melesse, 2017 [35]	>90-day gap	*M*=7.8 years	*N*=721	IFNβ-1a, IFNβ-1b, GA		**IFNβ-1a, IFNβ-1b, GA:** 26.6% (complete discontinuation)	57.4% resumed at some point; 62.6% discontinued (>90-days); 26.4% discontinued for

						<1 year; 4.7% discontinued for >1 - <2 years; 4.9% discontinued for >2 - <3 years
Moccia, 2016 [68]	>90-day gap	>5 years; *M*=7.9, *SD*=3.8 years	*N*=499	IFNβ-1a, IFNβ-1b	**IFNβ-1a, IFNβ-1b:** 9.7%	
Evans, 2012 [56]	>90-day gap	Up to 14 years	*n*=1,896	IFNβ-1a, IFNβ-1b, GA	**IFNβ-1a, IFNβ-1b, GA:** 26.0% (complete discontinuation)	Discontinuation based on initial DMT, accounts for switchers but not those who discontinued following switch; < 6 months: 5.0% discontinuation
Zhornitsky, 2015 [87]	>90-day gap	Up to 18 years; *M*=6.1, *SD*=4.4 years (range 0-	*N*=1,471	IFNβ-1a, IFNβ-1b, GA	**IFNβ-1a, IFNβ-1b, GA:** 19.0% (complete discontinuation)	Recommences did not necessarily recommence an injectable, but may have changed to oral or IV DMT

		18 years follow-up)			
Degil Esposti, 2017 [40]	Temporary discontinuation < 6-month drug absence; Definitive interruption >12-month drug absence	36 months	*N*=1,698	IFNβ-1a, IFNβ-1b, GA	**IFNβ-1a, IFNβ-1b, GA:** Discontinuation (<6 months): 37.0%; Definitive interruption: 28.0%
					Overall: *n*=7, range, 9.7%-53.6% **>90-day gap:** *n*=5, range, 9.7%-30.6% **<6-month absence:** *n*=1, 37.0% **>12-month absence:** *n*=1, 28.0% **Discontinuation:** *n*=1, 53.6%

N=total sample, *n*=subgroup, *M*=mean, *SD*=standard deviation

Note: Studies reporting data for multiple subgroups were classified as a single study. Unless otherwise stated, IFNβ-1a includes both intramuscular and subcutaneous administration. All studies are observational unless otherwise stated. Where required, means and standard deviations were combined excluding IV medications data, using sample group statistics through an online calculator: https://www.statstodo.com/CombineMeansSDs_Pgm.php.

Abbreviations: DMF=dimethyl fumarate; DMT=disease-modifying therapy; FTY=fingolimod; GA=glatiramer acetate; IFNβ-1a=interferon beta-1a; IFNβ-1a i.m=interferon beta-1a intramuscular; IFNβ-1a s.c=interferon beta-1a subcutaneous; IFNβ-1b=interferon beta-1b; MS=multiple sclerosis; PEG=pegylated Interferon; PM=propensity matched; RP=retail pharmacy; RRMS=relapse remitting multiple sclerosis; SP=speciality pharmacy; TFN=teriflunomide.

N=26

SUPPLEMENTARY TABLE 4 Appraisal tool for cross-sectional studies (AXIS) for included objective studies

	AXIS Criteria					
	Intro	**Methods**	**Results**	**Discussion**	**Other**	**Total**

Author, year	**1.**	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**	**10.**	**11.**	**12.**	**13.**	**14.**	**15.**	**16.**	**17.**	**18.**	**19.**	**20.**	
Agashivala, 2013 [41]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NR	13
Aungst, 2019 [42]	Y	Y	N	Y	Y	N	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	15
Bayas, 2015 [37]	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	Y	18
Bonafede, 2013 [39]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NP	12
Braune, 2016 [43]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	N	Y	N/A	N/A	Y	Y	Y	N	N	Y	14
Bruce, 2010 [14]	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	Y	N	NP	16
Burks, 2017 [13]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NR	13
Cerghet, 2010 [44]	Y	Y	N	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	Y	14
Cohan, 2018 [45]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NR	13
Cohen, 2015 [46]	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	18
Condé, 2019 [47]	Y	Y	N/A	Y	Y	Y	N/A	Y	N	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	Y	13

D'Amico, 2019 [48]	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	17
Defer, 2018 [49]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NP	12
Deftereos, 2018 [50]	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	17
Degil Esposti, 2017 [40]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	NP	14
Devonshire, 2016 [51]	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	16
Duquette, 2019 [9]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	N	Y	N	N/A	N/A	Y	Y	Y	Y	Y	NR	11
Eriksson, 2018 [52]	Y	Y	N/A	Y	Y	Y	N	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	Y	16
Ernst, 2017 [53]	Y	Y	Y	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NR	14
Evans, 2017 [54]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	Y	16
Evans, 2016 [55]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	Y	16
Evans, 2012 [56]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	Y	16
Fernández, 2016 [57]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	Y	16

Fernández-Fournier, 2015 [58]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	Y	16
Gerber, 2017 [59]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	Y	14
Hansen, 2015 [10]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	Y	16
Johnson, 2017 [12]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NP	12
Jones, 2013 [60]	Y	Y	N/A	Y	N	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NP	11
Kleinman, 2010 [61]	Y	Y	N/A	Y	Y	N	N/A	Y	Y	Y	Y	N	N/A	N/A	Y	Y	Y	Y	Y	NP	10
Kleiter, 2017 [62]	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	17
Kozma, 2014 [63]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NR	13
Krol, 2017 [64]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	Y	14
Lafata, 2008 [19]	Y	N	N	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	Y	13
Lebrun-Frenay, 2019 [65]	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	15

Lugaresi, 2012 [66]	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	17
McKay, 2017 [67]	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	19
Melesse, 2017 [35]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	Y	16
Moccia, 2016 [68]	Y	Y	N/A	Y	Y	Y	Y	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	Y	17
Moccia, 2015 [69]	Y	Y	Y	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	Y	17
Munsell, 2017 [70]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	NR	15
Oleen-Burkey, 2011 [71]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NP	12
Paolicelli, 2016 [72]	Y	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	N	Y	17
Pedersen, 2018 [73]	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	17
Prosperini, 2019 [74]	Y	Y	N/A	Y	Y	Y	N/A	Y	N	Y	N	Y	N/A	N/A	Y	Y	Y	Y	N	Y	14
Sabido-Espin, 2017 [75]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NR	13

Sanchiric o, 2019 [76]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	N	Y	Y	N/A	N/A	Y	N	Y	Y	Y	Y	12
Schrieber , 2018 [77]	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	18
Settle, 2016 [30]	Y	Y	N	Y	N	N	N	Y	Y	N	Y	Y	N	N	Y	Y	Y	N	Y	Y	11
Shao, 2018 [78]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	N	Y	Y	N/A	N/A	Y	Y	Y	Y	N	NP	13
Smith, 2015 [79]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NR	13
Solsona, 2017 [80]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	N	Y	Y	N/A	N/A	Y	Y	Y	Y	N	Y	15
Steinberg , 2010 [36]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NP	12
Stockl, 2010 [81]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	NR	15
Tan, 2011 [82]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NP	12
Vieira, 2019 [83]	Y	Y	N/A	Y	Y	N	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NR	12
Warrend er-Sparkes, 2016 [84]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	Y	16

Williams, 2018 [85]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	Y	NR	13
Zecca, 2017 [38]	Y	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	15
Zhang, 2017 [86]	Y	Y	N/A	Y	Y	Y	N/A	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	Y	N	Y	16
Zhornitsky, 2015 [87]	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	N/A	N/A	Y	Y	Y	N	N	Y	14
Zimmer, 2017 [88]	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	18
TOTAL (%)	**Y:** 60 (98.4%); **N:** 1 (1.6%)	**Y:** 60 (98.4%); **N:** 1 (1.6%)	**Y:** 8 (13.1%); **N:** 14 (23.0%); **N/A: 39** (63.9%)	**Y:** 61 (100.0%)	**Y: 59** (96.7%); **N:** 2 (3.3%)	**Y:** 56 (91.8%); **N:** 5 (8.2%)	**Y:** 13 (21.3%); **N:** 7 (11.5%); **N/A:** 41 (67.2%)	**Y:** 61 (100.0%)	**Y:** 58 (95.1%); **N:** 3 (4.9%)	**Y:** 54 (88.5%); **N:** 7 (11.5%)	**Y: 59** (96.8%); **N:** 2 (3.3%)	**Y: 59** (96.8%); **N:** 2 (3.3%)	**N/A:** 45 (73.8%); **N:** 16 (26.2%)	**Y:** 12 (19.7%); **N:** 4 (6.6%); **N/A:** 45 (73.8%)	**Y:** 61 (100.0%)	**Y:** 60 (98.4%); **N:** 1 (1.6%)	**Y:** 61 (100.0%)	**Y:** 58 (95.1%); **N:** 3 (4.9%)	**Y:** 37 (60.7%); **N:** 24 (39.3%)	**Y:** 38 (62.3%); **NR:** 12 (19.7%); **NP:** 11 (18.0%)	

Note: For total scores of each question, responses were assigned either a positive value (+1), negative value (-1) or neutral value (0), relative to specific questions. Items 1-12 were coded, Y=1 N=0, N/A=0; Items 13 and 19 were coded, Y=-1; N=1, N/A=0; and item 20 was coded, Y=1, NP=-1, NR=0.

Abbreviations: Y=yes; N=no, N/A=not applicable, NP=not provided, NR=not required.

Criteria: 1. Were the aims/objective of the study clear? 2. Was the study design appropriate for the stated aim(s)?; 3. Was the sample size justified?; 4. Was the target/reference population clearly defined? (Is it clear who the research was about?); 5. Was the sample frame taken from an appropriate population base so that it closely represented the target/reference population under investigation?; 6. Was the selection process likely to select subjects/participants that were representative of the target/reference population under investigation?; 7. Were measures undertaken to address and categorize Nonresponders?; 8. Were the risk factor and outcome variables measured appropriate to the aims of the study?; 9. Were the risk factor and outcome variables measured correctly using instruments/measurements that had been trialled, piloted or published previously?; 10. Is it clear what was used to determined statistical significance and/or precision estimates? (eg, *P*-values, CI); 11. Were the methods (including statistical methods) sufficiently described to enable them to be repeated?; 12. Were the basic data adequately described?; 13. Does the response rate raise concerns about Nonresponse bias?; 14. If appropriate, was information about Nonresponders described?; 15. Were the results internally consistent?; 16. Were the results presented for all the analyses described in the methods?; 17. Were the authors' discussions and conclusions justified by the results?; 18. Were the limitations of the study discussed?; 19. Were there any funding sources or conflicts of interest that may affect the authors' interpretation of the results?; 20. Was ethical approval or consent of participants attained?

N=61

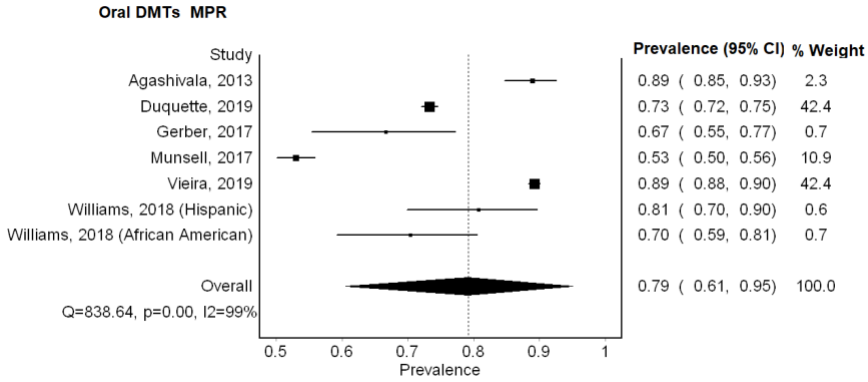
SUPPLEMENTARY TABLE 5 Sensitivity analysis to check effect of excluding studies with highest weights in meta-analyses

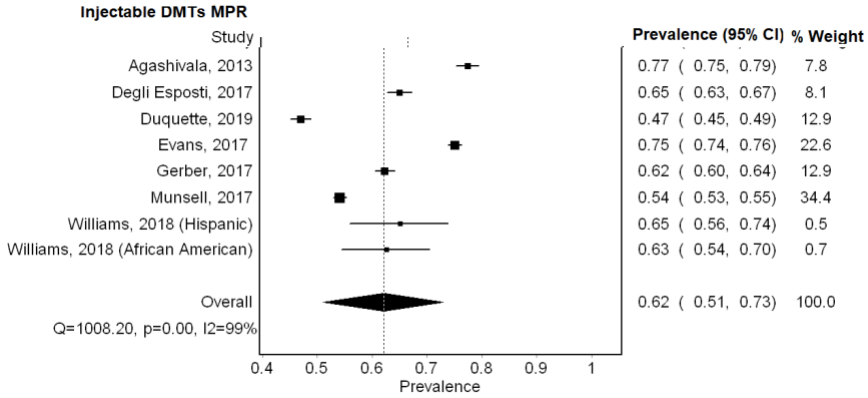
Excluded study	Pooled ES	LCI 95%	HCI 95%	Cochran Q	p	I^2	I^2 LCI 95%	I^2 HCI 95%
Mean adherence rate (oral DMTs)								
Agashivala, 2013 [41]	0.91	0.80	1.03	765.99	0.00	99.48	99.31	99.61
Johnson, 2017 [12]	0.91	0.75	1.08	753.13	0.00	99.47	99.29	99.60
Munsell, 2017 [70]	0.92	0.89	0.94	47.96	0.00	91.66	83.52	95.78
Vieira, 2019 [83]	0.88	0.76	1.00	584.28	0.00	99.32	99.07	99.50
Williams, 2018 (Hispanic) [85]	0.91	0.82	1.01	761.64	0.00	99.47	99.30	99.60
Williams, 2018 (African American) [85]	0.91	0.82	1.01	754.10	0.00	99.47	99.30	99.60
Mean adherence rate (injectable DMTs)								
Agashivala, 2013 [41]	0.72	0.63	0.81	421.87	0.00	98.58	98.03	98.97
Cerghet, 2010 [44]	0.77	0.66	0.87	1416.17	0.00	99.58	99.47	99.66
Kleinman, 2010 [61]	0.77	0.66	0.88	1413.11	0.00	99.58	99.47	99.66
Munsell, 2017 [70]	0.82	0.71	0.92	645.82	0.00	99.07	98.77	99.30
Steinberg, 2010 [36]	0.78	0.64	0.92	1307.67	0.00	99.54	99.43	99.63
Stockl, 2010 [81]	0.76	0.65	0.87	1243.25	0.00	99.52	99.40	99.61
Williams, 2018 (Hispanic) [85]	0.77	0.66	0.87	1414.32	0.00	99.58	99.47	99.66
Williams, 2018 (African American) [85]	0.77	0.66	0.87	1413.21	0.00	99.58	99.47	99.66
Mean discontinuation rate (oral DMTs)								
Agashivala, 2013 (1st DMT) [41]	0.24	0.17	0.32	97.20	0.00	93.83	89.68	96.31
Agashivala, 2013 (2nd+ DMT) [41]	0.24	0.17	0.32	99.72	0.00	93.98	89.98	96.39
Burks, 2017 [13]	0.26	0.19	0.33	54.47	0.00	88.98	79.78	94.00
Duquette, 2019 [9]	0.21	0.14	0.28	70.90	0.00	91.54	85.14	95.18
Munsell, 2017 [70]	0.24	0.15	0.33	91.58	0.00	93.45	88.95	96.12
Prosperini, 2019 [74]	0.25	0.18	0.32	76.44	0.00	92.15	86.38	95.48
Warrender-Sparkes, 2016 [84]	0.24	0.18	0.31	92.07	0.00	93.48	89.02	96.13

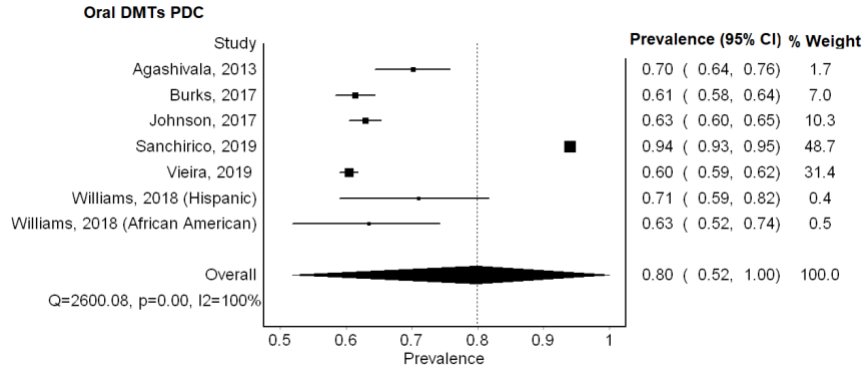
Gerber, 2017 [59]	0.24	0.17	0.31	98.71	0.00	93.92	89.86	96.35
Mean discontinuation rate (injectable DMTs)								
Agashivala, 2013 (1st DMT) [41]	0.26	0.19	0.34	1757.89	0.00	99.49	99.38	99.58
Agashivala, 2013 (2nd+ DMT) [41]	0.26	0.19	0.34	1783.63	0.00	99.50	99.39	99.58
Cohan, 2018 [45]	0.27	0.20	0.35	1759.61	0.00	99.49	99.38	99.58
Duquette, 2019 [9]	0.25	0.18	0.32	1249.17	0.00	99.28	99.11	99.42
Evans, 2016 [55]	0.28	0.21	0.36	1505.15	0.00	99.40	99.27	99.51
Munsell, 2017 [70]	0.27	0.18	0.35	1834.58	0.00	99.51	99.41	99.59
Prosperini, 2019 [74]	0.27	0.19	0.34	1834.33	0.00	99.51	99.41	99.59
Sabido-Espin, 2017 [75]	0.28	0.20	0.36	1669.27	0.00	99.46	99.35	99.55
Warrender-Sparkes, 2016 [84]	0.27	0.19	0.35	1771.92	0.00	99.49	99.39	99.58
Smith, 2015 [79]	0.27	0.18	0.36	1834.07	0.00	99.51	99.41	99.59
Gerber, 2017 [59]	0.25	0.19	0.32	1173.51	0.00	99.23	99.05	99.38
Adherence as dichotomous outcomes (≥80% adherence)								
Excluded study	**Pooled prevalence**	**LCI 95%**	**HCI 95%**	**Cochran Q**	**p**	**I^2**	**I^2 LCI 95%**	**I^2 HCI 95%**
(A)Oral DMT, MPR								
Agashivala, 2013 [41]	0.79	0.59	0.95	821.04	0.00	99.39	99.21	99.53
Duquette, 2019 [9]	0.83	0.48	1.00	685.65	0.00	99.27	99.03	99.45
Gerber, 2017 [59]	0.79	0.60	0.95	832.60	0.00	99.40	99.22	99.54
Munsell, 2017 [70]	0.82	0.66	0.95	419.59	0.00	98.81	98.34	99.15
Vieira, 2019 [83]	0.70	0.49	0.90	229.33	0.00	97.82	96.72	98.55
Williams, 2018 (Hispanic) [85]	0.79	0.60	0.95	838.60	0.00	99.40	99.22	99.54
Williams, 2018 (African American) [85]	0.79	0.60	0.95	835.49	0.00	99.40	99.22	99.54
(B) Injectable DMTs, MPR								
Agashivala, 2013 [41]	0.61	0.49	0.72	808.54	0.00	99.26	99.04	99.43

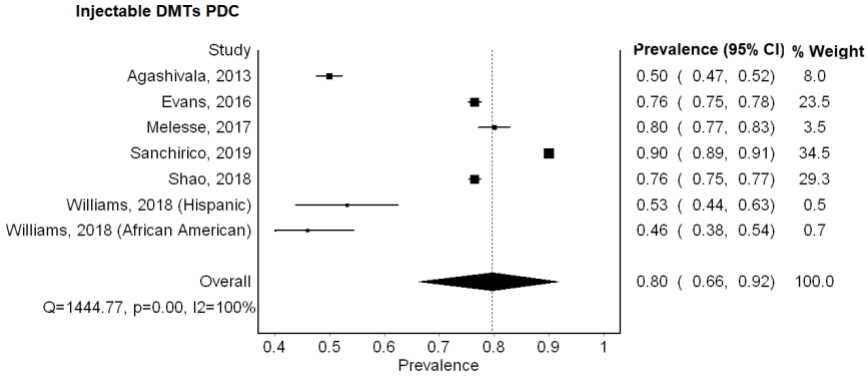
Degli Esposti, 2017 [40]	0.62	0.49	0.74	1001.64	0.00	99.40	99.24	99.53
Duquette, 2019 [9]	0.64	0.53	0.75	718.53	0.00	99.16	98.90	99.36
Evans, 2017 [54]	0.58	0.47	0.69	524.35	0.00	98.86	98.45	99.15
Gerber, 2017 [59]	0.62	0.48	0.75	1008.16	0.00	99.40	99.24	99.53
Munsell, 2017 [70]	0.66	0.55	0.77	716.79	0.00	99.16	98.90	99.36
Williams, 2018 (Hispanic) [85]	0.62	0.51	0.73	1007.81	0.00	99.40	99.24	99.53
Williams, 2018 (African American) [85]	0.62	0.51	0.73	1008.19	0.00	99.40	99.24	99.53
(C) Oral DMTs, PDC								
Agashivala, 2013 [41]	0.80	0.51	1.00	2586.91	0.00	99.81	99.77	99.84
Burks, 2017 [13]	0.81	0.50	1.00	2413.68	0.00	99.79	99.75	99.83
Johnson, 2017 [12]	0.82	0.48	1.00	2356.84	0.00	99.79	99.75	99.82
Sanchirico, 2019 [76]	0.61	0.58	0.65	14.25	0.01	64.91	15.58	85.41
Vieira, 2019 [83]	0.87	0.54	1.00	1353.78	0.00	99.63	99.54	99.70
Williams, 2018 (Hispanic) [85]	0.80	0.52	1.00	2597.14	0.00	99.81	99.77	99.84
Williams, 2018 (African American) [85]	0.80	0.52	1.00	2589.98	0.00	99.81	99.77	99.84
(D) Injectable DMTs, PDC								
Agashivala, 2013 [41]	0.82	0.71	0.91	718.98	0.00	99.30	99.08	99.47
Evans, 2016 [55]	0.81	0.61	0.97	1405.08	0.00	99.64	99.56	99.71
Melesse, 2017 [35]	0.80	0.65	0.92	1444.73	0.00	99.65	99.57	99.72
Sanchirico, 2019 [76]	0.73	0.60	0.85	526.28	0.00	99.05	98.70	99.30
Shao, 2018 [78]	0.81	0.61	0.97	1391.49	0.00	99.64	99.55	99.71
Williams, 2018 (Hispanic) [85]	0.80	0.66	0.92	1408.76	0.00	99.65	99.56	99.72
Williams, 2018 (African American) [85]	0.80	0.67	0.92	1372.99	0.00	99.64	99.54	99.71

SUPPLEMENTARY FIGURE 1 Forest plot showing pooled estimates for the proportion of sample oral and injectable DMTs showing adherence of more than 80%, with separate subgroups for MPR and PDC


Oral DMTs MPR
Study
Prevalence (95% CI)
% Weight
Agashivala, 2013 0.89 (0.85, 0.93) 2.3
Duquette, 2019 0.73 (0.72, 0.75) 42.4
Gerber, 2017 0.67 (0.55, 0.77) 0.7
Munsell, 2017 0.53 (0.50, 0.56) 10.9
Vieira, 2019 0.89 (0.88, 0.90) 42.4
Williams, 2018 (Hispanic) 0.81 (0.70, 0.90) 0.6
Williams, 2018 (African American) 0.70 (0.59, 0.81) 0.7
Overall 0.79 (0.61, 0.95) 100.0
Q=838.64, p=0.00, I2=99%
0.5 0.6 0.7 0.8 0.9 1
Prevalence


Injectable DMTs MPR
Study
Prevalence (95% CI)
% Weight
Agashivala, 2013 0.77 (0.75, 0.79) 7.8
Degli Esposti, 2017 0.65 (0.63, 0.67) 8.1
Duquette, 2019 0.47 (0.45, 0.49) 12.9
Evans, 2017 0.75 (0.74, 0.76) 22.6
Gerber, 2017 0.62 (0.60, 0.64) 12.9
Munsell, 2017 0.54 (0.53, 0.55) 34.4
Williams, 2018 (Hispanic) 0.65 (0.56, 0.74) 0.5
Williams, 2018 (African American) 0.63 (0.54, 0.70) 0.7
Overall 0.62 (0.51, 0.73) 100.0
Q=1008.20, p=0.00, I2=99%
0.4 0.5 0.6 0.7 0.8 0.9 1
Prevalence


Oral DMTs PDC
Study
Prevalence (95% CI)
% Weight
Agashivala, 2013 0.70 (0.64, 0.76) 1.7
Burks, 2017 0.61 (0.58, 0.64) 7.0
Johnson, 2017 0.63 (0.60, 0.65) 10.3
Sanchirico, 2019 0.94 (0.93, 0.95) 48.7
Vieira, 2019 0.60 (0.59, 0.62) 31.4
Williams, 2018 (Hispanic) 0.71 (0.59, 0.82) 0.4
Williams, 2018 (African American) 0.63 (0.52, 0.74) 0.5
Overall 0.80 (0.52, 1.00) 100.0
Q=2600.08, p=0.00, I2=100%
0.5 0.6 0.7 0.8 0.9 1
Prevalence


Injectable DMTs PDC
Study
Prevalence (95% CI)
% Weight
Agashivala, 2013 0.50 (0.47, 0.52) 8.0
Evans, 2016 0.76 (0.75, 0.78) 23.5
Melesse, 2017 0.80 (0.77, 0.83) 3.5
Sanchirico, 2019 0.90 (0.89, 0.91) 34.5
Shao, 2018 0.76 (0.75, 0.77) 29.3
Williams, 2018 (Hispanic) 0.53 (0.44, 0.63) 0.5
Williams, 2018 (African American) 0.46 (0.38, 0.54) 0.7
Overall 0.80 (0.66, 0.92) 100.0
Q=1444.77, p=0.00, I2=100%
0.4 0.5 0.6 0.7 0.8 0.9 1
Prevalence

SUPPLEMENTARY FIGURE 2 Doi plot showing major asymmetry between all studies