GUIDELINE FOR PREVENTION OF DEEP VEIN THROMBOSIS

The Guideline for Prevention of Deep Vein Thrombosis was developed by the AORN Recommended Practices Committee and was approved by the AORN Board of Directors. It was presented as proposed recommendations for comments by members and others. The guideline is effective March 1, 2011. The recommendations in the guideline are intended to be achievable and represent what is believed to be an optimal level of practice. Policies and procedures will reflect variations in practice settings and/or clinical situations that determine the degree to which the guideline can be implemented. AORN recognizes the various settings in which perioperative nurses practice; therefore, this guideline is adaptable to various practice settings. These practice settings include traditional operating rooms (ORs), ambulatory surgery centers, physicians' offices, cardiac catheterization laboratories, endoscopy suites, radiology departments, and all other areas where operative and other invasive procedures may be performed.

Purpose

This guideline provides a framework for developing a protocol for deep vein thrombosis (DVT) prevention. The document provide guidance for administering pharmacologic and/or mechanical DVT prophylaxis and for patient and health care personnel education. Although the prevention of DVT and pulmonary embolism (PE) should be a priority of the entire health care organization, the particular risks facing perioperative patients makes it imperative that perioperative RNs take an active role in DVT prevention. The patient in the perioperative environment may present with or encounter one or more of the three primary causative factors of DVT formation (ie, venous stasis, vessel wall injury, hypercoagulability).[1] The risk for DVT may be elevated for all perioperative patients, including children, because of immobility, tissue trauma, and surgical positioning requirements.[1-8] Deep vein thrombosis usually occurs in the lower extremities but also may occur in the upper extremities.[9] Prevention of DVT reduces the potential for associated complications such as post-thrombotic syndrome and PE.[10,11]

The perioperative nursing care interventions related to the treatment of complications of DVT (eg, venous stasis ulcers or their postoperative treatment, post-thrombotic syndrome, PE) are beyond the scope of this document. The choice of DVT prophylaxis is a medical decision and is beyond the scope of this document.

Recommendation I

A health care organization-wide protocol for the prevention of DVT that includes care of the perioperative patient should be developed and implemented.[12,13]

Using an organization-wide protocol developed from evidence-based, professional guidelines and providing alternative treatment considerations prompts health care providers to give consistent and appropriate DVT prophylactic care.[13] In a study of 150 hospitals, Maynard concluded that a protocol including a risk assessment and physician orders for venous thromboembolism (VTE) prevention accelerated improvements in VTE prophylaxis efforts.[14] Integration of the health care organization's protocol into all physician orders provides consistency between all care providers and increases use of the protocol.[12,13,15]

I.a. The health care organization-wide DVT protocol should be developed by a multidisciplinary team that includes key stakeholders including, but not limited to,
- RNs;
- physicians;
- anesthesia professionals;
- pharmacists; and
- personnel from
  - quality/risk management,
  - information technology (IT), and
  - administration.[13]

Key stakeholders' acceptance of the protocol is improved if they are involved in the decision-making process.[13] Each key stakeholder provides knowledge and expertise according to his or her area of practice and responsibility. The perioperative RN is a key stakeholder as a primary professional involved in implementing the protocol in the perioperative area and provides evidence-based references related to the safety, effectiveness, efficiency, and financial considerations of DVT prophylactic measures.[16,17] Physicians representing each medical specialty can be resources for the evidence-based DVT prevention protocols developed by their medical specialty organizations.[8,14,18-20] Representatives from IT provide expertise in using technology to gather necessary data for use in the quality improvement program and by creating electronic programs that support protocol implementation. Administrative representatives approve the financial resources necessary to support the measures used in the protocol.