## **Movement Disorders**

Supplementary Table 1: Performance of a sequential testing approach: Pill Questionnaire then Montreal Cognitive Assessment, Mini-Mental State Examination or Scales for Outcomes in Parkinson's disease-Cognition for identifying PD-MCI

	CUT-OFF		No MCI	MCI	Sensitivity	Specificity	PPV	NPV
MoCA	24/25	Inaccurate on Pill Q and below Cut-off	2	16	27%	96%	89%	53%
		Accurate on Pill Q or Inaccurate Pill Q and > Cut-off	48	43	2/70			
	25/26	Inaccurate on Pill Q and $\leq$ Cut-off	2	20	34%	96%	91%	55%
		Accurate on Pill Q or Inaccurate Pill Q and > Cut-off	48	39	3470			
	26/27	Inaccurate on Pill Q and $\leq$ Cut-off	2	22	37%	96%	92%	56%
		Accurate on Pill Q or Inaccurate Pill Q and > Cut-off	48	37	3770			
	27/28	Inaccurate on Pill Q and $\leq$ Cut-off	5	22	37%	90%	81%	55%
		Accurate on Pill Q or Inaccurate Pill Q and > Cut-off	45	37	3770			
SCOPA-Cog	24/25	Inaccurate on Pill Q and ≤ Cut-off	2	13	220/	96%	87%	51%
		Accurate on Pill Q or Inaccurate Pill Q and > Cut-off	48	46	22%			
	25/26	Inaccurate on Pill Q and ≤ Cut-off	3	15	25%	94%	83%	52%
		Accurate on Pill Q or Inaccurate Pill Q and > Cut-off	47	44	2370			
	26/27	Inaccurate on Pill Q and ≤ Cut-off	5	17	29%	90%	77%	52%
		Accurate on Pill Q or Inaccurate Pill Q and > Cut-off	45	42	2970			
	27/28	Inaccurate on Pill Q and ≤ Cut-off	5	19	32%	90%	79%	53%
		Accurate on Pill Q or Inaccurate Pill Q and > Cut-off	45	40	3270			
MMSE	27/28	Inaccurate on Pill Q and ≤ Cut-off	1	8	14%	98%	89%	49%
		Accurate on Pill Q or Inaccurate Pill Q and > Cut-off	49	51	1470			
	28/29	Inaccurate on Pill Q and ≤ Cut-off	2	12	20%	96%	86%	51%
		Accurate on Pill Q or Inaccurate Pill Q and > Cut-off	48	47	2070			
	29/30	Inaccurate on Pill Q and ≤ Cut-off	8	22	37%	84%	73%	53%
		Accurate on Pill Q or Inaccurate Pill Q and > Cut-off	42	37	3170			
	30/31	Inaccurate on Pill Q and ≤ Cut-off	10	24	41%	80%	71%	53%
		Accurate on Pill Q or Inaccurate Pill Q and > Cut-off	40	35	4170			

Pill Q, Pill Questionnaire; MMSE, Mini-Mental State Examination; MoCA, Montreal Cognitive Assessment; SCOPA-Cog, Scales for Outcomes in Parkinson's disease-Cognition

## **Movement Disorders**

Supplementary Table 2: Neuropsychological and global cognitive test performance by reliability taking medications according to caregiver

	Scores (Z-scores for neuropsychological tests, absolute scores for MoCA and SCOPA-Cog)				
	Takes Medications Reliably without Supervision <sup>a</sup> (n=104)	Uncertain or Unable to Take Medications Reliably without Supervision <sup>b</sup> (n=5)	p value <sup>d</sup> Reliable vs Unreliable Reporting		
Memory (CVLT-II - Long Delay Free Recall) <sup>7</sup>	$0.08 \pm 1.17$	$-1.00 \pm 1.62$	0.05		
Attention (Digit Span - Longest Span Forward) <sup>8</sup>	$0.51 \pm 0.92$	$0.71 \pm 0.93$	0.66		
Executive Function-Working memory (Letter-Number Sequencing) <sup>8</sup>	$0.39 \pm 0.89$	$0.00 \pm 0.85$	0.34		
Executive Function – Cognitive Flexibility (Visual Verbal Test – Total Number of Shifts) <sup>9</sup>	-1.68 ± 1.90	-3.91 ± 2.04	0.0001		
Executive Function – Inhibitory Control (Color-Word Interference – Time to Complete Condition 3) <sup>10</sup>	$0.13 \pm 1.13$	$0.07 \pm 0.64$	0.91		
Processing Speed (Color-Word Interference – Time to Complete Condition $1$ ) <sup>10</sup>	$-0.03 \pm 0.97$	$-0.53 \pm 0.87$	0.26		
Visuospatial (Visuospatial - Judgement of Line Orientation) <sup>11</sup>	$-0.46 \pm 1.50$	$-0.73 \pm 0.82$	0.69		
Language (Verbal Fluency - Category Fluency Condition) <sup>10</sup>	$0.22 \pm 1.27$	-1.33 ± 1.35	0.009		
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MoCA	$25.1 \pm 3.0$	$22.6 \pm 2.6$	0.07		
SCOPA-Cog	27.2 ± 5.4	22.2 ± 5.4	0.05		

Values shown in bold type show statistically significant differences between groups.

MDS-UPDRS, Movement Disorders Society Unified Parkinson's Disease Rating Scale; MoCA, Montreal Cognitive Assessment; SCOPA-Cog, Scales for Outcomes in Parkinson's disease-Cognition

<sup>&</sup>lt;sup>a</sup> Rating 1, 2a

<sup>&</sup>lt;sup>b</sup> Ratings 2b, 2c or 3