

Is immunosenescence a factor to be considered in treating patients older than 50? YES

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Immunosenescence refers to an aging immune system that changes its capability for responding to its environment. In some cases, it might be more permissive, which might be viewed as bad when it comes to allowing infections (such as opportunists) or cancers to brew uncontrolled. But in the case of autoimmune disease like MS, it might be one of the reasons the underlying condition tends to change from an inflammatory condition with relapses and new enhancing MRI lesions to a more degenerative one. Cells change as the body ages and their respective roles may also alter. Macrophages and microglia behave differently. T and B cell subsets and their respective cytokine profiles change. Disease modifying medications are for the most part proven and developed on younger patients in the relapsing time of their disease. Most, if not all, have been ineffective at controlling progressive disease. Since the biggest risk of developing progressive MS is age itself, perhaps the ageing immune system is to blame why the treatments are less effective. Treating MS effectively is already a complex ordeal and it is imperative that the treating physician also takes into account the ageing immune system when trying to assess benefit to risk of a particular therapy.