**Evaluation of Anticoagulation Selection on Length of Stay in HIT**

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**Background:** Heparin-induced thrombocytopenia (HIT) is a potentially life-threatening, immune mediated adverse drug reaction secondary to unfractionated heparin (UFH) or low molecular weight heparin (LMWH) exposure. Current guidelines recommend stopping all heparin-containing products upon clinical suspicion of HIT, as well as prompt initiation of non-heparin based parenteral anticoagulation for initial management such as argatroban, bivalirudin, or fondaparinux. Direct Thrombin Inhibitors (DTI) require a bridge to warfarin, thus increasing hospital length of stay (LOS), parenteral anticoagulation expenses, and need for outpatient warfarin management. Direct oral anticoagulants (DOACs) are a viable option for the management of HIT by potentially reducing length of hospital stay and overall cost, as well as being an oral option. The 2019 American Society of Hematology (ASH) guidelines now include DOACs as a potential alternative for the treatment of HIT.

**Objective:** The primary endpoint of the study was to evaluate the effect of maintenance anticoagulation therapy selection on hospital length of stay in patients with a confirmed HIT diagnosis. Hospital length of stay was assessed from the day of HIT diagnosis to the day of discharge. Secondary endpoints included hospital length of stay from HIT diagnosis to readiness to discharge; 30-day readmission for thrombosis or major bleeds; 30-day mortality; appropriateness of maintenance therapy selection at initiation and prior to discharge; and the rate of major bleeds during hospitalization.

**Methods:** Investigators completed a single-center, retrospective chart review which included patients diagnosed with HIT confirmed by a positive serotonin release assay test and excluded patients with an active bleed and/or who were deceased prior to maintenance anticoagulation assignment. Patients were separated into two groups based on the maintenance anticoagulant at discharge: (1) warfarin group or (2) apixaban, rivaroxaban, dabigatran, or fondaparinux group. Descriptive and inferential statistics were used for this study, and categorical variables were analyzed using a Chi-square test. This study was exempt from IRB review.

**Results:** Hospital length of stay was shorter in the DOAC/fondaparinux group at 8.57 days compared to the warfarin group at 11.9 days. The warfarin group was found to have less 30-day events (0) versus the DOAC/fondaparinux group (3), which included 2 thrombosis events and 1 reported mortality.

**Conclusion:** Maintenance dosing was found to be consistently appropriate in both treatment groups. However, the warfarin group had a longer hospital length of stay than the DOAC/fondaparinux group, which was expected due to lengthy parenteral/warfarin bridging requirements for therapeutic anticoagulation. In conclusion, this study suggested that DOACs/fondaparinux have shorter hospital stays, but more 30-day events, when compared to warfarin.