

## SUPPLEMENTARY MATERIAL

**Table S1: Items from Parkinson’s Disease and Depression Scales Used in Suicidality Analyses**

Scale	Scale Items/Questions (Q)	Scoring
<b>Parkinson’s Disease Scales</b>		
UPDRS-II (Activities of Daily Living)	Total “off” (Q5-Q17) Total “on” (Q5-Q17)	0 to 52
UPDRS-III (Motor Examination)	Total (Q18-Q31)	0 to 108
UPDRS-IV, Section B (Clinical Fluctuations)	Q36: “Are ‘off’ periods predictable?”	0 = No; 1 = Yes
	Q37: “Are ‘off’ periods unpredictable?”	0 = No; 1 = Yes
	Q38: “Do ‘off’ periods come on suddenly, within a few seconds?”	0 = No; 1 = Yes
	Q39: “What proportion of the waking day is the patient ‘off’ on average?”	0 = None 1 = 1-25% 2 = 26-50% 3 = 51-75% 4 = 76-100%
Self-reported motor fluctuation history	Have you experienced on/off symptoms?	Yes or No
	If so, are they being treated?	Yes or No
<b>Depression Scales</b>		
Self-reported Mood fluctuations	N/A	0 = No 1 = Mild 2 = Moderate 3 = Severe
Hamilton Depression Rating Scale (HAM-D-17)	Q11: Suicide	0 = Suicidal thoughts absent 1 = Feels life is not worth living 2 = Wishes he were dead or any thoughts of possible death to self 3 = Suicidal ideas or gestures 4 = Attempts at suicide
Montgomery–Åsberg Depression Rating Scale (MADRS)	Q10: Suicidal Thoughts	0 = Enjoys life or takes it as it comes. 2 = Weary of life. Only fleeting suicidal thoughts. 4 = Probably better off dead. Suicidal thoughts are common and suicide is considered as a possible solution, but without specific plans or intention. 6 = Explicit plans for suicide when there is an opportunity, Active preparations for suicide.
Inventory of Depressive Symptomatology – Clinician Rated (IDS-C)	Q18: Suicidal Ideation	0 = Does not think of suicide or death 1 = Feels life is empty or is not worth living 2 = Thinks of suicide/death several times a week for several minutes 3 = Thinks of suicide/death several times a day in-depth, or has made specific plans, or attempted suicide
Beck Depression Inventory (BDI)	Q9: Suicidal Thoughts	0 = I don't have any thoughts of killing myself. 1 = I have thoughts of killing myself, but I would not carry them out. 2 = I would like to kill myself. 3 = I would kill myself if I had the chance.

**Table S2: Smoothing parameters and significance estimates from non-parametric analysis of covariance**

<b>Covariate</b>	<b>Outcome variable</b>	<b>Smoothing parameter (h)</b>	<b>p</b>
UPDRS-II (activities of daily living) score	MADRS score	2.62178	0.0028
	HAM-D-17 score	2.62178	0.0024
	IDS-C score	2.62178	0.0018
	BDI score	2.62041	0.0019
	PDQ-8 score	2.62178	0.145
UPDRS-III (motor impairment) score	MADRS score	4.35498	0.0006
	HAM-D-17 score	4.35498	0.0005
	IDS-C score	4.35498	0.0007
	BDI score	4.35282	0.001
	PDQ-8 score	4.35498	0.298