Documents

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Prediction of multiple sclerosis outcomes when switching to ocrelizumab
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Abstract
Background: Increasingly, people with relapsing-remitting multiple sclerosis (RRMS) are switched to highly effective disease-modifying therapies (DMTs) such as ocrelizumab. Objective: To determine predictors of relapse and disability progression when switching from another DMT to ocrelizumab. Methods: Patients with RRMS who switched to ocrelizumab were identified from the MSBase Registry and grouped by prior disease-modifying therapy (pDMT; interferon-β/glatiramer acetate, dimethyl fumarate, teriflunomide, fingolimod or natalizumab) and washout duration (<1

month, 1–2 months or 2–6 months). Survival analyses including multivariable Cox proportional hazard regression models were used to identify predictors of on-ocrelizumab relapse within 1 year, and 6-month confirmed disability progression (CDP). Results: After adjustment, relapse hazard when switching from fingolimod was greater than other pDMTs, but only in the first 3 months of ocrelizumab therapy (hazard ratio (HR) = 3.98, 95% confidence interval (CI) = 1.57–11.11, p = 0.004). The adjusted hazard for CDP was significantly higher with longer washout (2–6 m compared to <1 m: HR = 9.57, 95% CI = 1.92–47.64, p = 0.006). Conclusion: The risk of disability worsening during switch to ocrelizumab is reduced by short treatment gaps. Patients who cease fingolimod are at heightened relapse risk in the first 3 months on ocrelizumab. Prospective evaluation of strategies such as washout reduction may help optimise this switch. © The Author(s), 2021.

Author Keywords
fingolimod; Ocrelizumab; switch; washout

Index Keywords
beta interferon, dimethyl fumarate, fingolimod, glatiramer, natalizumab, ocrelizumab, teriflunomide, cytidine diphosphate, immunosuppressive agent, monoclonal antibody, ocrelizumab; adult, Article, clinical study, cohort analysis, demographics, disability, disease exacerbation, Expanded Disability Status Scale, female, follow up, human, incidence, Kaplan Meier method, major clinical study, multiple sclerosis, neurologist, outcome assessment, phenotype, prediction, proportional hazards model, prospective study, relapse, survival analysis, univariate analysis, multiple sclerosis, recurrent disease; Antibodies, Monoclonal, Humanized, Cytidine Diphosphate, Fingolimod Hydrochloride, Humans, Immunosuppressive Agents, Multiple Sclerosis, Multiple Sclerosis, Relapsing-Remitting, Recurrence

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