Impact of Immunosenescence in Aging MS Patient

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Immunosenescence refers to the age related changes to the immune system - including both the innate and adaptive immune systems - that include a decline in naïve T cell production, a decline in CD8 T cell function, and a decline in NK cell function. Taken together, these age-related changes predispose to an increase in infections and malignancy and decrease the efficacy of vaccines. This down-regulation of the immune system must be taken into effect when considering use of disease-modifying therapies in the older MS population, and underscores the importance of understanding and monitoring for treatment related complications. When assessing the risk/benefit of disease-modifying therapy in the older MS population, one must also take into account the effect of immunosenescence on the risk of acute neuro-inflammatory events.