

# Supplementary Material

## Value of Clinical Signs in Identifying Patients with Scans without Evidence of Dopaminergic Deficit (SWEDD)

### Supplementary File 1. LEAP-DAS ancillary study video protocol

Please film the first page of the CRF with study number before initiation of the neurological examination.

Make sure there is sufficient light. Do not film against a light source. Make sure the patient does not wear socks or shoes during the examination.

Film the entire body. If this is not possible it is important that when one of the limbs moves, the contralateral inactive limb is also filmed.

#### *Speech*

Can you sit upright with your hand on your lap and feet flat on the ground without moving or speaking [film entire body during a few seconds]

“Can you tell me what you ate for dinner yesterday?”

#### *Rest tremor*

Can you place your hands on your lap, then close your eyes and say the months of the year backwards.

#### *Spreading tremor*

If the participant has a tremor try to stop it by immobilizing the affected limb [film entire body during 30 seconds]

#### *Postural tremor*

Stick out both arms with the palms down and the fingers spread slightly [10 seconds]

#### *Action tremor*

Can you, using your index finger of your right hand, go back and forth between your nose and my index finger [4 times, repeat with left hand]

#### *Fingertapping*

Stick out your right hand with your palm facing me. Keep your vinger spread and tap the index finger on the thumb as fast as possible, but with big amplitude [Stop after 10 seconds, repeat with left hand]

#### *Open and closing fists*

Stick out your right hand with your palm facing down. Open and close your hand as fast as possible [Stop after 10 seconds, repeat with left hand]

#### *Diadochokinesis*

Stick out your right hand with palm facing down. Turn your palm up and down as fast as possible [Stop task after 10 seconds, then test left hand]

#### *Toe and foot tapping*

Put your two feet next to each other flat on the floor. You can tap the ground with the right forefoot as quickly as possible while keeping your heels on the ground. [After 10 seconds stop, then left forefoot] Then put your two feet next to each other flat on the floor. You can tap the heel with the right heel, as quickly as possible, on the floor while keeping your foot on the ground [After 10 seconds stop, then left heel]

*Rise*

Can you rise from this chair with your feet flat on the floor and your arms in front of your chest. [If the participant is unable to perform the task you can tell to use the railing of the chair. If the participant is unable to rise with the help of the railing you can assist the participant]

*Walking*

Can you walk back and forth between these two points until I ask you to stop [distance between points needs to be 7 meter, let the participant walk towards the camera twice]

*Running*

Can you run back and forth between these two points until I ask you to stop [distance between points needs to be 7 meter. Let the participant walk towards the camera twice]

*Ten step tandem gait test*

Can you walk, foot by foot over this line for me [total 10 steps, film frontside]

*Tone*

You can place the feet about 20 to 30 centimeters apart and relax. I will move your shoulders back and forth [film whole body from left and right side]

*Postural reflexes*

Stand firmly with your feet slightly apart. I will try to pull you over. You must try to keep standing. If necessary, you may take a step backward, try to do this as little as possible [film whole body from the side]

*Writing*

Can you write a random sentence on this piece of paper [Only film the result during 5-10 seconds]

## Supplementary File 2. LEAP-DAS Video Analysis CRF

Subject number

Reviewer's name

### 1. Bradykinesia

The presence of bradykinesia during the video defined as decreased amplitude and/or progressive deceleration of movements during the execution of UPDRS items 23, 24, 25 and 26.

	Yes	No
Deceleration of pace	<input type="checkbox"/>	<input type="checkbox"/>
Acceleration of pace	<input type="checkbox"/>	<input type="checkbox"/>
Reduced amplitude	<input type="checkbox"/>	<input type="checkbox"/>
Number arrests in ongoing movement	<input type="text"/>	

### 2. Tandem gait performance (10 steps)

	Yes	No
Normal tandem gait test?	<input type="checkbox"/>	<input type="checkbox"/>

### 3. Re-emerging phenomenon

Did you see a re-emerging phenomenon in patients with a tremor (rest/postural) during the video and the execution of UPDRS items 20 and 21?

Yes  No  N/A

### 4. Asymmetric arm swing

Did you see an asymmetric arm swing during the execution of UPDRS item 29?

Yes  No

Did you see a near identical lack of arm swing while walking and running?

Yes  No

#### 5. Contralateral mirror movements

Did you see contralateral mirror movements in the least affected arm during the execution of UPDRS items 23, 24, 25, 26 in the most affected arm?

Yes  No

#### 6. Reduced tremor

Was the intensity of the tremor reduced in the affected arm(s) during the execution of UPDRS items 23, 24, 25 and 26 with the opposite limb or during mental tasks (i.e. distractibility)?

Yes  No  N/A

#### 7. Writing

	Yes	No
Did you see micrography?	<input type="checkbox"/>	<input type="checkbox"/>
Did the patient have an unstable writing pattern?	<input type="checkbox"/>	<input type="checkbox"/>

#### 8. Diagnosis

Does this patient have an abnormal DAT-SPECT (compatible with for example Parkinson's disease)?

Yes  No

If yes: is it PD or is there a suspicion that it is an atypical parkinsonism?

PD  Atypical parkinsonism

### 9. Contribution of the items to your conclusion above

Can you give a rating per item below (irrespective of it's presence or absence) as to how much it contributes to your answer on the question above? (1 being not important and 5 being very important)

	1	2	3	4	5
Progressive deceleration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduced amplitude	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Number of stops during video	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tandem gait performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Re-emerging phenomenon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asymmetric arm swing while walking	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asymmetric arm swing while running	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contralateral mirror movement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spreading tremor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reduced tremor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Micrography	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### Additional comments



**Supplementary File 3. Full results of video assessments.**

<b>Index</b>	<b>Page</b>
<b>SWEDD 1</b>	<b>2</b>
<b>SWEDD 2</b>	<b>3</b>
<b>SWEDD 3</b>	<b>4</b>
<b>PD 1</b>	<b>5</b>
<b>PD 2</b>	<b>6</b>
<b>PD 3</b>	<b>7</b>
<b>PD 4</b>	<b>8</b>
<b>PD 5</b>	<b>9</b>
<b>PD 6</b>	<b>10</b>
<b>PD 7</b>	<b>11</b>

**SWEDD 1**

		NT1	NT2	NT3	NT4	NT5	NT6	GN1	GN2	GN3	GN4	GN5	GN6	MDE1	MDE2	MDE3	MDE4	MDE5	MDE6
<b>1. Bradykinesia</b>	Deceleration of pace	No	No	No	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No	No	No	No
	Acceleration of pace	No	No	No	No	No	Yes	Yes	No	Yes	No	No	No	No	No	No	No	Yes	No
	Reduced amplitude	No	No	No	No	No	Yes	Yes	No	Yes	No	No	Yes	No	Yes	Yes	No	Yes	Yes
	Number arrests in ongoing movement	2	0	0	0	0	2	2	0	2	0	2	8	2	2	0	0	8	0
<b>2. Tandem gait performance</b>	Normal tandem gait test?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
<b>3. Re-emerging phenomenon</b>	Re-emerging phenomenon during UPDR 20+21	N/A	No	N/A	N/A	N/A	No	N/A	N/A	No	N/A	N/A	N/A	No	No	N/A	N/A	N/A	No
<b>4. Asymmetric arm swing</b>	Asymmetric Arm swing UPDRS 29	No	No	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes	No	No	Yes	Yes
	Near identical lack of arm swing while walking and running?	No	No	No	No	No	Yes	No	No	No	Yes	Yes	No	No	No	No	No	No	No
<b>5. Contralateral mirror movement</b>	Contralat. mirror movements UPDRS 23, 24, 25, 26?	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
<b>6. Reduced tremor</b>	UPDRS 23,24,25,26	N/A	N/A	N/A	N/A	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
<b>7. Writing</b>	Micrography	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Unstable writing pattern	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
<b>8. Diagnosis</b>	Abnormal DAT-SPECT?	No	No	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes	No	No	Yes	N/A
	PD OR Atypical parkinsonism?	x	x	PD	x	x	x	PD	x	PD	x	x	x	x	AP	x	x	PD	
<b>9. Contribution of the items to your conclusion above</b>	Progressive deceleration	4	4	4	2	4	4	5	5	1	5	4	4	4	3	5	4	4	5
	Reduced amplitude	4	4	4	4	4	3	5	5	5	4	4	2	4	3	2	4	4	3
	Number of stops during video	2	3	4	1	3	2	3	3	5	3	3	2	3	2	2	1	4	3
	Tandem gait performance	3	3	1	1	2	1	5	1	3	4	4	4	2	1	4	1	2	3
	Re-emerging phenomenon	4	2	1	5	3	4	5	4	1	3	2	2	2	1	4	1	2	4
	Asymmetric arm swing while walking	2	4	4	5	4	5	5	5	5	5	5	4	4	5	4	4	4	4
	Asymmetric arm swing while running	2	3	4	5	4	3	5	4	3	4	4	2	4	2	3	1	2	2
	Contralateral mirror movement	3	2	1	1	3	2	5	4	1	3	2	3	3	1	4	1	2	2
	Reduced tremor	2	2	1	4	3	2	3	2	1	2	2	2	2	1	2	1	2	2
Micrography	4	3	1	3	4	3	4	5	1	4	2	3	3	1	3	1	4	5	

SWEDD, subject without evidence of dopamine deficiency; PD, Parkinson's disease; NT, neurologist in training; GN, general neurologist; MDE, movement disorder expert



## SWEDD 2

		NT1	NT2	NT3	NT4	NT5	NT6	GN1	GN2	GN3	GN4	GN5	GN6	MDE1	MDE2	MDE3	MDE4	MDE5	MDE6
<b>1. Bradykinesia</b>	Deceleration of pace	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
	Acceleration of pace	No	No	Yes	No	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	No	No	No	No	No
	Reduced amplitude	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Number arrests in ongoing movement	0	0	0	0	2	4	1	0	1	7	3	1	2	3	8 to 10	0	10	4
<b>2. Tandem gait performance</b>	Normal tandem gait test?	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	No
<b>3. Re-emerging phenomenon</b>	Re-emerging phenomenon during UPDR 20+21	Yes	No	N/A	N/A	N/A	Yes	N/A	No	x	Yes	No	No	No	Yes	No	N/A	N/A	No
<b>4. Asymmetric arm swing</b>	Asymmetric arm swing UPDRS 29	No	No	Yes	No	No	No	Yes	No	No	No	No	No	No	Yes	Yes	No	Yes	Yes
	Near identical lack of arm swing while walking and running?	Yes	No	No	Yes	No	Yes	No	No	No	Yes	Yes	Yes	No	No	Yes	No	Yes	No
<b>5. Contralateral mirror movement</b>	Contralateral mirror movements UPDRS 23, 24, 25, 26?	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
<b>6. Reduced tremor</b>	UPDRS 23,24,25,26	No	N/A	N/A	N/A	N/A	N/A	N/A	No	No	No	No	No	No	N/A	No	N/A	N/A	No
<b>7. Writing</b>	Micrography	No	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	No	No	No	No
	Unstable writing pattern	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	x
<b>8. Diagnosis</b>	Abnormal DAT-SPECT?	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No	N/A
	PD OR Atypical parkinsonism?	PD	x	AP	PD	x	PD	x	PD	PD	PD	x	PD	PD	PD	x	x	x	x
<b>9. Contribution of the items to your conclusion above</b>	Progressive deceleration	5	2	4	4	4	5	5	5	3	5	4	4	5	5	5	3	3	4
	Reduced amplitude	5	2	4	4	4	5	5	5	5	4	3	4	5	5	2	3	3	4
	Number of stops during video	2	3	1	1	2	3	1	3	5	4	4	2	4	4	3	1	3	5
	Tandem gait performance	2	3	5	1	2	1	5	1	4	2	2	2	3	4	3	1	4	3
	Re-emerging phenomenon	5	4	1	1	2	3	5	4	1	4	x	4	2	5	4	1	2	2
	Asymmetric arm swing while walking	2	5	4	1	4	4	5	5	1	2	2	2	2	5	3	1	4	4
	Asymmetric arm swing while running	2	2	4	1	4	4	5	4	1	2	2	2	2	2	3	1	4	3
	Contralateral mirror movement	2	3	2	1	2	1	5	4	1	2	2	2	2	3	3	1	2	2
	Reduced tremor	2	2	1	1	2	2	3	x	1	2	2	2	2	3	2	1	2	3
	Micrography	2	4	1	1	3	1	4	4	1	2	3	x	2	4	3	1	4	2

**SWEDD 3**

		NT1	NT2	NT3	NT4	NT5	NT6	GN1	GN2	GN3	GN4	GN5	GN6	MDE1	MDE2	MDE3	MDE4	MDE5	MDE6
<b>1. Bradykinesia</b>	Deceleration of pace	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes
	Acceleration of pace	No	No	No	No	No	No	Yes	No	No	Yes	No	No	No	No	No	No	No	No
	Reduced amplitude	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
	Number arrests in ongoing movement	1	0	0	0	1	1	0	0	2	2	2	0	1	0	0	0	2	0
<b>2. Tandem gait performance</b>	Normal tandem gait test?	No	No	No	Yes	No	No	Yes	No	No	No	No	No	Yes	No	No	Yes	No	No
<b>3. Re-emerging phenomenon</b>	Re-emerging phenomenon during UPDR 20+21	n/a	N/A	N/A	N/A	N/A	No	N/A	N/A	No	N/A	No	N/A	N/A	No	N/A	N/A	N/A	No
<b>4. Asymmetric arm swing</b>	Asymmetric arm swing UPDRS 29	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Near identical lack of arm swing while walking and running?	No	Yes	Yes	No	No	No	Yes	Yes	Yes	No	No	No	No	No	Yes	No	No	Yes
<b>5. Contralateral mirror movement</b>	Contralateral mirror movements UPDRS 23, 24, 25, 26?	Yes	Yes	No	No	No	No	No	No	Yes	No	No	No	No	No	No	No	No	No
<b>6. Reduced tremor</b>	UPDRS 23,24,25,26	n/a	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
<b>7. Writing</b>	Micrography	No	No	Yes	No	Yes	Yes	No	No	No	No	Yes	No	No	Yes	No	No	Yes	Yes
	Unstable writing pattern	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	No
<b>8. Diagnosis</b>	Abnormal DAT-SPECT?	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	N/A
	PD OR Atypical parkinsonism?	AP	AP	AP	PD	AP	x	PD	PD	AP	AP	AP	AP	x	AP	x	x	AP	
<b>9. Contribution of the items to your conclusion above</b>	Progressive deceleration	3	4	1	5	2	3	5	5	1	4	2	2	4	4	4	x	3	4
	Reduced amplitude	3	2	1	5	4	5	5	5	4	3	4	2	3	3	3	x	3	4
	Number of stops during video	2	2	1	1	2	3	1	3	3	2	3	2	3	1	2	1	3	3
	Tandem gait performance	3	4	5	1	3	4	5	1	5	3	4	5	2	4	3	1	4	2
	Re-emerging phenomenon	2	1	1	1	2	1	5	4	1	2	2	2	1	1	1	1	2	4
	Asymmetric arm swing while walking	4	5	3	5	4	5	5	5	3	4	4	4	3	5	3	3	4	3
	Asymmetric arm swing while running	3	3	5	5	2	5	5	4	3	3	4	4	4	3	3	1	4	2
	Contralateral mirror movement	2	4	1	1	2	1	5	4	3	2	2	2	2	2	1	1	2	2
	Reduced tremor	1	1	1	1	2	1	3	2	1	2	2	2	2	1	1	1	2	2
Micrography	1	1	x	1	3	4	1	5	1	x	3	1	2	4	1	1	2	4	

**PD 1**

		NT1	NT2	NT3	NT4	NT5	NT6	GN1	GN2	GN3	GN4	GN5	GN6	MDE1	MDE2	MDE3	MDE4	MDE5	MDE6
<b>1. Bradykinesia</b>	Deceleration of pace	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Acceleration of pace	No	No	Yes	No	Yes	Yes	Yes	No	No	Yes	No	No	No	No	No	x	No	No
	Reduced amplitude	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Number arrests in ongoing movement	0	0	0	0	1	2	0	0	0	1	0	0	0	0	5	x	5	3
<b>2. Tandem gait performance</b>	Normal tandem gait test?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	x	Yes	Yes
<b>3. Re-emerging phenomenon</b>	Re-emerging phenomenon during UPDR 20+21	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No
<b>4. Asymmetric arm swing</b>	Asymmetric. Arm swing UPDRS 29	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Near identical lack of arm swing while walking and running?	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	No
<b>5. Contralateral mirror movement</b>	Contralateral mirror movements UPDRS 23, 24, 25, 26?	Yes	No	Yes	No	Yes	Yes	No	No	Yes	Yes	No	No	Yes	No	Yes	No	Yes	No
<b>6. Reduced tremor</b>	UPDRS 23,24,25,26	No	No	No	No	No	N/A	No	No	No	No	No	No	No	No	No	No	No	No
<b>7. Writing</b>	Micrography	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Unstable writing pattern	No	No	No	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No
<b>8. Diagnosis</b>	Abnormal DAT-SPECT?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	N/A
	PD OR Atypical parkinsonism?	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	x	PD	PD	
<b>9. Contribution of the items to your conclusion above</b>	Progressive deceleration	5	4	3	5	4	4	5	5	3	5	2	4	4	4	4	5	4	5
	Reduced amplitude	5	4	4	5	4	4	5	5	5	5	4	3	4	4	3	5	4	4
	Number of stops during video	2	2	1	1	2	4	1	4	1	2	x	1	2	3	3	1	3	4
	Tandem gait performance	4	1	5	1	2	1	5	1	4	2	x	4	3	3	2	1	2	3
	Re-emerging phenomenon	5	5	2	1	2	1	5	4	5	4	4	3	4	3	2	3	2	4
	Asymmetric arm swing while walking	5	5	5	5	4	5	5	5	5	5	5	4	4	4	2	4	4	4
	Asymmetric arm swing while running	3	5	5	5	4	5	5	4	5	2	5	x	4	5	2	1	4	3
	Contralateral mirror movement	5	2	4	1	3	5	5	4	3	3	2	2	3	2	3	1	3	3
	Reduced tremor	1	2	1	1	2	3	3	x	1	2	2	2	2	2	2	1	3	2
	Micrography	2	2	1	1	2	1	4	4	1	x	2	2	2	2	4	x	2	4

**PD 2**

		NT1	NT2	NT3	NT4	NT5	NT6	GN1	GN2	GN3	GN4	GN5	GN6	MDE1	MDE2	MDE3	MDE4	MDE5	MDE6
<b>1. Bradykinesia</b>	Deceleration of pace	No	No	No	No	No	Yes	Yes	No	No	yes	No	No	No	Yes	Yes	No	No	Yes
	Acceleration of pace	No	No	No	Yes	No	No	Yes	No	No	No	No	Yes	Yes	Yes	No	No	Yes	No
	Reduced amplitude	No	No	No	No	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Number arrests in ongoing movement	0	0	0	0	0	3	0	0	0	0	0	x	0	1	2	0	4	2
<b>2. Tandem gait performance</b>	Normal tandem gait test?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	x	Yes	Yes	Yes	Yes
<b>3. Re-emerging phenomenon</b>	Re-emerging phenomenon during UPDR 20+21	Yes	No	N/A	No	N/A	No	Yes	No	No	Yes	No	Yes	No	Yes	No	Yes	Yes	No
<b>4. Asymmetric arm swing</b>	Asymmetric Arm swing UPDRS 29	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Near identical lack of arm swing while walking and running?	No	No	No	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No
<b>5. Contralateral mirror movement</b>	Contralateral mirror movements UPDRS 23, 24, 25, 26?	Yes	No	No	No	No	Yes	Yes	Yes	No	No	No	No	No	No	No	x	No	No
<b>6. Reduced tremor</b>	UPDRS 23,24,25,26	No	N/A	N/A	No	No	No	No	No	No	No	No	No	No	Yes	No	x	Yes	No
<b>7. Writing</b>	Micrography	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No	No	x	No	No
	Unstable writing pattern	Yes	No	Yes	No	No	Yes	No	Yes	No	Yes	No	No	No	No	No	x	Yes	No
<b>8. Diagnosis</b>	Abnormal DAT-SPECT?	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A
	PD OR Atypical parkinsonism?	PD	x	AP	AP	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD
<b>9. Contribution of the items to your conclusion above</b>	Progressive deceleration	2	4	1	1	2	3	5	5	1	3	2	2	2	3	5	3	3	4
	Reduced amplitude	2	4	1	1	3	5	5	5	1	3	2	4	4	3	3	3	4	3
	Number of stops during video	2	2	1	1	3	3	1	3	1	2	2	2	2	3	2	1	3	3
	Tandem gait performance	2	2	5	1	2	1	5	1	4	2	2	4	2	2	3	1	2	2
	Re-emerging phenomenon	5	4	1	1	2	2	5	4	1	4	2	4	2	4	2	2	4	4
	Asymmetric arm swing while walking	5	2	5	1	4	2	5	5	5	4	2	4	4	5	4	2	3	4
	Asymmetric arm swing while running	2	4	1	1	3	2	5	4	5	3	2	4	4	3	4	1	2	2
	Contralateral mirror movement	4	2	1	1	2	4	5	4	1	2	2	2	2	2	1	1	2	2
	Reduced tremor	1	2	1	1	2	3	3	2	1	2	2	2	2	4	1	1	4	2
	Micrography	3	4	1	1	2	1	4	5	1	2	2	1	3	3	1	1	2	5

**PD 3**

		NT1	NT2	NT3	NT4	NT5	NT6	GN1	GN2	GN3	GN4	GN5	GN6	MDE1	MDE2	MDE3	MDE4	MDE5	MDE6
<b>1. Bradykinesia</b>	Deceleration of pace	No	No	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No	Yes	No	No	No	Yes
	Acceleration of pace	No	x	No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	No	Yes	No
	Reduced amplitude	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Number arrests in ongoing movement	0	0	1	0	3	1	1	2	2	3	4	2	1	0	12 to 14	0	11	4
<b>2. Tandem gait performance</b>	Normal tandem gait test?	No	Yes	Yes	Yes	Yes	x	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>3. Re-emerging phenomenon</b>	Re-emerging phenomenon during UPDR 20+21	Yes	No	N/A	n/a	N/A	No	N/A	N/A	No	N/A	n/a	No	No	No	No	No	N/A	No
<b>4. Asymmetric arm swing</b>	Asymmetric arm swing UPDRS 29	No	No	No	No	No	Yes	No	No	Yes	No	No	No	No	No	No	No	No	No
	Near identical lack of arm swing while walking and running?	No	No	No	No	Yes	No	No	No	No	Yes	No	No	No	No	No	no	Yes	No
<b>5. Contralateral mirror movement</b>	Contralateral mirror movements UPDRS 23, 24, 25, 26?	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
<b>6. Reduced tremor</b>	UPDRS 23,24,25,26	n/a	N/A	N/A	n/a	N/A	No	N/A	N/A	No	N/A	No	Yes	N/A	n/a	No	No	N/A	No
<b>7. Writing</b>	Micrography	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	No	Yes	No	No	No	No
	Unstable writing pattern	No	No	No	Yes	Yes	No	No	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes
<b>8. Diagnosis</b>	Abnormal DAT-SPECT?	No	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	N/A
	PD OR Atypical parkinsonism?	x	AP	x	x	x	AP	x	x	AP	PD	AP	AP	x	PD	x	x	x	
<b>9. Contribution of the items to your conclusion above</b>	Progressive deceleration	4	2	3	3	3	3	5	5	1	4	5	3	3	5	5	1	3	4
	Reduced amplitude	2	5	3	3	3	5	5	5	5	4	3	3	3	5	2	3	4	4
	Number of stops during video	3	2	3	3	2	3	1	3	5	2	3	2	3	2	4	1	3	4
	Tandem gait performance	2	2	2	3	2	4	5	1	4	x	2	2	4	2	2	1	4	3
	Re-emerging phenomenon	3	2	1	3	2	1	5	4	1	2	2	3	2	1	2	2	3	4
	Asymmetric arm swing while walking	4	4	1	3	4	4	5	5	3	4	2	2	5	1	3	1	4	4
	Asymmetric arm swing while running	2	2	1	3	3	3	5	4	1	3	2	2	5	1	3	1	4	2
	Contralateral mirror movement	3	2	1	3	2	2	5	4	1	2	2	2	2	1	2	1	2	2
	Reduced tremor	1	2	1	3	2	1	3	2	1	2	2	2	2	1	1	1	1	2
Micrography	4	2	3	3	3	2	4	5	4	x	4	2	2	5	3	1	4	4	

**PD 4**

		NT1	NT2	NT3	NT4	NT5	NT6	GN1	GN2	GN3	GN4	GN5	GN6	MDE1	MDE2	MDE3	MDE4	MDE5	MDE6
<b>1. Bradykinesia</b>	Deceleration of pace	Yes	No	No	Yes	No	No	Yes	No	No	Yes	No	Yes	No	Yes	Yes	Yes	No	Yes
	Acceleration of pace	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
	Reduced amplitude	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Number arrests in ongoing movement	0	0	2	2	0	0	0	0	2	2	0	0	0	0	2	0	5	1
<b>2. Tandem gait performance</b>	Normal tandem gait test?	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes
<b>3. Re-emerging phenomenon</b>	Re-emerging phenomenon during UPDR 20+21	Yes	No	No	No	No	Yes	No	Yes	x	Yes	No	No	No	No	No	No	Yes	No
<b>4. Asymmetric arm swing</b>	Asymmetric arm swing UPDRS 29	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Near identical lack of arm swing while walking and running?	Yes	No	Yes	Yes	No	No	Yes	No	Yes	Yes	No	No	Yes	No	Yes	No	Yes	No
<b>5. Contralateral mirror movement</b>	Contralateral mirror movements UPDRS 23, 24, 25, 26?	Yes	No	No	No	No	Yes	No	No	No	No	No	No	No	No	No	No	No	No
<b>6. Reduced tremor</b>	UPDRS 23,24,25,26	No	No	No	No	Yes	No	No	No	No	No	No	No	No	Yes	No	No	Yes	No
<b>7. Writing</b>	Micrography	No	No	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
	Unstable writing pattern	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
<b>8. Diagnosis</b>	Abnormal DAT-SPECT?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A
	PD OR Atypical parkinsonism?	PD	AP	AP	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD
<b>9. Contribution of the items to your conclusion above</b>	Progressive deceleration	3	2	1	5	4	4	5	5	1	3	5	4	2	5	5	5	3	4
	Reduced amplitude	2	2	1	5	3	4	5	5	5	3	2	4	4	5	4	5	4	4
	Number of stops during video	1	2	4	1	2	1	1	3	3	2	2	x	2	2	2	1	3	4
	Tandem gait performance	2	1	1	1	2	x	5	1	3	2	2	4	2	2	4	1	3	2
	Re-emerging phenomenon	4	2	4	1	2	1	5	4	1	3	2	x	2	2	1	1	2	2
	Asymmetric arm swing while walking	5	5	4	5	4	5	5	5	5	4	5	x	4	5	4	3	4	4
	Asymmetric arm swing while running	3	4	5	5	2	4	5	4	5	2	4	x	4	2	4	2	4	2
	Contralateral mirror movement	1	1	1	1	2	4	5	4	1	2	2	x	2	1	1	1	2	2
	Reduced tremor	1	1	3	1	3	2	3	x	1	2	2	x	2	2	2	1	3	2
	Micrography	2	1	4	1	2	1	1	4	1	3	2	x	3	2	4	1	2	4

**PD 5**

		NT1	NT2	NT3	NT4	NT5	NT6	GN1	GN2	GN3	GN4	GN5	GN6	MDE1	MDE2	MDE3	MDE4	MDE5	MDE6
<b>1. Bradykinesia</b>	Deceleration of pace	Yes	No	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
	Acceleration of pace	No	No	Yes	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No	No	No	Yes
	Reduced amplitude	No	No	Yes	No	No	No	Yes	No	No	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes
	Number arrests in ongoing movement	0	0	0	0	0	x	0	0	2	0	0	0	0	0	~6	0	2	0
<b>2. Tandem gait performance</b>	Normal tandem gait test?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>3. Re-emerging phenomenon</b>	Re-emerging phenomenon during UPDR 20+21	N/A	N/A	N/A	N/A	N/A	No	N/A	N/A	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No
<b>4. Asymmetric arm swing</b>	Asymmetric arm swing UPDRS 29	Yes	No	Yes	No	No	No	Yes	No	Yes	No	No	No	No	Yes	No	Yes	Yes	No
	Near identical lack of arm swing while walking and running?	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	No	No	Yes
<b>5. Contralateral mirror movement</b>	Contralateral mirror movements UPDRS 23, 24, 25, 26?	No	No	No	No	No	No	No	No	Yes	Yes	No	No	No	No	Yes	No	No	No
<b>6. Reduced tremor</b>	UPDRS 23,24,25,26	n/a	N/A	N/A	N/A	N/A	No	n/a	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>7. Writing</b>	Micrography	No	No	Yes	No	Yes	No	No	No	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes
	Unstable writing pattern	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	No
<b>8. Diagnosis</b>	Abnormal DAT-SPECT?	No	Yes	Yes	No	No	No	Yes	No	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	N/A
	PD OR Atypical parkinsonism?	x	AP	PD	x	x	x	PD	x	PD	AP	x	x	x	PD	AP	PD	AP	
<b>9. Contribution of the items to your conclusion above</b>	Progressive deceleration	2	2	4	5	3	5	5	5	5	4	4	3	4	3	3	4	3	4
	Reduced amplitude	4	2	3	5	3	5	5	5	2	4	4	3	4	3	3	4	3	4
	Number of stops during video	3	2	1	1	2	3	1	3	3	1	4	1	4	2	3	1	3	3
	Tandem gait performance	3	1	5	1	2	1	5	1	4	3	4	2	2	5	2	1	4	2
	Re-emerging phenomenon	4	1	1	1	2	1	5	4	1	1	4	1	2	2	1	1	2	4
	Asymmetric arm swing while walking	3	3	5	1	4	5	5	5	5	4	4	3	5	5	3	3	4	4
	Asymmetric arm swing while running	3	3	5	1	2	5	5	4	5	1	4	3	5	2	3	2	4	2
	Contralateral mirror movement	4	1	1	1	2	4	5	4	3	4	4	2	3	2	3	1	2	3
	Reduced tremor	2	1	1	1	3	1	3	2	1	1	4	4	2	2	1	1	2	2
Micrography	4	1	4	1	3	3	4	5	3	2	4	4	3	4	4	1	2	4	

**PD 6**

		NT1	NT2	NT3	NT4	NT5	NT6	GN1	GN2	GN3	GN4	GN5	GN6	MDE1	MDE2	MDE3	MDE4	MDE5	MDE6
<b>1. Bradykinesia</b>	Deceleration of pace	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	No	No	No	Yes	No	Yes	Yes	Yes	Yes
	Acceleration of pace	No	No	No	No	No	No	No	Yes	No	No	No	Yes	No	No	No	No	No	No
	Reduced amplitude	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Number arrests in ongoing movement	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>2. Tandem gait performance</b>	Normal tandem gait test?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>3. Re-emerging phenomenon</b>	Re-emerging phenomenon during UPDR 20+21	N/A	N/A	N/A	N/A	N/A	No	N/A	N/A	No	N/A	N/A	N/A	No	N/A	N/A	N/A	N/A	N/A
<b>4. Asymmetric arm swing</b>	Asymmetric arm swing UPDRS 29	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Near identical lack of arm swing while walking and running?	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes	No	Yes	No
<b>5. Contralateral mirror movement</b>	Contralateral mirror movements UPDRS 23, 24, 25, 26?	No	No	No	No	No	No	nNo	No	No	No	No	No	No	No	No	No	No	No
<b>6. Reduced tremor</b>	UPDRS 23,24,25,26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>7. Writing</b>	Micrography	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	x	No	No
	Unstable writing pattern	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	x	Yes	No
<b>8. Diagnosis</b>	Abnormal DAT-SPECT?	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	N/A
	PD OR Atypical parkinsonism?	PD	AP	PD	x	x	PD	PD	PD	PD	AP	AP	PD	PD	x	PD	PD	PD	
<b>9. Contribution of the items to your conclusion above</b>	Progressive deceleration	4	2	3	5	2	4	5	5	3	4	2	2	4	5	5	5	5	4
	Reduced amplitude	4	5	4	5	3	5	5	5	4	5	5	4	4	4	3	5	5	4
	Number of stops during video	2	1	1	1	2	3	3	3	1	2	2	2	2	3	1	x	3	3
	Tandem gait performance	2	1	5	1	2	1	5	1	4	4	2	2	2	4	4	1	3	2
	Re-emerging phenomenon	2	1	1	1	2	1	5	4	1	2	2	1	1	2	1	1	2	4
	Asymmetric arm swing while walking	4	5	5	5	4	5	5	5	5	5	4	4	4	5	4	3	4	3
	Asymmetric arm swing while running	4	3	5	5	3	5	5	4	5	1	4	3	4	3	4	2	4	2
	Contralateral mirror movement	2	1	1	1	2	1	5	4	1	1	2	1	2	2	1	1	2	2
	Reduced tremor	2	1	1	5	2	1	3	2	1	1	2	1	2	1	1	1	2	2
Micrography	1	1	1	1	3	1	4	5	1	1	2	1	2	5	1	1	2	4	



**PD 7**

		NT1	NT2	NT3	NT4	NT5	NT6	GN1	GN2	GN3	GN4	GN5	GN6	MDE1	MDE2	MDE3	MDE4	MDE5	MDE6
<b>1. Bradykinesia</b>	Deceleration of pace	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Acceleration of pace	No	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No
	Reduced amplitude	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Number arrests in ongoing movement	0	0	0	2	2	5	0	2	2	2	0	3	4	4	0	6	11	10
<b>2. Tandem gait performance</b>	Normal tandem gait test?	No	No	No	No	No	No	Yes	No	No	No	No	No	No	No	No	Yes	No	No
<b>3. Re-emerging phenomenon</b>	Re-emerging phenomenon during UPDR 20+21	Yes	No	No	Yes	No	Yes	Yes	No	No	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes
<b>4. Asymmetric arm swing</b>	Asymmetric arm swing UPDRS 29	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Near identical lack of arm swing while walking and running?	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	Yes	No
<b>5. Contralateral mirror movement</b>	Contralateral mirror movements UPDRS 23, 24, 25, 26?	Yes	No	No	No	No	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes	No	No
<b>6. Reduced tremor</b>	UPDRS 23,24,25,26	No	No	No	No	No	No	No	N/A	No	No	No	No	No	Yes	No	No	Yes	No
<b>7. Writing</b>	Micrography	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	Unstable writing pattern	Yes	Yes	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	Yes	No
<b>8. Diagnosis</b>	Abnormal DAT-SPECT?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	N/A
	PD OR Atypical parkinsonism?	PD	PD	AP	AP	PD	AP	PD	PD	PD	PD	PD	PD	PD	PD	AP	PD	AP	
<b>9. Contribution of the items to your conclusion above</b>	Progressive deceleration	4	3	3	5	4	5	5	5	5	4	2	4	5	5	5	5	4	
	Reduced amplitude	4	5	4	5	4	4	5	5	5	4	4	4	5	5	4	5	4	
	Number of stops during video	2	1	1	1	3	2	3	3	4	2	2	4	3	5	3	4	4	
	Tandem gait performance	3	3	5	5	3	4	5	1	3	2	4	3	3	4	5	1	4	
	Re-emerging phenomenon	4	1	1	5	2	3	5	4	1	3	2	4	2	5	1	2	2	
	Asymmetric arm swing while walking	4	4	5	1	4	4	5	5	4	4	5	4	3	5	3	3	4	
	Asymmetric arm swing while running	2	3	5	1	3	4	5	4	4	3	4	4	3	3	3	1	4	
	Contralateral mirror movement	4	1	1	1	2	2	5	4	3	2	2	4	3	1	4	1	2	
	Reduced tremor	2	1	1	1	2	1	3	2	1	3	2	3	2	3	1	1	3	
Micrography	3	2	1	1	2	1	4	5	1	2	2	2	2	2	1	1	2		