

IT IS STILL IMPOSSIBLE TO ADEQUATELY ASSESS RISK MANAGEMENT OF NEW DISEASE MODIFYING THERAPIES

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New multiple sclerosis therapies not only bring positive MRI and clinical effects but also are associated with many risks. These drugs modify immune system of the patient on cellular and humoral level, what leads to decrease of MS activity but also can provoke complications in form of opportunistic infections, altered response to vaccination, development of cancers or appearance of autoimmune disorders. The risk of the side effects is different. As many of these drugs are still during investigations or postmarketing observations, more time and number of treated patients is required to establish real risk

of these therapies.

Natalizumab, a humanized monoclonal antibody targeting $\alpha 4\beta 1$ integrin on lymphocytes through the reactivation of JC virus can cause PML- progressive multifocal leukoencephalopathy. Risk of PML could be also associated with another monoclonal antibody, rituximab. Other opportunistic infections have been observed during monoclonal antibodies or new oral therapies. They include infections caused by measles, varicella zoster, herpes simplex, hepatitis viruses and others. Other risks are associated with development of cancers and autoimmune disorders.

Clinical trials are of limited value in safety evaluation, due to their limited time and number of patients who are strictly selected for the trial. The full risk can be better estimated in careful postmarketing surveillance under condition of actual clinical usage of the drug.