



## CNA HealthPro

### Managing Implant Risks

*Dental claims related to implants often have a high degree of severity. Careful patient selection, thorough case planning and sound clinical technique can minimize the risk to your patients and to yourself*

Implant dentistry has provided dentists with a variety of innovative products and techniques to restore dentitions that otherwise would have seemed beyond the ability to restore. Fixtures are available in an array of diameters, lengths, and designs to meet a broad range of clinical applications. In addition, implant education and training is readily available to every clinician, even the dental student. Consequently, more dentists are offering implants as a treatment option in their own practices.

A review of CNA claim data shows implant claims have remained relatively stable with respect to the percentage of overall claim activity when compared to 1997 data. However, CNA claim data also shows that implant claims have consistently had a greater *severity*, or dollar value, than malpractice claims involving other types of dental procedures. A review of 2004-2007 closed claim data reveals that more than 3 percent of all reported dental claims have involved implants. However, these implant claims have accounted for more than 7 percent of total claim expenses.

There are several reasons for this relatively high claim severity. When implants fail, complex and expensive corrective treatment is frequently needed to return patients to their preoperative status. Implant dentistry is expensive when compared with other forms of dental treatment. If treatment fails, patients who have spent anywhere from \$5,000 to \$40,000 for surgical placement and restoration will attempt to recoup what they perceive as a major failed investment. Additionally, patients often have very high functional and aesthetic expectations for implant treatment outcomes. In their view, the high costs associated with implants should yield the anticipated result.

Implant-related claims have been reported to CNA arising from a variety of patient allegations. Some relate to significant adverse outcomes. These include permanent paresthesia or the need for corrective surgery, allegedly due to the improper placement of the implant into a vital structure such as a sinus or nerve bundle. Other alleged errors are far less serious, but also result in significant treatment planning consequences that lead to patient dissatisfaction. One example involves the inability to use a fixture because the implant was allegedly placed at a poor angle, too close to a natural tooth, too close to another implant, or the wrong length, diameter, or design was selected.

#### **Patient risk factors**

Proper case selection is the most important aspect of implant risk management. The following major risk and selection factors should be considered:

- *Systemic factors* include the patient's overall health and underlying diseases such as diabetes, bleeding disorders or hypertension. Dentists should always begin by investigating whether there are important systemic disease processes that should be addressed before recommending dental implants. Patients who report a history of bisphosphonate therapy should be thoroughly evaluated as candidates, and the risk of osteonecrosis disclosed during treatment planning and informed consent discussions.

- *Local factors* include adequacy of bone, oral hygiene, occlusion, ridge morphology, bone quality, sinus or nerve position, periodontal status, extent of interincisal opening, keratinized gingival width and distance between proposed endosseous fixture sites.
- *Other factors* include tobacco and alcohol use, patient attitude, cooperation, home care, ability to afford treatment and reasonableness of expectations. If you sense that the patient's expectations are unrealistic, do not accept the case. For cases you do accept, patient expectations also must be closely managed throughout treatment.

Not every patient is a candidate for implants, and sometimes you may have to deny patients' requests for this form of treatment. Saying no is never easy, but careful patient selection will protect your patients, your practice and your reputation from the threat of an implant-related malpractice claim.

### **Clinician risk factors**

Once you have determined your patient to be an acceptable implant candidate, the risk shifts to your own due diligence in planning and delivering the case. Your knowledge, clinical ability and experience in implant dentistry will be critical factors in your success.

Clinician risk factors begin with the adequacy of your patient evaluation and diagnostics, including radiographic assessment. If a patient refuses necessary diagnostics, such as radiographs or study models, you should refuse to treat. Statutes or specific legal standards typically do not govern adequacy of the radiographic assessment of the proposed surgical site. That decision remains within the purview of the treating dentist. However, in the event of a claim, opinions on the topic will be offered by dentist expert witnesses on either side of the dispute. We believe the increasing availability of cross-sectional tomography may influence such testimony going forward.

Other risk factors within the control of the treating dentist are the appropriateness of the treatment plan, the adequacy of presurgical case planning, and the selection of the proper implant fixture (length, diameter, and design) appropriate for the implant site and function. Numerous claims alleging paresthesia or anesthesia secondary to implant placement are due to the placement of a fixture that was too long for the available site, resulting in nerve or sinus injury.

### **Controlling the risks**

*Case planning.* Thorough pre-surgical case planning is an important risk management technique. Many implant claims, such as those including sinus perforation, nerve damage and poor angulation resulting in the inability to restore an implant, can be attributed to a lack of pre-surgical planning. We encourage you to select for treatment only those cases that you believe have a good prognosis for long term success.

Good communication between the restorative dentist and the surgeon is essential to good case planning. Be sure to share all information that will enhance patient care. In fact, no implant fixtures should be placed unless the surgeon, the patient, and the restorative dentist have all agreed on the treatment plan. These parties also must continue to communicate regularly during the course of treatment.

Advance planning also can render more manageable the choices and complexities of implant surgery. Many different types of implant-supported restorations can be fabricated using different implant systems. By developing a working design of the final restoration prior to the implant placement surgery, you will minimize the risk of being asked to restore poorly angled or unusable fixtures. Good presurgical case planning also involves creating a surgical stent to act as a guide for the surgeon during implant placement.

*Informed consent.* Before starting the case, have a comprehensive informed consent discussion with the patient. Inform the patient of the reasons you have recommended implants, the other treatment options available, the risks involved with the various treatment options and the risks associated with forgoing

treatment. We encourage the use of a written informed consent form coupled with a thorough progress note detailing the informed consent discussion.

Since implant cases usually involve significant fees – both surgical and restorative – finances should be fully disclosed before beginning treatment. After you begin treatment, you may have an obligation to continue even in the absence of payment.

*Clinical considerations.* Although the mouth is not a sterile environment, you can minimize the risk of an implant claim by following a sterile surgical technique during surgery, not merely a clean technique. Irrigate copiously during surgery to prevent overheating the bone, a common cause of implant failure. Use antibiotics when warranted based upon your evaluation of the patient and the surgery itself. To prevent the inadvertent swallowing or aspiration of a foreign object, use high-speed suction with a filter over the tip and place a barrier such as gauze in the posterior of the mouth to block dropped or mishandled items from falling back into the pharynx.

*Documentation.* Thorough documentation is a critical component of managing implant risks. We recommend that all treatment, including patient discussions, be written in the patient record. For future reference, record all specific identifiers of the implant fixture, including manufacturer, size, type, lot, and any other pertinent characteristics.

Retain the original diagnostic models for at least one year after completion of the case. Models for full arch and difficult or complex cases can be more valuable to a claim defense than the patient notes. We suggest you retain these models at least until the statute of limitations in your state expires for that case.

Implant malpractice claims can arise from any restorative design or implant system. You can reduce your risk of an implant malpractice claim by practicing proper patient selection, case planning and risk control.

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