

## **Statin Adherence is Associated with Reduced Incidence of Venous Thromboembolism**

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**Background:** The association between statin use and venous thromboembolism (VTE) prevention has been repeatedly shown in multiple reports. Since patient adherence to medications is poor, their applicability in a real-life setting is questionable.

**Objectives:** Investigate the association between the use of statins and incidence of VTE.

**Methods:** A retrospective cohort study in a large healthcare maintenance organization (HMO) population. Prescription drug purchase data was analyzed in order to evaluate the association between statin use and adherence and between VTE prevention. Included were statin initiators aged 30 years or older since 2003 who did not have a statin prescription for at least 4 years before that and had at least 18 months follow up. End of follow up was defined as the first of the following: leaving MHS, death, VTE or October 27, 2010.

**Results:** The study population included 159,109 subjects (79,194 females). The follow-up period comprised of 752,538 patient years (PY), and included 815 and 1139 VTE cases and 5-year cumulative incidence rates of 1.09% and 1.49%, among man and women, respectively. Cox regression analysis demonstrated a significantly lower VTE risk of up to 30% for males, in more adherent patients compared to the risk for the lowest adherence group. A similar analysis for females was not found. In both genders, several atherosclerotic risk factors were associated with higher VTE risk.

**Conclusion:** In a real life HMO setting, better adherence to statins is associated with a reduced risk of first ever VTE events in males.