Quality Improvement Project Plan for an Inpatient Warfarin Management Protocol
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Problem: Warfarin is historically known as a high risk drug with a narrow window of safety and causes up to 100,000 serious and unnecessary adverse events every year. There is a strong need to minimize inconsistencies between practitioner dosing schedules and promote standardization of prescribing practices for warfarin dosing.

Evidence: Each year approximately 30 million prescriptions of warfarin are ordered and an estimated two million new patients are started on warfarin therapy. The United States Food and Drug Administration reported that warfarin is among one of the top 10 drugs with the largest number of serious adverse drug events.

Strategy/Practice Change: A south Louisiana hospital lacked a standardized dosing schedule for warfarin; therefore a uniform warfarin protocol was implemented with the assistance of a hospitalist group. The protocol was implemented on patients 19 years of age or older admitted with a diagnosis of pulmonary embolus, deep venous thrombosis, or that were scheduled to undergo cardiac mechanical valve replacement.

Evaluation: Within the protocol three specific dosing schedules were available for use. Evaluation centered on which dosing schedule was initiated, number of doses that were guided by the dosing schedule and the number of days to achieve a therapeutic international normalizes ratio (INR). All were evaluated in an effort to minimize dosing inconsistency.

Results: A total of 89 patients were reviewed for consideration of treatment with the warfarin protocol. Thirty-two of the 89 patients (35.96%) were initiated on the protocol. Fourteen remained on the protocol through day six of hospitalization and of those 14; eight (57.15%) patients obtained therapeutic INR within six days. Sixty-six percent of the dosing was based on the selected protocol. Warfarin education was provided to 16 of the 32 (50%) patients prior to discharge.

Recommendations/Lessons Learned: Utilization of an evidence-based practice protocol can assist to minimize inconsistency with warfarin dosing and provide a gradual trend of INR value.

Bibliography:
