Driving

Health Care Quality

VTE Guide for Executive Leadership

Implementing a VTE Prophylaxis Process for Hospitalized Patients

A Supplement to the HSAG VTE Resource Kit

HSAG HEALTH SERVICES ADVISORY GROUP

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"The Institute of Medicine has classified the failure to provide appropriate screening and preventive treatment [for DVT and PE] to hospitalized, at-risk patients as a medical error, and the Agency for Healthcare Research and Quality has ranked the provision of such preventive treatment as one of the most important things that can be done to improve patient safety. Proven, effective measures are available to prevent and treat DVT and PE in high-risk individuals. Yet today the majority of individuals who could benefit from such proven services do not receive them."

— Michael O. Leavitt
Secretary of Health & Human Services,
United States Public Health Office
in *The Surgeon's Call to Action to Prevent Deep Vein Thrombosis and Pulmonary Embolism, 2008*

Definitions of Deep Vein Thrombosis, Pulmonary Embolism, and Venous Thromboembolism[2]

"Deep vein thrombosis (DVT) refers to the formation of one or more blood clots (a blood clot is also known as a 'thrombus,' while multiple clots are called 'thrombi') in one of the body's large veins, most commonly in the lower limbs (e.g., lower leg or calf). The clot(s) can cause partial or complete blocking of circulation in the vein, which in some patients leads to pain, swelling, tenderness, discoloration, or redness of the affected area, and skin that is warm to the touch. However, approximately half of all DVT episodes produce few, if any symptoms. For some patients, DVT is an 'acute' episode (that is, the symptoms go away once the disease is successfully treated), but roughly 30 percent of patients suffer additional symptoms . . . The most serious complication that can arise from DVT is a pulmonary embolism (PE), which occurs in over one-third of DVT patients. A PE occurs when a portion of the blood clot breaks loose and travels in the bloodstream, first to the heart and then to the lungs, where it can partially or completely block a pulmonary artery or one of its branches. . . Pulmonary embolism frequently causes sudden death, particularly when one or more of the vessels that supply the lungs with blood are completely blocked by the clot. . . . DVT and PE are commonly grouped together and sometimes referred to as 'venous thromboembolism' (VTE)."

Introduction

VTE has been described as the most preventable cause of hospitalized patient death. More than 2 million Americans suffer from VTE each year, with over half of these individuals developing their VTE in the hospital or in the 30 days post-hospitalization.

Despite the availability of effective prophylaxis for at-risk patients and publication of evidence-based guidelines, inadequate and omitted prophylaxis in hospitalized patients with medical illness is widespread in U.S. hospitals. While routine thromboprophylaxis in surgical patients has been well documented and supported by national projects, non-surgical hospital patients remain seriously underdiagnosed and undertreated.

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[2] From "*The Surgeon General's Call to Action to Prevent Deep Vein Thrombosis and Pulmonary Embolism, 2008*." Available at http://www.surgeongeneral.gov/topics/deepvein/.

There are many reasons for the missing sense of urgency regarding this problem, not the least of which is that VTEs are often asymptomatic and their effects and diagnosis often do not occur until after the patient has left the hospital. At this point in time, however, a confluence of pressures is developing that make it essential that hospital executive leadership place a priority on addressing VTE prevention (see "The Case for Implementing a VTE Prophylaxis Process for Hospitalized Patients *Now*" on page 1).

In this *VTE Guide for Executive Leadership*, we provide many tools to help make the case to hospital executive leadership that urgent action is needed to develop VTE prevention processes. This case can be summarized as follows:

- We need to stop blood clots from forming in patients during hospitalization.
- Blood clots are the #1 cause of potentially preventable deaths in hospitalized patients.
- Blood-clot prevention is rated as the #1 most effective patient safety practice for hospitals.
- Treating blood clots is exponentially more costly than preventing them.
- Implementing a blood-clot prevention process is something we can start today to protect the hospital from the vulnerability of a public exposure that could have dire consequences.

This document also provides many resources that hospital executive leadership can use to help "drive" a VTE prophylaxis implementation process for its medical patients.

Project Background

In August 2007, Health Services Advisory Group, Inc., (HSAG) received funding from sanofi-aventis, U.S., to conduct a one-year project aimed at developing resources that would assist hospitals in developing effective VTE risk-assessment processes. HSAG approached this task by working with a pilot hospital that did not have a risk-assessment process in place for medical patients, and identifying and providing needed resources at each stage of process development. The resulting *VTE Resource Kit* was published in August 2008 (http://www.hsag.com/services/special/vte.aspx).

One of the very essential "lessons learned" that came out of that initial project was the importance of executive leadership support and involvement. Our pilot hospital staff stated that more active executive support could have improved project results. This is in concert with numerous studies that have found that the role of senior leadership and organizational culture is correlated with clinical quality initiative success; without strong leadership support, even the most essential changes are difficult to accomplish and sustain. Further, achieving high-level leadership commitment and support has been shown to be related to the perceived urgency and feasibility of any proposed changes.

Developing resources and strategies to assist hospital executive leadership in taking on the "driving" role for implementing a VTE prophylaxis process for hospitalized patients became the focus of a follow-up project (with additional funding from sanofi-aventis, U.S.), and this *VTE Guide for Executive Leadership* is the result.

Using This Guide

In the appendices to this document are an integrated set of tools to help hospital executive leadership take a driving role in implementing a VTE prophylaxis process for hospitalized patients. A short description of each tool and its use is provided. Native format (MS Word, MS PowerPoint) files for many of the tools are embedded in the document so that hospital staff can modify the tool to fit the hospital's needs.

Appendix A: Business Case for VTE Prophylaxis

This document serves as the cornerstone for gaining commitment from administrative leadership. It presents the strategic imperative for establishing VTE prophylaxis for medical patients as one of the highest priorities of the administrative staff and board of directors (BOD) for improving patient safety. It can also be used as a secondary resource for obtaining clinical staff commitment.

Appendix B: Clinical Case for VTE Prophylaxis

This document serves as the cornerstone for gaining commitment from clinical leadership. It presents the medical imperative for establishing VTE prophylaxis for hospitalized patients as one of the highest priorities of the medical staff and BOD for improving patient safety. It can also be used as a secondary resource for obtaining administrative commitment.

Appendix C: Preliminary Leadership Tasks

This checklist provides a practical tool that will enable the chief executive officer (CEO) to drive development of a hospital infrastructure that can successfully balance leadership effort and commitment to preventing blood clots in hospitalized patients based on hospital goals, priorities, and resources. The checklist cross references other resource documents to be used in conjunction with each step in the checklist.

Appendix D: Sample Hospital VTE Prophylaxis Policy

This sample policy provides a concrete vision for the quality improvement team to pursue. It can be used by the CEO, chief medical officer (CMO), and the BOD in conjunction with the Business Case and Clinical Case to facilitate discussions and to set a mutual context for the initiative. It is provided in a native file format (MS Word) so that the hospital personnel can customize it and use it as a template for developing the hospital's official policy.

Appendix E: Sample Leadership Roles and Responsibilities

This is a multifunctional document that leaders can use to negotiate and coordinate their individual responsibilities and make sure that all of the essential activities are covered. It can be used by the BOD, CEO, CMO, chief quality officer (CQO), C-Suite champion (CSC), and physician champion (PC) as a starting point for discussion. It is provided in a native file format (MS Word) so that it can also serve as a template for the final, approved version of leadership accountabilities.

Appendix F: Assessing C-Suite Champion Potential

This assessment tool may be used by the CEO to identify the C-Suite executive who has the greatest potential for leading a quality improvement project to achieve and sustain success. On

one sheet of paper it provides a snapshot of some key roles, responsibilities, and tasks that are often lacking in support of hospital quality improvement efforts. It provides a checklist of personal and interpersonal characteristics that have been demonstrated to result in more effective interactions to keep the project moving forward.

Appendix G: Assessing Physician Champion Potential

This assessment tool may be used by the CEO and CMO to identify the physician who has the greatest potential for leading a quality improvement project to achieve and sustain success. On one sheet of paper it provides a snapshot of some key roles, responsibilities, and tasks that are often lacking in support of hospital quality improvement efforts. It provides a checklist of personal and interpersonal characteristics that have been demonstrated to result in more effective interactions to keep the project moving forward.

Appendix H: Communication Plan

This tool is to be used in conjunction with the Hospital Leadership Responsibilities Checklist and the Leadership Roles and Responsibilities document. Together, these three items form the foundation for developing the administrative infrastructure necessary to support the hospital-wide activities for preventing blood clots in hospitalized patients.

Appendix I: Sample Aim Statement and Team Charter

These tools can be used by leadership to charter a VTE Prevention Project Team or to provide direction to an existing team. They can guide the team in organizing a QI project and developing a written, measurable, and time-sensitive description of the accomplishments the Team expects to make from its improvement efforts. The Aim Statement answers the question: "What are we trying to accomplish?"

Appendix J: Key Stakeholder Contact List

An important first step in any health care system quality improvement project is to clearly delineate roles and responsibilities of internal stakeholders, particularly those of senior leadership. This form (also provided as a native-format MS Word file) provides a place where senior leadership members of a hospital's VTE Prevention Team can be identified and their primary project responsibilities (based on suggestions found throughout this *Guide*) can be documented. This, along with the Aim Statement, will help team members to develop a shared vision and understanding of how the hospital's VTE Prevention Project will be implemented.

Appendix K: Sample Business Case PowerPoint

This presentation is to be used in conjunction with the Business Case document. The presentation provides a tool that can be used when addressing a non-clinical decision making group rather than an individual. It lends itself to engaging the audience in lively discussion to facilitate the group in making an official decision as to whether or not a VTE Prevention Project for hospitalized patients will be approved as a formal quality-improvement initiative/project.

Appendix L: Sample Clinical Case PowerPoint

This presentation is to be used in conjunction with the Clinical Case document. The presentation provides a tool that can be used when addressing a clinical decision making group rather than an individual. It lends itself to engaging the audience in lively discussion to facilitate the group in

making an official decision as to whether or not a VTE Prevention Project for hospitalized patients will be approved as a formal quality-improvement initiative/project.

Appendix M: *Surgeon General's Call to Action* and *AHRQ's VTE Prevention Guidelines*

When the original HSAG *VTE Resource Kit* was developed and published, the *Surgeon General's Call to Action to Prevent Deep Vein Thrombosis and Pulmonary Embolism* and the Agency for Healthcare Research and Quality's (AHRQ's) *Preventing Hospital-Acquired Venous Thromboembolism: A Guide for Effective Quality Improvement* had not yet been released. The first publication—issued by Acting Surgeon General Steven Galson, MD, MPH—provides an excellent overview of the public health issues related to VTE, while the second publication—prepared for AHRQ through the Society of Hospital Medicine (SHM) by Greg Maynard, MD, MSc, and Jason Stein, MD—draws on the unique experience of the SHM Venous Thromboembolism Resource Room team and should be required reading for anyone planning to implement a VTE prevention program in a hospital.

Appendix N: Sample "Rule Out" VTE Prophylaxis Order Set

When HSAG was developing and field testing its *VTE Resource Kit* at a pilot hospital, a rather substantial stumbling block encountered was the fact that there was no validated "gold standard" VTE risk-assessment tool available. Members of the medical staff at that hospital spent many weeks debating and developing a unique tool for their hospital to use. Until a validated risk-assessment tool is available, another approach to take toward VTE prophylaxis is the "rule out" method.

It can be generally agreed that the great majority of hospitalized medical patients have at least one risk factor for developing a VTE. The "rule out" method basically proposes that a hospital adopt a policy that every medical patient receive VTE prophylaxis unless contraindications are documented, ruling out the need for VTE prophylaxis rather than ruling in the need based on a particular risk score. A case has been made for this approach—along with a very good overview of VTE risk factors and VTE prophylaxis in general—in a WebEx presented under the auspices of the CMS National Patient Safety QIOSC (Quality Improvement Organization Support Center) on September 16, 2009, by Michael J. Cox, MD, FACP, FCCP, Assistant Clinical Professor at Saint Louis University School of Medicine. The WebEx was recorded and can be viewed at https://ifmcevents.webex.com/ec0600l/eventcenter/recording/recordAction.do?siteurl=ifmcevents&theAction=poprecord&recordID=1582597. We've included a sample VTE "rule-out" form and a copy of Dr. Cox's WebEx slides in this appendix.