

TABLE S5. Patient-Reported Outcomes for WeB Pilot Studies

Domain	Questionnaire/measuring tool	Specific use	Stakeholder guidance (M or T)
Patient-reported outcomes			
Independent variable: bladder/bowel function	Overactive Bladder Symptom Score	NOAB severity	Yes (M and T) Block-recruitment. Baseline, end of study
	Bladder Control Scal	BD in previous 4 weeks	Yes (M and T) Baseline, end of study
	Urinary Distress Inventory-6	BD impact on QOL	No (M) Yes (T) baseline, end of study, 3m
	Actionable Bladder Symptom Screening Tool Short Form	Screening for patients in need of bladder referral	No Too many similar PROs; no added value
	Neurogenic Bladder Symptom Score Short Form	Evaluating neurogenic bladder symptoms	No (M) Yes (T) end of study
	Bladder Diary	Number of leaks, liquid intake, number of voids	Yes (M) baseline (T) if indicated by PFPT
	Bowel Control Scale	Bowel dysfunction in previous 4 weeks; could be a confounder	Yes (M) week 4 (T) baseline, end of study
Dependent assessment measures			
Quality of life	Multiple Sclerosis Quality of Life	MS-specific QOL assessment	Yes (T) Baseline, end of study, 3m
	Overactive Bladder Symptom and Health-Related Quality of Life Short Form	Symptom-specific health-related QOL	Yes (M) Week 4
Symptoms			
Fatigue	Modified Fatigue Index Scale	Mental and physical fatigue impact on everyday life	Yes (M) week 4 (T) end of study, 3m
Pain	Pain Effects Scale	Pain	No To reduce patient burden as not as relevant to BD
Depression	Center for Epidemiological Studies-Depression	Depression	Yes (M) baseline (T) baseline, end of study, 3m
Sexual function	MS Intimacy and Sexuality Questionnaire-15	Sexual satisfaction	Yes (M) baseline (T) baseline, end of study, 3m
Sleep	Pittsburgh Sleep Quality Index	Subjective sleep quality	No To reduce patient burden of too many PROs, but would be useful for people with nocturia
Ambulatory activity and safety			
Subjective walking	12-item MS Walking Scale	MS effect on walking over previous 4 weeks	No To reduce patient burden of too many PROs

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Falling	“Have you fallen in the last week?” If yes: Hopkins Fall Grading Scale	Falls and near falls	Yes (M and T) Weekly
Outdoor activities	Godin Leisure-Time Exercise Questionnaire	Subjective usual physical activity	No To reduce patient burden of too many PROs
Daily life participation			
Social engagement	Oxford Participation and Activities Questionnaire short form	Evaluates routine activities, emotional well-being, social engagement	Yes (M) week 4 (T) end of study, 3m
Social networks	Social network assessment tool	Quantitative social network assessment	No Too long and onerous for the patient
Work participation	Impact on Participation and Autonomy	Evaluate impact of disability via workdays missed due to symptoms	No To reduce patient burden of too many PROs
Patient biosensor data and device feedback			
Physical activity	Fitbit Ultra ^{19,20}	Objective physical activity levels via step count (daily and per minute)	Yes (M and T) Passive data monitoring is continuous
Sleep	Fitbit Ultra	Objective sleep duration and quality via length of time asleep, time in REM sleep; exploratory	Yes (M and T) Passive data monitoring is continuous
Health-ITUES	Health Information Technology Usability Evaluation Scale	Evaluate usability of information technology tools	Yes (M and T) End of study
Clinic-based measures			
Disability	Expanded Disability Status Scale (EDSS) with functional scores or Patient-Reported EDSS	Neurological impairment in MS	Yes (M) baseline (T) baseline, 3m
Walking	Timed 25-Foot Walk ²¹	Walking speed	Yes (M and T) Baseline
Mobility	Timed Up and Go ²²	Functional mobility and balance	Yes (M and T) Baseline
PVR	Post Void Residual	Residual urine in bladder after voiding	Yes (M and T) Baseline
MMT	Manual Muscle Test	Strength, endurance, relaxation of PFM	Yes (T) Baseline, end of study

BD, bladder dysfunction; M, monitoring pilot study; m, month of follow-up; MS, multiple sclerosis; NOAB, neurogenic overactive bladder; PFM, pelvic floor muscle; PFT, pelvic floor physical therapy; QOL, quality of life; REM, rapid eye movement; T, treatment pilot study; WeB, wearables for the bladder.