

Mellen Center Approaches: Rehabilitation in MS

What is rehabilitation?

Rehabilitation refers to an array of interventions which aim at maximizing function and quality of life in individuals affected by a disease or injury. The rehabilitation approach is by nature multidisciplinary and goal-oriented. Rehabilitation should be integrated into the comprehensive management of MS patients as appropriate.

REFERENCE:

Medical Advisory Board of the National Multiple Sclerosis Society, Rehabilitation: Recommendations for Persons with Multiple Sclerosis. National Multiple Sclerosis Society 2005: 10 pp.

<http://www.nationalmssociety.org/for-professionals/healthcare-professionals/publications/expert-opinion-papers/index.aspx>

See Mellen Center Approaches: disability, 2011

What are key goals of Rehabilitation in MS?

- To restore or improve function after a relapse of MS.
- To assess walking safety and needs for ambulation aides
- To assess and treat issues of upper extremity function in MS
- To develop home exercise programs to help maintain or improve function in MS
- To assist MS patients in improving function after non MS illness (e.g. severe infection, fracture, surgery)
- To help address specific issues related to activities of daily living (e.g. driving, work)

What do rehabilitation services entail?

Rehabilitation interventions can be carried out in the inpatient, outpatient, or home setting, depending on the patient's needs and abilities. The health care professionals involved include physicians

(physiatrists), nurses, nurse practitioners, physician assistants, physical therapists, occupational therapists, speech-language therapists, orthotists, neuropsychologists, psychologists, social workers, and others. Interventions focus not only on the patient, but also on the human (e.g. family), physical (e.g. accessibility at home or at work), and social environment.

By far, outpatient and home physical and occupational therapy are the most frequently used rehabilitation services by MS patients. A physician order is usually required. Insurance plans may limit patient access to services and the number of sessions allowed over a 1-year period. When patients have a need for multiple skilled services, have a potential for improvement, and can tolerate more intensive rehabilitation, acute or subacute inpatient rehabilitation can be helpful. Frequently, patients are transferred to inpatient rehabilitation after a hospitalization, but when indicated they can be admitted from home.

Does rehabilitation work in MS?

Obstacles to rehabilitation in MS include the progressive nature of the disease, the number and variability of impairments, fatigue, depressed mood, cognitive impairments, and transient worsening of neurologic symptoms with exertion and heat. However, none of these factors constitute contraindications to the use of rehabilitation in MS.

There is indeed published evidence demonstrating the efficacy of both inpatient and outpatient rehabilitation in MS, both in relapsing and progressive forms of the disease, and at various levels of disability. The benefits reported include:

- improved fatigue
- improved functional status after MS exacerbations
- improved functional status and quality of life in

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between exacerbations or in progressive forms of the disease.

Rehabilitation interventions in MS need to be highly individualized, and the experience and skills of the professionals involved can have a major impact on the outcome of rehabilitation. It is essential that MS patients be treated by rehabilitation professionals with experience in MS rehabilitation, or at least neurological rehabilitation.

REFERENCE:

Bethoux F, Sutliff M : Rehabilitation in multiple sclerosis patients. In Cohen JA and Rudick RA : Multiple Sclerosis Therapeutics. Fourth Edition; Cambridge University Press., New York 2011:726-32.

When should a patient be referred to physiatry?

The physiatrist can assist in developing a comprehensive rehabilitation plan for patients with MS. This may include various therapies, or may include interventions such as management of spasticity (physical measures, medications, botulinum toxin therapy, lioresal pump implantation, etc.), or recommendations about bowel and bladder management. Critical times when a physiatry referral can be helpful include the following:

- When spasticity is difficult to treat.
- When the patient is transitioning in mobility from independent walking to aides for walking, or from walking with aides to a non ambulatory status.
- When rehabilitation needs are complex and multifaceted (i.e. need for multiple services and interventions).

When should a patient be referred to physical or occupational therapy?

The main domains of application of physical therapy (PT) are mobility limitations and lower extremity impairments. Occupational therapy (OT) traditionally focuses on upper extremity impairments, activities of daily life (ADLs), fatigue management, and in some cases cognitive rehabilitation.

Here are a few concrete examples of uses of PT and OT in MS:

- Teaching stretching and strengthening exercises for the upper and lower extremities.
- Teaching safe and tolerable aerobic exercise routines

- Recommending and training to the use of assistive devices for mobility (e.g. cane, walker, braces) or for ADLs
- Teaching safe transfer techniques and performing gait and balance training
- Teaching strategies to perform ADLs safely and efficiently
- Teaching energy conservation techniques for fatigue
- Performing wheelchair and seating evaluations
- Performing functional capacity evaluations (e.g. for return to work, work accommodations, disability applications)

Are there other types of rehabilitation interventions or techniques that could be useful to MS patients?

Speech therapy is probably under-utilized in MS. Dysphagia is the most frequent reason for referring to speech therapy in MS. Since aspiration can lead to severe consequences including pneumonia and death, this is an important problem to address. Dysphonia and dysarthria, and other significant limitations of verbal communication, are other potential reasons to refer to a speech therapist. In addition to assessments, specific exercises, and recommendations, speech therapists can recommend assistive devices for communication and train patients to their use.

Neurodevelopmental techniques are sometimes used by PTs and OTs as a different approach to abnormal motor control in central nervous system disorders.

Driver rehabilitation can be helpful when the patient's ability to drive safely is questioned (due to neurologic impairments). Driver rehabilitation therapists perform clinical assessments and on-road evaluations (as long as the patient has a driver's license), recommend vehicle adaptations (e.g. hand controls) and perform training.

Vocational rehabilitation services can get involved when a patient needs workplace accommodations, or needs special training due to disability.

What is the role of a physiatrist?

Physiatrists are usually involved in coordinating the care of inpatients in a rehabilitation unit. Patients can also be referred to a physiatrist in the outpatient setting to address complex symptom management

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and functional needs. The physiatrist can perform specific treatments (e.g. botulinum toxin injections or intrathecal baclofen therapy for spasticity), and help coordinate other rehabilitation interventions. Again, when MS patients are making transitions in terms of activities of daily living or mobility, this is a reasonable time for physiatric intervention.

What does “goal-oriented rehabilitation” mean?

Therapists set very specific goals (based on comprehensive evaluations) before initiating treatment, and goal achievement is periodically re-assessed. When referring a patient to rehabilitation, it is important to set with the patient and family (or caregivers) realistic and meaningful goals, that will help the patient understand that rehabilitation is part of the management of MD, and will help set expectations (e.g. decrease the frequency of falls, improve walking endurance). Goal setting typically results from a need expressed by the patient (and family/caregivers) or identified by the treating physician (e.g. safety issue), the identification of the most appropriate interventions, and education regarding which outcomes can be reasonably expected. Unrealistic goals may lead to the perception that “rehabilitation doesn’t work” and increased patient frustration.

Even though it is important to maintain function in MS, maintenance therapy is usually not covered by third party payers, making it even more important to define goals.

When is the best time to refer to rehabilitation and how long should it last?

Too often, patients are referred to rehabilitation later in the disease course, when they are already severely disabled. Instead the need for rehabilitation interventions should be assessed at every stage of the disease. Early intervention increases the chances of success, because behavioral changes are easier to implement early in the disease process, and may delay the occurrence of further problems (e.g. musculoskeletal pain from abnormal gait pattern, injury from fall, deconditioning with worsening weakness and fatigue due to decreased activity). Some patients are reluctant to go to PT or OT, or to use assistive devices, but education and realistic goal setting with their treating clinician can help.

Circumstances that lend themselves to a referral to rehabilitation services include a recent loss of function (due to an MS exacerbation, a fall, a surgery, or an infection or other acute health problem); safety concerns; need to preserve independence with ADLs; complex symptom management.

The duration of rehabilitation is often influenced by restrictions from third party payors. For simple problems, one or two sessions of PT and/or OT may be enough to provide the training and education needed (including family or caregiver education and training). In other cases, two to three sessions per week for several weeks are needed. Because adherence to home exercise programs and to the use of assistive devices tends to decrease over time, and because disability often worsens with time, periodic re-assessments are helpful.

Summary:

- Rehabilitation needs should be identified and addressed early.
- Because few practices or clinics have rehabilitation services readily available, it is essential to develop a network of rehabilitation professionals with expertise in neurologic rehabilitation.
- Realistic and meaningful goals should be determined with the patient before starting rehabilitation.

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