

Abnormal Involuntary Movement Scale (AIMS)

Reference: Guy W. ECDEU Assessment Manual for Psychopharmacology: Revised (DHEW publication number ADM 76-338). Rockville, MD, US Department of Health, Education and Welfare, Public Health Service, Alcohol, Drug Abuse and Mental Health Administration, NIMH Psychopharmacology Research Branch, Division of Extramural Research Programs, 1976: 534–7

Rating Clinician-rated

Administration time 5 minutes

Main purpose To assess level of dyskinesias in patients taking neuroleptic medications

Population Adults

Commentary

The AIMS is a 12-item clinician-rated scale to assess severity of dyskinesias (specifically, orofacial movements and extremity and truncal movements) in patients taking neuroleptic medications. Additional items assess the overall severity, incapacitation, and the patient's level of awareness of the movements, and distress associated with them. The AIMS has been used extensively to assess tardive dyskinesia in clinical trials of antipsychotic medications. Due to its simple design and short assessment time, the AIMS can easily be integrated into a routine clinical evaluation by the clinician or another trained rater.

Scoring

Items are scored on a 0 (none) to 4 (severe) basis; the scale provides a total score (items 1 through 7) or item 8 can be used in isolation as an indication of overall severity of symptoms.

Versions

Modified versions of the AIMS scale have been developed.

Additional references

Lane RD, Glazer WM, Hansen TE, Berman WH, Kramer SI. Assessment of tardive dyskinesia using the Abnormal Involuntary Movement Scale. *J Nerv Ment Dis* 1985; 173(6):353–7.

Munetz MR, Benjamin S. How to examine patients using the Abnormal Involuntary Movement Scale. *Hosp Community Psychiatry* 1988; 39(11):1172–7.

Address for correspondence

Not applicable – the scale is in the public domain.

Abnormal Involuntary Movement Scale (AIMS)

Instructions

There are two parallel procedures, the examination procedure, which tells the patient what to do, and the scoring procedure, which tells the clinician how to rate what he or she observes.

Examination Procedure

Either before or after completing the examination procedure, 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.

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 the 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.) [±activated]
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.) [activated]
12. Have the patient walk a few paces, turn, and walk back to the chair. (Observe hands and gait.) Do this twice. [activated]

Scoring Procedure

Complete the examination procedure before making ratings.

For the movement ratings (the first three categories below), rate the highest severity observed. 0 = none, 1 = minimal (may be extreme normal), 2 = mild, 3 = moderate, and 4 = severe. According to the original AIMS instructions, one point is subtracted if movements are seen **only on activation**, but not all investigators follow that convention.

Facial and Oral Movements

1. Muscles of facial expression, e.g., movements of forehead, eyebrows, periorbital area, cheeks. Include frowning, blinking, grimacing of upper face.
0 | 1 | 2 | 3 | 4

2. Lips and perioral area, e.g., puckering, pouting, smacking.
0 | 1 | 2 | 3 | 4
3. Jaw, e.g., biting, clenching, chewing, mouth opening, lateral movement.
0 | 1 | 2 | 3 | 4
4. Tongue.
Rate only increase in movement both in and out of mouth, **not** inability to sustain movement.
0 | 1 | 2 | 3 | 4

Extremity Movements

5. Upper (arms, wrists, hands, fingers). Include movements that are choreic (rapid, objectively purposeless, irregular, spontaneous) or athetoid (slow, irregular, complex, serpentine). Do **not** include tremor (repetitive, regular, rhythmic movements).
0 | 1 | 2 | 3 | 4
6. Lower (legs, knees, ankles, toes), e.g., lateral knee movement, foot tapping, heel dropping, foot squirming, inversion and eversion of foot.
0 | 1 | 2 | 3 | 4

Trunk Movements

7. Neck, shoulders, hips, e.g., rocking, twisting, squirming, pelvic gyrations. Include diaphragmatic movements.
0 | 1 | 2 | 3 | 4

Global Judgments

8. Severity of abnormal movements.
0 | 1 | 2 | 3 | 4
based on the highest single score on the above items.
9. Incapacitation due to abnormal movements.
0 = none, normal
1 = minimal
2 = mild
3 = moderate
4 = severe
10. Patient's awareness of abnormal movements.
0 = no awareness
1 = aware, no distress
2 = aware, mild distress
3 = aware, moderate distress
4 = aware, severe distress

Dental Status

11. Current problems with teeth and/or dentures.
0 = no
1 = yes
12. Does patient usually wear dentures?
0 = no
1 = yes

Reproduced from Guy W. ECDEU Assessment Manual for Psychopharmacology: Revised (DHEW publication number ADM 76-338). Rockville, MD, US Department of Health, Education and Welfare, Public Health Service, Alcohol, Drug Abuse and Mental Health Administration, NIMH Psychopharmacology Research Branch, Division of Extramural Research Programs, 1976: 534-7