

## **Is bone marrow transplantation the ultimate treatment in aggressive disease? Con position**

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Bone marrow transplantation is undoubtedly an effective and potent treatment that can be considered in patients with aggressive inflammatory forms of MS. However, the following are now indisputable: 1. It is not effective for progressive MS without ongoing inflammation; 2. It is not a cure, and reactivation of MS disease activity may occur in a sizeable proportion of patients who are followed 5 years following transplantation; 3. Some, albeit a low proportion of patients die of complications of this treatment; 4. Other non-transplantation-based pharmacotherapies are now available for MS that are likely safer, easier to administer, and approach the effectiveness of transplantation. While some may argue that more aggressive approaches to immunoablation might lead to even greater efficacy than current regimens, the trend in some institutions has been toward lesser toxicity with less aggressive treatment. Confident complete elimination of clones of autoreactive T-cells, especially in certain hard to eradicate locations in the nervous system, is not feasible with current methodology. Treatment may improve, but a new strategy that “guarantees” a high long term remission rate is what is required before bone marrow transplantation may be considered the standard...“the ultimate treatment”....for any patients with MS, aggressive or otherwise.