

## **7-Step Process to Walk Providers Through an Evidence-Based Medicine Risk Factor Assessment**

**Jovonne H. Jones, PharmD**

The Washington, DC Veterans Affairs Medical Center (DC VAMC) has a well established fully integrated electronic medical record (EMR) called Computerized Patient Record System (CPRS) that allows for all health care providers within the medical center to access veterans' inpatient and outpatient medical information. One key feature of the EMR is the system's Computerized Physician Order Entry (CPOE) process. The thromboprophylaxis order set, is a 7-step evidence based venous thromboembolism (VTE) risk factor assessment, that has been ingrained into various workflow processes within the medical center's inpatient CPOE and has been implemented to assist physicians in providing evidence based care to patients who are at risk of having a hospital acquired venous thromboembolic event (HAVTE). The VTE order set is a hospital wide protocol that is readily available through CPRS and is an universal VTE risk factor assessment for all inpatient wards that can be utilized by all providers.

The development and implementation of the VTE prophylaxis order set consists of both an internal and external process. The internal process is the DC VAMC strategy and the external process highlights collaboration with other VAs, the Society of Hospital Medicine, and the Department of Veterans Affairs Central Office to address the problem of the underutilization of VTE Prophylaxis. The Medical Center recognized VTE prophylaxis as an area of quality improvement; therefore, the DC VAMC applied for the Society of Hospital Medicine VTE Prevention Collaborative in order to develop a proposal to prevent hospital acquired VTE. The DC VAMC was chosen to be one of the sites to participate in the one-on-one mentorship in developing a DVT prevention strategy. It was discussed that through the use of the Electronic Health Records System a protocol developed at the Washington DC VAMC could be deployed nationally and used by other VAMCs; therefore, the DC VAMC encouraged Dayton and Iowa City VAs to join the collaborative. The VAs/SHM collaborative partnered with VHA Hospitalist Field Advisory Group in Fall of 2007 to complete a risk assessment of the order set which caused additional VAs to join the collaborative. The FAC/SHM collaborative developed an evidence based template that could be modified by individual facilities based on their needs. In July 2008, the Washington DC VAMC was the first facility to go live with their version of the VTE prophylaxis order set that was modified from the template developed by the FAC/SHM collaborative. Throughout the implementation process, the Department of Pharmacy collaborated with the Department of Clinical Informatics within the DC VAMC to complete research projects that evaluated the use of the order set. The initiative that was started at the DC VAMC has been presented often to the National Quality Management & Chief Medical Officers as a national solution to addressing the problem of the under-utilization of VTE prophylaxis.

The adherence of the order set usage by providers at the DC VAMC is monitored on many levels. The National Veterans Affairs Medical Center monitors individual medical centers' compliance by the Inpatient Evaluation Center (IPEC). The VTE IPEC evaluates how well VAMCs are providing VTE prophylaxis to patients based on their individual medical conditions. Additionally, on a local level, a VTE Prophylaxis Audit Tool is a real-time monitoring tool being implemented for daily internal monitoring based on the 7-step order set usage, with the goal of increasing VTE risk assessments and appropriate prophylaxis provided to patients through the use of the VTE order set.

The FAC/SHM collaborative is still working on improving the order set by routinely reviewing the order set to ensure that the clinical recommendations are based on the most current clinical guidelines and national/local pharmacy policies. The ultimate goal is for the order set to be formally recognized as a national solution to addresses VTE prevention and for the VTE prophylaxis order set to be adopted nationally by VAMCs. Additionally, the collaborative is working towards deploying the VTE Prophylaxis Audit Tool nationally to individual VAMCs to monitor the use of the order set and prophylaxis provided to veterans in real-time.

The development and implementation of the order set shows the initiative that the hospital has taken on committing its resources to making an impact in changing the quality of care provided to veterans. The VTE prophylaxis order set was successful due to the collaborative efforts of the protocol champions who were key members of various hospital departments including Pharmacy, Clinical Informatics, Information Technology, Nursing, and Physicians from various clinical services as well as the FAC/SHM collaborative.