

VTE Prevention Protocol Across All Medical and Surgical Services

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At the UC San Diego Medical Center, we have utilized a strategy of enforced risk stratification for hospitalized inpatients across all adult inpatient disciplines to bring about marked reduction in VTE risk in hospital but also improve rates of recommended prophylactic agents. Built on the construct of an existing order entry system, our application drives practitioners through a scoring tool to identify those patient populations at increased VTE risk. Then, by identifying any potential contraindications to anticoagulation, the provider is prompted to select the best combination of mechanical and pharmaceutical interventions to prevent VTE. This process is invoked at each admission and transfer moment.

This strategy has been demonstrated to provide a statistically significant reduction in VTE risk and increase in ordering of correct VTE prevention strategies. The use of the tool alone provided a near 90% compliance rate with correct interventions. However, nearly 10% of inpatients were not receiving anticoagulation despite having risk factors for in hospital VTE. Therefore a combined measurement and intervention strategy was invoked. By reviewing medical administration records, it was possible to identify those patients who were not on prophylactic anticoagulation, and if deemed there was no contraindication, there was an alert to the provider to add this medication. This added review has led to nearly 100% compliance with the standard.

In our medical center, a significant amount of input was obtained from various services including the core hospital medicine teams, orthopedics, trauma surgery and reproductive medicine to ensure a broad base of support for the intervention. The central prioritization team for the clinical systems group within Information Services was directed to ensure timely modifications to this order set component as well as prioritization of a companion anti-coagulation order set for those patients being initiated on oral anticoagulation.

This methodology has been disseminated broadly through the VTE collaborative of the Society for Hospital Medicine and has been adapted to both paper based as well as vendor software platforms. While not all software CPOE programs can replicate this precise indication based ordering process, the concept of risk stratification driving interventions can be widely deployed. The intention of this project is to make VTE risk stratification and use of appropriate anticoagulation measures a standard part of admission and ongoing reassessment for all hospitalized inpatients.