



## CNA HealthPro

### Manage Your Endodontic Risks

Few areas of dentistry have seen as many changes in recent years as the field of endodontics. Many dentists find today's endodontic teachings and techniques very different from what they learned in dental school. It used to be the cardinal rule of endodontics to never, ever put a rotary instrument in a canal. Yet many dentists, even endodontists, now openly embrace rotary techniques for cleaning and shaping canals.

Even with all the advances in endodontic research, materials and techniques, endodontic procedures remain one of the most common sources of malpractice claims, according to CNA HealthPro claims data. Some of the more common claim allegations include:

- failure to diagnose the need for endodontic treatment, including failure to evaluate radiographically and failure to perform appropriate tests;
- failure to refer to an endodontist for treatment, either initially or after difficulties were encountered;
- incorrect performance of the procedure, including failure to treat all canals, obturation that is unacceptably long, short or poorly condensed, and perforations of the root or pulp chamber;
- failure to take reasonable precautions (usually failure to use a rubber dam); and
- failure to inform the patient of a separated instrument left in the canal

#### Risk Factors

An essential skill of risk management is the ability to know when a case is beyond your level of comfort or expertise. To that end, evaluate the potential risks of each endodontic case and assess whether you can successfully complete the case, or if the patient will be better served through the care of an endodontist.

Consider referrals for teeth that have dilacerated roots, sclerotic canals and canal systems of unusual morphology. Patients with a limited interincisal opening or a severe gag reflex may also be candidates for referral, as the endodontist may be able to complete treatment in fewer visits, or even a single visit. The risk of a poor endodontic outcome or a dissatisfied patient also is increased in cases involving teeth that have been traumatically injured or that are being retreated. There is also a higher risk treating individuals with a history of endodontic problems or who present other patient management concerns, such as a difficulty wearing the rubber dam, failure to keep follow-up appointments or failure to follow medical advice.

Potentially, a general dentist performing endodontics will be held to the standard of care applied to the specialty, since an endodontist will likely become the expert witness in litigation involving an endodontic claim.

While it is often best to refer a patient before initiating treatment, there is never a point at which it is "too late" to refer. If, for example, you are having trouble finding a canal, negotiating a canal or reaching the apex, refer the patient to an endodontist. Your loss of face and the patient's disappointment will be

tempered by the increased chance for endodontic success and the reduced likelihood of a malpractice claim.

Whether you decide to treat or to refer, thoroughly document in the patient record *why* endodontic treatment is warranted. If the need for RCT was not part of your original treatment plan, use the SOAP format of record keeping to record the patient's **S**ubjective complaints, your **O**bjective findings (such as the results of percussion, palpation, thermal and pulp testing and radiographic findings), your **A**ssessment and diagnosis, and the treatment you **P**lan and subsequently deliver.

## Informed Consent

Before starting treatment, obtain the patient's informed consent to perform the root canal. Informed consent is the process by which patients are given enough information about the nature of the proposed treatment, the available alternatives and the risks associated with pursuing or forgoing treatment to make an informed, reasoned decision about whether or not to proceed with your recommendation.

We strongly encourage every dentist to use a written form as part of the informed consent process for root canal treatment. Use the consent form as the framework for your discussion to ensure that patients have a clear understanding of what to expect. The written form also serves as detailed documentation of your disclosure and discussion.

The consent form should specify the tooth to be treated and explain both the available alternatives and the risks of treatment. One risk that should be emphasized to patients is that the tooth may need to be retreated or even extracted in the future, even if the RCT appears to have been done well. Since it is impossible to predict whether a patient will experience complications, explain to *all* endodontic patients during the informed consent discussion the possibility of sequela such as infection, pain and swelling.

Ask patients to sign the consent form, then sign it yourself and give them a copy to take home. In the event that questions arise later, the form will refresh the patient's memory about your discussion. Encourage the patient to contact you subsequent to the informed consent discussion regarding any further inquiries.

The informed consent process is essential to managing risks. It educates patients and discourages unrealistic expectations about treatment outcomes. Careful documentation of the process via a written form and progress note entries will aid your defense in the event of a malpractice claim.

Be aware of applicable state laws in your jurisdiction that govern the informed consent process. Pennsylvania, for instance, considers root canal treatment a surgical procedure and therefore mandates that dentists receive and document the patient's informed consent prior to initiating treatment.

## Standard of Care

Dentists have a professional duty to always practice at or above the standard of care, that is, what a reasonable and prudent dentist would do in the same or similar circumstances. The use of a rubber dam as a patient protection device during endodontic treatment is universally taught in dentistry. As such, its use is generally construed to be the *minimum* standard of care for patient protection during endodontics. Claims involving instruments or fluids that were swallowed or aspirated during endodontic therapy when *no* rubber dam was used have proved difficult to defend.

Even when you have put in place a rubber dam, be certain to regularly check for patient comfort and to detect breaches in the protection offered by the dam. Claims have arisen due to bleach solution leaking off or under the dam and onto the skin or oral tissues, causing severe chemical burns and facial scarring. Today, the use of rubber dam is complicated by the possibility of latex allergy. Carefully evaluate the patient for possible allergic tendencies and use non-latex dams when appropriate.

In addition to rubber dam use, the following 10 recommendations can serve to diminish the possibility of a malpractice claim arising from root canal treatment:

1. Have a preoperative radiograph showing the *entire* root structure and periapical area prior to initiating endodontic treatment. Carefully evaluate the radiograph for anomalies in tooth morphology and to estimate the tooth length.
2. Perform appropriate tests to thoroughly evaluate the source of the problem and the need for RCT.
3. Verify the correct tooth twice *before* creating your endodontic access opening.
4. Exercise diligence in finding all canals. If you cannot find the orifice of a canal that radiographically appears patent, refer the patient to an endodontist.
5. Verify apex location and working file length radiographically or by another accepted method.
6. Carefully inspect files, reamers and broaches before and during use. Discard any that appear defective.
7. Verify the endodontic result with a radiograph of the obturated canals. Date and retain all radiographs taken before, during and after endodontic treatment.
8. If your endodontic result is unsatisfactory, retreat the tooth immediately or refer to an endodontist for retreatment.
9. Provide clearly written post-operative instructions and information, explaining how you deal with follow-up and how you can be reached after hours.
10. Call patients later on the day of treatment to assess their condition. Document the conversations, including all patient complaints and your recommendations.

It is also necessary to thoroughly document the clinical procedure performed, including:

- local anesthesia used (type, concentration, quantity, vasoconstrictor concentration)
- file size and length to reference landmark on the tooth for each canal
- irrigation agents
- intracanal medications, if any
- material used for provisional seal of access opening
- post-operative medications prescribed (both over-the-counter and prescription)
- untoward events and their resolution
- post-operative instructions given

### **Separated Instruments**

One of the more common endodontic complications is the separation of files and reamers in the root canal. The risk of file separation can be reduced by carefully inspecting files on a frequent basis, limiting their reuse and using proper filing techniques. Notwithstanding the implementation of these procedures, an occasional endodontic instrument may separate in the canal. Assuming proper techniques were used, the separation of a file or reamer is usually *not* considered dental malpractice. It is the dentist's response to a broken file that determines whether the standard of care has been met. A reasonable and prudent dentist will do the following:

1. Tell the patient immediately that an instrument has separated. Explain what has happened and what you recommend be done next. Keep in mind that this is much more of a problem for the patient than for you.

2. Attempt to remove the piece of broken instrument from the tooth using accepted techniques. Try not to force the broken piece further into the tooth.
3. If you can extract the piece, measure it with the rest of the separated instrument to verify you have removed all of the broken instrument. In addition, verify the removal radiographically. Show the radiograph and the retrieved piece of the instrument to the patient and continue with the endodontic treatment. Document the retrieval in the patient record.
4. If the separated piece of the file cannot be retrieved, refer the patient to an endodontist for evaluation and treatment. A referral confirms that you advised the patient of the separated instrument and reinforces your efforts in seeking the best care for the patient. If you do not wish to refer, you can attempt to obturate the canal up to and around the broken piece as best as you can. Be certain the tooth has been filed sufficiently and that you continue to evaluate the postoperative result on a regular basis for any signs of case failure. If the obturation around the separated file is unsuccessful, refer the patient to an endodontist or to an oral surgeon for evaluation of retrieval and retreatment, an apicoectomy and retrograde filling, or extraction.
5. If the tooth is to remain in place and the file cannot be removed, follow up with the patient regularly to discover any related problems as soon as possible and encourage the patient to contact you if problems arise.
6. Document comprehensively what was done and what was said to both the patient and to other providers. In addition, document all follow-up visits, including comments from the patient.

## Managing Complications

Quick recognition and good judgment can reduce the chance of a malpractice claim arising from an endodontic complication. Be objective about your ability to manage these complications and keep your patient's best interests in mind.

As most general dentists are not proficient at managing complications, it is usually best to refer the patient to an endodontist for further care when a serious complication occurs, such as perforation of the chamber or canal. Generally, a referral made following a treatment complication is *not* interpreted as an admission of negligence in and of itself. All too often, endodontic claims are brought because the general dentist chose *not* to refer following a complication.

Stay involved in these referrals by following up with both the endodontist and the patient. Your call to the patient will be greatly appreciated. Also, remember to document your conversations and the patient's condition in the progress notes of the chart, preferably using the SOAP format of record keeping.

Establish an office policy regarding charges for procedures during which a complication arises that requires a referral. It is each individual dentist's decision whether or not to charge the patient for time spent on the case. Many dentists do not bill in such cases to reduce potential patient dissatisfaction. Choosing not to charge a fee in such an instance does *not* constitute an admission of liability.

Endodontic risks can be lessened through judicious case selection, informed consent, skillful treatment and thorough documentation. By keeping these issues in mind, you can protect your practice and help ensure that patients receive the level of endodontic care they need.

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