

Quality Improvement in Managing Patients at Risk for

VENOUS THROMBOEMBOLISM: INTERVENTIONAL STRATEGIES

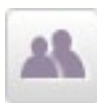
MULTIDISCIPLINARY EDUCATIONAL INITIATIVE

ASHP Advantage is conducting a multidisciplinary educational series on managing patients at risk for venous thromboembolism (VTE). Developed by an educational steering committee comprised of pharmacists, physicians, and other experts in VTE prevention and management, this initiative is designed to provide innovative education and tools to improve VTE prevention and patient care. Activities include the Institutional Impact VTE Mentored Quality Initiative, through which physician-pharmacist faculty teams provide an onsite evaluation of selected health systems' VTE prevention practices. Featured CE programming includes web-based home study activities, live interactive webinars, and regional workshops accredited for continuing education for pharmacists, physicians, nurses, nurse practitioners, and case managers.

The initiative features an online learning portal with links to web-based and live CE activities, E-Newsletters, and an online CE processing center.

- » Web-based CE home study activities focusing on the essentials of identifying and managing patients at risk for VTE.
- » Regional CE workshops with a special emphasis on interactive, team-based learning.
- » Information about the Institutional Impact VTE Mentored Quality Initiative.
- » Resource Center featuring VTE prevention guides, suggested reading, E-Newsletters, and other helpful links.
- » Interactive features such as *Talk to Us* for sharing challenges and successes.

Coming Soon - Live and archived CE webinars featuring challenges and opportunities in VTE quality improvement.



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CONTINUING EDUCATION FOR THE ENTIRE TEAM

This educational initiative is planned for a multidisciplinary audience so please share this E-Newsletter with your team. Go to www.StopVTE.org for a schedule of webinars and workshops, as well as information about how to register for these activities and gain access to archived webinars.

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WEB-BASED HOME STUDY ACTIVITIES

Two web-based activities entitled, "Multidisciplinary Approach to Identifying Patients at Risk for VTE", and "Managing VTE Prophylaxis: Making a Case for a Team Approach to Quality Improvement" are now available. These multi-accredited web-based activities outline a multidisciplinary team approach to the implementation of effective VTE risk assessment and prevention strategies in hospitalized patients and strategies to improve the quality of VTE prophylaxis. Each activity is approved for a total of 1 hour of continuing education for physicians, pharmacists, nurses, nurse practitioners, and case managers. Participants are encouraged to complete these online activities before participating in other offerings. Choose the format you prefer - web-based, consisting of audio and slide presentations, or podcast, an audio-only version of the presentations that can be downloaded to your computer or portable MP3 player. After completion of these activities, expand your expertise during the live webinars and regional workshops.

DISCLOSURE STATEMENT

In accordance with the Accreditation Council for Continuing Medical Education's Standards for Commercial Support and the Accreditation Council for Pharmacy Education's Guidelines for Standards for Commercial Support, ASHP Advantage requires that all individuals involved in the development of activity content disclose their relevant financial

relationships and that conflicts of interest be identified and resolved prior to delivery of the activity. [Click here](#) for full disclosure information.

LEARNING OBJECTIVE

After reading this newsletter, the reader should be able to:

Discuss the incidence of, morbidity and mortality associated with, and economic impact of venous thromboembolism (VTE) and describe a national initiative to prevent VTE.

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WHY FOCUS ON VENOUS THROMBOEMBOLISM PREVENTION?

Venous thromboembolism (deep vein thrombosis [DVT], pulmonary embolism [PE], or both) is a common cause of hospitalization, morbidity, and mortality in the United States.¹ More than 200,000 new cases of venous thromboembolism (VTE) occur each year.¹ Approximately 30% of patients with VTE die within 30 days, 20% suffer sudden death due to PE, and 30% develop recurrent VTE within 10 years.¹ Postthrombotic syndrome characterized by persistent lower extremity edema, pain, dermatitis, and ulceration is a potential long-term complication of DVT.²

Venous thromboembolism has been referred to as a silent killer because it often is asymptomatic.² Many cases of PE go undetected until postmortem examination after sudden death.

The economic impact of VTE in the United States is substantial, with costs amounting to nearly \$500 million each year.³ An analysis of hospital claims data for more than 58,000 managed care patients with VTE between 1998 and 2004 re-

vealed high rates of hospital readmission (5% to 14%) within 1 year, with more than half of readmissions within 90 days.⁴ The mean hospital cost per readmission for recurrent DVT (\$11,862) was much higher than the mean cost for the initial hospitalization for DVT (\$9805), although the mean cost per PE readmission (\$14,722) was similar to the mean cost for the initial hospitalization for PE (\$14,146).

The risk factors for VTE (e.g., surgery, trauma, cancer, obesity, acute medical illness, prolonged air travel) are well established.⁵ Most hospitalized patients have one or more VTE risk factor.⁵ Effective prophylactic therapies are available, and evidence-based guidelines for preventing VTE in patients at risk are available from authoritative sources.⁵⁻⁸ However, adherence to guidelines often is poor.⁹⁻¹¹ Guideline nonadherence may be attributed to multiple factors, including lack of awareness of the degree of risk for VTE, heterogeneity of the patient populations at risk for VTE, and concerns about hemorrhagic complications from the anticoagulant therapies used for prophylaxis.¹²

Raising Public Awareness

In a 2002 national survey conducted on behalf of the American Public Health Association, three of four American adults had little or no awareness of deep vein thrombosis (DVT), and more than half of those who were aware of DVT were unable to name any risk factors for DVT.¹³ The vast majority (95%) of survey respondents claimed that their physician had never discussed DVT with them.

David Bloom, a 39-year-old NBC journalist traveling with the U.S. Army 3rd Infantry Division in Iraq, died suddenly in 2003 after experiencing lower extremity cramping that led to PE. Former Vice President Dick Cheney experienced travel-associated DVT in 2007. These widely-reported events involving public figures have raised awareness of the seriousness of venous thromboembolism associated with long-distance travel.

The adverse clinical and economic impact and preventable nature of VTE have led to several national initiatives to address the problem. The Surgical Care Improvement Project (SCIP) is a national initiative developed in 2007 by the Centers for Medicare and Medicaid Services (CMS), Centers for Disease Control and Prevention, and other stakeholder organizations.¹⁴ The goal of SCIP is to save lives by reducing the incidence of surgical complications by 25% by 2010. Two SCIP process measures have been established for (1) the timely ordering of VTE prophylaxis after hospital arrival to 24 hours after surgery and (2) the administration of VTE prophylaxis within 24 hours before or after surgery.¹⁵ Two SCIP outcome measures have been proposed for the diagnosis of DVT and PE, respectively, during hospitalization for or within 30 days after surgery. Use of these measures facilitates quality improvement.

Hospitals are required by The Joint Commission (TJC) and National Quality Forum (NQF) to report 12 months of

performance data for four core measure sets to facilitate quality comparisons among health systems.¹⁶ The four core measure sets are chosen by the hospital from a list of 11 core measure sets that includes VTE. Documentation of VTE prophylaxis administration or the reasons why no prophylaxis was given within 24 hours of hospital admission or admission or transfer to an intensive care unit are among the VTE core performance measures. The incidence of potentially preventable hospital-acquired VTE during or within 30 days after a hospital stay is an outcome measure.

In an effort to improve the quality of care in hospitals, CMS discontinued payment for “never events”—preventable medical errors that result in serious consequences for the patient—beginning in October 2008.¹⁷ The agency considers VTE after total hip or knee replacement surgery an avoidable never event.¹⁸

SELF-ASSESSMENT QUESTIONS

1. Which of the following statements about VTE is correct?

- a. It often is idiopathic without identifiable risk factors.
- b. It often is asymptomatic.
- c. It usually is preceded by lower extremity cramping.
- d. It usually is preceded by persistent lower extremity edema, pain, dermatitis, and ulceration.

2. Which of the following statements about the rate of hospital readmission for and economic impact of VTE is correct?

- a. The rate of hospital readmission for VTE is high, and the hospital costs are much higher for DVT recurrence than for the initial hospitalization for DVT.
- b. The rate of hospital readmission for VTE is high, although the hospital costs are much lower for DVT recurrence than for the initial hospitalization for DVT.
- c. The rate of hospital readmission for VTE is low, although the hospital costs are much higher for PE recurrence than for the initial hospitalization for PE.
- d. The rate of hospital readmission for VTE is low, and the hospital costs are much lower for PE recurrence than for the initial hospitalization for PE.

3. Which of the following is NOT true of SCIP?

- a. SCIP is the acronym for the Surgical Care Improvement Project.
- b. SCIP was developed by a group of stakeholder organizations, including the Centers for Medicare and Medicaid Services (CMS).
- c. The goal of SCIP is to save lives by reducing the incidence of surgical complications by 75% by 2010.
- d. One of the SCIP process measures is established for the administration of VTE prophylaxis within 24 hours before or after surgery.

Target Audience

This continuing education activity was planned to meet the needs of pharmacists who are interested in preventing VTE in health systems, particularly those with an interest in a multidisciplinary team approach to implementing effective VTE risk assessment and prevention strategies.

Continuing Pharmacy Education



The American Society of Health-System Pharmacists is accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education. This activity provides 0.25 hour (0.025 CEUs) of continuing pharmacy education credit (ACPE activity #204-000-10-435-H01P).

To receive continuing pharmacy education credit, participants must read the newsletter, review the self-assessment questions, and **attest** to completion of the activity on the ASHP Learning Center. Participants may print their official statements of continuing pharmacy education credit immediately. The estimated time to complete this activity is 15 minutes. This activity is provided free of charge. This activity is available from June 1, 2010 through May 31, 2011.

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