

SUPPLEMENTAL MATERIAL

TABLE. S1 Frequency table of samples post-filtering for people aged 20 to 50 with eczema. Counts were extracted from the subsetted metadata.

	Number of people
With MS	11
With MS, not taking prescription medication	4
With MS, not taking prescription medication, taking OTC	2
With MS, not taking prescription medication, not taking OTC	2

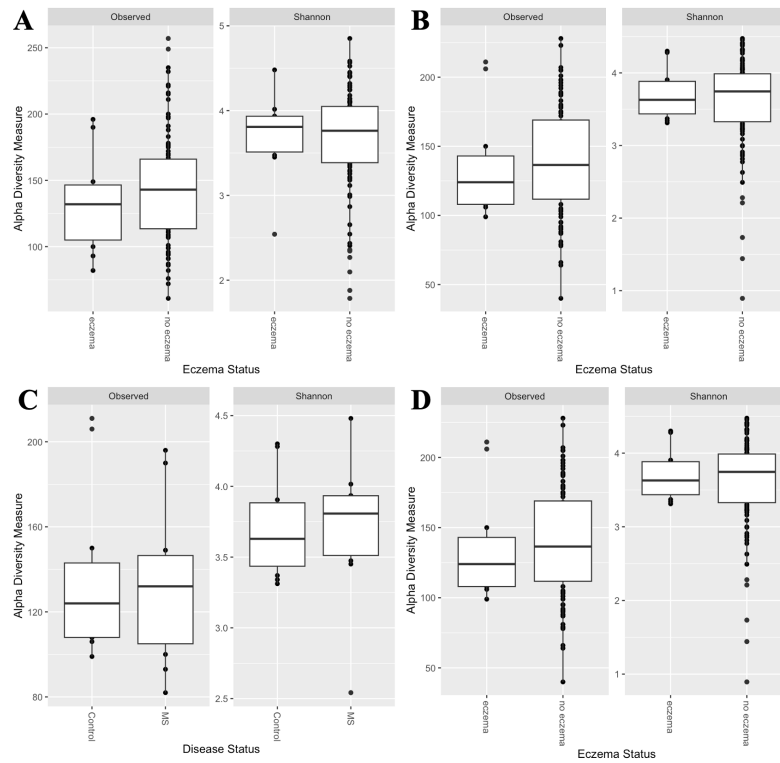


FIG. S1 No alpha diversity differences attributed to MS or eczema status. Observed taxa (richness) and Shannon diversity index were utilised to examine microbial diversity differences attributed to eczema status among MS patients (A) and healthy controls (B), and attributed to disease status among individuals with (C) and without (D) eczema. Statistical analysis was performed using the Wilcoxon rank-sum test.

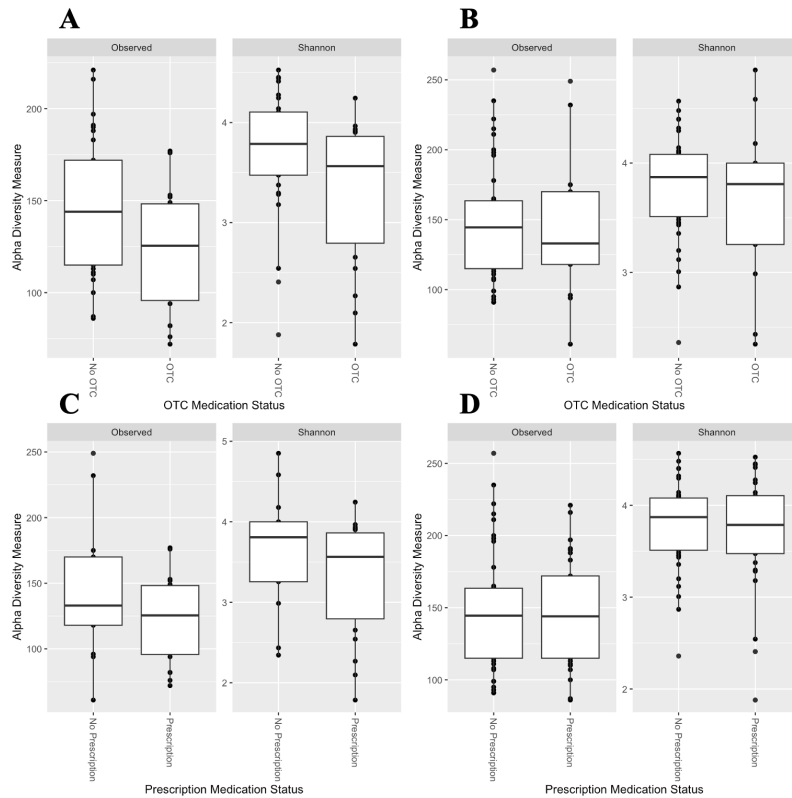


FIG. S2 No alpha diversity differences attributed to over-the-counter (OTC) or MS prescription medication. Observed taxa (richness) and Shannon diversity index were utilised to examine microbial diversity differences attributed to OTC usage of MS patients taking (A) and not taking (B) prescription medication, and attributed to prescription medication usage of MS patients taking (C) and not taking (D) OTC medication. Statistical analysis was performed using the Wilcoxon rank-sum test.

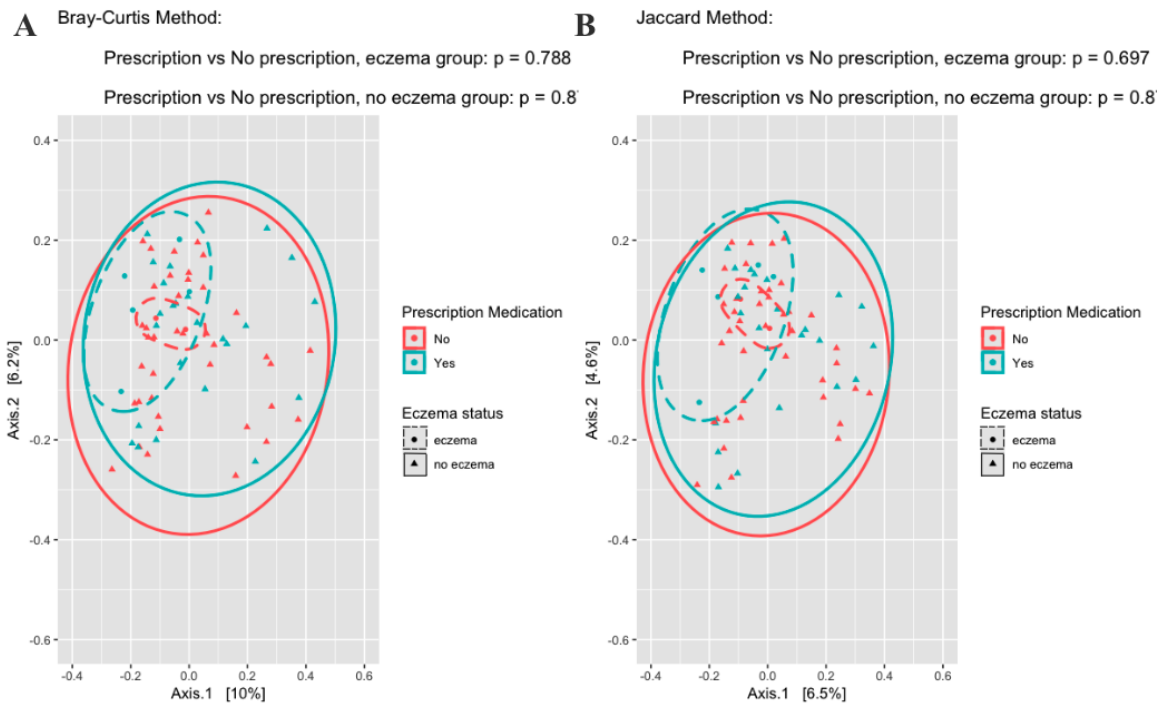


FIG. S3 Eczema status does not act as a mediator of microbial diversity concerning prescription medication usage in MS patients. (A) Bray-Curtis and (B) Jaccard beta diversity metrics were used. Statistical analysis was performed using the PERMANOVA test.

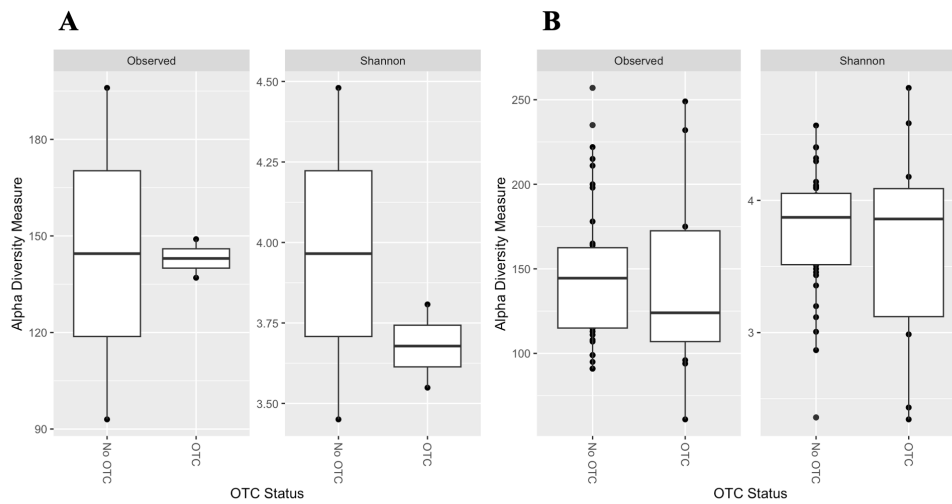


FIG. S4 No alpha diversity differences attributed to over-the-counter (OTC) medication usage, regardless of eczema status. Observed taxa (richness) and Shannon diversity index were utilised to examine microbial diversity differences attributed to OTC medication usage among MS patients not taking MS prescription, with (A) and without (B) eczema. Statistical analysis was performed using the Wilcoxon rank-sum test.