

Multidisciplinary rehabilitation for adults with multiple sclerosis

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Multidisciplinary rehabilitation (MDR) is an important component of symptomatic and supportive treatment for multiple sclerosis (MS), but evidence base for its effectiveness is yet to be established.

OBJECTIVE

To assess the effectiveness of organised MDR in adults with MS. MDR was defined as an inpatient, outpatient, home or community based programme, delivered by two or more disciplines in conjunction with physician consultation, and targeted towards improvements at the level of activity and/or participation.

METHODS

The Cochrane MS Group methods search strategy identified all randomised (RCT) and controlled (CCT) clinical trials that compared MDR with routinely available local services or lower levels of intervention, or trials comparing interventions in different settings or at different levels of intensity. Three reviewers selected trials and rated their methodological quality independently. Methodological quality criteria (n = 17) proposed by van Tulder and colleagues^{1,2} were used to assess internal validity, and descriptive and statistical criteria (details are available in the full review). Quantitative analysis was not possible because of the use of diverse outcomes and other clinical heterogeneity. Therefore, qualitative synthesis of “best evidence” was presented based on levels of evidence proposed by van Tulder and colleagues.² Subgroup analysis was completed by the type, setting and intensity of rehabilitation intervention, and duration of patient follow-up.

MAIN RESULTS

Eight trials were selected (seven RCTs; one CCT), comprising 747 MS participants (and 73 caregivers) from the UK, USA and Italy. These included patients with definite MS and all stages of disease, between 18 and 64 years of age (mean 38–52 years), mostly women (range 50–100%), and a range of disabilities (Expanded Disability Status Scale score range 3.6–9).

Seven RCTs scored well and one CCT scored poorly on the methodological quality assessment. There was “strong evidence” that despite no change in the level of impairment, inpatient MDR produces short term gains at the levels of activity (disability) and participation for patients

with MS. For outpatient and home based rehabilitation programmes, there was “limited evidence” for short term improvements in symptoms and disability with high intensity programmes, which translated into improvement in participation and quality of life. For low intensity programmes conducted over a longer period, there was strong evidence for longer term gains in quality of life and also limited evidence for benefits to carers. Although some studies reported potential for cost savings, there is no convincing evidence regarding the long term cost effectiveness of these programmes. It was not possible to suggest best “dose” of therapy or supremacy of one therapy over another.

CONCLUSION

MDR programmes do not change the level of impairment, but can improve the experience of people with MS in terms of activity and participation. Regular evaluation and assessment of these persons for rehabilitation is recommended.

FUTURE RECOMMENDATIONS

Implications for future research include the need, firstly, for high quality RCTs and other designs, which assess the effectiveness of specific rehabilitation interventions (components, intensity, settings) and cost effectiveness of these programmes. Secondly, the development of appropriate, reliable and valid outcome measures, which reflect domains of the International Classification of Functioning and Health, and a consensus on a core set of measurement of outcomes in MS trials.³

Competing interests: None.

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