

Supplementary Table 1. Testing performed on relationships between clinical outcomes and TSQM domains.

Domain	Clinical outcome	Rationale for choice	Hypothesis tested
Effectiveness and Global Satisfaction	Treatment failure Confirmed relapse or permanent treatment discontinuation for any reason Confirmed relapse	Primary study endpoint A commonly used efficacy measure in studies of DMTs in RMS (other efficacy measures such as disability or MRI outcomes were not recorded in TENERE)	As clinical efficacy has been demonstrated for both teriflunomide and IFN β , ¹⁻³ as both Effectiveness and Global Satisfaction improve following initiation of teriflunomide treatment, ⁴ and as the clinical effectiveness of a treatment has been linked to treatment satisfaction, ⁵ we hypothesize that these sets of measures would be linked
Side Effects	AEs leading to treatment discontinuation Nervous system disorders General disorders or administration-site conditions	To be representative of the relationship between AEs and treatment satisfaction The AEs with the highest incidence in this study	Since tolerability is linked with patient treatment satisfaction, ⁵ we would expect to see a relationship between the Side Effects domain, and these AE parameters as a clinical outcome
Convenience	Treated with sc IFN β-1a Proxy for mode of administration (injection vs oral) General disorders or administration-site conditions	Convenience has been shown to be linked to mode of administration, ⁶ and specific outcomes for convenience are hard to identify in a randomized controlled trial	We hypothesize that the improved convenience with teriflunomide vs IFN β seen in TENERE, ⁷ may be explained by the differing modes of administration

AE: adverse event; DMT: disease-modifying therapy; IFN: interferon; RMS: relapsing forms of MS; sc: subcutaneous; TSQM: Treatment Satisfaction Questionnaire for Medication (version 1.4).

Table References

1. O'Connor P, Wolinsky JS, Confavreux C, et al. Randomized trial of oral teriflunomide for relapsing multiple sclerosis. *The New England journal of medicine*. 2011; 365: 1293-303.
2. Confavreux C, O'Connor P, Comi G, et al. Oral teriflunomide for patients with relapsing multiple sclerosis (TOWER): a randomised, double-blind, placebo-controlled, phase 3 trial. *The Lancet Neurology*. 2014; 13: 247-56.
3. Randomised double-blind placebo-controlled study of interferon beta-1a in relapsing/remitting multiple sclerosis. PRISMS (Prevention of Relapses and Disability by Interferon beta-1a Subcutaneously in Multiple Sclerosis) Study Group. *Lancet*. 1998; 352: 1498-504.
4. Coyle PK, LaGanke C, Khatri B, et al. Improvements in Patient-Reported Outcomes With Teriflunomide: Week 24 Interim Results From the US Cohort of the Teri-PRO Phase 4 Study. *ECTRIMS*. 2015: P562.
5. Doyle C, Lennox L and Bell D. A systematic review of evidence on the links between patient experience and clinical safety and effectiveness. *BMJ open*. 2013; 3.
6. Atkinson MJ, Sinha A, Hass SL, et al. Validation of a general measure of treatment satisfaction, the Treatment Satisfaction Questionnaire for Medication (TSQM), using a national panel study of chronic disease. *Health Qual Life Outcomes*. 2004; 2: 12.
7. Mäurer M, Van Wijmeersch B, de Seze J, Meca-Lallana J, Bozzi S and Vermersch P. Significant and Meaningful Improvement in Treatment Satisfaction With Teriflunomide vs Subcutaneous IFN β -1a in Patients With Relapsing MS: Results From TENERE [PND73]. *ISPOR*. Amsterdam, The Netherlands 2014.