



Paper #43

Direct Costs of Aspirin Versus Coumadin for Venous Thromboembolism Prophylaxis

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Introduction: Recent clinical evidence supports the utilization of aspirin as a safe and efficacious strategy to prevent venous thromboembolism (VTE) after total joint arthroplasty. This study aims to determine the financial implications of using aspirin instead of warfarin in terms of direct costs associated with the patient's episode of care.

Materials and Methods: The institutional arthroplasty database was utilized to analyze the preoperative, clinical, and financial data on 6,372 patients undergoing primary and revision total joint arthroplasty at our institution between January 2008 and March 2010. Mode of VTE prophylaxis (aspirin or warfarin) for each patient was recorded. Patients readmitted for postoperative complications related to VTE prophylaxis or infection were identified. Line-by-line charges were gathered for all patients in this cohort for their index arthroplasty admission, as well as any subsequent readmissions for related complications. Charges associated with the two groups were compared, and linear regression analysis was utilized to isolate the effect of anticoagulation on total charges.

Results: An episode of care associated with the aspirin cohort (n=1,213 patients) resulted in an average total cost of \$54,181, compared to \$63,718 for patients receiving warfarin (n=4,159). Twenty-five patients (2%) receiving aspirin experienced a post-operative complication related to VTE prophylaxis, resulting in 11 readmissions (0.9%), compared to 241 (5.8%) complications and 89 (2.1%) readmissions in warfarin patients. When adjusting for surgeon, day and year of surgery, Charlson index, joint, revision versus primary, BMI, and gender, aspirin was an independent predictor of decreased total charges and decreased cost of index hospitalization.

Conclusion: This study supports the cost-savings that can be achieved by using aspirin rather than warfarin in primary and revision arthroplasty settings. The use of aspirin compared to warfarin results in 11.75% cost saving for each total joint arthroplasty.
