

Appendix 1: Predictor variables initially assessed for inclusion in the model.

Predictor	Status in the final model
Calendar year of birth	Included
Sex	Included
First recorded EDSS score	Included
Age at the first recorded EDSS score	Included
Multiple sclerosis symptom onset age	Included
Relapse rate within the first two years from disease onset (not including the onset attack)	Not included
Relapse rate within the first five years from disease onset (not including the onset attack)	Not included
Relapse rate before the first EDSS score (not including the onset attack)	Not included
Type of the first attack in two categories (sensory vs. motor vs. sensory&motor)	Not included
Type of the first attack in two categories (Isolated optic neuritis vs. monofocal vs. polyfocal)	Not included
Complete recovery from the first attack determined by a neurologist (yes vs. no)	Not included
Exposure to first-line DMTs (interferon beta 1a, interferon beta 1b, dimethyl fumarate and glatiramer acetate) before the first recorded EDSS score.	Not included
Exposure to second-line DMTs (natalizumab, fingolimod, alemtuzumab and rituximab) before the first recorded EDSS score..	Not included
Total number of brain T2 lesions	Not included
Number of brain Gadolinium enhanced lesions	Not included

EDSS: expanded disability status scale, DMTs: disease modifying treatments.