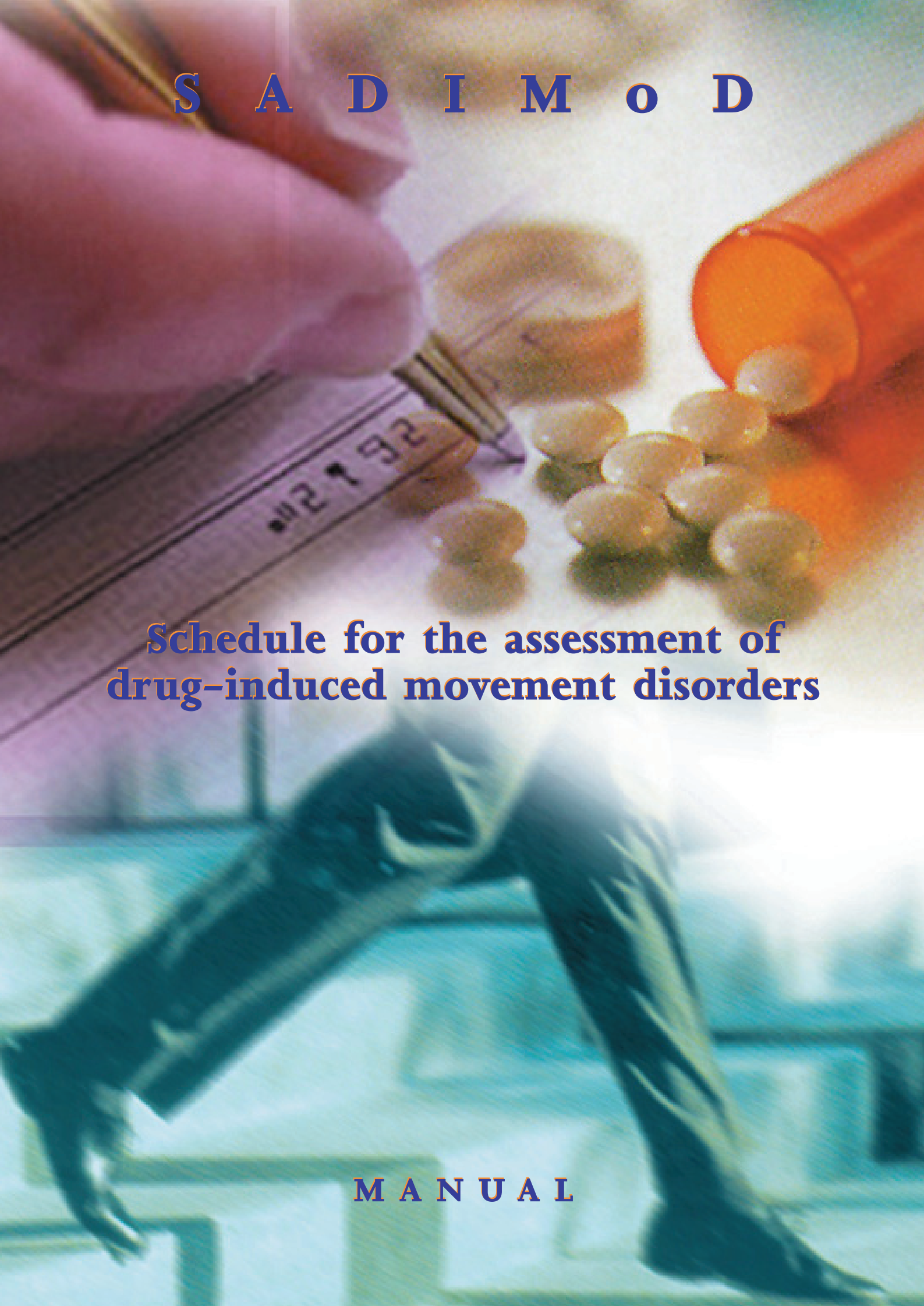

S A D I M o D

Schedule for the assessment of drug-induced movement disorders

MANUAL

S A D I M o D

Schedule for the Assessment of Drug Induced Movement Disorders

Dr. A.J.M. Loonen
and
C.H. Doorschot

with the co-operation of

L.P. van Bavel
M. Doornbos
M.H.A. Engberink
M.I. Jansson

's-Hertogenbosch
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SADIMoD

Schedule for the Assessment of Drug Induced Movement Disorders

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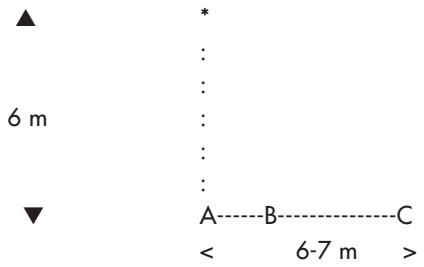
I VIDEO REGISTRATION PROCEDURE

The examination should be conducted in such a manner, in a fixed sequence and within a fixed setting, that it can be reproduced. To be able to compare the registrations of different moments with each other recording on videotape is a simple solution. This also means that striking findings are spoken, and thus recorded, by the examiner.

A set-up in an adequately heated and well-illuminated examination room is required. The patient should, in full view of the camera, be able to walk 3 metres towards the camera and 6-7 metres diagonal to the direction of the camera. In the ideal setting the floor and the background are fitted with a tile design, and/or the floor is fitted with a blocked band (measuring rod), preferably with 30-cm strips. Further requirements are a solid chair with a big seat and without armrests, as well as a reasonably high writing desk together with a stool or a typing chair. For the benefit of the writing test it is essential that the same writing desk, tablemat, pen (type) and form (shape, size and type) are used. The patient is requested to remove wide clothing and preferably also shoes, and is not allowed to have any objects in his/her mouth other than a set of dentures.
The setting thus looks as follows:



*	=	The camera and behind it the window in order to allow the light to drop in the direction of A, B and C.
A	=	The location of the patient when he/she is recorded from the front.
B	=	The location of the patient when he/she is recorded from the front under a slight angle.
C	=	The location to which the patient should walk under item 11 of the video registration procedure. Also, as part of the same exercise, the patient must walk from this point towards the camera.

The examiner and the cameraman should study the instructions for the patient and regarding the video recording on the following pages. They can use the short version of these instructions as an aide-mémoire. The cameraman should give sound signals to indicate that sufficient time has elapsed and should correct the examiner when recordings are incomplete or unclear. Observations that might not be absolutely clear from the videotape, should be written on the used form.
The severity scores of the items salivation and rigidity should be given into the microphone.

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Schedule for the assessment of drug-induced movement disorders

VIDEO REGISTRATION PROCEDURE

Instructions for the patient	Item score that needs specific attention	Instructions regarding the video recording
1. Ask the patient to sit on the chair without armrests. Let the patient look straight into the camera. See to it that the patient is sitting comfortably. Let the patient, for purposes of identification, hold a paper with the initials and the date, clearly visible for the camera, during five seconds.		Focus the camera on the identification board previously. Check the readability of the shield. The patient is recorded in full during five seconds.
2. The hands rest on the knees. In the meantime discuss light matters (such as for instance the daily occupation) in order to make the patient feel at ease. Next, record the patient during one minute in silence, the hands not resting on the knees (the arms resting loosely in the lap of the patient).	2.3.1: akathisia 2.6.1: dysarthria 2.7: psychic symtoms	The patient is recorded twice during at least one minute, in full. Record the patient's voice. Give a sound signal after one minute recording.
3. Ask the patient to place the right heel exactly over the knee of the other (straightened) leg in one fluent motion, then to wait a little and subsequently to move the heel over the edge of the shinbone towards the big toe (knee/heel/shin task). The patient is allowed to sprawl in the chair, to look at the leg and to support him/herself on the edge of the chair. Ask for a repetition of this procedure with the other heel. Next ask the patient to repeat these movements with closed eyes.	2.6.3: ataxia (lower extremities)	The patient is recorded in full.
4. Ask the patient to remove his/her glasses (if applicable) and to remain seated. During this minute, let the patient look at a fixed point on the wall. In the meantime do not speak with the patient and look in another direction or do something else in order to allow the patient to be passive and relaxed.	2.1.4: dyskinesia (face) 2.2.1: dystonia (eyes) 2.4.1: Parkinsonism (facial expression)	Take a picture of the patient's face during one minute. The eyeblinking should be clearly visible. Give a sound signal after one minute.
5. Ask the patient to open his/her mouth during approximately 15 seconds, to such an extent that the tongue becomes visible. Thereafter, ask the patient to stick out his/her tongue during 15 seconds. If necessary repeat this. Examine the oral cavity and judge how much saliva is present. Record the score by means of a microphone.	2.1.2: dyskinesia (tongue) 2.2.2: dystonia (mouth) 2.4.8: Parkinsonism (salivation)	Take a picture of the patient's mouth. Focus the camera on the tongue. Next, the patient is recorded in full. The quantity of saliva is not recorded on videotape.

6. Ask the patient to, simultaneous on both sides: - Hold the arm, hand and fingers stretched out forward with the palms down during 15 seconds. If necessary a sheet of paper can be placed on the fingers in order to make a (fine) tremor better visible. - Quickly open and close the fingers alternatingly (which means clenching a fist and stretching the fingers again). - Shaking the hands loosely in the wrists.	2.1: dyskinesia 2.2: dystonia 2.4.2: Parkinsonism (bradykinesia) 2.4.7: Parkinsonism (rigidity) 2.5: postural tremor	Take a picture of the upper part of the body. Focus on the fingers.
Ask the patient to, first on the left and next on the right: - Quickly move the thumb from the counter position backwards and forwards against the tips of the different fingers of the same hand (tapping task).	2.1: dyskinesia 2.2.: dystonia 2.6.2: ataxia (upper extremities)	Take a picture of the upper part of the body. Both the tapping hand and the face should be in the picture.
Ask the patient to, first on the left and next on the right: - Stretch the arm with open eyes sideways to a maximum position and to subsequently move the tip of the index finger smoothly towards the tip of his own nose (tip-nose task). - Stretch the arm with closed eyes sideways to a maximum position and to subsequently move the tip of the index finger smoothly towards the tip of his own nose (tip-nose task). - Make a stop sign with the hand and subsequently to quickly supinate and, alternatingly, to pronate the forearm as if an incandescent lamp is turned in (diadochokinesia task). If necessary demonstrate the movement to be made once in a relaxed and clear manner, if the patient does not understand what is meant.	2.1: dyskinesia 2.2: dystonia 2.5: intention tremor 2.6.2: ataxia (upper extremities)	Now picture the whole upper part of the body. Both the maximally stretched out hand and the contra-lateral arm (which is inactive) should be in the picture.
7. Take place opposite the patient. Ask him/her to, first on the left and next on the right: - Move the tip of the index finger backwards and forwards between his/her nose and the index finger of the examiner that is constantly changing position (tip-tip task). - Grab for the index finger of the examiner, that is constantly changing position, using both the thumb and the index finger (grab task). If necessary demonstrate the movement to be made once, in a relaxed and clear manner, if the patient does not understand what is meant.	2.1: dyskinesia 2.2: dystonia 2.5.5: intention tremor 2.6.2: ataxia (upper extremities)	The patient should now be recorded from the front under an angle. Only the arms of the researcher need to be in the picture.
8. Judge the rigidity of the arms at the height of the wrists, the elbow and, to be complete, the shoulder (abduction up to 90˚), by moving these passively. (The researcher is standing.) Make unpredictable, unexpected movements. Let the patient tighten his/her other arm contra-laterally by letting him/her squeeze a ball. Record the score by microphone.	2.4.7: Parkinsonism (rigidity)	Idem

9. Ask the patient to stand straight up during approximately 15 seconds with his/her feet tightly together (the front part of the feet too) with the arms stretched out forward. After a warning, give the patient a little push to test the stability. Repeat this procedure after the patient closed his/her eyes (Romberg's test).	2.1.5: dyskinesia (torso) 2.2.5: dystonia (torso) 2.3.1: akathisia (motor) 2.4.4: Parkinsonism (posture) 2.5: postural tremor 2.6.4: ataxia (posture)	During standing and walking the patient should be in the picture completely.
10. Ask the patient to turn around his/her axis twice (with open eyes).	2.4: Parkinsonism (bradykinesia, posture, gait) 2.6.4: ataxia (posture)	Idem.
11. Let the patient walk up and down in the room (6-7 meters) close to the blocked band at the speed that is normal for this particular patient. Repeat at least once. Let the patient walk once from the corner of the room, high up, towards and from the camera (3 meters).	2.4: Parkinsonism (bradykinesia, posture, arm sway, gait)	The camera follows the patient who now is completely in the picture. Give preference to the legs and the feet when the patient walks towards the camera.
12. Let the patient walk along a line towards the camera step-by-step, with the heel of one foot in front of, and against, the toes of the other foot. If the patient does not understand what to do, demonstrate the movements in a clear and quiet manner.	2.6.5: ataxia (gait)	The patient is filmed from the corner of the room, high up, in order to allow him/her to be completely in the picture during the walking towards the camera. Closer to the camera preference is given to the feet.
13. If, in the case of the standing patient, akathisia is registered during the activities 9, 10, 11 and 12, it is advised to keep the patient involved in a conversation during another two minutes, when still standing. Following this the patient should be asked after subjective characteristics of akathisia. However, the answers in the questionnaire will prevail during scoring.	2.3.1: akathisia (motor)	When standing, the patient is completely in the picture.
14. Ask the patient to take place behind the writing desk. The patient should write his/her initials on the list using a ballpoint, and copy the rime three times without interruption. Stop the copying if it takes longer then 4 minutes. Preferably a slanting school desk should be used. If the patient is sitting stooped forward too much, then ask him/her to sit up straight in order to be able to get a clear picture of the face. This completes the video registration. Finally ask the patient to fill out the questionnaire. The questionnaire may be read and explained to the patient. The answers to the questionnaire should have the best reliability. This finalises the examination.	2.1: dyskinesia 2.2: dystonia 2.3: akathisia	During 30 seconds the patient's legs are recorded (behind the desk). This is followed by a picture of the upper part of the body of the patient for 30 seconds. Subsequently, the position of the camera should be lowered in order to film the face of the patient for 30 seconds.

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Date	
Time	
Initials	
Patient nr.	

The questionnaire to be filled out by the patient

Please answer the questions by encircling your answer. First a number of general questions will be asked. Next a number of questions follow on how you are feeling. Please pay attention to the time that is indicated with every question.Some questions do not apply to you. If that is the case you may encircle the answer "not applicable" (n.a.).

General questions

Do you carry a set of dentures?	yes	no	
if yes, do you now carry your set of dentures?	yes	no	n.a.
if yes, does your set of dentures fit properly?	yes	no	n.a.
Do you at this moment have a lot of salivation?	yes	no	
Do you at this moment have a dry mouth?	yes	no	

The following questions refer to how you are feeling <u>at this moment.</u>
With "this moment" we mean how you are feeling today, at this very moment.

Do you, at this moment, feel depressed?	yes	no
Do you, at this moment, feel anxious ?	yes	no
Do you, at this moment, feel drowsy ?	yes	no
Do you, at this moment, feel restless ?	yes	no
Do you, at this moment, have the urge to move your legs?	yes	no
Do you, at this moment, have the urge to get up and walk around?	yes	no

Are you, at this moment, bothered by this restlessness due to an urge to move?
(mark the right answer)

- ❍ n.a. (I do not feel restless)
- ❍ no problem
- ❍ a minor problem
- ❍ an average problem
- ❍ a serious problem
- ❍ a very serious problem

The following questions refer to how you were feeling <u>during the past week</u>.

During the past week, were you bothered by: intense fatigue? yes no

During the past week, were you bothered by: slowness in moving? yes no

During the past week, were you bothered by: rigidity in the muscles? yes no

During the past week, were you bothered by: an urge to move? yes no

An involuntary movement is a movement (of for instance an arm or a leg) that comes about without you wanting it to happen.
During the past week, were you bothered by: involuntary movements? yes no

During the past week, were you bothered by: muscle spasms? yes no

The following questions refer to how you were feeling during <u>the past four weeks</u>.

Does it happen to you that it suddenly becomes very difficult or impossible for you to speak? yes no

if yes, how many times did this happen during the past four weeks? _____

Does it happen to you that it suddenly becomes very difficult or impossible to swallow? yes no

if yes, how many times did this happen during the past four weeks? _____

Note: the examiner should explain the phenomena and verify the answers. The questionnaire overrules all other answers.

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WRITING TEST

Write here your initials: _____

_____

Copy the following sentences between the lines:

_____

O listen for a moment, lads
And hear me tell my tale
How over the sea from England's
shore I was compelled to sail. _____

Copy the following sentences between the lines again:

_____

O listen for a moment, lads
And hear me tell my tale
How over the sea from England's
shore I was compelled to sail. _____

Copy the following sentences for the third time:

_____

O listen for a moment, lads
And hear me tell my tale
How over the sea from England's
shore was compelled to sail. _____

REMARKABLE OBSERVATIONS

S A D I M o D

Schedule for the assessment of drug-induced movement disorders

Date	
Time	
Initials	
Patient nr.	

1. DYSKINESIA

	Passive	Active
Jaw		
Tongue		
Lips		
Face		
Torso		
Upper Extr.		
Lower Extr.		
Total		
Dyskinesia Global		

2. DYSTONIA

	Provoking Factor		Severity Factor		Weight Factor		Product
Eyes		x		x	0,5	=	
Mouth		x		x	0,5	=	
Speech/Swallowing		x		x	1,0	=	
Neck		x		x	0,5	=	
Torso		x		x	1,0	=	
R Arm		x		x	1,0	=	
L Arm		x		x	1,0	=	
R Leg		x		x	1,0	=	
L Leg		x		x	1,0	=	
Total							
Dystonia Global							

3. AKATHISIA

Motor (objective)	
Psychic (subjective)	
Total	
Akathisia Global	

4. PARKINSONISM

Facial Expression	
Bradykinesia	
Tremor	
Posture	
Arm Sway	
Gait	
Rigidity	
Salivation	
Total	
Parkinsonism Global	

5. TREMOR

Tremor at rest	
Postural Tremor	
❍ Fast	
❍ Moderate	
❍ Slow	
Intention Tremor	
Total	

6. ATAXIA

Dysarthria	
Upper Extr.	
Lower Extr.	
Posture	
Gait	
Total	
Ataxia Global	

7. PSYCHIC SYMPTOMS

Sedation	
Depression	
Psychosis	
Anxiety	

SCORING CODE	
0	Absent
1	Dubious
2	Mild
3	Moderate
4	Severe

1.1 DYSKINESIA

General description
Dyskinesia is a collective name for a complex of involuntary hyperkinetic movements. The movements are prototypically irregular and clonic. They are more or less rhythmic, repetitive, sometimes stereotype and may - especially in more severe cases - become continuously. The dyskinesias are reduced when the muscles are used voluntary and when the attention is focussed on it. They increase in activity when the patient - as a provocative test - executes another motor task or in case of stress. The hyperkinesias are assessed during active as well as during inactive phases. The passive phase is the phase during which the person involved is sitting quietly and is relaxed; the active phase is the phase in which the person is involved in executing motor actions, such as tapping all four fingers against the thumb, writing or walking back and forth. The most intense movements should be scored, when the severity varies or shows asymmetry. The phenomena are described further for the body parts involved under different sub-items.

Dyskinesia should be distinguished from and/or not be scored together with:
- Dystonia, where the muscle contractions last longer then two seconds.
- Parkinsonian tremor, where the contractions take place evenly, regularly without a motionless interval and/or do not show an increase during activity.
- Akathisia, where the patient experiences an inner urge to move or a restlessness to move.
- Mannerisms, where a goal-oriented complex movement with a social meaning, a gesture, is repeated.
- Stereotypies, where a certain, not-goal-oriented, complex movement is repeated.

However, when it is impossible to distinguish one disorder from the other, they should be scored both.

1.2 DYSTONIA

General description
Dystonia is a syndrome of continuous muscle contractions (spasms) often causing slow, twisting and repetitive movements or an abnormal posture. Many dystonic movements are action-specific (meaning: they are connected to a certain provoking factor). Touching a specific dermal area or supporting an affected part of the body may, subjectively or objectively, cause relief of the complaint (sensory tricks). The dystonia usually starts in the face or the neck and often is progressive. There is a classification in which it is indicated which areas of the body have been affected (focal-, segmental-, generalised-, multi-focal-, and hemi-dystonia). There is, however, no need to take this classification in consideration here. The SADIMoD is not suitable to assess certain acute dystonic phenomena such as acute oculogyric crises.

Dystonia, must be distinguished from and/or, not be scored together with:
- Dyskinesia, with muscle contractions that last shorter than two seconds.
- Conversion, with the typical dynamic component missing.
- Mannerisms, where a goal-oriented complex movement with a social meaning, a gesture, is repeated.
- Stereotypies, where a certain, not-goal-oriented, complex movement is repeated.
  However, dyskinesia and dystonia may occur simultaneously; if this is the case, score them both.

1.3 AKATHISIA

General description
The definition of akathisia is based on subjective as well as on objective symptoms. Subjective, psychic symptoms are described by a sensation of restlessness, nervousness, "feeling itchy" (feeling anxious or panicky). Characteristics of this subjective experience are: the perception of a foreign but nevertheless inner compulsion to move; the lack of control over motor behaviour; the feeling of inhibition of purposeful actions and subjectively the close or inseparable relationship between the inner restlessness and the restless movements. Whatever description the patient may give, it should refer to an aversion against standing- or sitting still, that is reduced by moving. Objective, motor symptoms are an increased, abnormal frequency of movements that often are complex and stereotype. The patient may consciously suppress these movements. In serious cases it is not possible to sit- or lie still for any longer then a few minutes and the akathisia will lead to sleeplessness.

In most cases the legs have been affected with walking on the spot during standing, shuffling with the feet, crossing and uncrossing the legs, fast abduction and adduction of the legs or pumping and up and down movement of a leg. In severe cases continuous walking back and forth is seen (tasikinesia). Also movements of the torso are frequently observed, such as bending forward and backward ("rocking") and continuous shifting one's position or turning when lying down. Less frequent are arm- and hand movements, such as stroking of the face or of the hair, scratching the face or the head, crossing and uncrossing the arms, twisting of the fingers, plucking at the clothing. Also movement in the face (chew- and tongue movement) are not very frequent, head movements and/or an irregular breathing (panting, grunting, screaming, groaning). The patient may also express tedious behaviour by continuously approaching people, interrupting conversations and continuously repeating of questions.

Akathisia is scored by applying an objective scale and a subjective scale. The scale lies the emphasis on the urge to move the legs. The subjective item is subdivided into two sub-items being 'being aware of' and 'being bothered by'. For both sub-items the score runs from zero up to four. The overall total of both sub-items forms the end-result. Characteristic movements of other parts of the body are included in the global assessment. For a positive approach in this matter the presence of the urge or inner unrest to move is essential. When this urge is absent and/or the patient is not aware of the movements a global score of '0' should be given (pseudo-akathisia).

(Psychic) akathisia must be distinguished from and/or not be scored together with:
- Anxiety, agitation and restlessness, with the urge to move is not considered primary by the patient and sometimes the relation between moving and reduction is not realised by the patient.
- Restless legs, with the urge to move is typically present during a limited period of time, often at night or just before going to sleep.
- Dyskinesia with involuntary movements and no answer to an inner unrest or urge to move.
- Mannerisms, with a goal-oriented complex movement with a social meaning, a gesture, is repeated.
- Stereotypies, where a certain, not-goal-oriented, complex movement is repeated.

However, motor akathisia may be indistinguishable from complex dyskinetic movements of legs and feet; in this case they should be scored both.

1.4 PARKINSONISM

Parkinsonism is a syndrome that, regarding its symptoms, shows a resemblance with Parkinson's disease. Akinesia is a prime aspect. Hypertonicity and autonomous phenomena are observed less frequent, usually later and/or in more serious cases. The typical Parkinson-tremor often develops in a later stage and is relatively uncommon. The symptoms are often asymmetric. In that case the most severely affected side should be considered.

The bradykinesia, hypokinesia and akinesia manifest themselves in a reduction and/or slowing down of spontaneous movements (blinking of the eyes), associated movements (swaying arms during walking) and wanted movements. Light akinesia manifests itself in complaints about fatigue and weakness, micrographia, reduction of the facial expression and associated movements and a soft monotonous speech. In case of a more serious affection there are more complaints regarding muscular pain and the akinesia becomes more obvious, with ultimately the almost complete loss of facial expression and severe reduction and slowing of all movements.
Rigidity is often preceded by symptoms such as weakness, paresthesia and arthralgia. Also there are complaints about being slowed down and muscular rigidity. The hypertonia can be asymmetric and, in a first instance, can often be recognized clearly in an increased reflex of the biceps and/or in passive rotation of the wrists. The rigidity of the extremities, the neck and the torso also results in a characteristic posture (flexion) and gate. Moreover, pro-, latero- and/or retropulsion may be present. In passive bending and stretching of the arm a plastic resistance (rigidity) is felt over the entire trajectory. Also rhythmic fluctuations of the resistance are felt, often in another frequency than the tremor and in particular when the patient carries out a movement with the other arm (cogwheel phenomenon).
The autonomous symptoms include hyper-salivation (drooling) and seborrhoea (oily skin).
The typical Parkinson-tremor is recorded in particular in the arms, the hands, the fingers, the head, the tongue and the perioral area (upper lip). It is a relatively slow, sometimes fine and sometimes flapping, rest tremor of 3-7 Hz (usually 5 Hz), that creates the impression of counting money or rolling pills. The tremor often remains in existence or even increases as a postural tremor, but disappears completely during complete relaxation or sleeping and often too during goal-oriented movements.
In the Parkinsonism sub-scale the tremor is scored irrespective from its localisation.

Parkinsonism should be distinguished from and/or not be scored together with:
- Sedation, with a reduced consciousness and the patient complaining about sleepiness.
- Akinesia, which is considered to be primarily related to the psychiatric syndrome (psychomotor retardation, apathy, catatonia).
- Hypertonia, which is considered to be related to the psychiatric syndrome (anxiety, negativism, catatonia).
- Intention tremor, kinetic tremor, task-specific tremor and hysterical tremor.
- Dyskinesia, where the contractions take place unevenly, irregularly and/or with clear motionless intervals.

However, when it is impossible to distinguish these movement disorders, or when they occur simultaneously, they should be scored both.

1.5 TREMOR

General description
Tremors are frequent, rhythmical and continuous pendular movements in one or more vibratory planes, without vibration free intervals. They are primary classified on the basis of the circumstances under which they manifest themselves: in rest, postural and intention tremors. They are often asymmetric and can affect all parts of the body, but are most frequent in the upper extremities, the head and the tongue. To be able to properly assess the separate types in this context only tremors in the most affected upper extremity are quantified. Postural tremors may, depending on the genesis, be subdivided further into fast, moderate and slow tremors. Task-specific tremors (primary writing tremor, vocal tremor and orthostatic tremor) are left outside of consideration here.

Tremor should be distinguished from and/or not be scored together with:
- Dyskinesia, with uneven contractions occurring irregular or - when continuous - occurring and increasing during activity.
- Ataxia (serial dysmetria), with movements that are not rhythmic.
- Conversion, with tremors that are irregular and variable and in addition show the inclination to disappear when the patient is distracted.

However, when it is impossible to distinguish these movement disorders, or when they occur simultaneously, they should be scored both.

1.6 ATAXIA

General description
Ataxia is the absence of orderly and accurate moving, without a substantial decrease of the control of movements due to muscular weakness. With ataxia the symptom is a disorder of the tonic voluntary and reflexive muscular contractions, that are essential for maintaining posture and balance (static or posture ataxia) or a change in direction and the extent of voluntary movements (dynamic or movement ataxia).

There is a distinction between:
- Cerebellar ataxia, with the patient complaining about 'an insecure feeling in the legs.' The motion disorders are insensitive to closing of the eyes and consist of: dysmetria or hypermetria (disorder in the amplitude of movements), dyssynergy (disorder in combining elementary movements), dysdiadochokinesia (disorder of the fast and rhythmic alternating of movements), tremors (disorder where it concerns keeping the muscles tightened evenly) and dyschronometria (disorder concerning the timely starting and stopping of movements).
- Sensory ataxia, with closing the eyes resulting in deterioration and the test of Romberg being positive in severe cases.
- Vestibular ataxia, with the patient complaining about 'dizziness in the head.'

Sometimes, two other forms of ataxia are distinguished: i.e. frontal ataxia and extrapyramidal ataxia. Phenomenologically, these forms of ataxia closely resemble cerebellar ataxia, although the lesion causing the movement disorder is not localised in that part of the brain.

Ataxia should be distinguished from and/or not be scored together with:
- Tremors, with rhythmic movements.
- Mannerisms, where a goal-oriented complex movement with a social meaning, a gesture, is repeated.

1.7 POTENTIAL PROBLEMS

In general, one should score objectively what is seen during the examination, without considering what the cause may be.

The following conditions may offer problems while scoring:
* It may be difficult to distinguish one disorder from the other. In this case they should be scored both.
* When it is not clear whether or not the patient simulates certain disorders or whether or not he/she aggravates them, the examiner should stick to what is observed.
* When it is impossible to score an item because the patient is unable to accomplish the demanded movement, one should value this item with a score 1 (dubious). However, when the patient is not able to accomplish the demanded movement due to the severity of the movement disorder, this item should be given score 4 (severe)
* Dyskinesias can be distinguished from dystonias by means of the duration of the muscle contraction.
* Dyskinesias, tremors and motor symptoms of akathisia are sometimes not easily distinguished from each other. A rest tremor is a relatively late symptom in Parkinsonism and seldomly occurs in the legs. Dyskinesias are irregular and/or - when continuous - occur and increase during activity. When it is nevertheless impossible to distinguish these disorders, they should be scored all.
* The frequency of eye blinking is considered when assessing dyskinesias of the face, dystonia of the eyelids (mild blepharospasm) and bradykinesia of the face (Parkinsonism). An average frequency of 15 blinks per minute is normal. The first 30 seconds of the test are best rejected.
* Signs of Parkinsonism, for example hypokinesia, hypersalivation, or rigidity, and hyperkinesias of the tongue may become more evident during the course of the examination or in the writing of the patient. In this case the score given in the microphone should be adapted.
* In scoring the item tremor of the Parkinsonism sub-scale the whole body is considered, while in the tremor sub-scale only tremors of the upper extremity are taken into account.
* Ataxia may not be scored when paresis or paralysis causes the movement disorder.
* Dysarthria in ataxia should be distinguished from the altered speech due to dyskinesias or dystonia.
* The most intense movements should be scored, when the severity varies or shows asymmetry.
* The global score offers the opportunity to the rater to adapt the score when he/she doubts the true nature of the movement disorder.

2.1 DYSKINESIA

2.1.1 Jaw

Biting-, chewing-, grinding- and crunching movements, repetitive opening and closing of the mouth, lateral movements and other involuntary movements in the temporomandibular joint.

0: (absent-normal)
The above-described movements are not present.
1: (dubious)
2: (mild)
The above-described movements are intermittently present.
3: (moderate)
The above-described movements are present during more then half of the time.
4: (severe)
The above-described movements are continuously present.

Score active: **Score passive:**

2.1.2 Tongue

Licking movements, repetitive sticking out of the tongue ('flycatcher tongue'), worm-like irregular movements of the tongue, curling of the tongue, incapable of sticking out one's tongue and holding it in that position, bulging of the cheek and the lips with the tongue ('bonbon mouth'). Do not exclusively score movements during the tongue tasks.

0: (absent-normal)
The above-described movements are not present.
1: (dubious)
2: (mild)
The above-described movements are intermittently present.
3: (moderate)
The above-described movements are present during more then half of the time.
4: (severe)
The above-described movements are continuously present.

Score active: **Score passive:**

2.1.3 Lips and around the mouth

Pointing the lips, biting the lips or murmur, smacking- or sucking movements.

0: (absent-normal)
The above-described movements are not present.
1: (dubious)
2: (mild)
The above-described movements are intermittently present.
3: (moderate)
The above-described movements are present during more then half of the time.
4: (severe)
The above-described movements are continuously present.

Score active: **Score passive:**

2.1.4 Face (mimic muscles)
Involuntary movements (myoclonias or tics or jerks, also athetotic movements) of the forehead (frowning), eyebrows (pulling up, frowning), eyelids (winking, blinking), cheeks (smile, grimace), corner of mouth or the platysma.

0: (absent-normal)
The above-described movements are not present.
1: (dubious)
2: (mild)
The above-described movements are intermittently present.
3: (moderate)
The above-described movements are present during more then half of the time.
4: (severe)
The above-described movements are continuously present.

Score active: **Score passive:**

2.1.5 Torso (neck, shoulders, hips)
Disturbed posture and gait with swinging and/or jerking and/or twisting and/or swaying movements of the torso, pulling one's shoulders, rotating hip movements and canting the pelvis, contracting the nates/thighs. Also head and neck dyskinesias should be assessed at this place.

0: (absent-normal)
The above-described movements are not present.
1: (dubious)
2: (mild)
The above-described movements are intermittently present.
3: (moderate)
The above-described movements are present during more then half of the time.
4: (severe)
The above-described movements are continuously present.

Score active: **Score passive:**

2.1.6 Upper extremities (arms, wrists, hands and fingers)
Repetitive bending, stretching, spreading and closing or rubbing of the fingers, as well as choreatic movements (mostly distal, quick and abrupt, irregular, spontaneous, jerking movements), sometimes ballistic (mostly proximal, fast and explosive, irregular, spontaneous, swaying movements), sometimes myoclonic (fast and abrupt, often repetitive, spontaneous muscle- or muscle group contractions) and also distal athetotic movements (continuous, slow and tonic, snakelike wave-movements, that merge into one another smoothly).

0: (absent-normal)
The above-described movements are not present.
1: (dubious)
2: (mild)
The above-described movements are intermittently present.
3: (moderate)
The above-described movements are present during more then half of the time.
4: (severe)
The above-described movements are continuously present.

Score active: **Score passive:**

2.1.7 Lower extremities (legs, knees, ankles and toes)
Repetitive bending, stretching, spreading and closing or rubbing of the toes, as well as choreatic movements, sometimes ballistic, sometimes myoclonic and also distal athetotic movements, for instance lateral movement of the knees, the canting, turning and stretching of the foot, making tapping movements on the ground with the front part of the foot or the heel. Can be indistinguishable from akathisia or tremor.

0: (absent-normal)
The above-described movements are not present.
1: (dubious)
2: (mild)
The above-described movements are intermittently present.
3: (moderate)
The above-described movements are present during more then half of the time.
4: (severe)
The above-described movements are continuously present.

Score active: **Score passive:**

2.1.8 Dyskinesia, global impression
On scoring this sub-item the assessor takes all the information he/she has available as well as all clinical experience into account and expresses the severity of the dyskinesia in a number. When the observed hyperkinetic movements are no true dyskinesias in the opinion of the assessor, he/she should score '1' or '0'.

0: (absent)
1: (dubious)
2: (mild)
3: (moderate)
4: (severe)

Score active: **Score passive:**

2.2 DYSTONIA

The dystonic movements are scored in two scales: one scale for the severities of the dystonia per part of the body, and one scale for the importance of a provoking factor that is related to the dystonic movement or posture involved. The product of these two scales is multiplied by a weight factor A for the part of the body involved. The item 'speech and swallowing' has another scale where the provoking factor is concerned (see under that item).

Provoking factor:
0: No dystonia present in rest or in action.
1: Dystonia only manifests itself when the part of the body that is scored, is activated, and only during a certain activity (for instance dystonia of the hand during writing)
2: Dystonia only manifests itself when the part of the body that is scored, is used. Different movements may be responsible for the dystonia in this situation.
3: Dystonia is present in the area of the body that is scored while the patient is activating another area of the body (overflow) (for instance dystonia of the foot while at the same time the hands are opened and closed).
4: Dystonia is present during sitting in rest.

2.2.1 Eyes

Blepharospasm is a fast tonic or clonic contraction of the eyelid muscles occurring paroxysmally, involuntarily. These spasms of the eye muscles may consist of repeated, variable episodes of blinking one's eyes that may last from anything between seconds up to hours or to lasting spasms of the eyelids, resulting in functional blindness. Count during the last 30 seconds of the test. Normal persons show 15 blinks per minute.

0: (absent-normal)
No dystonia present.
1: (dubious)
Incidental blinking.
2: (mild)
Repeated blinking without spasm or keeping one's eyes closed.
3: (moderate)
Continued spasm of the eyelid, when the eye is closed. The eyes are open most of the time.
4: (severe)
Continued spasm of the eyelid, when the eye is closed. The eyes are closed during more then **30%** of the time.

Score provoking factor: **Score severity:** **A = 0,5**

2.2.2 Mouth

Grimacing, trismus (tonic lockjaw), wide opening of the mouth, asymmetric tongue contractions, tongue protrusion.

0: (absent-normal)
No dystonia present.
1: (dubious)
Incidental grimacing or other movements of the mouth, jaws or tongue.
2: (mild)
The above-described movements are present during less than half of the time.
3: (moderate)
The above-described movements are present during more then half of the time and their severity is moderate
4: (severe)
The above-described movements are present during more then half of the time and very severe.

Score provoking factor: **Score severity:** **A = 0,5**

2.2.3 Speech and swallowing

Difficulty with speaking and swallowing may be caused by spasms in the area of the throat. This laryngeal/pharyngeal dystonia may involve a speech stop, cyanosis, impaired breathing, choking and smothering spells. Another 'severe' score is diaphragmal dystonia: episodes of respiratory spasms, grunting, snoring, panting, a changed frequency of breathing and depth of breathing (usually labored breathing) and a disrupted breathing rhythm.

0: (normal-absent)
No dystonia present.
1: (dubious)
Speech and swallowing have been affected a little, it is not difficult to hear the speech or the patient incidentally chokes.
2: (mild)
It takes some effort to hear the speech or the patient chokes frequently.
3: (moderate)
It takes great effort to hear the speech or it is very difficult to swallow solid food.
4: (severe)
Complete or almost complete anarthria, or extreme difficulty swallowing even porridge-like food or fluids.

Provoking factor in speaking and swallowing (see questionnaire):
1: Incidental (<1 episode per month) difficulty with speaking, swallowing or both.
2: One of both occurs often (>1 episode per month).
3: One of both occurs often and the other incidentally.
4: Both occur often.

Score provoking factor: **Score severity:** **A = 1,0**

2.2.4 Neck

Torticollis spasmodica is a continuous contraction of the m. sternocleidomastoideus with rotation and flexion of the head in the contralateral direction. There may be a continuous dystonic posture or intermittent dystonic movements. Rotation of the head is observed most frequently, followed by latero-, retro- en anteflexion. Usually a combination of these symptoms is observed.

0: (normal-absent)
No dystonia present.
1: (dubious)
Every now and again a cramp of the neck muscles.
2: (mild)
Torticollis or retrocollis is present in a mild form.
3: (moderate)
Torticollis or retrocollis is present in a moderate form.
4: (severe)
Torticollis or retrocollis is present in an extreme form.

Score provoking factor: **Score severity:** **A = 0,5**

2.2.5 Torso

Observed are: a scoliotic positioning of the back as a result of dystonic muscle groups (lateral curvature of the spinal column), lordosis (intensified curvature of the spinal column), opisthotonos (spasmodic stretching backwards of the body) and tortipelvis (rotation pelvis). Included are cramps of the shoulder muscles that result in kyphosis or scoliosis. Not included is tortipelvis that results primary in movement of the lower extremities.

0: (absent-normal)
No dystonia present.
1: (dubious)
Light bending, clinically insignificant.
2: (mild)
Dystonia is present, but this has no influence on standing or walking.
3: (moderate)
Dystonia is present, and this affects standing and walking.
4: (severe)
Extreme dystonia of the torso, which makes standing and walking impossible.

Score provoking factor: **Score severity:** **A = 1,0**

2.2.6 Right arm

Slow, continuous, mostly proximal movements and/or compulsive positioning of the right-hand side upper extremity (arm, hand, and fingers) or of the shoulder muscles, if this results in movements of the arm (for instance endo-rotation or exo-rotation).

0: (normal-absent)
No dystonia present.
1: (dubious)
Dystonia is present to a small degree, but this has no clinical significance.
2: (mild)
Dystonia is present, but this is not disabling.
3: (moderate)
The patient is capable of getting hold of something because there is a residual function of the hand.
4: (severe)
The patient is not capable of getting hold of something.

Score provoking factor: **Score severity:** **A = 1,0**

2.2.7 Left arm

Slow, continuous, mostly proximal movements and/or compulsive positioning of the left-hand side upper extremity (arm, hand, and fingers) or of the shoulder muscles, if this results in movements of the arm (for instance endo-rotation or exo-rotation).

0: (normal-absent)
No dystonia present.
1: (dubious)
Dystonia is present to a small degree, but this has no clinical significance.
2: (mild)
Dystonia is present, but this is not disabling.
3: (moderate)
The patient is capable of getting hold of something because there is a residual function of the hand.
4: (severe)
The patient is not capable of getting hold of something.

Score provoking factor: **Score severity:** **A = 1,0**

2.2.8 Right leg

Slow, continuous, mostly proximal movements and/or compulsive positioning of the right-hand side lower extremity (leg, foot and toes) or of the hip- and pelvis muscles, if this results in movements of the leg (for instance endo-rotation or exo-rotation). Inverted plantar-flexed position of the foot and a corresponding characteristic dystonic gait (walking on the edge of the feet).

0: (absent-normal)
No dystonia present.
1: (dubious)
Light form of dystonia, clinically insignificant.
2: (mild)
Dystonia is present, the patient walks briskly and without aids.
3: (moderate)
Walking is a considerable effort or assistance is needed.
4: (severe)
It is not possible to stand or to walk with the affected leg.

Score provoking factor: **Score severity:** **A = 1,0**

2.2.9 Left leg

Slow, continuous, mostly proximal movements and/or compulsive positioning of the left-hand side lower extremity (leg, foot and toes) or of the hip- and pelvis muscles, if this results in movements of the leg (for instance endo-rotation or exo-rotation). Inverted plantar-flexed position of the foot and a corresponding characteristic dystonic gait (walking on the edge of the feet).

0: (absent-normal)
No dystonia present.
1: (dubious)
Light form of dystonia, clinically insignificant.
2: (mild)
Dystonia is present, the patient walks briskly and without aids.
3: (moderate)
Walking is a considerable effort or assistance is needed.
4: (severe)
It is not possible to stand or to walk with the affected leg.

Score provoking factor: **Score severity:** **A = 1,0**

2.2.10 Dystonia, global impression:
On scoring this sub-item the assessor takes all the information he/she has available as well as all clinical experience into account and expresses the severity of the dystonia in a number. When the observed movements are no true dystonias in the opinion of the assessor, he/she should score '1' or '0'.

0: (absent)
1: (dubious)
2: (mild)
3: (moderate)
4: (severe)

Score:

2.3 AKATHISIA

2.3.1 Objective (motor)
Shuffling or trampling with the legs/feet, swaying of a leg (sitting) and/or continuously shifting the weight from one leg to the other ("walking on the spot"). When the movements are indistinguishable from dyskinesias or tremor, they should be scored both.

0: (absent-normal)
No akathisia present.
1: (dubious)
2: (mild)
Observation of characteristic restless movements, but the movements are observed less than half of the observation time.
3: (moderate)
Observation of characteristic movements during at least half the observation time.
4: (severe)
Constant presence of the characteristic restless movements and/or it is not possible for the patient to remain seated or standing during observation without walking back and forth or without stepping.

Score:

2.3.2 Subjective (psychic)
The answers of the questionnaire should prevail.

0: No inner restlessness and/or a non-specific realisation of inner restlessness.
2: The patient is aware of the fact that he/she cannot keep his/her legs still, or has the urge to move the legs and/or complains about an inner restlessness that worsens typically when the patient is forced to stand still.
4: The patient is aware of a strong urge to move most of the time and/or expresses to have a strong urge to walk or to step most of the time.

Experiencing an inconvenience due to restlessness.
0: No inconvenience.
1: Light.
2: Moderate.
3: Severe.
4: Very severe inconvenience due to akathisia.

Score 1: **Score 2:** **Overall-score:**

2.3.3 Akathisia, global impression
On scoring this sub-item the assessor takes all the information he/she has available as well as all clinical experience into account and expresses the severity of the akathisia in a number. In the case of pseudo-akathisia (restlessness without the corresponding subjective feelings) the score should be '0'.

0: (absent)
1: (dubious)
2: (mild)
3: (moderate)
4: (severe)

Score:

2.4 PARKINSONISM

2.4.1 Facial expression
0: (absent-normal)
Normal. Lively. Without staring.
1: (dubious)
Set face, but could also be a normal 'poker face'.
2: (mild)
An immobility can be observed. Mouth remains closed.
3: (moderate)
Immobility moderate. It is clearly more difficult to show emotions. Sometimes the lips are parted. Ptyalism (drooling) can be observed.
4: (severe)
'Frozen' face. Mouth is opened half a centimetre or more. Ptyalism (drooling) can be severe.

Score:

2.4.2 Bradykinesia
Slowing and reduction of amplitude of spontaneous, associated and intended movements.

0: (absent-normal)
1: (dubious)
2: (mild)
Movements slightly reduced. For instance a slightly reduced arm sway during walking or a reduced mimic
3: (moderate)
Reduction of the mobility becomes more obvious, for instance retarded walking.
4: (severe)
Very obvious reduction of the mobility, (verging on) akinesia, for instance very short paces when walking.

Score:

2.4.3 Tremor

Rest tremor of approximately 3-7 Hz 'movements as if one is counting money'. May occur in the arms, hands, fingers, head, tongue or the peri-oral area (upper lip), but seldomly the lower extremities. Should be scored regardless its localisation.

0: (normal-absent)
1: (dubious)
2: (mild)
Very light tremor of which the patient experiences no inconvenience.
3: (moderate)
Clearly observable tremor of which the patient experiences inconvenience. The amplitude of the tremor to the fingers is less than 3 cm.
4: (severe)
A clear tremor with an amplitude in excess of 3 cm, that cannot be suppressed by the patient.

Score:

2.4.4 Posture

0: (absent-normal)
Normal posture. Head is stooped forward less than 10 cm.
1: (dubious)
2: (mild)
Beginning of a 'poker' spinal column.
3: (moderate)
Beginning of flexion of the arms. One or both arms pulled up, but not higher than the waist.
4: (severe)
Beginning of the 'ape posture'. Head stooped forward over 15 cm. One or both arms pulled up to a position over the waist. Beginning of spreading of the fingers. Beginning of bending the knees.

Score:

2.4.5 Swaying of the arms

0: (absent-normal)
Both arms sway normal.
1: (dubious)
2: (mild)
Reduced swaying in at least one arm.
3: (moderate)
Complete absence of swaying in at least one arm.
4: (severe)
Complete absence of swaying in both arms.

Score:

2.4.6 Gait

Compare the length of the paces with the 30-cm strips of the blocked band on the floor.

0: (absent-normal)
Patient walks normal, with paces of 50-75 cm. Effortlessly turns around.

1: (dubious)

2: (mild)
Length of pace reduced to 30-50 cm. Beginning of dragging with one heel.
Turning around takes more time and more paces are needed.

3: (moderate)
Length of pace reduced to 15-30 cm. An obvious dragging with both heels.

4: (severe)
Beginning of shuffling instead of walking with paces of less then 8 cm. Sometimes walking is interrupted. Walks on the front part of the feet or the toes (scurrying). Turns around very slowly.

Score:

2.4.7 Rigidity

The rigidity score, given in the microphone, should be adapted in consequence of deviating observations during the course of the examination.

0: (absent-normal)
Normal muscle tone. No resistance against passive moving can be observed.

1: (dubious)

2: (mild)
Resistance against passive moving can be observed, but the resistance is of little significance and not constant during the entire trajectory of the passive movement.

3: (moderate)
Resistance against passive moving can be observed during the entire trajectory of the passive movement, but the movement can be made across the entire trajectory without too much effort.

4: (severe)
The resistance against passive moving is such that the examiner has to make a real effort to make the movement across the entire trajectory of the passive movement, or that it is not possible to make the movement across the entire trajectory.

Score:

2.4.8 Salivation

The salivation score, given in the microphone, should be adapted in consequence of deviating observations during the course of the examination.

0: (absent-normal)
Salivation has not increased.

1: (dubious)

2: (mild)
Salivation has clearly increased (pool of saliva in the mouth), but not inconvenient.

3: (moderate)
Increase of salivation is inconvenient. Spitting or frequent swallowing of the saliva is necessary. In exceptional cases drooling has been observed.

4: (severe)
Frequent or continuous drooling, possibly in combination with impaired speech.

Score:

2.4.9 Parkinsonism, global impression.
On scoring this sub-item the assessor takes all the information he/she has available as well as all clinical experience into account and expresses the severity of the Parkinsonism in a number. When the observed phenomenon is not true Parkinsonism in the opinion of the assessor, he/she should score '1' or '0'.

0: (absent)
1: (dubious)
2: (mild)
3: (moderate)
4: (severe)

Score:

2.5 TREMOR

Only tremors in the upper extremities are considered. The most intense tremor should be scored, when the severity varies or shows asymmetry.

2.5.1 Rest tremor
Tremor of approximately 5 Hz (3-7 Hz) in the relaxed lying or supported, hanging arms, hands or fingers. Flexion/extension-movements in the elbow, pronation/supination-movements in the forearm and 'movements as if one is counting money'. The tremor is usually reduced by activity of the affected limbs.

0: (normal-absent)
1: (dubious)
2: (mild)
Very light tremor of which the patient experiences no inconvenience.
3: (moderate)
Clearly observable tremor of which the patient experiences inconvenience. The amplitude of the tremor of the fingers is less than 3 cm.
4: (severe)
Very obvious tremor with an amplitude in excess of 3 cm, that cannot be suppressed by the patient.

Score:

2.5.2 Postural tremor
Postural or static tremor in the arms, hands and fingers, that are held in a stretched-out forward position. In general the tremor disappears in rest. Three velocities are considered: fast (about 10 Hz), moderate (about 6 Hz) and slow (about 3 Hz).

0: (normal-absent)
1: (dubious)
2: (mild)
Very light tremor of which the patient experiences no inconvenience.
3: (moderate)
Clearly observable tremor of which the patient experiences inconvenience. The amplitude of the tremor of the fingers is less than 3 cm.
4: (severe)
Very obvious tremor with an amplitude in excess of 3 cm, that cannot be suppressed by the patient.

Score:

2.5.3 Intention tremor
Kinetic tremor of approximately 4 Hz (3-5 Hz), that often increases in amplitude when the target is neared during the tip-nose task and disappears when the target is reached.

0: (normal-absent)
1: (dubious)
2: (mild)
Very light tremor of which the patient experiences no inconvenience.
3: (moderate)
Clearly observable tremor of which the patient experiences inconvenience. The amplitude of the tremor of the fingers is less than 3 cm.
4: (severe)
Very obvious tremor with an amplitude in excess of 3 cm, that cannot be suppressed by the patient.

Score:

2.6 ATAXIA

2.6.1 Dysarthria
A disorder in the articulation with stumbling over one's own words when speaking fast, speaking with a thick tongue and slurring. The separate characters and syllables can be pronounced properly and the muscles can be used normally when swallowing. Dysarthria should be distinguished from the mumbling Parkinsonian speech or dyskinetic/dystonic speech problems.

0: (normal-absent)
1: (dubious)
2: (mild)
The speech has been affected lightly, but can be understood properly.
3: (moderate)
Clear dysarthria with disturbed intonation and an impaired rate of speech.
The words are spoken in separate syllables, chanted.
4: (severe)
Obvious dysarthria; it is as if the words are 'chewed and spitted out'.

Score:

2.6.2 Upper extremities (arms, wrists, hands and fingers)
Not being able to reach the tip of one's own nose in one flowing movement, correct in one go and with a gentle landing with the tip of the index finger of the arm stretched out sideways to the maximum position (tip-nose task). Not being able to move up and down (back and forth) fast with the index finger between the tip of one's own nose and the finger of the observer that is changing position (tip-tip task). Incapability of the forearm to supinate and pronate alternatingly fast (diadochokinesia task). Fast moving of the thumb opposite to the tips of the separate fingers of the same hand (thumb-finger tip tapping task). Increasing the distance between the grabbing fingers too much and grabbing too far when grabbing something between thumb and index finger (grab task). Scribble writing with irregular size and enlargement of the characters.

0: (normal-absent)
1: (dubious)
2: (mild)
Impaired thumb-finger tip test and light impairment of one of the other tests.
3: (moderate)
Clearly impaired tests, but at worst the thumb-finger tip test cannot be executed.
4: (severe)
Severely impaired tests, of which several cannot be executed at all.

Score:

2.6.3 Lower extremities (legs, knees, ankles and toes)
Bending the leg too far in the hip and kicking out the leg too far during walking (hypermetria). Not being able to, in one flowing movement without looking, place the heel of one leg on the knee of the other leg correctly in one go (heel-knee task I). Not being able, in one flowing movement without looking, to move the heel across the edge of the shin towards the great toe (heel-knee task II).

0: (normal-absent)
1: (dubious)
2: (mild)
One or both parts of the heel-knee test are lightly impaired. No clearly observable hypermetria during the gait.
3: (moderate)
Both parts of the heel-knee test are impaired, clearly visible hypermetria during the gait.
4: (severe)
Both parts are severely impaired, severe hypermetria during the gait or no gait possible at all.

Score:

2.6.4 Posture
Swaying and getting out of balance when standing with both feet closely together (with the front part of the feet together too) and both arms stretched out forward. In case of optical correction evaluate the severity with the patient keeping his/her eyes closed. Discriminate the inability to resist a slight push from the inability to correct an induced movement by a firm push in Parkinsonism (propulsion).

0: (normal-absent)
1: (dubious)
2: (mild)
Light staggering, but is able to maintain his/her balance for a while, with both feet closely together. Is incapable of withstanding a slight push.
3: (moderate)
Obvious staggering and is forced to widen his/her basis in order to maintain his/her balance for a while.
4: (severe)
Patient is not able to remain standing and is not capable of maintaining balance when sitting without support.

Score:

2.6.5 Gait
Walking straddle-legged, swaying, with irregular length of pace and a broad gait-trail, as 'a drunk'

0: (normal-absent)
1: (dubious)
2: (mild)
Walking slightly straddle-legged. Walking along a line is clearly impaired, also if the patient is allowed to look at his/her feet.
3: (moderate)
Clearly walking like a drunk, but is capable to maintain balance.
4: (severe)
Patient can only walk a few paces. Must then remain standing straddle-legged and staggering to maintain balance.

Score:

2.6.6 Ataxia, global impression
On scoring this sub-item the assessor takes all the information he/she has available as well as all clinical experience into account and expresses the severity of the ataxia in a number. When the observed movements are not truly ataxic in the opinion of the assessor, he/she should score '1' or '0'.

0: (normal-absent)
1: (dubious)
2: (mild)
3: (moderate)
4: (severe)

Score:

2.7 PSYCHIC SYMPTOMS

As part of the examination the assessor should always form an opinion regarding the psychological status of the patient. This global evaluation may in part be based on more specific information (for instance on what the patient has told and/or what he/she filled in on the questionnaire, possible supplemented with information supplied by a third party, the latter if the patient does not speak him-/herself or otherwise is not able to express him-/herself).

2.7.1 Sedation
0: (normal-absent)
No drowsiness.
1: (dubious)
2: (mild)
Slight drowsiness/grogginess, to judge by the facial expression or the speech.
3: (moderate)
More obvious drowsiness/grogginess. The patient yawns and tends to fall asleep if there is an interval in the conversation.
4: (severe)
It takes an effort to keep the patient awake.

Score:

2.7.2 Depression
0: (normal-absent)
Neutral or cheerful mood.
1: (dubious)
2: (mild)
The mood is more depressed and more gloomy then usual. The patient however still finds life worth living.
3: (moderate)
The mood is clearly depressed, possibly with non-verbal expression of hopelessness or weariness of life, but the patient has no direct plans to end his/her life.
4: (severe)
The verbal and non-verbal expressions of hopelessness and gloominess are strong and/or it is probable that the patient intends to commit suicide.

Score:

2.7.3 Psychosis

Thought disorders, delusions and hallucinations. Degree, in which the mental process is confused, is incoherent or has declined. The extent of the existence of an unusual, uncommon, strange or bizarre frame of mind. The extent of the existence of delusions and/or hallucinations.

0: (normal-absent)
1: (dubious)
2: (mild)
3: (moderate)
4: (severe)

Score:

2.7.4 Anxiety

Concern, fear, over-anxiousness with relation to the present and the future. Only the verbal expressions of the patient concerning his/her subjective experiences may be scored. It is not allowed to conclude that the patient suffers from anxiety based on physical phenomena or neurotic defense mechanisms.

0: (normal-absent)
1: (dubious)
2: (mild)
3: (moderate)
4: (severe)

Score:

"As we all know, the long-term treatment for psychiatric diseases can frequently be complicated by the occurrence of movement disorders.

These movement disorders may be drug-induced, related to the psychiatric disorder, or a neurological disorder may play an important role. Neurological disorders occur particularly in elderly and physically ill patients."

"A variety of movement disorders can occur: they may be extrapyramidal syndromes such as Parkinsonism, akathisia, dystonic reactions and dyskinesias; several types of tremors, and ataxia. It is quite common that patients suffer from more than one type of disorder at the same time. If this is the case, the severity of the separate disorders can vary independently. While studying the efficacy and safety of psychotropic drugs, the necessity to accurately measure the severity of these movement disorders is urgently felt. This may also be the case in normal psychiatric practice."

"At this moment, the objective of the available instruments is to measure the involuntary movement syndromes independently. In most cases no explicit criteria are given to distinguish different disorders. On top of that, definitions for severity scores are often absent. Our experiences with the currently available instruments made us decide to create a new test. We developed a strictly standardised examination schedule that is suitable to reveal the presence of involuntary movements in a reproducible manner."

"While creating the SADIMoD, we used the Sct. Hans Rating Scale for Extrapyramidal Syndromes as a framework. We also implemented other well-known involuntary movement assessment scales. Sometimes these were slightly modified."

"Finally, we added three sub-scales. The first was a sub-scale for the assessment of various tremors, classified according to Hallett. The second was a newly created sub-scale for the assessment of ataxia. And the last one was a sub-scale for the assessment of relevant psychiatric syndromes, such as psychosis, depression, anxiety and drowsiness."

"Some of the rating scales did not include strict definitions for severity scores. If this was the case, we adopted the definitions from the Scandinavian 'UKU Side Effect Rating Scale'. The writing test was obtained from H.J. Haase."

"The SADIMoD comes as a package containing different materials. It consists of a standardised examination schedule, a questionnaire to assess subjective complaints, a writing test, a rating form, and a glossary with the criteria for the classification of different movement disorders and the definitions of severity scores."

"Why would you use the SADIMoD."

"Well, there are 3 reasons. For a start, it is intended to be used as an instrument to assess the severity of different movement disorders in course of time in clinical trials, it is also an evaluation method of medication changes in daily clinical practice, and finally it is an evaluation method to investigate the course of movement disorders at the long term."

"Let's have a look in more detail at the disorders in question, and at the same time see some examples."

"First of all, let's look at Dyskinesia. In Dyskinesia we discern a passive and an active phase."

"This means that when dyskinesia occurs we look at whether the patient is actively involved in doing something (like writing or tapping). Dyskinesia can best be observed in the course of a conversation, while silent for 1 minute, while staring, fingertapping and while writing. When a patient is asked to touch his nose and then the finger of the investigator, the disorder is also frequently manifested."

"Secondly, there is Dystonia. In rating dystonia we apply a weight factor and a provoking factor. The product of these two and the severity score is the end result. You may look up the definition of the magnitude of the provoking factor in the glossary".

"Dystonia is observed clearly while performing the indexfinger-nose task and during the tapping task. The hand at rest frequently takes a dystonic position. In the rest of the test they appear as well. Dystonia of the eyes and mouth is of course easily observable. The speech and swallowing items should be found and rated by questioning. Look for dystonia of neck and limbs in the course of the test."

"Parkinsonism may well be evaluated during the short walk. Observe the typical gait which consists of starting and stopping problems, short and possibly dragging step, a stooping posture, and the turning around in very small steps. The arm wave is reduced or even disappeared. You can also deduce this bradykinesia from a diminishing of spontaneous movements."

"When you notice scribbling handwriting, score this under bradykinesia. The mask-like face may be visible continuously; it may cohere with drooling and signs of fear and depression. Emotions are being exposed in a lesser degree."

"While doing rigidity tests it is essential to move the wrists up and down a few times and to make some unpredictable, unexpected movements. Rigidity may become apparent only after a few movements and while the patient is not collaborating. Also, drooling is not always apparent while opening the mouth, but may become evident in the course of the investigation."

"Akathisia should be rated objectively by carefully observing the patient. Subjectively it will be scored by asking questions about restlessness in the lower limbs in particular, a restlessness which may be alleviated by moving the specific part of the body. By walking around, or moving while seated. Most of the time, akathisia is evident right away as the patient enters the room."

"When talking about tremors we discern the rest tremor, which disappears in movement; the postural tremor, differentiated into fast, moderate, and slow; and the intention tremor, which appears when the target is neared. For tremors, the rating form only gives a total score. A rest tremor is most obvious when the patient is relaxed. He needs to be put at rest. And you should not pay attention too closely specifically during the staring and the one minute silence part of the test. The postural tremor manifests itself while stretching the arms forwardly. When doing the tip-nose test and when pointing at or grabbing the finger of the examiner the intention tremor becomes apparent."

"The Romberg test gives information about the posture element of Ataxia. An ataxic pace is clear while walking along a line. Also, ataxia will show in the tip-nose and the knee-heel tasks of the upper and lower limbs respectively. Dysarthria on the other hand is sometimes difficult to assess. Compare with people who are drunk and you have a pretty good idea."

"As movement disorders are also determined by psychological condition, the degree of sedation, depression, psychosis and anxiety are scored as well. This is done by observation and by asking questions in accordance with the questionnaire."

"In general, one might say that you should score objectively what you see. It may be difficult to distinguish one disorder from the other as they present themselves in a similar way. For example: dyskinesias of the leg may be indistinguishable from akathisia. They may also be indistinguishable as they occur simultaneously. The answers to these types of problems are to 'score both of them'."

"If it is not clear whether the patient simulates certain disorders or if he aggravates them, score what you see! If the patient is not capable of performing an action you should score "uncertain", unless the disorder is so serious that this is the reason for him not being able to do the movement. In the last case, the score should be 4."

Disorders may not always be absolutely clear from the video-registration made during the test. Therefore, observe carefully and write the observation on the form, if necessary."

"If you have problems discerning dyskinesia from dystonia, it may be helpful to consider that the movement in dyskinesia is shorter than 2 seconds. They also may occur simultaneously; if this is the case, score both of them. It is also impossible to set severe Dyskinesias in the face (blinking of the eye) apart from mild dystonia of the eyes. In this case, again, score them both."

"As in all scales, there are pros and cons. What are the pros of SADIMoD? In SADIMoD, it is possible to score the individual, frequently occurring movement disorders separately and independently. The procedure is well standardised. There are several generally accepted and frequently used rating scales included. And, finally, the videotaping of the examination makes a retrospective, and even blind, assessment by several observers possible."

"Of course there are also disadvantages. One of them is that it is often difficult to distinguish different movement disorders, as they are part of a continuum. It may be a problem that the final scale has become quite complex. And finally, the execution of the examination procedure requires a specific setting which could be of influence on the character and/or the intensity of the observed movement disorders."

"So, how do you begin using the SADIMoD."

"We advise you to first read the glossary and study the definitions used in SADIMoD. This will ensure that you, as a rater, will start the examination at the desired level. Then, it may be a good idea to read the extended examination form in the glossary. By doing so, you will be better prepared to start the next steps, training yourself and executing actual tests. Included on this videotape you will find 3 video-registrations. You can use these registrations to try out scoring a test. Use the glossary as a reference while scoring. You can even compare your results with the results we included in the SADIMoD package. If you are confident to start testing, set up the video-equipment and get going."

"Oh yes, a final remark: notice that there are two elements, which are not scored on the scoring form. Of the elements, rigidity and salivation you need to mention the score into the microphone."

"Good luck!"

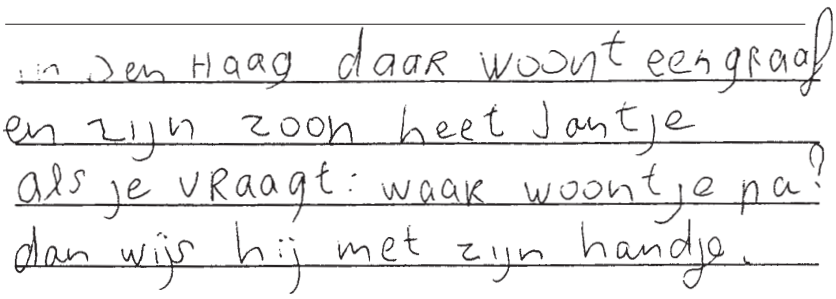
VI APPENDIX : Information about the videoregistrations on the videotape

On the videotape, which is delivered as part of the SADIMoD package, you will find 3 video-registrations for evaluation and testing. These registrations are produced using the video protocol included in SADIMoD. You may use these registrations to train yourself, to compare your score with the ones below, and to get a general idea on how to perform a SADIMoD examination. In contrast to the situation on these video-registrations, the patients are best examined without wearing shoes. The sensitivity of the tip-tip-task can be improved by having the patient aiming on the examiner's finger, while he moves his finger.
Below you will find a general description of the 3 patients in the video-registration.

Patient 1: J.M. 36 years old, 13:00 hr
Shows akathisia partly responding to lorazepam.
Present psychotropic medication: fluphenazine decanoate 200 mg/3 weeks i.m.
biperiden 2 - 2 - 2 - 0 mg/day
lorazepam 1.25 - 1.25 - 1.25 - 2.5 mg/day
methotrimeprazine (levomepromazine) 50 - 50 - 0 - 50 mg/day

Dutch writing test:

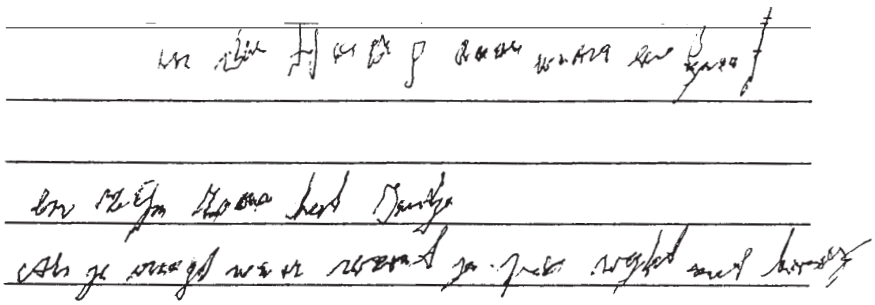
In Den Haag daar woont een
graaf en zijn zoon heet Jantje.
Als je vraagt: waar woont je pa?
dan wijst hij met zijn handje.



Patient 2: R.B. 64 years old, 13:30 hr
Shows more severe Parkinsonism after the addition of fluoxetine.
Present psychotropic medication: dothiepin (dosulepine) 0 - 0 - 0 - 150 mg/day
fluoxetine 20 - 0 - 0 - 0 mg/day
bromperidol 0 - 0 - 0 - 5 mg/day
oxazepam 50 - 50 - 50 - 0 mg/day
temazepam 0 - 0 - 0 - 20 mg/day

Dutch writing test:

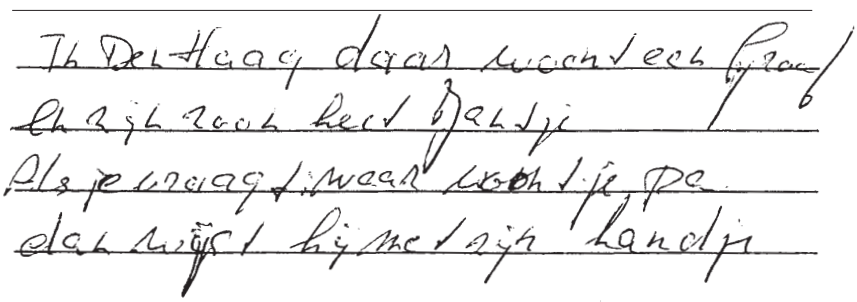
In Den Haag daar woont een
graaf en zijn zoon heet Jantje.
Als je vraagt: waar woont je pa?
dan wijst hij met zijn handje.



Patient 3: G.B. 53 years old, 14:00 hr
Developed severe dystonia after 11 years of treatment with haloperidol decanoate 30 mg/month i.m., partly responding to current treatment.
Present psychotropic medication: clozapine 200 - 0 - 200 - 0 mg/day
propranolol 20 - 0 - 20 - 0 mg/day

Dutch writing test:

In Den Haag daar woont een
graaf en zijn zoon heet Jantje.
Als je vraagt: waar woont je pa?
dan wijst hij met zijn handje.



VI APPENDIX : Information about the videoregistrations on the videotape

Notes:
The first patient has more severe subjective symptoms of akathisia than objective ones. However, outside the examination room objective symptoms were obviously present too. In addition, this patient suffers from mild Parkinsonism, ataxia and (orofacial) dyskinesias.

The second patient suffers from moderately severe Parkinsonism, in addition to dyskinesias, akathisia and ataxia. Note that this patient also shows a postural tremor. The hyperkinesias of the legs are irregular and more severe during activity and should be classified as dyskinesias. The item tremor of the Parkinsonism sub-scale is scored irrespective of its localisation. In the sub-scale tremors only hyperkinesias of the upper extremity are considered.

The third patient shows dystonia and dyskinesias, as well as very mild akathisia, Parkinsonism and ataxia. Note that the statements concerning subjective symptoms of akathisia during the examination differ from the answers to the questionnaire.

S A D I M o D

Schedule for the assessment of
drug-induced movement disorders

Date	16 June 97
Time	13.00 hours
Initials	J.M.
Patient nr.	1

The questionnaire to be filled out by the patient

Please answer the questions by encircling your answer. First a number of general questions will be asked. Next a number of questions follow on how you are feeling. Please pay attention to the time that is indicated with every question.Some questions do not apply to you. If that is the case you may encircle the answer "not applicable" (n.a.).

General questions

Do you carry a set of dentures?	yes	(no)	
if yes, do you now carry your set of dentures?	yes	no	(n.a.)
if yes, does your set of dentures fit properly?	yes	no	(n.a.)
Do you at this moment have a lot of salivation?	yes	(no)	
Do you at this moment have a dry mouth?	yes	(no)	

The following questions refer to how you are feeling <u>at this moment</u>.
With "this moment" we mean how you are feeling today, at this very moment.

Do you, at this moment, depressed ?	(yes)	no
Do you, at this moment, feel anxious ?	yes	(no)
Do you, at this moment, feel drowsy ?	(yes)	no
Do you, at this moment, feel restless ?	yes	(no)
Do you, at this moment have the urge to move your legs?	(yes)	no
Do you, at this moment, have the urge to get up and walk around?	(yes)	no

Are you, at this moment, bothered by this restlessness due to an urge to move?
(mark the right answer)

- ❍ n.a. (I do not feel restless)
- ❍ no problem
- ❍ a minor problem
- ☒ an average problem
- ❍ a serious problem
- ❍ a very serious problem

The following questions refer to how you were feeling during <u>the past week</u>.

During the past week, were you bothered by: intense fatigue? (yes) no

During the past week, were you bothered by: slowness in moving? (yes) no

During the past week, were you bothered by: rigidity in the muscles? (yes) no

During the past week, were you bothered by: an urge to move? (yes) no

An involuntary movement is a movement (of for instance an arm or a leg) that comes about without you wanting it to happen.
During the past week, were you bothered by: involuntary movements? yes (no)

During the past week, were you bothered by: muscle spasms? yes (no)

The following questions refer to how you were feeling during <u>the past four week</u>.

Does it happen to you that it suddenly becomes very difficult or impossible for you to speak? yes (no)

if yes, how many times did this happen during the past four weeks? _____

Does it happen to you that it suddenly becomes very difficult or impossible to swallow? yes (no)

if yes, how many times did this happen during the past four weeks? _____

Note: the examiner should explain the phenomena and verify the answers. The questionnaire overrules all other answers.

S A D I M o D

Schedule for the assessment of drug-induced movement disorders

Date	
Time	
Initials	
Patient nr.	1

1. DYSKINESIA

	Passive	Active
Jaw	2	2
Tongue	0	2
Lips	2	2
Face	1	1
Torso	0	1
Upper Extr.	0	1
Lower Extr.	0	0
Total	5	9
Dyskinesia Global	1	2

2. DYSTONIA

	Provoking Factor		Severity Factor		Weight Factor		Product
Eyes	1	x	1	x	0,5	=	0,5
Mouth		x		x	0,5	=	0
Speech/Swallowing		x		x	1,0	=	0
Neck		x		x	0,5	=	0
Torso		x		x	1,0	=	0
R Arm		x		x	1,0	=	0
L Arm		x		x	1,0	=	0
R Leg		x		x	1,0	=	0
L Leg		x		x	1,0	=	0
Total							0,5
Dystonia Global							0

3. AKATHISIA

Motor (objective)	2
Psychic (subjective)	6
Total	8
Akathisia Global	2

4. PARKINSONISM

Facial Expression	3
Bradykinesia	2
Tremor	0
Posture	2
Arm Sway	0
Gait	1
Rigidity	0
Salivation	1
Total	9
Parkinsonism Global	1

5. TREMOR

Tremor at rest	0
Postural Tremor	
○ Fast	
⊗ Moderate	
○ Slow	
Intention Tremor	2
Total	2

6. ATAXIA

Dysarthria	1
Upper Extr.	1
Lower Extr.	2
Posture	1
Gait	2
Total	7
Ataxia Global	2

7. PSYCHIC SYMPTOMS

Sedation	2
Depression	3
Psychosis	2
Anxiety	0

SCORING CODE

0	Absent
1	Dubious
2	Mild
3	Moderate
4	Severe

S A D I M o D

Schedule for the assessment of
drug-induced movement disorders

Date	16 June 97
Time	13:30 hours
Initials	R.B.
Patient nr.	2

The questionnaire to be filled out by the patient

Please answer the questions by encircling your answer. First a number of general questions will be asked. Next a number of questions follow on how you are feeling. Please pay attention to the time that is indicated with every question.Some questions do not apply to you. If that is the case you may encircle the answer "not applicable" (n.a.).

General questions

Do you carry a set of dentures?	(yes)	no	
if yes, do you now carry your set of dentures?	(yes)	no	n.a.
if yes, does your set of dentures fit properly?	(yes)	no	n.a.
Do you at this moment have a lot of salivation?	yes	(no)	
Do you at this moment have a dry mouth?	yes	(no)	

The following questions refer to how you are feeling <u>at this moment</u>.
With "this moment" we mean how you are feeling today, at this very moment.

Do you, at this moment, feel depressed ?	yes	(no)
Do you, at this moment, feel anxious ?	yes	(no)
Do you, at this moment, feel drowsy ?	yes	(no)
Do you, at this moment, feel restless ?	yes	(no)
Do you, at this moment, have the urge to move your legs?	(yes)	no
Do you, at this moment, have the urge to get up and walk around?	yes	(no)

Are you, at this moment, bothered by this restlessness due to an urge to move?
(mark the right answer)

- ❍ n.a. (I do not feel restless)
- ❍ no problem
- ☒ a minor problem
- ❍ an average problem
- ❍ a serious problem
- ❍ a very serious problem

The following questions refer to how you were feeling during <u>the past week</u>.

During the past week, were you bothered by: intense fatigue? yes (no)

During the past week, were you bothered by: slowness in moving? (yes) no

During the past week, were you bothered by: rigidity in the muscles? (yes) no

During the past week, were you bothered by: an urge to move? yes (no)

An involuntary movement is a movement (of for instance an arm or a leg) that comes about without you wanting it to happen.
During the past week, were you bothered by: involuntary movements? (yes) no

During the past week, were you bothered by: muscle spasms? yes (no)

The following questions refer to how you were feeling during <u>the past four week</u>.

Does it happen to you that it suddenly becomes very difficult or impossible for you to speak? yes (no)

if yes, how many times did this happen during the past four weeks? _____

Does it happen to you that it suddenly becomes very difficult or impossible to swallow? yes (no)

if yes, how many times did this happen during the past four weeks? _____

Note: the examiner should explain the phenomena and verify the answers. The questionnaire overrules all other answers.

S A D I M o D

Schedule for the assessment of drug-induced movement disorders

Date	
Time	
Initials	
Patient nr.	2

1. DYSKINESIA

	Passive	Active
Jaw	1	1
Tongue	1	3
Lips	1	2
Face	1	2
Torso	2	3
Upper Extr.	0	1
Lower Extr.	3	4
Total	9	16
Dyskinesia Global	2	3

2. DYSTONIA

	Provoking Factor		Severity Factor		Weight Factor		Product
Eyes		x		x	0,5	=	0
Mouth		x		x	0,5	=	0
Speech/Swallowing		x		x	1,0	=	0
Neck		x		x	0,5	=	0
Torso		x		x	1,0	=	0
R Arm		x		x	1,0	=	0
L Arm		x		x	1,0	=	0
R Leg		x		x	1,0	=	0
L Leg		x		x	1,0	=	0
Total							0
Dystonia Global							0

3. AKATHISIA

Motor (objective)	3
Psychic (subjective)	3
Total	6
Akathisia Global	1

4. PARKINSONISM

Facial Expression	3
Bradykinesia	3
Tremor	3
Posture	3
Arm Sway	2
Gait	3
Rigidity	3
Salivation	1
Total	21
Parkinsonism Global	3

5. TREMOR

Tremor at rest	0
Postural Tremor	
○ Fast	
⊘ Moderate	
○ Slow	
Intention Tremor	2
Total	2

6. ATAXIA

Dysarthria	0
Upper Extr.	2
Lower Extr.	1
Posture	0
Gait	2
Total	5
Ataxia Global	1

7. PSYCHIC SYMPTOMS

Sedation	0
Depression	0
Psychosis	0
Anxiety	0

SCORING CODE	
0	Absent
1	Dubious
2	Mild
3	Moderate
4	Severe

S A D I M o D

Schedule for the assessment of
drug-induced movement disorders

Date	16 June 97
Time	14:00 hours
Initials	G.B.
Patient nr.	3

The questionnaire to be filled out by the patient

Please answer the questions by encircling your answer. First a number of general questions will be asked. Next a number of questions follow on how you are feeling. Please pay attention to the time that is indicated with every question.Some questions do not apply to you. If that is the case you may encircle the answer "not applicable" (n.a.).

General questions

Do you carry a set of dentures?	yes	(no)	
if yes, do you now carry your set of dentures?	yes	no	(n.a.)
if yes, does your set of dentures fit properly?	yes	no	(n.a.)
Do you at this moment have a lot of salivation?	yes	(no)	
Do you at this moment have a dry mouth?	yes	(no)	

The following questions refer to how you are feeling <u>at this moment</u>.
With "this moment" we mean how you are feeling today, at this very moment.

Do you, at this moment, feel depressed ?	yes	(no)
Do you, at this moment, feel anxious ?	yes	(no)
Do you, at this moment, feel drowsy ?	yes	(no)
Do you, at this moment, feel restless ?	yes	(no)
Do you, at this moment, have the urge to move your legs?	(yes)	no
Do you, at this moment, have the urge to get up and walk around?	yes	(no)

Are you, at this moment, bothered by this restlessness due to an urge to move?
(mark the right answer)

- ❍ n.a. (I do not feel restless)
- ❍ no problem
- ☒ a minor problem
- ❍ an average problem
- ❍ a serious problem
- ❍ a very serious problem

The following questions refer to how you were feeling during <u>the past week</u>.

During the past week, were you bothered by: intense fatigue? yes (no)

During the past week, were you bothered by: slowness in moving? yes (no)

During the past week, were you bothered by: rigidity in the muscles? yes (no)

During the past week, were you bothered by: an urge to move? yes (no)

An involuntary movement is a movement (of for instance an arm or a leg) that comes about without you wanting it to happen.
During the past week, were you bothered by: involuntary movements? (yes) no

During the past week, were you bothered by: muscle spasms? (yes) no

The following questions refer to how you were feeling during <u>the past four week</u>.

Does it happen to you that it suddenly becomes very difficult or impossible for you to speak? yes (no)

if yes, how many times did this happen during the past four weeks? _____

Does it happen to you that it suddenly becomes very difficult or impossible to swallow? yes (no)

if yes, how many times did this happen during the past four weeks? _____

Note: the examiner should explain the phenomena and verify the answers. The questionnaire overrules all other answers.

S A D I M o D

Schedule for the assessment of drug-induced movement disorders

Date	
Time	
Initials	
Patient nr.	3

1. DYSKINESIA

	Passive	Active
Jaw	3	4
Tongue	2	3
Lips	3	4
Face	2	2
Torso	1	2
Upper Extr.	0	0
Lower Extr.	1	1
Total	12	16
Dyskinesia Global	2	3

2. DYSTONIA

	Provoking Factor		Severity Factor		Weight Factor		Product
Eyes	4	x	3	x	0,5	=	6
Mouth	4	x	4	x	0,5	=	8
Speech/Swallowing	0	x	0	x	1,0	=	0
Neck	4	x	3	x	0,5	=	6
Torso	2	x	2	x	1,0	=	4
R Arm	3	x	1	x	1,0	=	3
L Arm	3	x	1	x	1,0	=	3
R Leg		x	0	x	1,0	=	0
L Leg		x	0	x	1,0	=	0
Total							30
Dystonia Global							3

3. AKATHISIA

Motor (objective)	0
Psychic (subjective)	3
Total	3
Akathisia Global	0

4. PARKINSONISM

Facial Expression	0
Bradykinesia	1
Tremor	0
Posture	0
Arm Sway	2
Gait	0
Rigidity	0
Salivation	2
Total	5
Parkinsonism Global	0

5. TREMOR

Tremor at rest	0
Postural Tremor	
❍ Fast	
❍ Moderate	
❍ Slow	
Intention Tremor	0
Total	0

6. ATAXIA

Dysarthria	1
Upper Extr.	0
Lower Extr.	2
Posture	0
Gait	0
Total	3
Ataxia Global	1

7. PSYCHIC SYMPTOMS

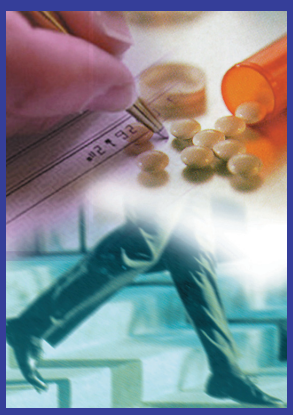
Sedation	0
Depression	0
Psychosis	0
Anxiety	0

SCORING CODE

0	Absent
1	Dubious
2	Mild
3	Moderate
4	Severe

S A D I M o D

Schedule for the assessment of drug-induced movement disorders



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Dr. A.J.M. Loonen and

C.H. Doorschot.