Current treatment options for first-line immunotherapy in relapsing remitting multiple sclerosis are recombinant interferon-beta and glatiramer acetate. However, these therapies are only partially effective and certain patients may fail to respond. Escalation strategies have demonstrated their worth in other autoimmune disorders e.g. rheumatology and may also prove to be beneficial in multiple sclerosis. The current concept of escalation therapy involves switching patients who fail first-line therapy to natalizumab or other treatments although these drugs have not been evaluated in children. Standardised algorithms and consensus definitions are required to monitor treatment outcome, to determine treatment failure and to structure proceeding from one level of therapy to another. As in other autoimmune disorders we may need to consider induction therapy at onset. In patients with severe disease activity at onset who are at risk for early accumulation of disability, induction therapy with a powerful immunosuppressant followed by maintenance therapy with glatiramer acetate or interferon-beta may be considered. Treatment decisions should be tailored to the needs and status of the child and taken pragmatically after informed discussion with the young person and his/her family.