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Hamilton Anxiety Rating Scale (HAM-A)**

Availability:	The instrument is freely available here: Hamilton Anxiety Rating Scale
Classification:	Supplemental – Highly Recommended for Parkinson’s Disease (PD) Supplemental for Mitochondrial Disease (Mito)
Short Description of Instrument:	<p>The 14-item version of the HAM-A, also referred to as the HAM-A, consists of 13 questions and one observational rating of the patient’s behavior during the interview (Hamilton, 1959). The HAM-A was originally developed to assess the severity of anxiety symptoms in patients diagnosed with ‘neurotic anxiety states’ (Hamilton 1959), and it provides an overall measure of global anxiety that is weighted towards somatic and autonomic features of anxiety, but also includes emotional and cognitive symptoms. The HAM-A assesses a range of symptoms that are frequent in all eight of the DSM-IV Anxiety Disorders, but is used most often to assess symptom severity in Generalized Anxiety Disorder (Shear et al. 2001). The HAM-A does not distinguish symptoms of specific anxiety disorders or distinguish anxiety from depression. However, HAM-A items are compatible with DSM-IV criteria for Generalized Anxiety Disorder (A Criterion=Excessive worry; B Criterion= Inability to control Worry; C Criteria = additional symptoms of restlessness/psychic tension, easy fatigability, difficulty concentrating, irritability, muscle tension, and sleep disturbance).</p> <p>The scale was not intended for measurement of anxiety occurring in the context of other psychiatric or medical conditions, but it is now applied that way.</p>
Rationale/ Justification:	<p>Strengths/Weaknesses: The scale is in the public domain, and has been used in studies in a variety of countries and languages (e.g. Espinola-Nadurille et al., 2010). It is not designed to identify specific anxiety disorders, but rather is a global rating of overall anxiety symptoms.</p> <p>Specific to Mitochondrial Disease:</p> <p>Advantages: The HAM-A has been used in other medical disorders than may affect neurological functioning and somatic function. For example, HAM-A scores were correlated with focal loss of grey matter in superior and middle gyri of right frontal lobe in patients with relapsing remitting multiple sclerosis (Lin et al., 2013). This suggests it may be of use in monitoring change in time in response to exacerbations of mitochondrial disease.</p> <p>Limitations: The scale incorporates both emotional and somatic symptoms of anxiety, and therefore may be elevated by the presence of somatic symptoms associated with mitochondrial disorder. Adjustment of cut scores may need to be considered for use in this population (Forjaz et al., 2013).</p>
Scoring:	The HAM-A takes approximately 10 to 15 minutes to administer. Each of the 14 items is rated on a 5-point Likert-type scale (0 to 4) with higher scores indicating greater severity. Total scores for the HAM-A range from 0 to 56. A score >16 is consistent with clinically significant anxiety in the general population. Recent analyses in a PD sample suggest a lower cut-off score of 11/12 to distinguish patients with and without anxiety disorders (Leentjens et al., in review).

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References:	<p>Hamilton M. The assessment of anxiety states by rating. <i>Br J Medical Psychology</i> 1959; 32: 50-55.</p> <p>Leentjens AFG et al. Anxiety rating scales in Parkinson's disease: a validation study of the Hamilton Anxiety Scale, the Beck Anxiety Inventory and the Hospital Anxiety and Depression Scale. In review.</p> <p>Shear MK, Vander BJ, Rucci P, Endicott J, Lydiard B, Otto MW et al (2001): Reliability and validity of a structured interview guide for the Hamilton Anxiety Rating Scale (SIGH-A). <i>Depress. Anxiety</i>. 13: 166-178.</p> <p>Leentjens AFG et al. Anxiety Rating Scales in Parkinson's Disease: Critique and Recommendations, <i>Mov Disord</i> 2008; 23 (14): 2015-2025.</p> <p>Espinola-Nadurille, M., Colin-Piana, R., Ramirez-Bermudez, J., Lopez-Gomez, M., Flores, J., Arrambide, G. and Corona, T. (2010). Mental disorders in Mexican patients with multiple sclerosis. <i>Journal of Neuropsychiatry Clinical Neuroscience</i> 22(1): 63-69</p> <p>Lin, A., Chen, F., Liu, F., Li, Z., Liu, Y., Lin, S., Wang, X. and Zhu, J. (2013). Regional grey matter atrophy and neuropsychological problems in relapsing-remitting multiple sclerosis. <i>Neural Regeneration Research</i> 8(21): 1958-1965</p> <p>Forjaz, M.J., Martinez-Martin, P., Dujardin, K., Marsh L., Richard, I.H., Starkstein, S.E., and Leentjens, A.F. (2013). Rasch analysis of anxiety scales in Parkinson's disease. <i>Journal of Psychosomatic Research</i> 74 (5): 414-419</p>
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