Title of Research: Impact of a Pharmacist-Managed Inpatient Anticoagulation Monitoring Service in a VA Health Care System

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Introduction/Purpose:
The Iowa City Veterans Affairs Health Care System implemented a pharmacist-managed inpatient anticoagulation monitoring service (AMS) to: (1) pursue a more active role in warfarin dosing and monitoring, (2) increase transparency of documentation, and (3) ease transition of care from inpatient to outpatient warfarin management. The purpose of this study was to evaluate the impact of the AMS on efficacy and safety outcomes related to warfarin management.

Experimental Design:
This retrospective study evaluated a post-protocol group (n=127) and a pre-protocol group (n=99). The primary objective was to determine if the AMS resulted in a greater percentage of patients with a therapeutic International Normalized Ratio (INR) at the first outpatient follow-up visit after hospital discharge. A subgroup analysis was performed for patients with a goal INR of 2.0-3.0. Secondary objectives included days to therapeutic INR, inpatient INR monitoring frequency, and a composite safety endpoint.

Results:
No significant difference was found between pre- and post-protocol management of warfarin in regard to the percent of patients with a therapeutic INR at the first outpatient visit after discharge (40% v. 43%, p=0.749), the average number of days to achieve a therapeutic INR after discharge (13.84 v. 12.54, p=0.746), or the incidence of composite safety endpoint events (26 v. 36, p=0.728). A significant difference was found in regard to the average number of INR draws per number of hospital days (0.91 v. 1.17, p<0.01) and average INR at the first outpatient visit upon subgroup analysis (2.0 v. 2.3, p=0.001).

Conclusions:
Although no significant difference was found for the majority of the study variables following implementation, the goals for development of the AMS were achieved.