

Disclosure

1. Saiz reports compensation for consulting services and speaker honoraria from Merck-Serono, Biogen-Idec, Sanofi, Novartis, Roche, Janssen, and Alexion
2. Y. Aladro reports compensation for consulting services and speaker honoraria Merck, TEVA, Biogen, Novartis, Roche, Sanofi, BMS.
3. L. Costa-Frossard reports compensation for consulting services and speaker honoraria from Biogen, Bristol-Myers Squibb, Janssen, Merck Serono, Novartis, Sanofi, Roche y Teva.
4. Sánchez Magro is a MERCK KGaA employee
5. Rodríguez-Antigüedad reports compensation for consulting services and speaker honoraria Merck, Biogen, Novartis, Roche, Sanofi, Janssen y BMS

Therapy - Symptoms Management (including cognition, fatigue, imbalance)

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Patient education for fatigue in people with multiple sclerosis: cochrane systematic review and meta-analysis

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Introduction: Fatigue is one of the most common and disabling symptoms in patients with Multiple Sclerosis (MS). In the absence of convincing pharmacological treatment options, non-pharmacological approaches have shown potential to reduce fatigue, including educational interventions informing patients about fatigue and applying strategies to better manage and cope with fatigue.

Aim: To systematically review the current best evidence on patient education programmes for MS-related fatigue.

Methods: Systematic review and meta-analysis following the Cochrane Handbook of Systematic Reviews. We included all randomized controlled trials evaluating patient education programmes for people with MS with the primary aim of reducing fatigue. On March 16, 2022, we conducted a systematic search in eight databases. We also searched reference lists and trial registers, and contacted experts in the field.

Results: 1079 studies were identified and assessed by two independent raters and 15 studies with a total of 1623 participants were included. 11 studies were included in the meta-analyses. All interventions provided information and education about different aspects about MS-related fatigue, applying different

psychological interventions. Most frequently cognitive behavioural therapy (CBT) (n=5) and energy conservation (n=4) approaches were applied. Delivery of interventions differed e.g. with group vs. individual and direct vs. remote application. Studies differed markedly, e.g. for number of participants (n=23 to 275) and length of follow-up (10 to 52 weeks). Interventions effectively reduced fatigue severity (SMD -0.28; 95%CI -0.53 to -0.03; low certainty) and fatigue impact (SMD -0.21; 95%CI -0.42 to -0.00; moderate certainty) directly after the intervention. Mixed results were found for long-term effects on fatigue, for secondary endpoints (depression, quality of life, coping), and for sub group analyses.

Conclusion: Educational interventions for patients with MS-related fatigue are effective in reducing fatigue in the short term. More research is needed on the importance of specific intervention components and aspects of delivery and context.

Disclosure

Source of funding: none.

Declarations of interest:

Andrea Giordano: nothing to disclose.

Maria Janina Wendebourg: nothing to disclose.

Jana Pöttgen: nothing to disclose.

Marcia Finlayson: nothing to disclose.

Christoph Heesen: nothing to disclose.

Sascha Köpke: nothing to disclose.

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Employment and cognitive improvements in ocrelizumab-treated patients with relapsing-remitting multiple sclerosis: 96-week CASTING study data

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Background: Multiple sclerosis (MS) affects mainly adults of working age, impacting employment and quality of life (QoL). Employment enhances QoL and is a gauge of overall functioning in people with MS (PwMS), hence ensuring work participation is beneficial to both PwMS and society. Cognitive impairment is a key symptom in PwMS and is associated with unemployment and lower QoL.

Aims: To report employment status by baseline demographic, disease history and cognitive function, and changes in status over 96 weeks in patients with relapsing-remitting MS in the Phase IIIb CASTING trial (NCT02861014).

Methods: Patients (Expanded Disability Status Scale score [EDSS] ≤4.0) with suboptimal response to 1 or 2 prior disease-modifying

therapies received intravenous ocrelizumab 600 mg every 24 weeks for 96 weeks. Work Productivity and Activity Impairment (WPAI) questionnaire was used to determine employment status at baseline (BL), Weeks 24, 48 and 96. Symbol Digit Modalities Test (SDMT) was measured at BL, Weeks 48 and 96. Scores were also translated to z-scores with a cut-off of -1 to define cognitive impairment; BL z-score ≤ -1 defined the cognitively impaired subgroup and BL z-score > -1 in the minimally impaired subgroup.

Results: At BL, 427 patients were employed (EMP) vs 230 unemployed (UNEMP): unemployment was slightly higher in patients who were younger (UNEMP 78.7% ≤ 40 vs EMP 72.6% ≤ 40), and female (UNEMP 67.8% vs EMP 61.4%), and associated with higher BL EDSS (UNEMP 2.38 vs EMP 1.95), and greater cognitive impairment (mean SDMT score: UNEMP 48.7 vs EMP 56.6), whereas disease duration since MS onset was similar (UNEMP 4.9 vs EMP 5.0 years). At Week 96: 32.2% of BL UNEMP patients shifted to EMP status, while 12.9% of BL EMP patients shifted to UNEMP status; the probability of being EMP was 52% in the minimally cognitively impaired and 31% in the cognitively impaired subgroups. From BL to Week 96: EDSS increased in UNEMP (from 2.38 to 2.48) and decreased in EMP (from 1.95 to 1.91) patients; SDMT score improved by an average of 1.4 points both in UNEMP and EMP patients.

Conclusions: Over the two years of the CASTING study, patients treated with ocrelizumab showed a greater shift towards employment than towards unemployment. The increased SDMT score, evident in both ocrelizumab-treated employed and unemployed subgroups, may contribute to the factors causing and explaining employment status.

Disclosure

Sponsored by F. Hoffmann-La Roche Ltd; writing and editorial assistance was provided by Articulate Science, UK.

H Wiendl has received grant/research support from Bayer Healthcare, Biogen Idec., Deutsche Forschungsgesellschaft, Else Kröner-Fresenius Foundation, German Federal Ministry of Education and Research, Hertie Foundation, Interdisciplinary Centre for Clinical Studies in Münster, Germany, Merck Serono, Novartis, NRW Ministry of Education and Research, Sanofi-Aventis/Genzyme and Teva; and has received consulting fees from Bayer Healthcare, Biogen Idec., Fresenius Medical Care, GlaxoSmithKline, GW Pharmaceuticals, Merck-Serono, Novartis, Sanofi-Genzyme, BioVentures and Teva.

RHB Benedict has received research support from Biogen, Bristol Myers Squibb, Genzyme, Genentech, Novartis, National Institutes of Health, National Multiple Sclerosis Society and VeraSci; consultancy fees from Immunic Therapeutics, Latin American Committee for Treatment and Research in Multiple Sclerosis, Merck, Novartis, Roche and Sanofi; speaking support from Biogen, Bristol Myers Squibb and EMD Serono; and royalties from Psychological Assessment Resources, Inc.

G Comi has received consulting and speaking fees from Novartis, Sanofi-Genzyme, Genzyme Corporation, Merck KGaA, Merck-Serono SpA, Celgene Group, F. Hoffmann-La Roche Ltd, Almirall SpA and Janssen.

C Oreja-Guevara has received honoraria for speaking and serving on advisory boards from Biogen Idec., F. Hoffmann-La Roche Ltd, Genzyme, Merck, Novartis and Teva.

A Siva has received honoraria or consultancy fees and/or travel and registration coverage for attending several national or international congresses or symposia from Biogen Idec./Gen Pharma of Turkey, F. Hoffmann-La Roche Ltd, Genzyme, Merck-Serono, Novartis and Teva.

B Van Wijmeersch has received financial support/study grants or fees for speaking and serving on advisory boards from Almirall, Actelion/Janssen, Bayer, Biogen, Celgene/BMS, Merck, Novartis, F. Hoffmann-La Roche Ltd, Sanofi-Genzyme and Teva.

R Buffels is an employee of F. Hoffmann-La Roche Ltd.

T Kuenzel is an employee of F. Hoffmann-La Roche Ltd.

P Vermersch has received honoraria and consulting fees from AB Science, Biogen, Celgene, Imcyse, Merck, Novartis, Roche, Sanofi-Genzyme and Teva; and research support from Merck, Novartis, Roche and Sanofi-Genzyme.

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Memory rehabilitation for people with multiple sclerosis

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Introduction: Problems with cognition, particularly memory, are common in people with multiple sclerosis (MS) and can affect their ability to complete daily activities and can negatively affect quality of life. Over the last few years, there has been considerable growth in the number of randomised controlled trials (RCTs) of memory rehabilitation in MS. To guide clinicians and researchers, this review provides an overview of the effectiveness of memory rehabilitation for people with MS.

Aims: We conducted an update of a Cochrane systematic review to determine whether people with MS who received memory rehabilitation compared to those who received no treatment, or an active control showed better immediate (within one month), intermediate (1-6 months), or longer-term (6 months plus) outcomes in their: memory functions, other cognitive abilities, and functional abilities.

Methods: We systematically searched all available databases using relevant search terms to identify studies that assessed the effectiveness of cognitive rehabilitation in MS.

Results: 2903 records were retrieved, and data were extracted from 29 new studies, combined with the 15 studies included in the previous update. We found a significant effect at immediate follow-up for subjective memory, verbal memory, visual memory, working memory, information processing, quality of life and depression measures; at intermediate follow-up for subjective memory, verbal memory, information processing, and quality of life; at longer-term follow-up for subjective memory and quality of life. We found no significant effect for activities of daily living or anxiety measures.

Conclusions: A significant effect was seen in both subjective memory and quality of life measures at each follow-up point, suggesting that the improvements as a result of memory rehabilitation are evident, meaningful and sustainable.

Disclosure

RdN, JMM, KJP and NBL have conducted memory rehabilitation studies in MS that have been included in this review.