Selecting Rehabilitation Outcome Measures: Applying the Findings of the APTA MSEDGE Task Force

Cohen, E.T. (Rutgers U., NJ), Potter, K. (Rockhurst U., MO), Allen, D.D. (U. of California-San Francisco/San Francisco State U., CA), Bennett, S.E. (U. of Buffalo, SUNY, NY), Brandfass, K. (U. of Pittsburgh Medical Center, PA), Widener, G.L. (Samuel Merritt U., CA), Yorke, A.M. (The U. of Michigan-Flint, MI)

Background

Despite the importance of measuring outcomes in clinical practice, a variety of barriers limit the use of outcome measures (OM), and clinicians do not routinely use them in practice.[1] Evidence suggests that clinicians lack the knowledge to choose the most effective or appropriate OMs.[2,3] Clinicians working with persons with multiple sclerosis (PWMS) have additional challenges in OM selection because of the heterogeneous patient population and symptom variability in individual patients.

In 2010, the Neurology Section of the American Physical Therapy Association (APTA) appointed the Multiple Sclerosis Outcome Measures Task Force (MSTF) to review and make evidence-based recommendations for the use of OMs in clinical practice, education, and research specific to PWMS. Sixty-three OMs were reviewed. An Evaluation Database to Guide Effectiveness (EDGE) form developed by the Research Section of APTA was modified and used by the MSTF. We incorporated MS-related constructs to record each OM's properties, psychometrics, clinical utility, and recommendations. Recommendations were based on an analysis of the constructs measured, a synthesis of psychometric data, and a consensus evaluation of the appropriateness of the OM for PWMS, via a modified Delphi process. A four-point rating scale, based on the strength of the OM's psychometrics and clinical utility, was used to evaluate OMs for use in patients across the MS-disability spectrum, and in five practice settings. These recommendations can be found in Potter et al, 2014.[4]

Objective

The purpose of this case presentation is to illustrate use of the MSTF recommendations to select appropriate OMs for a patient with MS.

Conclusion

The recommendations established by the MSTF facilitated selection of OMs that pertained to health-related constructs of interest, were clinically feasible, and had psychometric data relevant to PWMS.

References

1. Jette DU, Halbert J, Iverson C, Miceli E, Shah P. Use of standardized outcome measures in physical therapist practice: perceptions and applications. *Physical Therapy.* Feb 2009;89(2):125-135.
2. Huijbregts M, Myers A, Kay T, Gavin T. Systematic outcome measurement in clinical practice: Challenges experienced by physiotherapists. *Physiotherapy Canada.* 2002;Winter:25-36.
3. Wedge FM, Braswell-Christy J, Brown CJ, Foley KT, Graham C, Shaw S. Factors influencing the use of outcome measures in physical therapy practice. *Physiotherapy Theory and Practice.* Feb 2012;28(2):119-133.
4. Potter, K., Cohen, E. T., Allen, D. D., Bennett, S. E., Brandfass, K. G., Widener, G. L., Yorke, A. M. Outcome Measures for Individuals With Multiple Sclerosis: Recommendations From the American Physical Therapy Association Neurology Section Task Force. *Physical Therapy*. Advance online publication available at http://ptjournal.apta.org/content/early/2014/02/13/ptj.20130149.full.pdf+html

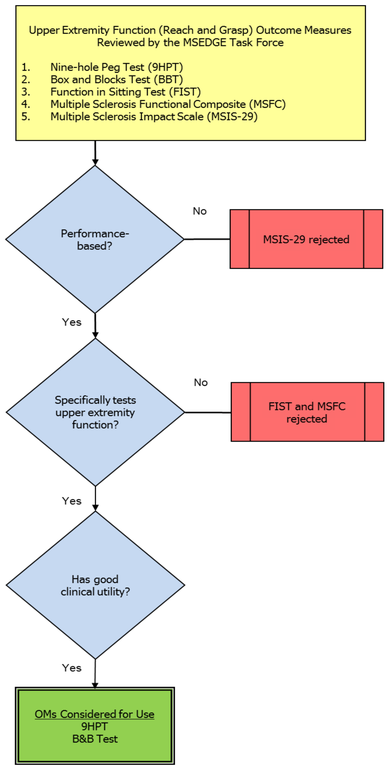
Case Summary

The patient was a 43-year-old man with a 10-year history of relapsing-remitting MS. A recent exacerbation led to difficulty walking and increased fatigue. The patient's goal was to return to work as a computer programmer. Three health-related constructs were deemed most important for this patient: **upper extremity (UE) function, fatigue, and gait/walking ability**. Using the recommendations of the MSTF, several candidate OMs were identified for each of the three constructs (five for UE function; 12 for fatigue; and nine for gait). A systematic decision-making process was used to evaluate the appropriateness of each OM, and determine the most appropriate for each construct of importance for this patient.

The Decision-making Process

Upper Extremity Function

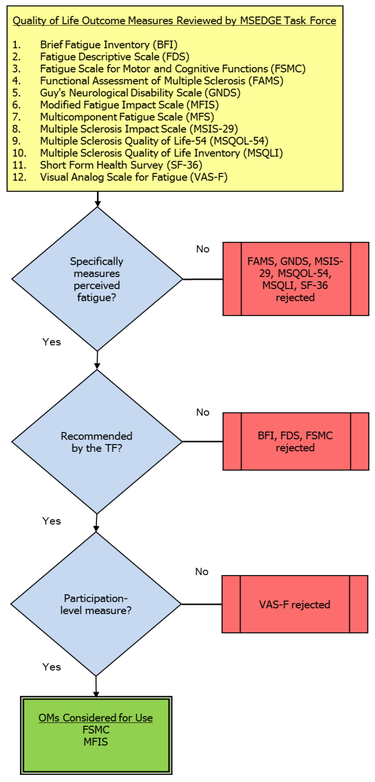
Clinician-identified criteria:
- Performance-based
- Standardized test of UE function
- Good clinical utility
- Recommended for use for the setting and the patient's level of disability



The Decision: 9HPT
Rationale:
- Roughly equivalent evidence of psychometric properties of 9HPT and B&B
- 9HPT is less expensive
- Finer motor testing of 9HPT deemed more appropriate given this patient's work

Perceived Fatigue

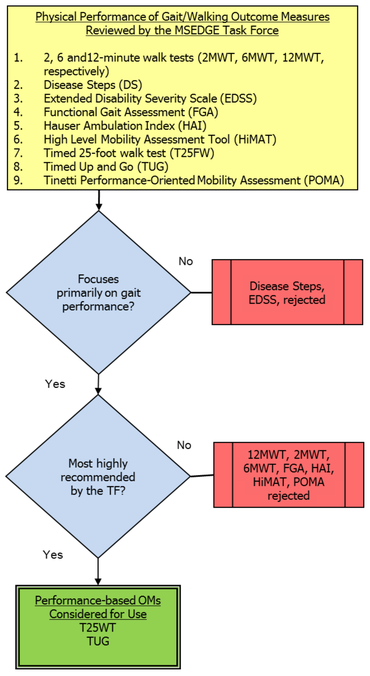
Clinician-identified criteria:
- Participation-level measure
- Specifically measures perceived fatigue
- Recommended for use for the setting and the patient's level of disability



The Decision: MFIS
Rationale:
- FSMC and MFIS have roughly equal ratings and clinical utility
- FSMC may be used over a broader level of disability, but MFIS has data for calculation of Minimal Detectable Change (MDC) which is a higher priority for a single care episode.

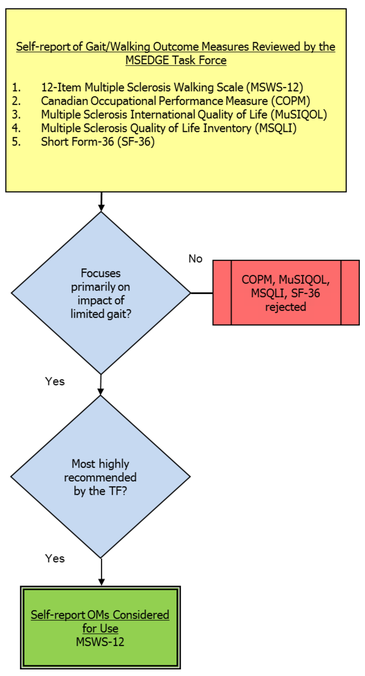
Gait/Walking Ability

Clinician-identified criteria for physical performance measure:
- Focuses primarily on gait performance
- Most highly recommended for use for the setting and the patient's level of disability



The Decision: T25WT
Rationale:
- The psychometric evidence of the T25WT is stronger than the TUG
- Normative T25WT data can be used to set goals
- TUG includes examination of components that were not identified as problematic

Clinician-identified criteria for self-report measure:
- Focuses primarily on impact of gait limitations
- Recommended for use for the setting and the patient's level of disability



The Decision: MSWS-12
Rationale:
- MSWS-12 measures the patient's perception of degree of walking limitations in varied contexts
- There is useful responsiveness and normative data for the MSWS-12