(S112) DEVELOPING NATALIZUMAB TREATMENT GUIDELINES FOR MULTIPLE SCLEROSIS PATIENTS

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**Background:** Natalizumab (Tysabri) is approved in Canada as a monotherapy for the treatment of patients with relapsing-remitting multiple sclerosis (MS). Currently, there are no clear treatment guidelines for health-care professionals using this medication. New evidence suggests that longer exposure to natalizumab increases the risk of developing progressive multifocal leukoencephalopathy (PML). For these reasons, treatment guidelines for health-care professionals using natalizumab were developed in June 2009. The guidelines provide an approach to patient selection, monitoring, and early detection and management of PML.

**Objectives:** This study aims to describe the development process and evaluate the implementation of natalizumab treatment guidelines developed to optimize management of MS patients with active disease at the MS Clinic of the Montreal Neurological Hospital, Montreal, Canada.

**Methods:** The guidelines are based on a literature review and an expert consensus including all the neurologists at the MS Clinic, experts in neuroradiology and neuroimmunology. Charts of patients treated with natalizumab were reviewed retrospectively before (April 2007 to May 2009) and after implementation (June 2009 to March 2010) of guidelines. Extracted data included demographics, baseline tests (magnetic resonance imaging, immune status, liver function tests), frequency of follow-up, and washout period.

**Results:** Before June 2009, 57 patients (81% female) initiated natalizumab treatment. The median number of infusions was 14 (range, 1–30), with a mean treatment time of 13.6 months. Natalizumab has been given as a second-line treatment, except for one patient who was treatment-naive. Washout periods were <3 months for two patients previously on chemotherapy and <1 month for four patients previously on immunomodulators. Baseline tests were performed on 56% of patients. Half of the group was assessed biannually during treatment, and 12% were assessed >9 months apart. Data after implementation of guidelines will be presented.

**Conclusions:** This study shows the need for clear and standard treatment guidelines. Final results will show the value of the guidelines developed.

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