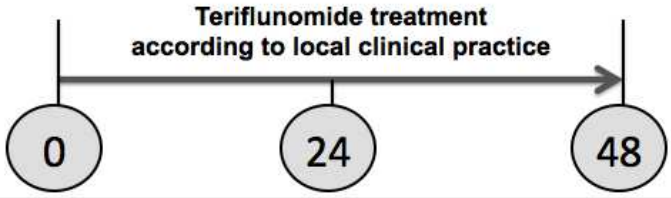
Supplementary file

Australian observational data: Treatment satisfaction in patients with relapsing-remitting multiple sclerosis initiated on teriflunomide in routine clinical practice

Supplementary Figure 1. Study design and assessment schedule



	Assessment	Visit 1*, Baseline	Visit 2*, Week 24	Visit 3*, Week 48
Patient self-report	TSQM		X	X
	MSPS	X	X	X
	MSIS-29	X	X	X
	MSWS-12	X	X	X
	HRPQ	X	X	X
	Adherence	Every 4 weeks, commencing week 4		
Clinician	Relapses			X
	Adverse events	X	X	X

* Clinic visits were scheduled as per local clinical practice. Responses for patient-reported outcomes were recorded electronically at each scheduled assessment.

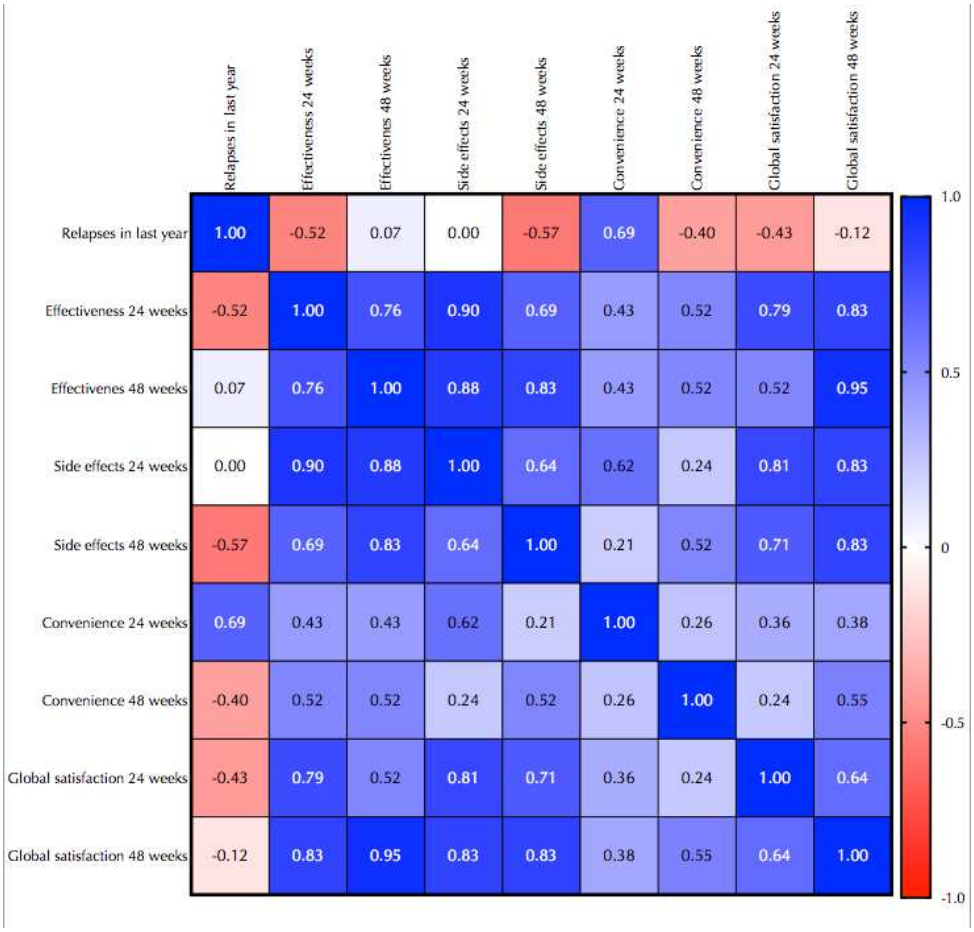
TSQM, Treatment Satisfaction Questionnaire for Medication; MSPS, Multiple Sclerosis Performance Scale; MSIS-29 Multiple Sclerosis Impact Scale; MSWS-12, Multiple Sclerosis Walking Scale; HRPQ, Health-Related Productivity Questionnaire.

Hardy TA, *et al. BMJ Neurol Open* 2022; 4:e000315. doi: 10.1136/bmjno-2022-000315

Supplementary Figure 2. TSQM correlation matrix heat maps.

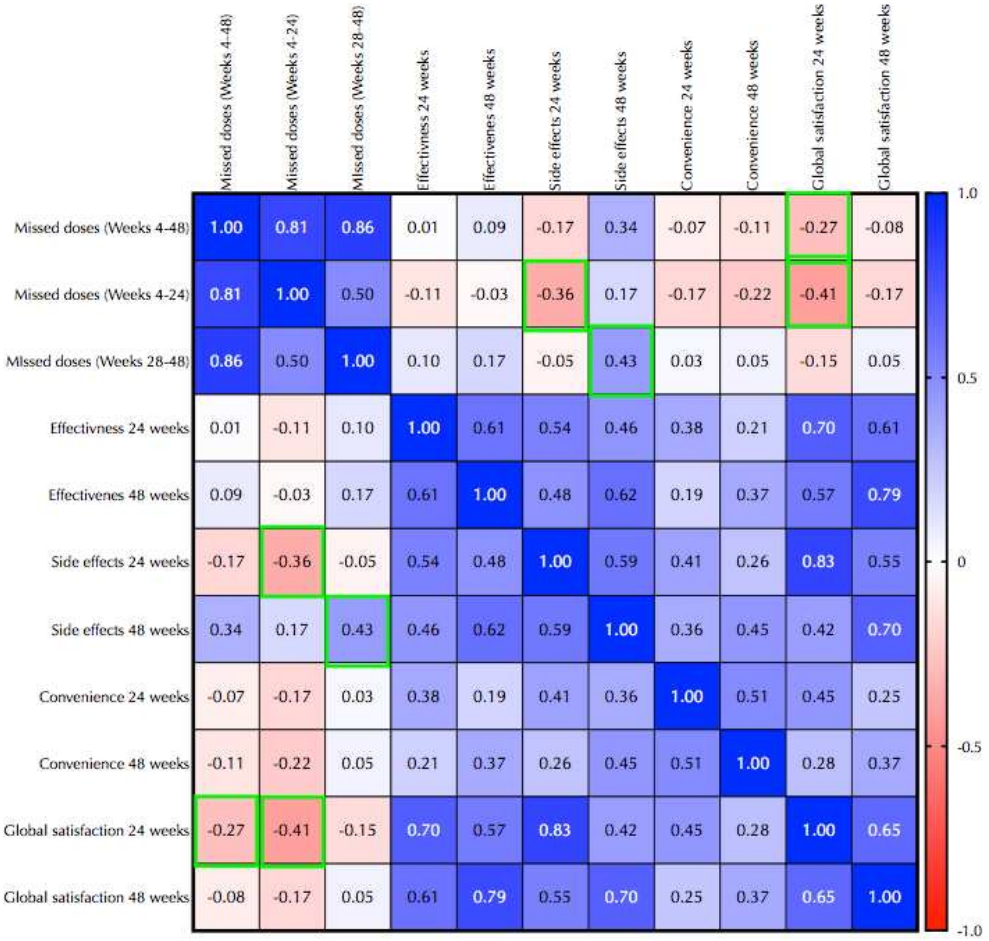
Interpretation: 0.0 = no correlation between variables, 1.0 = perfect correlation between variables, -1.0 = perfect negative correlation between variables, 0 to 1.0 = the two variables tend to increase or decrease together, -1 to 0 = one variable increases as the other decreases. The further the value is from zero, there are four possible explanations: (1) changes in variable X causes a change in variable y, (2) changes in variable y causes a change in variable x, (3) changes in another variable influence x and y, (4) no real correlation, the observed correlation has occurred by chance. P vales are used to determine if the correlation is real or due to chance/random sampling, $p<0.05$ is used to determine significance (and are denoted on the maps as green boxes).

A. TSQM domains (at weeks 24 and 48) and relapses in the last year.



Comparison: Relapses in last year versus	**Spearman r**	**Confidence interval**	**P value**
Effectiveness 24 weeks	0.07514	-0.1492 to 0.2921	0.4996
Effectiveness 48 weeks	0.02042	-0.2316 to 0.2698	0.8717
Side effects 24 weeks	-0.04305	-0.3280 to 0.2491	0.769
Side effects 48 weeks	-0.1187	-0.4524 to 0.2441	0.5106
Convenience 24 weeks	-0.0577	-0.2760 to 0.1663	0.6044
Convenience 48 weeks	-0.1248	-0.3642 to 0.1301	0.322
Global satisfaction 24 weeks	0.07134	-0.1529 to 0.2886	0.5216
Global satisfaction 48 weeks	0.009029	-0.2423 to 0.2592	0.9431

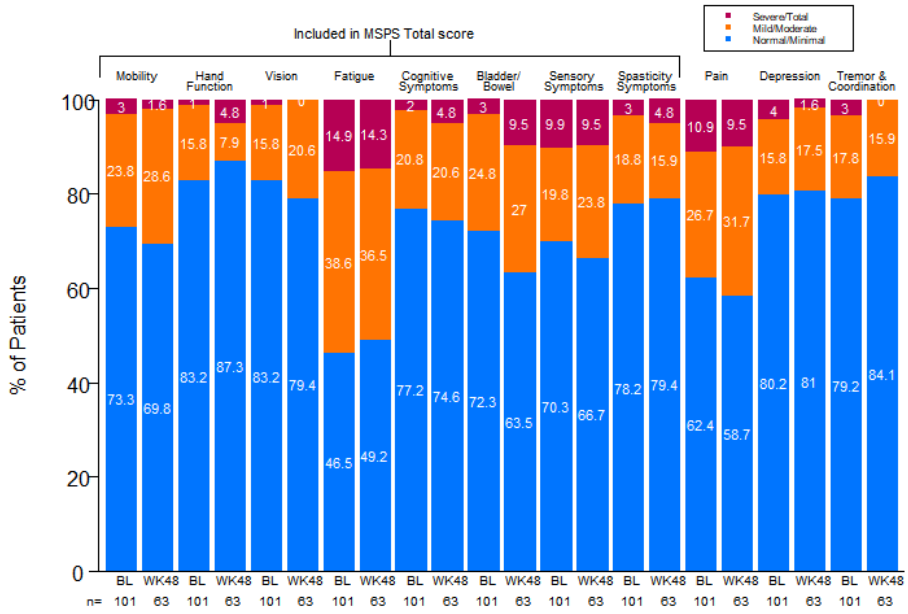
B. TSQM domains (at weeks 24 and 48) and missed doses over the entire study period, weeks 0-24 and weeks 28-48



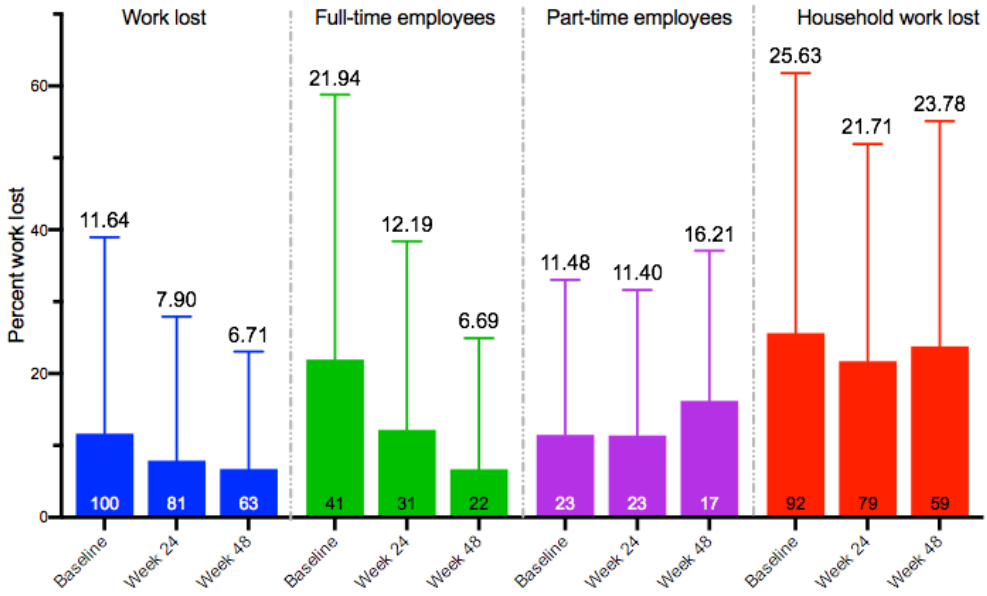
Comparison: Missed doses (4-48 weeks) versus	**Spearman r**	**Confidence interval**	**P value**
Effectiveness 24 weeks	0.006474	-0.2157 to 0.2280	0.9537
Effectiveness 48 weeks	0.08595	-0.1685 to 0.3296	0.496
Side effects 24 weeks	-0.1718	-0.4390 to 0.1234	0.2379
Side effects 48 weeks	0.3395	-0.01488 to 0.6181	0.0532
Convenience 24 weeks	-0.06933	-0.2868 to 0.1549	0.5334
Convenience 48 weeks	-0.1136	-0.3543 to 0.1412	0.3675
Global satisfaction 24 weeks	-0.2719	-0.4657 to -0.05324	0.0129
Global satisfaction 48 weeks	-0.08277	-0.3268 to 0.1716	0.5122
Comparison: Missed doses (4-24 weeks) versus	**Spearman r**	**Confidence interval**	**P value**
Effectiveness 24 weeks	-0.1103	-0.3242 to 0.1144	0.3209
Effectiveness 48 weeks	-0.03241	-0.2809 to 0.2202	0.7977
Side effects 24 weeks	-0.3568	-0.5855 to -0.07555	0.0118
Side effects 48 weeks	0.1666	-0.1976 to 0.4904	0.3541
Convenience 24 weeks	-0.1733	-0.3806 to 0.05045	0.1171
Convenience 48 weeks	-0.223	-0.4487 to 0.02944	0.0741

Global satisfaction 24 weeks	-0.4098	-0.5790 to -0.2067	0.0001
Global satisfaction 48 weeks	-0.1739	-0.4070 to 0.08040	0.1659
Comparison: Missed doses (28-48 weeks) versus	**Spearman r**	**Confidence interval**	**P value**
Effectiveness 24 weeks	0.09807	-0.1265 to 0.3131	0.3778
Effectiveness 48 weeks	0.1745	-0.07983 to 0.4075	0.1645
Side effects 24 weeks	-0.05416	-0.3379 to 0.2386	0.7117
Side effects 48 weeks	0.4323	0.09400 to 0.6811	0.012
Convenience 24 weeks	0.03424	-0.1891 to 0.2542	0.7586
Convenience 48 weeks	0.04841	-0.2049 to 0.2956	0.7018
Global satisfaction 24 weeks	-0.1515	-0.3612 to 0.07279	0.1715
Global satisfaction 48 weeks	0.05404	-0.1995 to 0.3008	0.669

Supplementary Figure 3. Multiple sclerosis performance scale – scores for individual sub-scales at baseline and week 48.



Supplementary Figure 4. Work capacity and daily life activity: Mean (SD) percentage of work lost due to absenteeism and presenteeism.



Supplementary Table 1. Treatment Satisfaction for Medication Scores and Treatment Subgroup.

Parameter	Scheduled Visit	Previous Treatment	n	Mean (SD)
Effectiveness	Week 24	Naive	44	63.01 (17.73)
		DMT Injectables	23	59.42 (17.12)
		Orals	15	70.37 (19.99)
	Week 48	Naive	39	66.52 (18.53)
		DMT Injectables	17	55.55 (19.64)
		Orals	8	70.14 (21.19)
Side Effects	Week 24	Naive	44	87.93 (20.06)
		DMT Injectables	23	69.02 (26.48)
		Orals	15	69.58 (32.72)
	Week 48	Naive	40	82.50 (22.92)
		DMT Injectables	18	87.50 (18.81)
		Orals	10	79.38 (27.80)
Convenience	Week 24	Naive	44	88.89 (13.07)
		DMT Injectables	23	87.68 (13.60)
		Orals	15	83.33 (21.41)
	Week 48	Naive	39	91.88 (9.94)
		DMT Injectables	17	84.31 (14.99)
		Orals	8	84.72 (14.16)
Global Satisfaction	Week 24	Naive	44	63.96 (23.00)
		DMT Injectables	23	49.69 (24.32)
		Orals	15	62.38 (29.51)
	Week 48	Naive	39	65.20 (24.70)
		DMT Injectables	17	61.34 (24.10)
		Orals	8	69.64 (21.85)

Supplementary Table 2. Health-related productivity questionnaire: mean scores at baseline, week 24 and week 48.

Parameter	Scheduled Visit	n	Mean (SD)
Hours of lost work due to absenteeism	Baseline	64	5.63 (13.61)
	Week 24	54	2.52 (9.57)
	Week 48	39	1.08 (5.02)
Hours of household lost work due to absenteeism	Baseline	92	1.47 (3.23)
	Week 24	79	0.86 (2.26)
	Week 48	59	1.20 (2.85)
Hours worked	Baseline	64	25.92 (16.48)
	Week 24	54	28.72 (14.87)
	Week 48	39	28.51 (12.80)
Household hours worked	Baseline	92	9.60 (9.87)
	Week 24	79	9.51 (8.60)
	Week 48	59	8.92 (8.96)
Hours of lost work due to presenteeism	Baseline	64	0.89 (1.64)
	Week 24	54	1.62 (3.11)
	Week 48	39	1.77 (3.35)
Hours of household work lost due to presenteeism	Baseline	92	1.63 (3.83)
	Week 24	79	1.17 (2.35)
	Week 48	59	1.81 (5.48)
Total (absenteeism + presenteeism) hours of work lost	Baseline	100	4.17 (11.27)
	Week 24	81	2.76 (9.43)
	Week 48	63	1.76 (5.03)
Total (absenteeism + presenteeism) hours of household work lost	Baseline	92	3.10 (6.11)
	Week 24	79	2.03 (3.87)
	Week 48	59	3.01 (6.47)
% Work lost due to absenteeism	Baseline	64	14.44 (32.44)
	Week 24	54	6.12 (19.62)
	Week 48	39	3.21 (13.05)
% Household lost work lost due to absenteeism	Baseline	92	15.42 (29.58)
	Week 24	79	11.17 (23.72)
	Week 48	59	12.84 (26.59)
% Work lost due to presenteeism	Baseline	64	3.74 (7.22)
	Week 24	54	5.73 (9.79)
	Week 48	39	7.63 (15.02)
% Household work lost due to presenteeism	Baseline	92	10.22 (17.78)

	Week 24	79	10.54 (17.88)
	Week 48	59	10.94 (17.17)
Parameter	Scheduled Visit	n	Mean (SD)
% Work lost due to absenteeism + presenteeism	Baseline	100	11.64 (27.30)
	Week 24	81	7.90 (20.04)
	Week 48	63	6.71 (16.35)
% Household work lost due to absenteeism + presenteeism	Baseline	92	25.63 (36.15)
	Week 24	79	21.71 (30.21)
	Week 48	59	23.78 (31.32)
% work lost due to absenteeism + presenteeism in full time employees	Baseline	41	21.94 (36.85)
	Week 24	31	12.19 (26.20)
	Week 48	22	6.69 (18.23)
% work lost due to absenteeism + presenteeism in part time employees	Baseline	23	11.48 (21.56)
	Week 24	23	11.40 (20.24)
	Week 48	17	16.21 (20.88)
Hours of lifetime productivity lost due to illness induced part-time work when worked full-time	Baseline	31	3499.12 (6447.02)
Hours of lifetime productivity lost due to illness induced retirement when worked full-time	Baseline	31	6584.35 (15734.90)
Hours of lifetime productivity lost due to illness induced retirement when worked part-time	Baseline	31	2041.64 (6593.63)
Calculation of total hours of lifetime productivity lost due to illness impact on workforce participation	Baseline	31	12125.11 (24593.94)