ABSTRACT

In adult trauma patients, the development of a deep vein thrombosis and subsequent pulmonary embolism can have catastrophic implications including death. There are unique characteristics and injury patterns in trauma patients that may make chemoprophylaxis for deep vein thrombosis contraindicated. These include traumatic brain injury, spinal cord injury with paralysis, significant solid organ injury with continuing hemorrhage, coagulation disorders, venous injury and prolonged ventilator support. A vena cava filter will not prevent the development of a deep vein thrombosis. The filter will trap a migrating thrombus and prevent it from entering the pulmonary vasculature.

The purpose of this evidence-based research utilization project was to determine best practices in the decision to consider the placement of a vena cava filter early in the hospital course of trauma patients. The Rosswurm and Larrabee model of evidence based practice and research utilization guided this project. Both the research literature and the adult trauma patient database at a Level 1 Trauma Center were analyzed to determine if there were specific characteristics of trauma patients that might help identify those patients who were candidates for a vena cava filter early in their hospital course. As a result of the analysis, a Risk Assessment Tool was developed to recommend which patients might benefit from early placement of a vena cava filter. The tool will be used over a two-year period at a Level I Trauma Center and an analysis will be completed at that time to determine its ability to predict trauma patients who would benefit from early placement of a vena cava filter.