

QUALITY IMPROVEMENT UTILIZING POINT OF CARE INR TESTING IN A GROUP PRACTICE

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Introduction

Many primary care patients have the need for warfarin therapy as well as the need for frequent INR monitoring to ensure adequate anti-coagulation. This project analyzed the effectiveness of a quality improvement initiative that sought to have a higher percentage of visits with patients at therapeutic INR levels. The intervention made to improve the INR levels involved changing from a send out monitoring method to a point of care (POC) testing method. Also, the data will determine if the clinic is within the nationally reported range of therapeutic INR visits currently listed as 30-55%.

Methods

Over the course of 4 months, all patients in the University Family Medicine practice currently undergoing anti-coagulation were identified and logged whenever a POC test was performed. Once the patient base was identified, the number of visits and the number of visits at therapeutic INR were calculated. After these patients were identified, a retrospective chart review was conducted to analyze data based on the same time period prior to initiating POC testing. The two time frames and their results were then compared. Goal INR was adjusted based on reasoning for anti-coagulation.

Results

Initial data was collected based on POC visits from October 2004 through January 2005. Chart review of INR visits was conducted for the months of June 2004 through September 2004. Thirty-seven patients were identified from the POC log book. Of these, 12 were being treated for deep vein thrombosis, 10 for atrial fibrillation, 9 for pulmonary embolus, 3 for an

artificial valve, 1 for a mural thrombus, and 2 had no identifiable cause. The percent of patients at goal INR utilizing send out labs was 31.4% compared to 31.6% for POC testing. There was no statistical significance between the groups (p-value 0.11). The average number of visits during the 4 month periods was 3.25 visits for send-out labs and 4.30 for POC testing.

Conclusion

The quality improvement initiated did not result in an improvement in the number of therapeutic INR values. Changing to POC testing did result in more frequent monitoring of INR values. Both of the therapeutic INR, 31.4% and 31.6%, place the University Family Medicine clinic at the lower end of nationally reported averages. Further utilization of POC testing, standardization of warfarin adjustment, and doctor/patient education may substantially improve goal levels.