
The National Society of Dental Practitioners and the Dentist's Advantage Insurance Program for Dentists

RISK MANAGEMENT ARTICLE

Oral antithrombotic therapy: To stop or not to stop

Do you routinely have your patients stop taking or reduce the dose of their oral anticoagulant or antiplatelet medications before dental procedures? If so, you may be doing your patients a disservice.

In the past, dentists asked patients not to take oral antithrombotics (such as anticoagulants and antiplatelets) before a procedure because of the fear the medications would increase bleeding. But now most experts agree that antithrombotic regimens should not be routinely stopped or changed.

This recommendation has both clinical and legal implications. Clinically, the risk of thrombosis formation as a result of stopping therapy outweighs the risk of bleeding for most patients.

Legally, if a patient temporarily halts his antithrombotic agent on the basis of your instructions and subsequently suffers a stroke while off his medicine, you could end up in court.

Here is what you need to know to manage oral antithrombotic therapy appropriately.

Reassessing the risk

Support for continuing antithrombotic therapy comes from several sources, including a systematic review and meta-analysis published in the *Journal of the Canadian Dental Association*. The researchers, who analyzed five studies, reported that continuing warfarin therapy during minor dental procedures did not increase the risk of bleeding.

Professional associations agree. For example, the American Academy of Neurology recommends that stroke patients undergoing dental procedures should routinely continue aspirin and warfarin, stating that they are "highly likely not to increase bleeding risk." After concerns about serious bleeding in patients taking dabigatran (Pradaxa®), the U.S. Food and Drug Administration launched a safety investigation that ultimately concluded that the drug does not cause higher bleeding rates than warfarin.

Coronary artery stents

Antithrombotic therapy is particularly critical in patients with coronary artery stents to prevent thrombosis formation. These patients typically take dual antiplatelet therapy with aspirin and a thienopyridine for one year after receiving a drug-eluting stent.

Unfortunately, too many times this therapy is discontinued early. That's why a science advisory from the American Heart Association, American College of Cardiology, Society for Cardiovascular Angiography and Interventions, American College of Surgeons and American Dental Association recommends postponing elective surgery for a year and states that there is "little or no indication" for stopping antiplatelet drugs before dental procedures. Of course, if there is any question, it's best to contact the patient's cardiologist and document what you learn in the patient's medical record.

A thorough assessment

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Assessment includes determining whether the bleeding risk is low, moderate, or high. Procedures with low risk of bleeding include supragingival scaling and simple restorations. Moderate-risk procedures include subgingival scaling, standard root canal, simple extractions, and restorations with subgingival preparations. Procedures with a high risk of bleeding include extensive surgery, root or bone removal, and multiple extractions.

In procedures with low or moderate risk for bleeding, warfarin can be continued. Procedures with high bleeding risk require closer consideration and consultation with the patient's primary care provider. You will also want to consult the patient's primary care provider if the patient has only recently started warfarin and adjustments are still being made.

Some experts recommend checking the International Normalized Ratio (INR) blood test up 24 to 72 hours before the procedure in patients who are taking warfarin. The INR goal for warfarin therapy is 2.5 to 3.0, with some patients kept at a higher range of 2.5 to 3.5. Minor oral surgical procedures can be done with an INR lower than 4.0. Keep in mind, however, that the INR does not directly predict bleeding during the procedure; it's simply an assessment tool.

Antithrombotics other than warfarin, such as antiplatelets, have been shown to have a low risk of bleeding, so they should be continued in the case of routine dental procedures or minor dental surgery. INRs are not measured with this type of therapy. Document your assessment and actions taken in the medical record.

Comorbidities

It's wise to remember that patients taking antithrombotic therapy also can have comorbidities such as hepatic impairment, renal dysfunction, or hematological disorders such as hemophilia that can increase bleeding risks. Before doing the procedure, consult with the patient's primary care provider to determine whether it's safe to do the procedure in your office. Be sure to document the recommendation in the patient's medical record. Keep the medical record up to date with the patient's current medication list so you know whether he or she is taking antithrombotic medication.

Patient education

Some patients may have been told in the past to withhold their antithrombotic medication before procedures, so it's important to specifically tell them that they should continue their therapy. Document that you have done so in the record and verify that the patient has continued the medication before you start the procedure.

After the procedure, provide written and verbal instructions, including:

- Rest for two to three hours.
- Floss gently (avoiding areas that may be bleeding).
- Don't chew on the affected side for one to two days.
- Avoid hot liquids, rinsing the mouth, using mouthwash or eating hard foods for 24 hours.

Document the patient's understanding of the instructions and that a written copy was given. Some dentists require patients to sign that they received instructions.

Managing bleeding

If bleeding occurs during the procedure, it usually can be easily managed by using local hemostatic

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agents such as epinephrine solution, sutures, pressure dressings, and periodontal packs.

Keeping patients safe

Patients take antithrombotic therapy to prevent serious complications such as thromboembolism, stroke, and myocardial infarction. By not altering the drug regimen for dental procedures, you ensure your patients maintain the protection they deserve.

About antithrombotic therapy

There are four classifications of oral antithrombotic agents based on mechanism of action.

Platelet aggregation inhibitors (antiplatelets) prevent aggregation of platelets, which reduces blood viscosity and prevents clot formation. Examples include aspirin, the thienopyridines (such as clopidogrel [Plavix]), aspirin/dipyridamole (Aggrenox®), ticlopidine (Ticlid®), prasugrel (Effient®), pentoxifylline (Trental®), ticagrelor (Brilinta®), dipyridamole (Persantine®), and cilostazole (Pletal®).

Vitamin K antagonists (warfarin) inhibit synthesis of vitamin K-dependent clotting factors II, VII, XI, and X, and the anticoagulant proteins C and S.

Oral direct thrombin inhibitors such as dabigatran (Pradaxa®) inhibit thrombin from converting fibrinogen to fibrin.

Factor Xa inhibitors such as rivaroxaban (Xarelto®) prevent activation of factor Xa in the coagulation cascade.

Adapted from: Castelvechi AN, Crump LN. Oral anticoagulants and dental procedures. 2012.

Resources

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Cynthia Saver, MS, RN, President,
CLS Development, Columbia, Maryland

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