A critical appraisal of treatment decisions in multiple sclerosis--old versus new.

Interferon ? and glatiramer acetate have been available for the treatment of multiple sclerosis (MS) for over a decade and their efficacy and safety are well established. These agents have detectable effects on the immune system, but have not been associated with a breakdown of immune surveillance. Novel MS therapies have been approved, or are awaiting approval, that differ from established immunotherapies with regard to their mechanisms of action, modes of administration, adverse-effect profiles and, possibly, the clinical and paraclinical benefits that they may provide for patients. Neurologists will soon be required to make complex treatment decisions with their patients on the basis of very limited clinical data and evidence. Under these circumstances, optimal assessment of risks and benefits will be challenging. In this Review, the anticipated benefits of novel therapies, including reduction in disease activity, possible prevention of disability, and improvement in quality of life, are outlined. In addition, the current acceptance of potential risks--including serious or even life-threatening adverse effects, the likelihood of which may rise with increased cumulative exposure to a particular agent--by patients with MS will be reviewed.