



Multiple Sclerosis (MS) relapses Specialist Inpatient Rehabilitation Programme

St Cyril's Rehabilitation Unit offers a prompt assessment and admission policy to MS patients presenting with acute relapses and sudden loss of function.

Our team is very experienced in the management of neurological impairments in general and MS in particular. Our rehabilitation programme integrates physical and occupational therapy with a robust medical supervision and management. The psychosocial impact of the illness is addressed by a caring and experienced staff. Throughout the rehabilitation programme, close liaison with the patient's neurological, primary care and community rehabilitation teams is secured to ensure the integration of the programme with the overall management strategy.

Background

In the early stages of MS, 85-90% of patients presents with a relapsing remitting course (1). This group of Patients are often prescribed disease modifying drugs to reduce the frequency and severity of the relapses (2). However, for most patients the relapses are still unpredictable and often lead to a sudden deterioration of the condition and loss of function (3). The standard practice is to use steroids to manage the acute relapses in conjunction with a multidisciplinary rehabilitation programme (4). The evidence of the superiority of rehabilitation programmes to pharmacological intervention alone is overwhelming (5,6,7,8,9).

A common scenario is of an MS patient with a relapse finding her/himself unable to cope at home. This usually results on an either inappropriate admission to an acute hospital ward or transfer to a nursing home. Both solutions are unsatisfactory and can lead to further deterioration of the patient and considerable waste of resources. Unfortunately, inability to provide rehabilitation at such early stage - when a window of opportunity to reverse the impact of the relapse still open - often leads to permanent loss of function with clinical complications such as joint deformities or pressure sores.

Care pathway for specialist MS relapses inpatient service

1. Referral

Self-referrals and referrals by health care professionals are usually considered. However, we particularly welcome referrals from the patient's neurologists and MS specialist nurses who may be based either locally or regionally.

In most cases a member of St Cyril's clinical staff will assess the patient prior to admission. However, under special circumstances patients may be admitted directly based on the information provided by the referring clinicians.

2. Initial Assessment

During the initial assessment in the patient's home, the philosophy of the rehabilitation programme, patient's expectations and goals will be discussed. For most patients, the admission will be for a period of 8 – 12 weeks. Following this a decision will be made to either continue with the rehabilitation programme or to discharge the patient. The decisions are purely made on clinical grounds and are made in consultation with the patient's local neurological and rehabilitation team.

3. The rehabilitation programme

Every patient with an MS relapse will have a unique set of symptoms and different degrees of physical impairments. Therefore an individualised approach to the patient's rehabilitation will be adopted. In most cases the following input will be needed:

Medical assessment and management

Medical conditions mimicking an MS relapse will be excluded following history taking, clinical examination and appropriate investigations. The patient will receive immunosuppressive therapy if indicated.

Regular medical interventions are integrated within the rehabilitation programme to manage the common medical complications of MS such as increased muscle tone, pain or sphincteric dysfunction.

Physical and occupational therapy

Most patients will experience significant deterioration in their mobility and/or hand function. Following assessment, a comprehensive physical therapy programme will be formulated and implemented. Goals will be set and reviewed regularly. In rare cases, return to the original pre-relapse function will not be possible. Appropriate strategies to cope with these functional deficits will be agreed and methods to support the patient to adjust with such disabilities physically and psychologically will be used.

The therapists' recommendations will be implemented 24 hours a day by the nursing and therapy assistants.

Clinical supporting services

All patients will have access to the services of several clinicians and professionals if the need is identified during assessment or at any point throughout the rehabilitation programme. Patients nutritional needs will be assessed by a nutritionist, swallowing and speech impairments by a speech and language therapists etc. All the equipment needed will be initially provided and close liaison with the funding authority will always be maintained to ensure prompt availability of services/equipment needed by the patient.

4. Discharge

The discharge process will be coordinated with the local services to ensure continuity of the approach, maintaining and building on the achievements made during the inpatient stay. Long term support and collaborative work with the local teams are an integral aspect of the philosophy of our specialist service.

Input of different disciplines during admission

The following is an estimate of the expected input from our clinical team:

- Medical review: three times a week
- Consultant ward round: once a week
- Occupational therapy: once / twice a day
- Physiotherapy: once / twice a day
- Assistant therapist: four times a day
- Dietetics: once a week

Indicators of effectiveness and service monitoring

The following outcome measures will be evaluated on admission, 6 weekly and on discharge:

1. General activity measures:
 - Functional Independence Measure (FIM)
 - Barthel Score
2. SF-36 Health Survey Physical Functioning Section
3. Medical review indicating active medical issues addressed
4. Patient Questionnaire

The service will be subjected to the same rigorous clinical governance procedures as other clinical services in the St George's Health Care Group.

This will include regular clinical audits, which constantly feedback to improve treatment and care to ensure standards are met.

Tariff: Cost on Assessment

References:

- 1 - Lublin FD, Reingold SC. Defining the clinical course of multiple sclerosis: results of an international survey. National Multiple Sclerosis Society (USA) Advisory Committee on Clinical Trials of New Agents in Multiple Sclerosis. *Neurology* 1996; **46** (4): 907–11
- 2- Johnson KP. Control of multiple sclerosis relapses with immunomodulating agents. *J. Neurol. Sci.* 2007; **256 Suppl 1**: S23–8.
- 3- Weinshenker BG. Natural history of multiple sclerosis. *Ann. Neurol.* 1994; **36 Suppl**: S6–11
- 4- Brusaferri F, Candelise L. Steroids for multiple sclerosis and optic neuritis: a meta-analysis of randomized controlled clinical trials. *J. Neurol.* 2000; **247** (6): 435–42
- 5- Khan F, Turner Stokes L, Ng L, et al. Multidisciplinary rehabilitation for adults with multiple sclerosis (Review). *Cochrane Database Syst Rev* 2007;2:CD006036.
- 6- Freeman JA, Langdon DW, Hobart JC, et al. The impact of inpatient rehabilitation on progressive multiple sclerosis. *Ann Neurol* 1997; **42**: 236–44.
- 7- Craig J, Young CA, Ennis M, et al. A randomised controlled trial comparing rehabilitation against standard therapy in multiple sclerosis patients receiving intravenous steroid treatment. *J Neurol Neurosurg Psychiatry* 2003; **74**: 1225–30.
- 8- Francabandera FL, Holland NJ, Wiesel-Levison P, et al. Multiple sclerosis rehabilitation: inpatient vs. outpatient. *Rehabil Nurs* 1988; **13**: 251–3.
9. Patti F, Ciancio MR, Reggio E, et al. The impact of outpatient rehabilitation on quality of life in multiple sclerosis. *J Neurol* 2002; **249**: 1027–33.