

2015 Dentists and Dental Laboratories Update

by Bennett Napier, CAE, and Warren Rogers

According to the most recent data from the U.S. Department of Labor, Bureau of Labor Statistics, there are 7,042 dental laboratories in the United States with a payroll and less than 3,000 “one man” dental laboratories. The data also reflects that there are 33,600 domestic dental technicians.

These numbers represent a 20 percent consolidation of both categories in the last two years. The market changes are a result of a number of factors: the economic downturn, competition from off-shore dental laboratories, increased capital costs to operate a dental laboratory and natural attrition due to an aging technician workforce. Over the next 10 years, it's predicted that the total number of U.S. dental laboratories could plateau at 7,000.

This shift in the domestic dental laboratory market is happening at a time when according to the U.S. Centers for Medicare and Medicaid, the demand for dental services is predicted to increase in the United States to \$167 billion by 2015. The ability of dentists to work with qualified dental laboratories domestically is paramount to good patient care.

The rapid change taking place in the dental laboratory industry has facilitated the need for different skills for a dental technician. Recruitment of individuals into the dental technology profession now includes graduates of computer imaging schools, CAD/CAM light manufacturing vocational schools and medical device technicians. There still remains a need to recruit professionals with a strong artistic flair. However, overall, the new skill sets for dental technicians are vastly different even from just 10 years ago.

With the increasing demand for dental services, the U.S. Department of Labor predicts the domestic technician workforce will begin to go up from current levels at five to seven percent per year through 2015. The reality is that it's likely the domestic dental technician workforce will not materially increase at that rate. The ability for the dental laboratory industry to meet increasing client demands rests largely on developing efficiencies through lean manufacturing principles and utilizing automation and technology to keep the pace of production with a smaller workforce.

The key internal and external issues that are impacting the dentist/dental laboratory relationship includes:

- The U.S. Food and Drug Administration import trade data for the dental laboratory industry classification code indicates that more than \$1.6 billion in dental laboratory-related sales is currently being fulfilled by foreign dental laboratories. That represents nearly 40 percent of actual units prescribed. This work is not all outsourced work by dental laboratories. There is a significant portion of prescribed dental laboratory work where no domestic dental laboratory is involved in the supply chain. In this case, the work is being shipped directly by large group dental practices and some U.S. dental schools.
- Due to technology costs, to open a dental laboratory that will be competitive in today's market environment requires a minimum capital investment of \$200,000. In the early 1990s, an individual could open a dental laboratory for less than \$20,000.



- The number of ADA-accredited dental laboratory technology programs at community colleges and universities has declined 62 percent since 1992. Today, there are 18 accredited programs in the country. There are now more non-accredited programs offering one year certificates in dental laboratory technology than there are associate of science or bachelors programs.
- Digital impressions as they relate to dental implants, although a small piece of the restorative market, are growing at 15-17 percent annually. The complexity of implants and the communication bridge that digital impressions provide requires an enhanced service level interface between dentists and dental technicians. Due to the FDA classification of implants as Class II medical devices, dental laboratories that manufacture implants and implant abutments are likely to face increased regulatory compliance with the U.S. FDA later in 2012. This new level of compliance will require that dentists use their due diligence to work with dental laboratories that can attest that they have quality system/good manufacturing practices in place to produce such restorations.

Technical Training and Competency

Since the 1970s, more than 27,000 dental technicians have graduated from formal dental laboratory technology schools. The number of ADA-accredited programs in the U.S. can now only produce a graduating class of around 300 students annually.

Reversing the trend of school closures is extremely important in order to be successful in the dental relationship, a comprehensive foundation of knowledge is necessary, now more than ever. This is especially true, when one considers that dental schools teach almost no clock hours in dental laboratory technology. This divide is exacerbated by the fact that in many states more laboratory-related duties in the clinical setting are delegated to dental assistants or hygienists who also rarely have training in laboratory technology.

The proliferation of technology, both in terms of dental materials and equipment in dentistry and even more on the laboratory side, makes it crucial that there is open and consistent communication between the dentist and dental technician. Dental technicians by and large work closely with dental manufacturers on the development of new restorative materials as well as the capital equipment that allows manufacturing of the substructure or the full restoration to meet the dentist's need for the patient. Due to this dynamic, technicians are poised to offer dentists expert guidance on material selection and help filter through the sales pitch on which brand is best to meet the patient need.

The advent of digital impression systems has markedly improved the restorative outcome. In study after study, the detail of the digital file has facilitated both a better restoration and turnaround time. Remake percentages typically go down significantly both for the dentist and dental technician. This saves chairtime and improves patient satisfaction. As this technology becomes commonplace, the working relationship

continued on page 28

between dentists and dental technicians will allow for increased production capacity.

Regulation of Laboratories/Technicians

In a July 2008 American Dental Association survey of its members on dental laboratory issues, more than one-third of dentists indicated that they believe dental technicians and laboratories are regulated or licensed. In fact, there are no states in the U.S. where technicians are required to be licensed.

Only four states mandate any baseline technical competency for technicians, another five require the dental laboratory to register with the state. Florida, Kentucky, South Carolina, and Texas, set the baseline competency and continuing education requirements for dental technicians based on the certified dental technician (CDT) designation administered by the National Board for Certification in Dental Laboratory Technology. This is the only recognized certifying body for dental technicians by the ADA.

Starting with the 2008 “lead in dental work” issue coming out of Ohio, state dental societies and state dental laboratory associations have begun to take a new look at the need for minimum state standards for operating a dental laboratory. Not since the 1970s has there been such momentum relative to “regulatory” compliance by dental laboratories.

There is a move afoot in five additional states including California to seek similar regulations in state dental practice acts. California is significant as one in seven U.S. dentists is licensed in that state. If California passes new laws, other states will likely follow their lead.

It is believed that a baseline requirement for registration of laboratories and a tie to certification or competency standards for technicians is imperative for dentists. This will preserve a consistent foundation of technical training regardless of what laboratory you choose to work with.

Dentists can and should seek to work with dental laboratories and technicians who have voluntarily chosen to verify their skills and knowledge against a national standard such as a certified dental technician, or have verified their facility operating standards as a certified dental laboratory (CDL) or FDA compliant, Dental Appliance Manufacturers Audit System (DAMAS) or ISO laboratory.

Technology Advances

The advent and development of CAD/CAM products from companies like Sirona, 3M ESPE, Cadent, KaVo, Nobel Biocare, D4D and others that support digital technologies for both the doctor’s office and dental laboratory will help dentistry meet increasing consumer demands. These advances will also change how doctors and dental technicians communicate with each other.

With any technology, there is a length of time before the masses fully utilize what is available. With that in mind, it will likely be another five to seven years before this new technology realizes its full potential in relation to the number of possible users. Once that happens, the general dentist and the everyday dental technician will be in a new era of dental care. Much like the medical field, dentistry, and those within it, will be fully transformed into a high-tech health-care profession.

The National Association of Dental Laboratories believes that to preserve the ability of dentists to work with a qualified domestic laboratory industry that several public policy recommendations should be considered:

1. Support a minimum level of competency for practicing dental technicians. This can be achieved through state dental practice acts that would require each dental laboratory in the United States to employ at least one certified dental technician or require comparable continuing education.

2. Require U.S. dentists and dental schools that outsource their dental laboratory work directly to foreign dental laboratories to comply with the same Food and Drug Administration quality system/good manufacturing practice requirements with which a U.S. dental laboratory must comply. This not only ensures transparency but more importantly provides that all links in the supply chain are covered in case of a raw material product recall.

3. Support state dental practice act provisions that the dental patient has the right to know where his or her restoration was manufactured and also have access to a list of patient contact materials used in their restoration. Such information would become a part of a patient’s record. Georgia is the first state in the country that has pending legislation that would require the dentist to meet with the patient prior to writing the prescription and the patient must sign off on having the restoration made domestically or by a foreign dental laboratory.

For more information on the laboratory industry and seeking out a qualified partner, visit the following Web sites:

www.nadl.org

www.nbccert.org

www.dentallabfoundation.org ■

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