

Patient Adherence to VTE Prophylaxis Following Major Extremity Trauma

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INTRODUCTION: The purpose of this study was to analyze VTE prophylaxis adherence rates in orthopedic trauma patients and identify factors influencing non-adherence. Insights gained will enhance patient-provider communication regarding VTE prophylaxis and refine trauma protocols to optimize outcomes for this particular patient population.

METHODS: Orthopedic trauma patients discharged with VTE chemoprophylaxis completed surveys on their medication adherence and understanding of their medication in their own words. They also completed the Brief Health Literacy Survey (BHLS), with high health literacy was defined as having a score of 10 or higher. The categorical data were then analyzed to compare adherence rates among trauma patients according to type of VTE prophylaxis and health literacy. Numerical data were analyzed using Pearson correlation, and chi-squared tests were used to assess associations with categorical variables.

RESULTS: 104 patients filled out the survey. There was a complete adherence rate to postoperative VTE chemoprophylaxis of 48% (50/104), while 35% (36/104) were partially adherent, and 17% (18/104) were non-adherent. 27% (28/104) of patients were incorrect in their understanding of the medication for VTE chemoprophylaxis. 78/104 (75%) were categorized as having high health literacy, while 26/104 (25%) were categorized as having low health literacy. Health literacy and other demographic factors did not show a significant association with adherence. However, there was a statistically significant positive correlation between adherence and medication understanding (correlation coefficient 0.66, $p < 0.001$).

DISCUSSION AND CONCLUSION: In this study, orthopedic trauma patients demonstrated a low adherence rate to VTE prophylactic medication. There was a strong correlation between understanding and adherence to medication. There is a weak correlation with health literacy level and adherence, which suggests that while overall health literacy is important, direct understanding of their post-operative management may play a larger role in adherence to medication. Improving patient comprehension of their conditions and medications could significantly increase adherence rates and decrease complications.