

Differences in clinical outcomes between young and old elderly patients taking warfarin

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Background: Several studies have examined the use of warfarin in the elderly; however, these studies have primarily included patients with atrial fibrillation and focused on identifying the incidence of bleeding or thrombotic complications or factors affecting the risk of bleeding. As a result, there is little information available about differences between young and old elderly patients taking warfarin in regard to therapeutic and safety outcomes and factors affecting these outcomes.

Objectives: The objective of this study is to answer the question: Is there a difference in clinical outcomes between young and old elderly patients taking warfarin? The primary aim is to determine if there is a difference between young and old elderly patients taking warfarin in regard to time-in-therapeutic range (TTR) and incidence of bleeding and thrombotic complications. The study also aims to determine if any factors influence the clinical outcomes in young versus old elderly patients taking warfarin.

Rationale and Significance: Among six Chicagoland ambulatory anticoagulation clinics, there are approximately 900 elderly patients receiving warfarin therapy. As the number of elderly patients in these clinics and nationwide continues to grow, additional information is necessary to help determine the optimal elderly patient in whom to use warfarin. The results of this study will help to identify the characteristics of an elderly patient who does well or poorly on warfarin therapy. This information can then be utilized in creating treatment algorithms and guidelines about warfarin use in the elderly to help physicians in their decisions about whether or not to initiate or continue warfarin therapy in an elderly patient.

Methods: Patients ≥ 65 years of age who have been taking warfarin for at least 6 months and are seen at one of the six participating anticoagulation clinics are eligible for inclusion in the study. During regularly scheduled clinic visits, patients will complete the Mini-Cog and answer questions about medication adherence, presence of help with medications at home, and if bleeding or thrombotic complications have occurred during the past year. Patients' anticoagulation clinic records and outpatient medical charts will also be reviewed. To determine if there is an association between TTR and age or other predefined factors, multiple linear regression will be utilized. Logistic regression will also be used to determine if there is an association between the incidence of bleeding or thrombotic complications and age or other predefined factors.