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THE EDITOR'S CORNER

Our Evolving Standards

As I've mentioned before in these pages, one of the side effects of being a full-time university professor is that a lot of people assume you are an expert in your field. I would be the first to argue the validity of that assumption; still, it is not uncommon for professors to be called upon to serve as expert witnesses in a variety of different legal situations. I confess to deriving a certain intellectual stimulation from providing expert testimony in cases involving such things as patent challenges and copyright infringement. These proceedings generally pit one company against another in a battle of wits and legal strategies, as in a game of chess or backgammon. They also provide a new impetus for reviewing scientific literature to bolster my opinions. There is something abstract about such cases; the only rules governing what is right or wrong are established by laws and precedents. The concept of a *standard of care* never enters into the discussion.

Cases involving professional liability—malpractice—are entirely different. In these lawsuits, all the principals have faces and emotions. You can't help but feel sorry for individuals on both sides. It is often extremely difficult to decide such issues as right vs. wrong, the intent behind individuals' actions, and the level of liability. A standard of care becomes the crux of the matter, but it may seem impossible to determine whether that standard has been violated.

In days past, we had a much clearer view of what constitutes the standard of care in orthodontics. Early in my academic career, I was actually bold enough to write a chapter entitled "The Standard of Care in Orthodontics" for a legal textbook. Today, I can see that my youthful bravado was borne of ignorance. It seems that as my beard has turned from black to gray, my audacity in proclaiming a standard of care has turned a much less decisive shade of yellow. One reason is that there have been so many developments in diagnosis and treatment of late that the orthodontic world is simply a much more confusing place. Looking back at what I wrote way back when, I notice that I nicely encapsulated all "treatment modali-

ties" into some rather broad categories—edgewise, preprogrammed, Begg, lingual, functional, and auxiliary appliances. I was able to write a relatively acceptable, if somewhat simplistic, summary of what these appliances were capable of and what a reasonable and prudent practitioner could expect to accomplish with them given a modicum of clinical skill and diagnostic acumen. Nowadays, the orthodontic landscape is much more diverse. New modalities, such as intraosseous temporary anchorage devices (TADs, or miniscrews) and mandibular symphyseal expanders, are redefining what can be accomplished through orthodontics, either alone or in concert with surgery, periodontology, or restorative dentistry. Several such devices are described in this issue, in articles by DeVincenzo; Cornelis and De Clerck; and Conley and Krug. Although these developments are unquestionably exciting and offer the profession many new treatment options, they also represent untrod turf.

One of my favorite illustrations in any orthodontic textbook is the remarkable "Envelope of Discrepancy" developed by William Proffit and James Ackerman. I've seen this published in a number of places, but it most memorably graces the cover of the second edition of *Orthodontics: Current Principles and Techniques*, known to everyone in the profession simply as "Graber and Vanarsdall". The illustration shows the extent to which a practitioner can expect to reposition a tooth in three planes of space using orthodontics alone, orthodontics and orthopedics together, and orthodontics combined with surgery. It is safe to say, however, that we are now pushing this envelope of discrepancy and having to redefine the parameters of our clinical possibilities. As we do so, we also have to redefine the parameters of our standard of care. For example, over the last five years, I have seen many conflicting "right" ways to manage miniscrews. I have read that you should always reflect a flap prior to pin placement; I have read that you should never reflect a flap prior to pin placement. I have read that you should always drill a pilot hole in the bone; I have read that pilot holes are not necessary. I have read that you should wait at least two weeks after pin insertion before applying force, to allow for bone healing; I have read that you should immediately load the anchors, to take advantage of the osseous healing induced by surgical trauma. Suffice to say that the "right" way—the standard of care—has yet to be convincingly defined on an evidentiary basis.

What I have just said about TADs holds true for other treatment modalities as well. CAD/CAM-designed clear plastic shells are now offered by a couple of different manufacturers. I use them frequently—more than I use miniscrews. At first, I was disappointed in my treatment results. Sensing the remarkable potential of these appliances, however, I kept trying different clinical approaches, not all of which were obvious or intuitive at the outset, or even subject to the same skills I had acquired over the years using conventional orthodontic appliances. In other words, the old rules did not apply. Eventually, I came to realize that my clinical results with these devices, as with all appliances, were up to me and not up to the appliances themselves. Several of my colleagues noted similar shortcomings, and we found that through a process of trial and error, we were defining the clinical parameters of a new treatment modality. As we continue to do so, we are also defining some new parameters of the standard of care.

When the old rules no longer entirely apply, we are faced with a quandary: Who's to say what's right and what's wrong, or to decide the standard of care by which we should guide our treatment decisions? I would be hard pressed at this point to write out a standard of care for miniscrews, symphyseal expanders, or braceless orthodontics, but I do know that if I were to make the attempt, the key word in my definition would be *care*. As long as we genuinely care about our patients and put their well-being at the top of our priority list, a legal definition becomes almost superfluous. If we base our clinical decisions on what we genuinely believe to be in our patients' best interests, and we properly document those decisions, we can embrace advances in knowledge and technology without fear of violating any professional standards. RGK

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