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Beck Depression Inventory-II (BDI-II)

Availability:	**Please visit this website for more information about the instrument:** Beck Inventory and Scales website.
Classification:	**Supplemental – Highly Recommended**: Epilepsy **Supplemental:** Amyotrophic Lateral Sclerosis (ALS), Epilepsy, Headache, Multiple Sclerosis (MS), Parkinson's Disease (PD), Sports-Related Concussion (SRC) Subacute (after 72 hours to 3 months) and Persistent/Chronic (3 months and greater post concussion), and Traumatic Brain Injury (TBI) **Exploratory:** Unruptured Cerebral Aneurysms and Subarachnoid Hemorrhage (SAH)
Short Description of Instrument:	**Construct measured:** This scale measures the existence and severity of symptoms of depression. **Generic vs. disease specific**: Generic. **Means of administration:** Self-administered. **Intended respondent:** Self-Report. **# of items:** 21 items. **# of subscales and names of sub-scales:** 2 subscales: Affective and Somatic subscales. **# of items per sub-scale:** 8 for affective; 13 for somatic.
Comments/Special instructions:	The Beck Depression Inventory-II (BDI-II) developed in 1996, was derived from the BDI. The 21-item self-administered survey is scored on a scale of 0–3 in a list of four statements arranged in increasing severity about a particular symptom of depression.
Scoring:	**Scoring:** Each of the 21 items corresponding to a symptom of depression is summed to give a single score for the Beck Depression Inventory-II (BDI-II). There is a four-point scale for each item ranging from 0 to 3. On two items (16 and 18) there are seven options to indicate either an increase or decrease of appetite and sleep. Cut-off score guidelines for the BDI-II are given with the recommendation that thresholds be adjusted based on the characteristics of the sample, and the purpose for use of the BDI-II. Total score of 0–13 is considered minimal range, 14–19 is mild, 20–28 is moderate, and 29–63 is severe.

Rationale / Justification:	**Strengths:** Easy to use, widely known, results easy to interpret. Item content improved over BDI-I to increase its correspondence with DSM-IV. **Weaknesses:** Includes several items assessing physical symptoms which may be elevated in ALS patients due to motor neuron degeneration and not depression. However non-ALS clinical studies have provided evidence of the presence of at least two factors, a cognitive-affective factor and a somatic depressive symptom factor, which is more stable than in the BDI. However, this factor structure requires confirmation in ALS. **Psychometric Properties:** *Feasibility:* Easy to complete, relatively short compared to interview-based assessments. *Reliability:* 1 week test-retest stability is high (.93). Internal consistency (coefficient alpha) is .92–.94 depending on the sample. *Validity:* Construct validity was high when compared to the BDI (.93). **Sensitivity to Change:** Designed to assess mood within the most recent 2 week period, so comparison across assessments should reflect change over time. **Relationships to other variables:** BDI-II scores were not correlated with functional disability (ALSFRS-R scores) (Rabkin et al., 2005) in late-stage ALS patients, but did correlate with suffering, anger, perceived caregiver burden, weariness, and negative effect. In non-ALS studies, BDI-II scores correlate with measures of hopelessness, suicidal ideation and anxiety. **Purpose of Tool:** Screening for severity of depression. **Used in:** Observational studies. **Administration time:** 5 minutes, scoring 1 minute. **Sport Concussion Specific:** Advantages: Widely used and accepted instrument. Quantifies depressive symptoms, but is not a diagnostic instrument. Some symptoms overlap with "concussive symptoms". Any study looking at factors contributing to persistent symptoms should use this measure. Age Range: age 13 and older

References:	**Key References:** Beck AT, Steer RA, Brown GK. Manual for The Beck Depression Inventory Second Edition (BDI-II). San Antonio: Psychological Corporation; 1996. Beck AT, Steer RA, Ball R, Ranieri W. Comparison of Beck Depression Inventories -IA and -II in psychiatric outpatients. J Pers Assess. 1996;67(3):588–597. Steer RA, Ball R, Ranieri WF, Beck AT. Dimensions of the Beck Depression Inventory-II in clinically depressed outpatients. J Clin Psychol. 1999;55(1):117–128. Storch EA, Roberti JW, Roth DA. Factor structure, concurrent validity, and internal consistency of the Beck Depression Inventory-Second Edition in a sample of college students. Depress Anxiety. 2004;19(3):187–189. Maizels M, Smitherman TA, Penzien DB. A review of screening tools for psychiatric comorbidity in headache patients. Headache. 2006;46 Suppl 3:S98–S109. **ALS References:** Taylor L, Wicks P, Leigh PN, Goldstein LH. Prevalence of depression in amyotrophic lateral sclerosis and other motor disorders. Eur J Neurol. 2010;17(8):1047–1053. Rabkin JG, Albert SM, Del Bene ML, O'Sullivan I, Tider T, Rowland LP, Mitsumoto H. Prevalence of depressive disorders and change over time in late-stage ALS. Neurology. 2005;65(1):62–67. Trail M, Nelson ND, Van JN, Appel SH, Lai EC. A study comparing patients with amyotrophic lateral sclerosis and their caregivers on measures of quality of life, depression, and their attitudes toward treatment options. J Neurol Sci. 2003;209(1-2):79–85.