

## Abnormal Involuntary Movement Scale (AIMS) - Overview

- The AIMS records the occurrence of tardive dyskinesia (TD) in patients receiving neuroleptic medications.
- The AIMS test is used to detect TD and to follow the severity of a patient's TD over time.

### Clinical Utility

The AIMS is a 12 item anchored scale that is clinician administered and scored

- Items 1-10 are rated on a 5 point anchored scale.
  - Items 1-4 assess orofacial movements.
  - Items 5-7 deal with extremity and truncal dyskinesia.
  - Items 8-10 deal with global severity as judged by the examiner, and the patient's awareness of the movements and the distress associated with them.
- Items 11-12 are yes-no questions concerning problems with teeth and/or dentures, because such problems can lead to a mistaken diagnosis of dyskinesia.

### Examination Procedure

The indirect observation and the AIMS examination procedure are on the following two pages.

### Scoring<sup>1</sup>

1. A total score of items 1-7 (Categories I, II, III) can be calculated. These represent observed movements.
2. Item 8 can be used as an overall severity index.
3. Items 9 (incapacitation) and 10 (awareness) provide additional information that may be useful in clinical decision making.
4. Items 11 (dental status) and 12 (dentures) provide information that may be useful in determining lip, jaw and tongue movements.

### Psychometric Properties

The AIMS is a global rating method. The AIMS requires the raters to compare the observed movements to the average movement disturbance seen in persons with TD. Such relative judgments may vary among raters with different backgrounds and experience.

1. Rush JA Jr, *Handbook of Psychiatric Measures*, American Psychiatric Association, 2000, 166-168.

## AIMS Examination Procedure

Either before or after completing the AIMS on the following page, observe the patient unobtrusively at rest (e.g., in the waiting room).

The chair to be used in this examination should be a hard, firm one without arms.

### Questions

1. Ask the patient whether there is anything in his or her mouth (such as gum or candy) and, if so, to remove it.
2. Ask about the *current* condition of the patient's teeth. Ask if he or she wears dentures. Ask whether teeth or dentures bother the patient *now*.
3. Ask whether the patient notices any movements in his or her mouth, face, hands, or feet. If yes, ask the patient to describe them and to indicate to what extent they *currently* bother the patient or interfere with activities.
4. Have the patient sit in chair with hands on knees, legs slightly apart, and feet flat on floor. (Look at the entire body for movements while the patient is in this position.)
5. Ask the patient to sit with hands hanging unsupported -- if male, between his legs, if female and wearing a dress, hanging over her knees. (Observe hands and other body areas).
6. Ask the patient to open his or her mouth. (Observe the tongue at rest within the mouth.) Do this twice.
7. Ask the patient to protrude his or her tongue. (Observe abnormalities of tongue movement.) Do this twice.
8. Ask the patient to tap his or her thumb with each finger as rapidly as possible for 10 to 15 seconds, first with right hand, then with left hand. (Observe facial and leg movements.)
9. Flex and extend the patient's left and right arms, one at a time.
10. Ask the patient to stand up. (Observe the patient in profile. Observe all body areas again, hips included.)
11. Ask the patient to extend both arms out in front, palms down. (Observe trunk, legs, and mouth.)
12. Have the patient walk a few paces, turn, and walk back to the chair. (Observe hands and gait.) Do this twice.

## Abnormal Involuntary Movement Scale (AIMS)

Patient Name \_\_\_\_\_ Date of Visit \_\_\_\_\_

**Code:** 0 = None 1 = Minimal 2 = Mild 3 = Moderate 4 = Severe

**Movement Ratings:**

- Rate highest severity observed in category I, II, III.
- Rate movements that occur upon activation one point less than those observed spontaneously.
- Circle movements as well as code number that applies.

		RATER	RATER	RATER	RATER
		DATE	DATE	DATE	DATE
<b>I FACIAL &amp; ORAL MOVEMENTS</b>	<b>1. Muscles of Facial Expression</b> e.g. movements of forehead, eyebrows, periorbital area, cheeks, including frowning, blinking, smiling, grimacing	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
	<b>2. Lips and Perioral Area</b> e.g. puckering, pouting, smacking	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
	<b>3. Jaw</b> Biting, clenching, chewing, mouth opening, lateral movement	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
	<b>4. Tongue</b> Rate only increases in movement both in and out of mouth. NOT inability to sustain movement. Darting in and out of mouth	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
<b>II EXTREMITY MOVEMENTS</b>	<b>5. Upper (arms, wrists, hands, fingers)</b> Include choreic movements (i.e. rapid objectively purposeless, irregular, spontaneous) athetoid movements. DO NOT INCLUDE TREMOR (i.e. repetitive, regular, rhythmic)	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
	<b>6. Lower (legs, knees, ankles, toes)</b> Lateral knee movement, foot tapping, heel dropping, foot squirming, inversion and eversion of foot	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
<b>III TRUNK MOVEMENTS</b>	<b>7. Neck, shoulders and hips</b> Rocking, twisting, squirming, pelvic gyrations	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
<b>IV GLOBAL JUDGEMENT</b>	<b>8. Severity of abnormal movements overall</b>	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
	<b>9. Incapacitation due to abnormal movements</b>	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
	<b>10. Patient's awareness of abnormal movements. Rate only patients report:</b> No Awareness = 0 Aware, no distress = 1 Aware, mild distress = 2 Aware, moderate distress = 3 Aware, severe distress = 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4	0 1 2 3 4
<b>V DENTAL STATUS</b>	<b>11. Current problems with teeth and/or dentures</b>	YES NO	YES NO	YES NO	YES NO
	<b>12. Are dentures usually worn</b>	YES NO	YES NO	YES NO	YES NO
	<b>13. Endentia?</b>	YES NO	YES NO	YES NO	YES NO
	<b>14. Do movements disappear with sleep?</b>	YES NO	YES NO	YES NO	YES NO