The Multiple Sclerosis Functional Composite Measure (MSFC): an integrated approach to MS clinical outcome assessment.

National MS Society Clinical Outcomes Assessment Task Force.


Clinical outcome assessment in Multiple Sclerosis (MS) is challenging due to the diversity and fluctuating nature of MS symptoms. Traditional clinical scales such as the EDSS are inadequate in their assessment of key clinical dimensions of MS (e.g., cognitive function), and they have psychometric limitations as well. Based on analyses of pooled data from natural history studies and from placebo groups in clinical trials, the National MS Society's Clinical Outcomes Assessment Task Force recently proposed a new multidimensional clinical outcome measure, the MS Functional Composite (MSFC). The MSFC comprises quantitative functional measures of three key clinical dimensions of MS: leg function/ambulation, arm/hand function, and cognitive function. Scores on component measures are converted to standard scores (z-scores), which are averaged to form a single MSFC score. Preliminary analyses confirm that: (1) the three clinical dimensions of the MSFC are relatively independent; (2) the MSFC is sensitive to clinical changes over 1- and 2-year intervals; and (3) the MSFC has acceptable criterion validity (i.e., predicts both concurrent and subsequent EDSS change). The advantages and potential limitations of incorporating quantitative functional outcome measures such as the MSFC into collaborative databases are discussed.

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