The Perioperative Management of Antithrombotic Therapy

Reference:

Scientific Literature Review

Reviewed by: Andrew J. Meyr, DPM
Residency Program: Inova Fairfax Hospital Podiatric Surgical Residency Program

Podiatric Relevance:
This article presents the American College of Chest Physicians Evidence-Based Clinical Practice Guidelines for the perioperative management of antithrombotic therapy. Podiatric surgeons should have a thorough understanding of all aspects of perioperative patient management, but particularly those that will potentially affect bleeding and thrombosis post-operatively.

Methods/Results/Recommendations:
Seventeen specific recommendations are made originating from five specific perioperative scenarios. A patient risk stratification (high, medium or low) is also presented for the development of a perioperative thrombotic event (Table 2 in the study; page 305S). The following is a summary of those recommendations that are most relevant to podiatric surgeons.

In patients who are receiving vitamin K antagonists (VKAs) such as warfarin, the VKA should be stopped 5 days prior to elective surgery if normalization of the INR is desired and resumed 12 or 24 hours post-operatively if adequate hemostasis has been achieved intra-operatively. The use of oral vitamin K (1-2mg PO) is recommended over not using it if additional lowering of the INR is needed 1 to 2 days before surgery. Vitamin K use should be considered before the use of fresh frozen plasma. Bridging with therapeutic-dose subcutaneous low molecular weight heparin (SC LMWH) is recommended for patients with high to moderate risk for thrombosis, while bridging with low dose SC LMWH is recommended for patients with low risk for thrombosis. This recommendation reflects a relatively high value of thromboembolism prevention in patients with high or moderate risk, and a relatively high value of bleeding prevention in patients with a low risk. If bridging anticoagulation is needed, outpatient SC LMWH is recommended over in-patient intravenous unfractionated heparin because of cost considerations and efficacy. The final pre-operative LMWH dose should be 50% of the normal dose given 24 hours prior to the planned surgery. It may be restarted 24 hours after the procedure.

In patients who are receiving antiplatelet therapy such as aspirin or clopidogrel, it should be stopped 7-10 days prior to the planned surgical date. Therapy should be restarted 24 hours after the procedure assuming adequate hemostasis. Patients at a high risk for cardiac events should continue therapy up to and beyond the time of surgery. Patients scheduled for minor dermatologic procedures may also continue therapy up to and beyond the time of surgery.

Conclusions:
These evidence-based clinical practice guidelines can be immediately implemented by podiatric surgeons to improve their overall perioperative patient management. Although this article is 41-pages long, the specific recommendations should be appreciated by all surgical fields to effectively manage the risks and benefits of intervention in this high-risk patient population.