Endodontic Center
A Professional Dental Corporation

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Recommendations for Patients with Anticoagulants

Dental patients taking anticoagulant medication pose a challenge for the clinician. The level of anticoagulation, risk of bleeding from the procedure, risk of thromboembolism, and the patient's overall systemic health must be considered. For example, patients with a mechanical heart valve, atrial fibrillation with a history of stroke, and individuals with hypercoagulable disease states are at high risk for thromboembolism.

Dentists are able to order and interpret appropriate laboratory tests when minor oral surgery is required for anticoagulated patients. The most frequently used tests are the Prothrombin Time (PT) and International Normalized Ratio (INR). The PT measures the effectiveness of the extrinsic and common pathways. The normal value is approximately 10 to 15 seconds. Because of the variability in PT reported by different laboratories, it is no longer considered adequate to use PT to monitor the level of anticoagulation. In order to reduce variability, **INR was developed as a consistent test for measuring anticoagulation status**. INR is the more reliable and consistent measure. A **normal individual should have an INR of 1.0.2**.

Certain herbal supplements can be associated with compromised platelet aggregation. It is recommended that **patients who are scheduled for oral surgery refrain from taking any herbal substances for 1 week prior to the surgery**.

Studies have shown that patients undergoing minor oral surgery, including implant surgery and third molar extraction, experienced **minimal bleeding complications when on low-dose aspirin therapy**. These complications were **controlled with local measures**. Medications such as **Plavix or Aggrenox may also be continued during minor oral surgical procedures**. If any significant bleeding is anticipated, dentists should consult with the patient's physician to determine if alterations to the anticoagulant regimen should be considered. **Complications can arise if the patient is taking anticoagulant medication and a NSAID**. This combination could **increase the risk for bleeding**. **Used alone, there should be no complications if a patient is taking NSAIDs.**

Until recently, many dentists and physicians were of the belief that Coumadin should be discontinued in low-risk to moderate-risk patients undergoing dental procedures associated with bleeding. However, there are **documented cases of embolic complications in patients whose Coumadin therapy was discontinued for dental treatment**. In addition, there is evidence that thrombosis may also occur because of a temporary state of rebound hypercoagulability following cessation of anticoagulation therapy. Traditionally, when a patient at high risk for thrombus formation required oral surgery, hospitalization was required. High-risk patients include individuals with mechanical heart valves, those undergoing active treatment for DVT, or those with hypercoagulable disease states. These patients had their Coumadin discontinued and were placed on intravenous heparin. Although this remains the case for major oral surgery procedures, this approach was also used for relatively minor surgical procedures.

Low molecular weight heparins have more recently been used as bridging therapy in order to discontinue Coumadin in preparation for dental procedures. Low molecular weight heparins are not approved as a substitute for Coumadin in patients with prosthetic heart valves. **Patients can self-administer these drugs subcutaneously** on an outpatient basis.

Numerous investigators have shown that modification of anticoagulant medication is not necessary when performing routine dentoalveolar surgery. An article by Dr. O.R. Beirne (J Oral Maxillofac Surg. 2005) summarizes these clinical studies. The article concludes that stopping Coumadin with or without bridging is not supported by clinical evidence. **The risk of developing life-threatening bleeding that cannot be controlled using local measures following dental extractions, alveoplasties, or dental implants is so low that there is no need to stop Coumadin.**

With the recommendation not to alter anticoagulant therapy for patients requiring routine dentoalveolar surgery, dentists must adhere to **meticulous surgical technique**, have the skills to ensure **proper wound closure**, and be familiar with the **adjunctive hemostatic techniques**. **Prior to performing surgery, it is recommended that the dentist obtain the appropriate laboratory values that assess coagulation**. For the anticoagulated patient, **applying pressure** is still an excellent initial step in obtaining hemostasis. The dentist should consider using a resorbable gelatin sponge inserted into the extraction socket prior to suturing. **Gelfoam** acts as a mechanical matrix to facilitate clotting. Resorbable oxidized cellulose **Surgicel**, **ActCel** and **BloodSTOP** specially treated sterilized cellulose that dissolves within 1 to 2 weeks. The material expands to 3 to 4 times its original size and is quickly converted to a gel. ActCel is hypoallergenic and bacteriostatic.

To Serve You Better ~

By popular request, we have changed our office hours to better accommodate the needs of our mutual patients. We are now available from **7:30am – 4:30pm, Monday through Thursday**. Patient response to this early morning availability has been very positive.

Comprehensive Endodontic Team Training in Vancouver, BC

During the week of April 7th – 11th, our entire team will be attending the AAE Annual Session in Vancouver, BC. While Vancouver may be chilly, the topics offered are definitely hot, including implants, surgical procedures, and endodontic applications for 3-d Cone Beam CT scan technology. We are looking forward to learning from some of the best speakers in dentistry! We will resume normal operating hours on Monday, April 14th.

Practicing endodontics continues to be a pleasure for me, enhanced by the blessing of your support and confidence. As new and exciting developments in dentistry emerge, it is still the genuine care and concern for the patient that remains our primary focus. It is an honor and privilege to work with you and your team.

In gratitude,

Catherine