

RISK MANAGEMENT ARTICLE

Reducing Litigation Risk from Dental Implants

Dental implants can give patients an increased quality of life, but they aren't without risk. Literature reviews have shown that implant survival exceeds 90 percent after 15 years, but this is not the same as success. Both short- and long-term complications occur. In addition, the rate of complications has risen. Factors accounting for this increase include a higher number of implants performed, insufficient expertise by some dentists placing implants, and more complex patients selected for the procedure.

Complications include infection, peri-implantitis, peri-implant mucositis, bleeding, sinus perforation, tissue and crestal bone loss, and damage to the inferior alveolar nerve, which can cause patients pain or numbness.

Unfortunately, patients with complications may seek compensation even when they have been informed of risks. When these claims are successful, payments to plaintiffs are high because it is costly to return patients to their pre-implant status. You can take several steps to help avoid litigation related to dental implants and reduce the chances that a lawsuit will be successful.

Choose the right patient

As with any procedure, it's important to assess risks versus benefits when considering whether a patient is a candidate for a dental implant. For example, the presence of factors that influence osseointegration of the implant should be weighed against possible benefits.

Risk factors can be divided into local and systemic categories. Local factors include sinus location, smoking, radiotherapy, poor bone quality and density, periodontal disease, and occlusal trauma. Systemic factors include uncontrolled diabetes, immunosuppression, or certain medications such as bisphosphonates.

The presence of multiple factors will, of course, increase risk. For instance, substandard oral hygiene, a history of periodontitis, smoking, poorly controlled diabetes, alcohol consumption, and problems with the implant surface are all associated with peri-implant disease, so choosing a candidate with several of these conditions would not be advised from a risk management perspective.

In some cases, however, risks can be managed. For instance, if a patient with uncontrolled diabetes subsequently achieves control, he or she may become a candidate for an implant. Few absolute medical contraindications exist, but they include untreated periodontal disease, immunosuppression, and uncontrolled substance abuse or psychiatric disorders.

Documentation of the assessment should be included in the patient's dental record to protect the dentist from future litigation. For example, a dentist in Florida was found not liable for a claim related to implant failure; one factor was that the defense's expert stated the most likely cause of the failure was the plaintiff's uncontrolled diabetes and that she was a smoker.

If in doubt, obtain a second opinion from a periodontist or oral surgeon. Failure to do so could result in exposure to litigation.

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Obtain informed consent

Obtaining informed consent includes explaining in lay language the procedure, its risks, and alternative treatments, including no treatment. The signed consent should be in the patient's dental record. Some legal experts recommend that patients who refuse treatment should sign an informed refusal form, which should also be kept in the dental record. Be sure to document what was discussed, the refusal, and reasons for the refusal.

This discussion is crucial to ensure patients have realistic expectations from the procedure. Although not part of informed consent, you should also provide a cost estimate to avoid "sticker shock," which could trigger a general patient dissatisfaction that could prompt litigation.

Fully document informed consent in the patient's dental record to avoid litigation. Also consider having the patient sign the treatment plan.

Select the right implant

Choosing an implant is challenging, particularly given the number in the marketplace. Jeff Burgess, DDS, MSD, recommends that dentists consider these factors when choosing a dental implant:

- where it is to be placed
- relative bone density
- how it will be used (e.g., freestanding abutment, overdenture abutment)
- aesthetics
- stress determinants.

When choosing an implant system, consider ease of use, research that supports the design, company support and reputation, and restorative options.

A recent court case drives home the importance of implant choice. In 2013, a California judge granted preliminary approval for a settlement in which Nobel Biocare Holding AG would pay \$1.3 million as part of a \$450 million class action lawsuit brought by dentists who accused the company of marketing defective dental implants that caused bone and gum problems.

Use available tools

Appropriate use of tools can also reduce risk of litigation. Typical imaging studies such as panoramic radiography and periapical radiology are not sufficient to evaluate the patient. You should also obtain a cone-beam CT, which provides an accurate 3-D image and can help assess bone density, a key factor for implant success. Various classification systems, such as the Hounsfield and Misch scales can be used to assess bone density further. Patients with extensive alveolar bone loss may need a bone graft before an implant can be placed.

Implants should generally be assessed radiographically when the prosthesis is fitted, 1 year later, and then biannually. Assessment should also be done if the patient experiences signs and symptoms of complications. Document all assessments in the dental record.

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Another tool you might want to consider is a checklist developed by an expert panel and published in February 2014 issue of *The Journal of the American Dental Association*. The checklist is intended to reduce errors in dental implant placement and may be especially helpful for practitioners with less experience.

Ensure proper follow-up

Dental implants require multiple patient visits, which in turn requires a committed patient. Document when patients fail to keep appointments. Call patients after the procedure and document the conversation in the dental record. Items to assess include oral hygiene, peri-implant tissue, presence of inflammation, and stability of the prosthesis. Take quick action to manage complications, including referrals to other practitioners as indicated.

Apply evidence-based guidelines

Adhering to evidence-based guidelines promulgated by national associations will help prevent complications and reduce the risk of litigation. For example, you may wish to consult the dental implants section of *Parameters of Care: Clinical Practice Guidelines for Oral and Maxillofacial Surgery* from the American Association of Oral and Maxillofacial Surgeons. Follow practices recommended in the literature such as completing removal of cement to help prevent peri-implantitis. Another example is the use of antibiotics. A Cochrane Summary found that the oral administration of two grams of amoxicillin 1 hour before placement of dental implants is effective in reducing implant failures.

While the importance of evidence-based practice might seem obvious, a study in *Clinical Oral Implants Research* found that dentists' attitudes regarding dental implants "are not wholly in line with evidence-based knowledge."

In addition to ensuring evidence-based practice, document completion of educational courses that prepare you to perform dental implant surgery and keep a record of relevant continuing education courses attended. Stay current with research in the field so you are aware of emerging trends.

Reducing litigation risk

Stephen Henderson, senior dento-legal advisor for Dental Protection Ltd, has categorized medico-legal challenges in implant dentistry as to wrong diagnosis; right diagnosis, wrong plan; right diagnosis, right plan, wrong patient; right diagnosis, right plan, wrongly executed; right diagnosis, right plan, well executed, recognized complication, inadequate consent; and any of the above with inadequate records.

To address these challenges, carefully select patients, establish a detailed plan of care that is shared with the patient, obtain informed consent, keep skills current, provide patient education, and, most important, document specifics in the patient's dental record. Ideally, patients will experience osseointegration of the implant without complications, but following these steps will help protect you if success falls short.

Making patients partners

Patients play a vital role in the success of a dental implant. You can partner with patients by providing them with instructions on what to do immediately after surgery and how to maintain proper hygiene long term to reduce the risk of implant failure, such as:

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After the procedure:

- Eat soft, lukewarm foods such as scrambled eggs, plain yogurt and chicken soup.
- Try to chew on the side opposite the implant.
- Avoid popcorn, nuts, and food with seeds such as strawberries.

General hygiene:

- Brush around your implants as you would around your teeth.
- Floss daily, but don't floss too far below the gums next to the implant.
- Consider using an oral irrigation device or electronic toothbrush.
- Remember that you need to care for your implants every day, just like you should care for your teeth every day.

Adapted from: Long-term dental implant maintenance. http://www.advancedsurgicalassoc.com/_media/pdf/long-term-dental-implant-maintenance.pdf; and Post-operative instructions for implant dentistry patients. <http://www.abostonsmile.com/blog/2013/06/10/post-operative-instructions-for-implant-129010>.

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