

**TITLE:** Comparing aspirin to warfarin for venous thromboembolism (VTE) prophylaxis in the acute inpatient rehabilitation setting

**AUTHORS:** Jason Pan MD ([jason.pan@uphs.upenn.edu](mailto:jason.pan@uphs.upenn.edu), 508-317-8665), David A. Lenrow MD

**INSTITUTIONS:** Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania

**ABSTRACT BODY:**

**Background/Purpose:** Venous thromboembolism (VTE) is a disease that leads to 50,000 to 100,000 deaths per year across the United States. VTE is associated with various risk factors, including recent surgery, such as total knee arthroplasty (TKA). Various VTE prophylaxis regimens have been recommended, including aspirin and warfarin, though it has been suggested that there is a higher incidence of VTE with aspirin-only prophylaxis as compared to warfarin-only prophylaxis. The aim of this study is to determine whether or not there is a difference in incidence of VTE between the above-mentioned groups.

**Setting:** Quaternary-care academic hospital inpatient rehabilitation

**Subjects:** Adult inpatients admitted to the Penn Institute for Rehabilitation Medicine (PIRM) for rehabilitation (between 1/1/2010 and 12/31/2015) after TKA with aspirin or warfarin VTE prophylaxis

**Design:** This study is a retrospective analysis of TKA patients who have undergone VTE prophylaxis with either aspirin or warfarin. Data collection was queried through the Penn Medicine Data Analytics Center.

**Results:** A total of 923 patient status-post TKA were admitted to PIRM within the specified date range. Among 129 randomly selected subjects, 72 subjects received aspirin and 57 received warfarin for VTE prophylaxis. The incidence of VTE was 6.9% in the aspirin group and 3.5% in the warfarin group ( $p = 0.40$ ).

**Discussion/Conclusions:** The data do not demonstrate a difference regarding the incidence of VTE between patient populations on aspirin versus warfarin prophylaxis after total knee arthroplasty. This suggests that VTE prophylaxis with aspirin or warfarin carry similar efficacy. Given similar effectiveness, choice of prophylactic agent may depend more on other factors, such as surgeon preference, associated medical conditions, or side effect profile.