

Supplementary Table 1. Cohort specific definitions of binomial outcomes

	DATATOP	DIGPD	HBS	NET-PD	LS1	Oslo	ParkFit	ParkWest	PDBP	PICNICS	PPMI	εCEPT/ PostCEF	ProPark
hyposmia	-	NMS question-irc	-	-	-	-	-	"Is your sense of	UPSIT<21	-	UPSIT<21	UPSIT<21	study question
cognitive impairment	MMSE<27	DSM IV criteria	MMSE<27	SCOPA_COG<2	-	-	MMSE<27	MMSE<27	MoCA<24	MDS dementia cr	MoCA<24	MMSE<27	SCOPA-COG value
motor fluctuations	-	Neurologist diagn	UPDRS4 Q32-Q	UPDRS4 off tim	-	-	-	UPDRS Q32 0/	MDS-UPDRS4	MDS-UPDRS 4.	MDS-UPDRS 4.	-	SPES/SCOPA item 20
dyskinesia	Report of dyskine	Neurologist diagn	UPDRS4 Q36-Q	UPDRS4 dyskinc	-	-	-	UPDRS Q32 >/	MDS-UPDRS4	MDS-UPDRS 4.	MDS-UPDRS 4.	-	SPES/SCOPA item 18
depression	Report of depress	Neurologist diagn	GDS15 >5	BDI>14	-	-	-	UPDRS 3 >/= 2	HDRS>9	Beck depression i	GDS15 >5	UPDRS item 3 >1	Beck DI score >14
restless legs syndrome	-	RLS criteria	Past medical histo	-	-	-	-	-	MSQ3 yes	-	RBDSQ, RLS ye	-	-
constipation	Report of constip;	NMS question-irc	-	-	-	-	-	-	MDS-UPDRS1	MDS UPDRS ite	MDS-UPDRS1	MDS-UPDRS1	SCOPA-AUT item 5
RBD	-	-	-	-	-	-	-	-	MSQ1 yes	-	RBDSQ>5	-	>0
daytime sleepiess	Report of drowsii	Neurologist diagn	-	-	-	-	-	Epworth > 9	EPworth > 9	ESS>/=10 OR M	EPworth > 9	MDS-UPDRS1	SCOPA-SLEEP
insomnia	Report of insomn	Neurologist diagn	UPDRS4 Q41	-	-	-	-	"Do you have pre	UPDRS.Ins>0	MDS-UPDRS ite	MDS-UPDRS	Ir MDS-UPDRS	S >6

BDI, Beck's Depression Inventory; GDS, Geriatric Depression Scale; HDRS, Hamilton Depression Rating Scale; MMSE, the Mini-Mental State Examination; MoCA Montreal Cognitive Assessment; MSQ, Mayo Sleep Questionnaire; NMS, Non-motor Symptoms Questionnaire; RBD, REM sleep Behavior Disorder