The decision to introduce the diode dental laser to your practice is predicated more on philosophy and logistics than on the return on your investment. Top practice management consultants demand a financial return on investment when new affordable technology is introduced. Instead, the true issues are: what laser features you select; how you introduce it to your schedule, team, and patients; when and how you charge and bill for the procedures; and how it impacts your malpractice insurance and state relicensure. These are all important issues covered in this article.

A diode laser will not bring financial windfalls to your orthodontic practice. When “return on investment” is discussed, in orthodontics we must address it as “time” versus “money.” Unquestionably, the favorable impact a diode laser has on clinical efficiency eclipses any fees you charge for the procedure, giving you the freedom to charge “as necessary” to assist in achieving a timely treatment outcome.

Strategies
Orthodontics is a unique dental specialty in that a single procedure lasts for many months with many appointments. A barometer of efficiency is the case fee divided by the number of appointments. Anything that either shortens the treatment time or reduces the number of visits increases efficiency, short of higher fees. The diode laser can shorten treatment time, which is how it delivers a return on the investment.

For example, recently one of my patients had a palatally impacted canine exposed by an oral surgeon who bonded a button with a gold chain and finalized the procedure with a closed tissue flap and suture. Unfortunately, the patient returned with the gold chain exiting the tissue at the crest of the alveolar ridge and tied to the archwire. A post-op 3D scan made in our office showed the trajectory of pull was directing the canine’s crown into the adjacent lateral incisor. Because I routinely use a laser in the course of treatment, I was able to create a trough in the palatal gingiva and redirect the chain more lingually, thereby avoiding the damaging root resorption that would have ensued in the absence of a modified treatment plan. The procedure shaved three to four months off of treatment, not to mention potential damage to the lateral incisor’s root. (I might add the Kodak 9000C 3D played an equally big part.)

Did I charge the patient for that procedure? No. It helped me deliver better care in a shorter time for no added major expense to me.

Laser Selection
The variety of diode dental lasers has exploded in the past few years. While many features are available, one thing remains the same: training. In 1992 The Curriculum Guidelines and Standards for Dental Laser Education was published and embraced worldwide as the established legal standards for education of dentists using lasers. No matter what laser is used, the orthodontist must complete formalized training to use the laser safely around patients and the dental team. Plus, more and more states are adding a laser CE requirement for relicensure, requiring that the course satisfying the requirement comply with the 1992 Curriculum Guidelines and Standards.

When selecting a laser to use in the orthodontic practice, my basic preference has been twofold: portable and unintimidating. But my years of experience add several other requirements that might be helpful to prospective users.

All diode lasers offer two wavelength modalities: continuous wave and a pulsed 50 percent duty cycle, where the laser energy is delivered for a set time and there is a rest interval for an equal time length. The pulsed cycle allows for some tissue cooling. The best diode lasers allow even better pulse-to-rest ratios, like a 33 percent duty cycle, where the energy is delivered for a period of time and a rest interval is twice as long. This is my favorite.
If you use pulse cycles you will need higher maximum laser energy outputs, which are expressed in wattage. I find almost all of my procedures are done using between 1.0 and 1.5 watts. So if I need my laser to deliver 1.5 watts when operating at a 33 percent duty cycle, a total of 4.5 watts is needed. A two-watt laser cannot provide such precise and kinder procedures that higher pulsed energies can. Plus, higher wattages, combined with pulses, allow for more procedures to be done with topical anesthesia only.

Other diode laser novelties in today’s market include liquid irrigation, battery power, use without foot pedals and even higher wattages like seven, nine, and even twelve watts!

Scheduling

When first using a diode laser in the orthodontic practice, a prudent doctor schedules “laser days” at first. These may be half-days when patients are grouped, usually in one-hour blocks, allowing the doctor and team to learn how to work together and with the laser in a managed, structured and unhurried manner. A low-pressure environment feeds the development of clinical skills and also promotes team acceptance. Add to that the efficiency that accompanies “like procedures” in a given period of time and “laser days” make even more sense.

Once you have completed three to four of each of the procedures you will likely feel comfortable providing for your patients, and you and your team can integrate them into your routine clinical day. A well-trained assistant only needs you for a few minutes of the laser procedure. Just make sure that initially, all but the most minor of procedures (like single-tooth gingival recontouring) have a planned place within your scheduling template, alongside TADs and other more demanding procedures. As your experience matures the time needed and set aside for the various laser surgeries can be reduced.

Training

One of the most alarming e-mails I have ever received as a laser educator blatantly said that using the diode laser is exactly like electrosurgery and no further training is needed. That is a myth, and a dangerous one. Everything is different - you can use it around metal; there is little to no post-treatment shrinkage; an inflammatory response is not initiated, accelerating healing and making it even more comfortable; it can often be accomplished with just topical anesthetics. The list goes on...

In its Spring 2010 newsletter, the AAO Insurance Company writes: “With the introduction and increasing use of diode soft tissue lasers in orthodontic practices, it is imperative that the orthodontists who utilize this treatment modality receive proper training in the indications, contraindications, and the use and potential hazards of lasers. This training should include but not be limited to, laser selection, laser safety, laser setup and laser maintenance. It should also include instruction specific to the proper use of the diode soft tissue laser in orthodontic practice. Areas to be covered should include, but not be limited to, case selection, periodontal considerations, technique instructions, power settings, informed consent and risk management. In order to most effectively guard against the possibility of a professional liability claim, it is desirable that said instruction include a “hands on” component.”

All of these recommendations are addressed by courses that subscribe to the 1992 Curriculum Guidelines. To receive a sound orientation for using the diode laser in patient surgery you must complete a formal course, preferably one designed just for orthodontists. It’s not just for “CYA” reasons, but in the interest of patient and team safety, not to mention your own. It’s no mistake that the FDA places the highest hazard rating on these devices.

Training begins by selecting a course with a proven track record. It should provide demonstrations, either live or on video, of all procedures you might be able to provide your patients. It should completely cover the many safety issues and give you the materials to take back to your practice and for your Laser Safety Officer, a position required by federal law if you elect to use a diode dental laser in your practice.

As you train your team, be sure that you educate at least two team members to the level of providing quality assisting care for your laser patients. They will spend more time with them than you will, so it is important that they know what to do and say in your absence.

Patient Management

Patients see you as an orthodontist – a highly skilled provider. How you announce your laser-use to the community plays an important role in how it is perceived and accepted by your patients and their dentists. Your reputation began by getting adequate training. The next step is introducing it to your patients.

During my initial examination, if I suspect that the need for soft tissue surgery may arise before, during or after treatment, I identify it then and there. For example, if a patient presents with ankyloglossia I will explain how releasing it before starting braces
can help the tongue develop the arches and possibly accelerate treatment. Or, if a patient has poor oral hygiene I will likely explain the possibility of gingival hypertrophy (if poor hygiene continues), with the possible need for a laser procedure to correct it. If my 3D scan shows easy access to unerupted canines, I can plan my exposure procedure and then start the patient in braces, often at the same appointment.

As we approach the end of treatment we often see asymmetrical gingiva, especially on the upper central incisors. I usually recontour these teeth to obtain optimal aesthetics without charging the patient. If I suspect less than optimal crown-height-to-width ratios earlier, I present the option for aesthetic recontouring at that time and quote a fee. There is a powerful “added value” component when you provide the laser care, regardless of whether you charge. Keep in mind (and make sure the patient is aware) that, by not involving another dental specialist like a periodontist or an oral surgeon, they benefit in many ways. They avoid likely intravenous sedation that the surgeon will want to use. They avoid their fees, which when everything is combined, will be higher than yours. The other specialists will probably place sutures, if they do not use a laser; there will probably be more swelling and post-operative pain, both documented to be greatly reduced when a laser is used compared to conventional surgery with a scalpel.

Finally, do not be offended if your patient questions your ability, or even your qualification to use a dental laser. Simply cite your training, experience, team support, state-of-the-art equipment and examples of prior procedures and results. With everything combined, patients will be hard-pressed to ask for a referral to an oral surgeon or periodontist.

Insurance Codes and Fees

The most-asked questions are about fees. You will provide only one procedure that is classified periodontal: “gingivectomy or gingivoplasty.” Fees charged are based on how many teeth are treated. Four or more contiguous teeth or bounded teeth spaces per quadrant use the ADA code D4210. The procedure typically involves the removal of a suprabony pocket to restore normal architecture in the presence of gingival enlargements or when asymmetrical or unaesthetic topography is evident – but the bony configuration is normal.

The fees for this procedure vary widely throughout the United States, both geographically and by practitioner. As an example, in some areas of Texas the fee for the gingivectomy of four or more teeth might be as low as $350 and as high as $600, while in New York City the fee for same procedure would not be less than $535 and could top out at $900 or more. Likewise, for one to three teeth the ranges would be $130 to $220 and $260 to $440, respectively.

Most procedures you provide will be filed using oral surgery dental insurance procedure codes. For example, the procedure code to use when filing insurance for surgical access to an unerupted tooth (with or without bone removal) is D7280. The fees range from a low of $265 to $410 in the most rural areas, up to between $455 and $700 in the largest cities. When placing an orthodontic bracket or button (and maybe a gold chain), code D7283 could be added: the placement of a device to facilitate the eruption of an impacted tooth; the same fees for exposure would essentially be charged again.

Other procedures include a lingual frenectomy, used to free up a tongue with limited mobility. The procedure code is D7960 and fees range from $250 to $375 and from $425 to $640 in rural and large cities, respectively. A labial frenectomy uses code D7963 with fees approximately $40 to $50 more than the lingual frenectomy.

Another common procedure using a diode laser is excision of inflamed or hypertrophied pericoronal gingiva over partially erupted or impacted teeth – especially the lower second molars. The procedure code is D7971 and fees range from $130 to $250 and $225 and $425, again with respect to rural versus large cities.

Of course, if you participate in a plan as a preferred provider or are a part of another organized insurance plan, the fees you charge may be dictated by the agreement under which you operate. Regarding insurance, I always recommend doctors charge the patient in full and then have them be reimbursed directly by their carrier. Of course you will want to provide all needed documentation, such as periodontal probings, images and X-rays, and even narratives, if possible.

To help patients receive a timely response from their insurer, many dental practices stamp the claim form with language that reads: “Unless this claim is paid or denied within 30 days we will file a complaint with the State Insurance Commissioner.” Of course, what is said depends on your state’s laws, but playing “hardball” early on with an insurance company helps establish their respect and compliance with their obligations.

It’s worth mentioning that you must resist the urge to embed a laser fee into your orthodontic case fee. This would be counterproductive in two ways:

1. It would upset the usual and customary charge for your region; and
2. It could make your case fees less competitive in your market. Of course, there will be many instances when you do not charge a patient for a laser procedure – times when the procedure helps accelerate or improve your treatment. Exposing a tooth to enable bracket placement or repositioning, aesthetically recontouring one or two teeth, addressing gingival hypertrophy due to appliances, an irritation fibroma adjacent to a bracket, and uncovering a labially blocked out canine to bond a button all provide for patient goodwill that is intangibly worth much more than what could be billed.
Informed Consent

Because you use a laser in patient care you will need to include language in your informed consent forms that addresses it. Your malpractice insurance provider may be able to provide one for you. The best laser courses that offer both clinical and managerial/administrative components will likely make a sample form available to you to work from. I simply include the language in my informed consent form alongside that for TADs. The treatment coordinator addresses it by simply mentioning that if the procedure is required we will review it again at that time.

Malpractice Insurance

If you decide to use a diode laser in your practice you may wonder how your malpractice insurer views it. As I mentioned before, they will expect you to have training. Without training, and in the presence of a lawsuit, you might find your coverage compromised. It’s not worth chancing. Your carrier might charge a nominal extra premium if you use a laser or place TADs, much like airlines now charge for checking bags. Check your policy carefully for language that might limit your use of procedures that they might consider outside the realm of orthodontic care and, if still in doubt, request a written letter of opinion to set the record straight.

Working with Fellow Dental Professionals

As you deliver periodontal and oral surgery procedures you will be expected to subscribe to the same standards of care. Contact your fellow periodontal and oral surgery specialists and let them know you are using the laser. Let them know you took advanced training and have a good handle on the parameters of the procedures. It’s a good bet that the periodontist isn’t interested in recontouring the gingiva about a single tooth anyway.

I invited the periodontists into my office to discuss it and show some cases. It was well received. I’ve since received compliments from one periodontist in particular on the after effects of my treatment.

Many of your referring general dentists are unaware of how timing laser procedures with orthodontic and restorative care favorably influences your treatment, so it makes sense to use this as an opportunity to have lunch with them to better coordinate care, identifying when along the continuum of orthodontic care the various procedures we’ve discussed best fit into the patient’s overall dental health.

If a referring dentist enjoys providing the complete spectrum of care for patients and does a good job, you don’t want to “step on toes” and usurp that right. Open communication is a must and goes a long way toward acceptance and trust.

In Closing

Dr. Arthur A. Dugoni, a past president of the American Board of Orthodontics, describes a win-win situation when dentists share treatment, emphasizing that “The best interests of the patient have to come first.” While the American Dental Association’s Principles of Ethics and Code of Professional Conduct state that “Dentists who choose to announce specialization... shall limit their practice exclusively to the announced special area(s) of dental practice...” “I am aware that my state’s (Georgia) Board of Dentistry rules do not limit a dental specialist’s allowed procedures. Of course, you should consult your state’s Board of Dental Examiners if you have any doubts, but my suspicion is that providing any procedure to help deliver your specialty care is considered allowable under your state’s rules and regulations.

Introducing new treatment entities requires addressing both the clinical and business components. Selecting a laser that delivers the quality of care we are used to delivering as orthodontic specialists, obtaining the proper training and implementing it in a regimented and safe manner, informing your patients about its benefits, properly managing the fees and billings, and involving your fellow professionals in the introduction of the diode laser to your practice together provide a synergistic launch to a new and exciting phase of orthodontic treatment that revivifies your career as it accelerates care – a win-win for everyone.

Author’s Bio

Dr. Bob Waugh, a native Georgian, has practiced orthodontics in the Athens area since 1989. He received his BS degree from Mercer University in 1983 and went on to become the Medical College of Georgia School of Dentistry’s first combined degree graduate in 1987, earning his DMD as well as an MS in Oral Biology. Upon graduation he was elected to Omicron Kappa Upsilon, dentistry’s national dental honor society. Dr. Waugh attended his residency in orthodontics at the Baylor College of Dentistry, earning a second Master’s degree and his certificate of specialization in 1989. He became a Diplomate of the American Board of Orthodontics in 2000. Dr. Waugh participates in many related activities that keep him abreast of the latest developments in orthodontic care. He has been teaching orthodontics at the Medical College of Georgia since 1990, giving resident courses in a variety of areas that include Interdisciplinary Dentistry, Orthognathic Surgery, the Damon System of orthodontics, and Orthodontic Business Management. In addition, he lectures nationally on contemporary topics in orthodontics including passive self-ligation and the use of the diode laser. Dr. Waugh is a member of the International and American Colleges of Dentists and has served as president of the Clarke County Dental Society and the Georgia Association of Orthodontists. For more information, please visit www.intellident.org.