What’s the “State” of Your Laser Education?

by Dr. Don Coluzzi

My primary role as a clinical professor at the University of California, San Francisco School of Dentistry has been to supervise the patient care of the senior dental students, preparing them for their Western Regional Board exams as well as giving them confidence to begin their practices. We all know that the “real” education usually begins after the diploma and license are secured, and there are numerous regulations worldwide that govern our continuing education. In addition, newer dental technology and procedures, ranging from computer-aided restoration design to laser use to implantology are only beginning to be integrated into the pre-doctoral dental school curriculum. Thus, the clinician who wishes to utilize these modalities must search out learning opportunities, which might not be very available or convenient.

The primary tenet of ethical dental practice is to perform procedures that are within your training, experience and scope of practice. Hopefully your laser purchase included proper instruction, although I have seen a wide variety of such courses. Clearly, the novice laser user has much experience to gain, and should be well aware of the standard of care of any procedure. Having said that, the use of dental lasers by practitioners in the United States has some governance, and you might be surprised at some of the language in your own Dental Practice Act.

In Arizona, there are specific regulations for both dental hygienists and dentists regarding “emerging scientific technology.” The text from Arizona’s Dental Practice Act says, “Use emerging scientific technology and prescribe the necessary training, experience and supervision to operate newly developed scientific technology. A dentist who supervises a dental hygienist whose duties include the use of emerging scientific technology must have training on the use of the emerging technology that is equal to or greater than the training the dental hygienist is required to obtain” (§ 32-1281, D. 2.). Furthermore, that training must:

1. “… be offered by a recognized dental school as defined in A.R.S. § 32-1201(17), a recognized dental hygiene school as defined in A.R.S. § 32-1201(16) or sponsored by a national or state dental or dental hygiene association or government agency;
2. Include didactic instruction with a written examination;
3. Include hands-on clinical instruction; and
4. Be technology that is scientifically based and supported by studies published in peer reviewed dental journals” (R4-11-601).

California has some brief language about a dental auxiliary’s laser use and generalizes the concept by saying, “No auxiliary may provide any service, including the use of a laser, if doing so would be beyond the scope of their education, experience and training;” and, “A registered dental hygienist may use any material or device approved for use in the performance of a service or procedure within his or her scope of practice under the appropriate level of supervision, if he or she has the appropriate education and training required to use the material or device” (B&P § 1684, 1914).

In Louisiana, a dental hygienist may not use a laser, but for the dentist has a mandate: “Prior to commencing use of the laser for dental purposes, a dentist must obtain appropriate training for the laser being utilized” (§1303).

Nevada has a requirement for re-licensure for any practitioner (NAC 631.033, NRS 631.190, 631.330). Each licensee who uses or wishes to use a laser in his practice of dentistry or dental hygiene must include with his application for renewal of his license:

1. A statement certifying that each laser used by the licensee in his practice of dentistry or dental hygiene has been cleared by the Food and Drug Administration for use in dentistry; and
2. Proof that the doctor has successfully completed a course in laser proficiency that:
   (a) Is at least six hours in length; and
   (b) Is based on the Curriculum Guidelines and Standards for Dental Laser Education, adopted by reference pursuant to NAC 631.035.

Other states have very general language that prohibits laser use by any auxiliary or has no specific prohibition.

The Curriculum Guidelines and Standards for Dental Laser Education is a published manuscript that defines several course levels, and the first two lines of its Statement of...
Purpose say, “This document provides guidelines to assure safe and efficacious use of lasers for the health and welfare of the patient. It establishes the standards of education in the use of lasers in dentistry and defines standards for the demonstration of competency.”

In my opinion, a laser practitioner should consider courses that use the Guidelines as topics for instruction, and laser manufacturers should either include such courses in the sales price of the instrument or direct the purchaser to those instructional offerings with both device-specific training as well as broad background knowledge. The first level of courses would be introductory and would encompass some brief fundamentals and demonstrations of how a laser could become part of a treatment protocol. These courses would necessarily be short in length (approximately three hours) and could be either general in scope or a company infomercial. The second level competency course should follow the Standard Certification curriculum in those Guidelines, with topics that include laser fundamentals, an overview of all laser types and safety and practice management. Those generalities would form the foundation for detailed study of clinical applications of the practitioner’s own instrument(s), simulation exercises and a written examination. This would be a minimum two-day course, and could have additional days added, perhaps several months later, to both check and refine the clinician’s knowledge. The first two days would be held at a university, or at a state or national association’s dental conference. The additional days could be at those venues as well or conducted under the auspices of the manufacturer.

So what do we do? Allow me to propose some points for your consideration:

1. During your laser purchase, ask detailed questions about training. I’ve seen many online resources and DVD collections. Some manufacturers offer multi-day courses similar to the competency course discussed above. Some of these might be included in the purchase price. Along with the didactic knowledge gained at your computer monitor, I strongly recommend that you receive live hands-on instruction so that you can practice using your laser. You might have to be diligent about finding the right educational opportunities.

2. Dentists fundamentally believe that we owe our patients the best options for treatment using evidence-based procedures and materials, and that requires our effort to seek out the knowledge and understanding of what we offer.

3. Ultimately, a safe and effective practitioner would obtain university-based competency (or certification), which would far surpass current regulatory language. Practicing laser dentistry with that kind of credential would indeed be a great standard of care.

4. We could proactively engage with our state boards (or other international regulatory bodies). This dialogue could include frank conversations about any sections of the Dental Practice Act affecting lasers, as well as producing our certificates of competency to show that we are serious about our safe and effective use of those instruments. Imagine this precedent – a self-regulating group of well-trained and educated practitioners!

The point of this discussion is your laser use might have some implications for your dental licensure. The aforementioned states all use the word “must” when referring to dental laser training. This mandate puts the burden and ethical obligation of obtaining education directly on us. Arizona and Nevada have specific requirements for that training and the latter requires documentation of that course when applying for re-licensure. I have had brief conversations with a few members of other state boards, who’ve asked my opinion of what sort of regulation might have some implications for your dental licensure. The aforementioned states all use the word “must” when referring to dental laser training. This mandate puts the burden and ethical obligation of obtaining education directly on us. Arizona and Nevada have specific requirements for that training and the latter requires documentation of that course when applying for re-licensure. I have had brief conversations with a few members of other state boards, who’ve asked my opinion of what sort of regulation might be drafted regarding lasers. Nevertheless, I’m advocating that we procure competency on our own – seek out and demand course offerings that produce measurable competency. That’s true professionalism.

Author’s Bio

Donald J. Coluzzi, DDS, a 1970 graduate of the USC School of Dentistry, is a health science clinical professor in the Department of Preventive and Restorative Dental Sciences at the University of California, San Francisco School of Dentistry. He retired from general practice after 35 years. He is a charter member and past president of the Academy of Laser Dentistry, as well as serving as the editor of the Journal of Laser Dentistry and the International Journal of Laser Dentistry. He has used dental lasers since early 1991. He has advanced proficiency in Nd:YAG and Er:YAG wavelengths. He is the 1999 recipient of the Leon Goldman Award for Clinical Excellence and the 2006 Distinguished Service Award from the Academy, a Fellow of the American College of Dentists, a Master of the Academy of Laser Dentistry, and a founding associate of Laser Education International. Dr. Coluzzi has presented about lasers worldwide, co-authored two books and published several peer-reviewed articles and chapter textbooks.