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CORE 7. VASCULAR DISEASE: BIOLOGY AND CLINICAL SCIENCE

SESSION TITLE: PREDICTING AND PREVENTING STROKE IN PATIENTS WITH CARDIOVASCULAR DISEASE

Abstract 10606: More Frequent Self-Testing of Prothrombin Time Results in Improved Time in Target Range

David B Matchar, Rowena Dolor, Alan Jacobson, Sean Love, Robert Edson, Lauren Uyeda, and Site Investigators

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Abstract

BACKGROUND: Anticoagulation (AC) is effective in reducing thromboembolic events for individuals with atrial fibrillation (AF) or mechanical heart valve (MHV), but maintaining patients in target range for international normalized ratio (INR) can be difficult. Evidence suggests that increasing INR testing frequency can improve time in target range (TTR), but this can be impractical with in-clinic testing. As part of The Home INR Study, a randomized controlled trial of in-clinic INR testing every 4 weeks vs. weekly home testing, a subset of study sites included home testing twice weekly and once every four weeks. The study tested the hypothesis that more frequent patient-self testing (PST) via home monitoring increases TTR.

METHODS: Of 28 study sites, 6 participated in this substudy. After consent, 1029 candidates with AF or MHV were trained and tested for competency using ProTime INR meters; 787 individuals were assessed as competent and, after second consent, were randomized to 4 arms: (1) high quality AC management (HQACM) in a dedicated clinic, with venous INR testing once every four weeks; (2) PST once every four weeks; (3) PST weekly, and (4) PST twice weekly. Follow-up was conducted for 2-4.75 years. The primary endpoint was TTR as measured at one year of follow-up with differences in treatment groups tested using the Wilcoxon rank sum test. As the substudy was not powered for events, major bleed, stroke and death were evaluated as secondary endpoints.

RESULTS: Subjects in the 4 arms were similar with regard to age, gender, CHADS2 score, and presence of AF or MHV. TTR was greater as testing frequency increased. The

proportion of patients experiencing a major bleed, stroke or death did not vary with frequency of PST.

CONCLUSIONS: More frequent PST resulted in improved TTR. These results warrant future investigation to compare outcomes between HQACM and a tailored PST approach in which test frequency increases for patients with variable INR and decreases for those with stable INR.



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