Safe, accurate, simplified sinus-lift technique for general practitioners

Part 2: Introduction of surgical technique combining CAD/CAM surgical guides with hydraulic intracrestal approach sinus lift

By Virgilio Mengalo, DMD, and Jae Chang, DDS

In Part 1 of this three-part series, published in the November 2012 Dental Tribune U.S., we presented a sinus lift technique involving hydraulic pressure to elevate the floor of the maxillary sinus. Many respected clinicians and researchers have taken the task to compare the effects as it is related to a percentage of sinus perforation using existent intracrestal sinus lift techniques. These proven surgical techniques include the use of osteotomes (Summers — and its multiple variations), balloon lift, hydraulic sinus condensing technique (Chen and Cha) and motor-driven drilling systems. Scientific articles published in 2012 by Loma Linda School of Dentistry (Garbacea and Lozada) and the Department of Periodontics and Oral Medicine, University of Michigan School Dentistry (Chan and Avila), assessed crestal sinus floor elevation using cadaver heads and endoscopes to study the incidence of maxillary perforations. Both studies concluded that perforations can occur with any technique but are more likely to happen when the membrane is raised past the 10-mm mark measured from alveolar crest. A recent prospective study published in 2012 by the Division of Prosthetic Dentistry, Maxillofacial Unit in Sweden (Fornell and Johanson) presented a CBCT-guided osteotome sinus elevation technique that shows improvement over conventional techniques in that there is decrease in the percentage of perforations.

The purpose of this article is to introduce a surgical technique that combines planning and drilling using CAD/CAM surgical guides with hydraulic intracrestal approach sinus lift. This technique is a combination of creative thinking from the authors and innovative instrumentation developed by Hiossen Implant Systems.

Four patients were treated using this technique; 20 taper-hydrophilic implants (Hiossen ET-III) were inserted and integrated over a period of six months. Two patients were par...
EXPAND YOUR PRACTICE
WITH THE POWER OF 3D

IMPLANT : ORTHO : SURGICAL
AIRWAY : TMJ : SLEEP

SCAN
MORE CLINICAL AND DOSE CONTROL

PLAN
COMPREHENSIVE IMPLANT TREATMENT TOOLS WITH Tx STUDIO SOFTWARE

TREAT
INCREASED CONFIDENCE FOR ADVANCED PROCEDURES

For a FREE 30-day trial of the award-winning Tx STUDIO software, call 800.205.3570 and select option 5

Available exclusively through
HENRY SCHEIN® DENTAL

i-CAT®
i-CAT.com
Study reveals how automated patient appointment reminders affect dental practice no-show rates and production

By Diana F. Friedman, MA, MBA, and Tim Williams, BA, MS

The Internet age has dramatically altered communication patterns. Face-to-face interactions continue to give way to digital message exchanges. Channels for these digital communications have rapidly morphed and expanded over the past years toward a faster, more interactive means of exchange.

This is the reality that faces dental practices. Interaction with current and prospective patients increasingly take place online. In order to maintain a productive level of engagement, dental practices have to identify effective ways to leverage these new channels of communications.

Patient engagement not only drives retention, but new patient acquisition — two cornerstones of a profitable practice. Research has consistently shown that patients welcome the adoption of digital interchanges. A national research study by Sesame Communications documented that 97 percent of dental patients would rather check than call their dental practice. The same study found that 79.5 percent of dental patients prefer SMS text and email reminders over phone calls from the practice.

Automatation reduces no-shows

Sesame Communications pioneered the first automated appointment reminder system for dentistry in 1999. Automated patient reminders enable practices to confirm scheduled appointments via email, text messages or automated voice reminders. Sophisticated patient portal lets patients define their preferred method of contact. This service not only provides great convenience and benefit to patients, it can dramatically improve efficiencies for the practice.

A recent Sesame Communications study analyzed five years of patient-attendance rates based on 1,604,184 appointments across 64 dental practices. The study found that no-shows were reduced by 22.95 percent following implementation of automated appointment reminders.

Study shows how to reduce no-shows

This technique is indicated when treating patients with 5 to 8 mm or Mongalo classification SA3 following Misch protocols for sound residual anatomical bone and eight non-cutting end drills (CAS) (Fig. 6). Three cc crystals (Ossteogen by Implandent) was inserted at 20-30 Newtoms (Fig. 8). One mm was allowed to verify 360 degrees of bone spread surrounding the implant and to ascertain that sinus membrane was not perforated.

Increased production is at the epicenter of a practice’s financial performance, impacting cost structure, revenue flow, and ultimately, profitability. Appointment no-shows have a devastating impact on practice financial performance. In a 2012 national research study, 32 percent of dentists said their top need was to reduce no-shows in the practice. Automated reminders have the potential to cost-effectively and efficiently address this need.

Increased production is at the epicenter of a practice’s financial performance, impacting cost structure, revenue flow, and ultimately, profitability. Appointment no-shows have a devastating impact on practice financial performance. In a 2012 national research study, 32 percent of dentists said their top need was to reduce no-shows in the practice. Automated reminders have the potential to cost-effectively and efficiently address this need.

Research shows that today almost 60 percent of practices have some form of automated appointment reminder solution. However, until recently there has been very limited research to document the impact these solutions have on no-show rates and practice production. With advanced systems costing $300 per month on average, the return on investment justification for this investment has, to date, been a challenge.

Sesame Communications recently announced the results of a breakthrough study measuring the impact of automated patient appointment reminders on practice production. The study analyzed five years of performance data and tracked the detailed confirmation and patient attendance rates on 1,604,184 appointments across 64 dental practices.

Study shows how to reduce no-shows

The study tracked no-show rate changes, both pre- and post-implementation, of automated appointment reminders. The study found that dental practice no-shows were reduced by 22.95 percent.

The financial implication of schedule compliance is significant. This research documented $33,456.88 in incremental production for dental practices due to schedule improvements continued throughout the 36-month post-activation period. The data clearly demonstrated a positive productivity impact when integrating automated appointment reminders into the practice.

Conclusion

Automated appointment reminders dramatically reduce practice no-shows and positively impact production. They are the method of communication that patients prefer. They improve efficiency and profitability. And, finally, 90 percent of dental professionals agree that automating reminders gives them peace of mind that all patients are being consistently contacted prior to appointments.

DIANA P. FRIEDMAN, MA, MBA, is president and chief executive officer of Sesame Communications. She has a 20-year success track record in leading dental innovation and marketing. Throughout her career she has served as a recognized practice management consultant, author and speaker. She holds an MA in sociology and an MBA from Arizona State University.

TIM J. WILLIAMS, MS, BA, is vice president of product strategy at Sesame Communications. As a former business owner he understands the challenges dental and orthodontic practice face in today’s market place. He holds an MS in applied information management and a BA in psychology from Stanford University.

The Internet age has dramatically altered communication patterns. Face-to-face interactions continue to give way to digital message exchanges. Channels for these digital communications have rapidly morphed and expanded over the past years toward a faster, more interactive means of exchange.

This is the reality that faces dental practices. Interaction with current and prospective patients increasingly take place online. In order to maintain a productive level of engagement, dental practices have to identify effective ways to leverage these new channels of communications.

Patient engagement not only drives retention, but new patient acquisition — two cornerstones of a profitable practice. Research has consistently shown that patients welcome the adoption of digital interchanges. A national research study by Sesame Communications documented that 97 percent of dental patients would rather check than call their dental practice. The same study found that 79.5 percent of dental patients prefer SMS text and email reminders over phone calls from the practice.

Automatation reduces no-shows

Sesame Communications pioneered the first automated appointment reminder system for dentistry in 1999. Automated patient reminders enable practices to confirm scheduled appointments via email, text messages or automated voice reminders. Sophisticated patient portal lets patients define their preferred method of contact. This service not only provides great convenience and benefit to patients, it can dramatically improve efficiencies for the practice.

A recent Sesame Communications study analyzed five years of patient-attendance rates based on 1,604,184 appointments across 64 dental practices. The study found that no-shows were reduced by 22.95 percent following implementation of automated appointment reminders.

Study shows how to reduce no-shows

The study tracked no-show rate changes, both pre- and post-implementation, of automated appointment reminders. The study found that dental practice no-shows were reduced by 22.95 percent.

The financial implication of schedule compliance is significant. This research documented $33,456.88 in incremental production for dental practices due to schedule improvements continued throughout the 36-month post-activation period. The data clearly demonstrated a positive productivity impact when integrating automated appointment reminders into the practice.

Conclusion

Automated appointment reminders dramatically reduce practice no-shows and positively impact production. They are the method of communication that patients prefer. They improve efficiency and profitability. And, finally, 90 percent of dental professionals agree that automating reminders gives them peace of mind that all patients are being consistently contacted prior to appointments.

DIANA P. FRIEDMAN, MA, MBA, is president and chief executive officer of Sesame Communications. She has a 20-year success track record in leading dental innovation and marketing. Throughout her career she has served as a recognized practice management consultant, author and speaker. She holds an MA in sociology and an MBA from Arizona State University.

TIM J. WILLIAMS, MS, BA, is vice president of product strategy at Sesame Communications. As a former business owner he understands the challenges dental and orthodontic practice face in today’s market place. He holds an MS in applied information management and a BA in psychology from Stanford University.
Endodontic rotary file system refined

DENTSPLY Tulsa Dental Specialties introduces the PROTAPER NEXT system

DENTSPLY Tulsa Dental Specialties has introduced its newest innovation and an expansion of its world renowned endodontic file system.

PROTAPER NEXT is the same variable taper design found in the original ProTaper that clinicians have turned to for more than a decade, but refined to improve performance.

PROTAPER NEXT features: patented M-Wire® NiTi alloy for increased flexibility and resistance to cyclic fatigue; rectangular cross-section for greater strength; and a unique asymmetric rotary (AR) motion.

PROTAPER NEXT uses the same trusted rotary action as the original ProTaper. What’s different is how the file moves down the canal. The off-center rectangular cross-section of PROTAPER NEXT differs from the center of mass. Only two points of the cross-section touch the canal wall at a time, reducing the torsional stress on the file. The result is a fully tapered and predictable shape achieved with greater procedural efficiency.

The single-use and pre-sterilized PROTAPER NEXT files also feature shorter handles (11 mm) and are available in 21-, 25- and 31-mm lengths.

Four sizes of color-coded and precision-matched absorbent points, gutta-percha points and obturators fit all PROTAPER NEXT prepared canals. Together they represent the PROTAPER NEXT system-based approach to root canal therapy. For more information about the latest endodontic innovation from DENTSPLY Tulsa Dental Specialties, visit www.tulsadentalspecialties.com/protapernext.aspx or call (800) 662-1202.

About DENTSPLY Tulsa Dental Specialties

DENTSPLY Tulsa Dental Specialties describes itself as being the premier producer and marketer of endodontic dental systems in North America. It is a division of Pennsylvania-based DENTSPLY, a leading developer, manufacturer and marketer of products for the dental market.

For more details, visit www.tulsadentalspecialties.com or call (800) 662-1202. DENTSPLY International is a leading manufacturer of dental and other healthcare products. The company believes it is the world’s largest manufacturer of professional dental products.

For more than 110 years, DENTSPLY’s commitment to innovation and professional collaboration has enhanced its portfolio of branded consumables and small equipment.

Headquartered in the United States, the company has global operations with sales in more than 120 countries. Visit www.DENTSPLY.com to learn more about DENTSPLY and its products.

(Source: DENTSPLY)
xpAPce is morphing into ‘Expert Dental CE’

While the company name remains the same, xpAPce (www.xpapce.com), an online dental C.E. company whose name is taken from its mission — Expert Approved Continuing Education — will now refer to itself as “Expert Dental CE” (www.expertdentalce.com will point to www.xpapce.com).

“It was a mouthful,” says xpAPce Co-Founder Dr. Alan Winter. “Everyone tried to pronounce it and stumbled over the letters because it was meant to be spoken. Knowing that ourselves, we found it difficult to refer to xpAPce when speaking in front of scholars and dentists taking our courses. We were fortunate to have the domain name ‘Expert Dental CE’ available, and this is how we will refer to ourselves in the future.”

“When it comes to our mission, Expert Dental CE is right on target,” says xpAPce’s other co-founder, Dr. Frank Murphy. “There are niche online C.E. companies that cater to one area of treatment. The obvious ones are implants or cosmetic dentistry,” Murphy explained. “Our focus is to be the go-to online C.E. company providing the broadest spectrum of programs. At present, we have 17 different departments. In six months we’ve launched more than 60 courses comprising 100 hours of CERP- and AADH-approved C.E. In the future, our library will offer more and more procedurally specific modules to enhance skills and improve patient outcomes.”

New courses launched

In keeping with xpAPce’s mission, recent course offerings have something for everyone.

Consider Dr. Deborah Stauffer’s course, designed for dental assistants and hygienists, which updates current thinking on plaque and biofilm and how to teach and motivate patients to perform better oral hygiene.

Dr. James Fine, chairman of New York Presbyterian/Columbia PG Perio program, provides a series of up-to-the-minute courses on bone grafting and bone substitutes.

Dr. Graz Giglio, president of the N.Y. Academy of Prosthodontists, delivers two outstanding programs on “smile design for anterior esthetics and laminate veneer preparations.” And then there is Dr. Barry Rosenzberg, president of the Academy of Orofacial Pain, with an introductory course on diagnosing and treating facial pain.

Additional upcoming courses will soon be available in oral pathology with Dr. Jon Svirsky, oral medicine with Dr. Jeff Burgess, prosthodontics with Dr. Charles Goodacre and Dr. Bruce Valuari, Periodontics and implant surgery with Dr. Federico Brugnami. Drs. Peter Cathro and Geoffrey Heithersay will provide courses on instrumentation and treating resorptions — additions to xpAPce’s comprehensive endodontic module.

xpAPce’s new price schedule and annual subscription makes courses more attractive than ever. The elearning takes place in a unique format: an online dental community. Dental professionals can earn C.E. credits, visit vendors at their leisure, view new products, download PDFs, contact a sales rep, attend a meeting and more. Visit the Education and Vendor Hall for a list of scholars and courses — and to see the vendors that have booths inside the community.

For information about becoming a vendor, contact info@xpsquared.com. For a snapshot of both of the organization’s websites, visit www.xpsquared.com, where all courses and vendors are listed.

Courses also are available live and on demand on the Dental Tribune Study Club website, www.dtstudyclub.com.

(Source: xpAPce)

Commentary: Not all hand-held X-ray systems are created equal

By Dr. Joel Gray

As a recent article on [www.dental-tribune.com] points out, there are some safety issues with hand-held X-ray units made in China and Korea, as well as elsewhere outside of the United States. There are two sources of radiation from an X-ray system — leakage radiation from the X-ray tube and scattered radiation from the patient. The leakage radiation is minimized by placing highly absorbing material, such as lead, around the X-ray tube. The major issue with the hand-held X-ray units is the scattered radiation, that is X-rays that are scattered from the patient towards the operator. In fact, about 20 to 30 percent of the X-rays are scattered from the patient toward the person holding the device. The X-ray units from outside the United States, which are under FDA scrutiny, do not provide any protection from X-rays scattered from the patient. These systems look like a large camera that you hold with both hands. There is no shielding provided by these hand-held systems; that is, the user’s hands are exposed to all of the X-rays scattered from the patient. Consequently, the user’s hands are going to receive a radiation dose that will probably exceed the radiation protection limits for skin and extremities. Therefore, these units should not be hand-held.

We evaluated one hand-held X-ray unit manufactured in the United States (NoMad, Aribex Inc.) and compared staff doses with those for the same staff using conventional wall-mounted systems prior to acquiring the hand-held systems (Gray et al. 2012). This hand-held system uses a proprietary shielding material around the X-ray tube, resulting in leakage radiation levels that are virtually immeasurable. In addition, it has an integral leaded acrylic shield that protects the user from radiation scattered from the patient.

The results of our study indicated that the users of the hand-held X-ray system received lower radiation doses than they did when they were using conventional wall-mounted systems.

Buyers should be beware that not all hand-held X-ray systems are created equal and not all of those being sold on the web have been reviewed by the FDA.

Hand-held X-ray units should have sufficient shielding to minimize leakage radiation from the X-ray tube and an integral shield to protect from radiation scattered from the patient.
COURSE OBJECTIVES:
- Identify cases suitable for dental implants.
- Diagnose and establish a treatment plan for preservation and restoration of edentulous and partially edentulous arches.
- Demonstrate competency in placement of single tooth implants, soft tissue management and bone augmentation.
- Obtain an ideal implant occlusion.
- Work as a part of an implant team with other professionals.
- Incorporate implant treatments into private practice with quality results, cost effectiveness and profitability.

COURSE DESCRIPTION:

During the course clinician will learn how to perform preservation-oriented implant procedures with confidence and competency. Participants will learn how to make extensive treatments more cost effective, while adhering to currently accepted concepts of implant therapy.

The course includes: one day of lectures, half day of hands-on workshop on anatomic models and three days of implant placements on provided patients. Doctors will establish a treatment plan for at least 4 patients and place minimum of 4 implants. Cases will be selected based on participant's surgical level of expertise. One-on-one instruction by course faculty is provided with procedures and techniques that can be immediately implemented into office situations.

COURSE INFORMATION:

July 4-6, 2013 (intermediate) and September 26-30, 2013 (basic)
School of Dental Sciences, Kingston, Jamaica
2 dentists per operatory

Price: $7,800 ($6,300) includes 5-day course tuition, hotel (7 nights), breakfasts, lunches and Island’s transfers.

36 C.E. credits accepted by AGD for Fellowship/Mastership at AAIP
"I absolutely believe that the Inclusive® Tapered Implant System is the simplest, most predictable and most affordable implant system that I have ever used. It will continue to be my system of choice. I will never use another implant system again!"

— Joe Bussell, DDS; Little Rock, Ark.

"I took an impression today for the final ceramic restoration on one of my Inclusive® Tooth Replacement Solution patients. The site of the Inclusive® Tapered Implants healed wonderfully! This was due mainly to the patient-specific temporary components that provided my patient with a natural-looking temporary and tissue contours, and I couldn’t be happier. The custom impression copings were very easy to use, and they made the entire process a breeze. I would highly recommend the Inclusive Tooth Replacement Solution to every dentist looking for an efficient and effective way to practice implant dentistry."

— Robert Klein, DDS; Kansas City, Mo.

"I would like to express my overwhelming satisfaction with the Inclusive® Tooth Replacement Solution, which made this one of the easiest implant cases I have ever done. Because I achieved primary stability and used the included custom temporary abutment and BioTemps® crown, I was able to achieve optimum esthetic results and cut down my chairtime. Now I can offer my patients a more esthetic and biologically superior result using the Inclusive Tooth Replacement Solution instead of the stock components normally used. It is, for me, a very cost-effective way to deliver superior treatment with custom components for each case. I used to spend more time and money with other systems, but now I have a great alternative!"

— James Nicholson, DDS; Muskogee, Okla.
Immediate implant temporization that’s simple and convenient

**INCLUSIVE**
TOOTH REPLACEMENT SOLUTION

Visit us at booth #3213

Inclusive custom healing abutment at implant placement

Contoured soft tissue sulcus after healing

Buccal view of final restoration at delivery

Complete case includes:

- BioTempo* provisional crown included
- Custom healing abutment included
- Final BruxZir® or IPS e.max® crown included
- Custom temporary abutment included
- Custom impression coping included
- Final Inclusive® Custom Abutment included
- Surgical drills and Inclusive® Tapered Implant included

**$695**
Includes everything you need to restore a missing tooth

Simple, Convenient, Affordable
This all-in-one, restorative-based solution includes everything needed to restore a missing tooth. Patient-specific healing, temporary and impression components ensure ideal soft tissue contours are created from the day of implant placement. Inclusive — everything you and your patients need.

New
NOW COMPATIBLE WITH MORE IMPLANT SYSTEMS — OPEN PLATFORM
- Astra Tech® OsseoSpeed®
- Biomet 3i® Certain®
- Nobel Biocare® Bränemark System®, NobelActive® & NobelReplace®
- Straumann® Bone Level®
- Zimmer® Screw-Vent®

In the event that your implant needs replacement, we include a backup Inclusive Tapered Implant and final drill for your peace of mind.

*Price does not include shipping or applicable taxes.
#Not a trademark of Glidewell Laboratories. The implant shown is NobelReplace.

FOR MORE INFORMATION
888-786-2177
www.glidewelldental.com

GLIDEWELL LABORATORIES
Premium Products - Outstanding Value
Total Technology Solution

**BIOLASE hands-on showcase includes all-new EPIC laser**

BIOLASE, a leading dental laser manufacturer and distributor — and distributor of NewTom and 3Shape TRIOS technologies in North America — will showcase its full line of award-winning laser systems, 3-D cone-beam devices and digital intraoral scanning technology at all major and regional 2013 trade events, including the 148th Chicago Dental Society Midwinter Meeting, from Feb. 21–23.

The company will feature the products in its new Total Technology Pavilion, a large space with functioning equipment to allow hands-on demonstrations and discussion of the full range of applications. The pavilion also features an overview presentation of the total-technology concept, along with brief presentations by practicing dentists who have deployed such technologies in their practices.

“We are proud to present the Total Technology Pavilion at the Chicago Dental Society Midwinter Meeting and beyond,” said John Bernhard, director of marketing at BIOLASE. “It represents the collective efforts of multiple teams to create an environment where dental professionals can spend time with these groundbreaking technologies to gain an understanding of their applications in the dental clinic.”

**EPIC standard set for diode lasers**

New to the Total Technology Pavilion this year is the EPIC Total Diode Solution, the newest laser from BIOLASE. It’s described as being packed with one category-exclusive feature after another, setting a new standard in diode laser performance and value. A graphical touchscreen gives dentists fingertip access to as many as 20 common soft-tissue procedure presets — plus 20-minute full-mouth whitening and FDA-cleared temporary pain relief. Additionally, EPIC can be a financial boon for many practices because of its integrated, FDA-cleared protocols for laser hygiene and peri-implant care.

**3Shape scanner and WaterLase lasers**

Another addition to the Technology Pavilion is the 3Shape TRIOS digital intraoral scanner system. The TRIOS digital solution, which includes a hand-held scanner, operator’s control cart and intuitive software, provides faster impression taking, improved accuracy and clinical results, reduced need for retakes and less adjustment and grinding.

Other products in the pavilion include WaterLase iPlus, WaterLase MDX and WaterLase MD Turbo, the company’s full range of all-tissue laser devices. WaterLase iPlus represents a pinnacle of 20 years of research to improve cutting speed to match that of a high-speed drill, with a fraction of the discomfort and ancillary challenges a dental drill creates, such as microfractures, smear layer and more.

The WaterLase MDX and MD Turbo are described as ideal for practices seeking a basic, lower-cost entry point into all-tissue laser dentistry. "Although the WaterLase MD platform was first released in 2004, there have been many improvements and refinements, including a more flexible fiber, faster-cutting handpieces and many other..."
Latest from i-CAT:
The i-CAT FLX
3-D scans customized to need, at low radiation dose

The i-CAT® booth at the Chicago Dental Society Midwinter Meeting will be buzzing with excitement with launch of the new i-CAT FLX. The cone-beam 3-D unit brings even more flexibility to Imaging Sciences’ family of 3-D imaging products to help clinicians scan, plan and treat with confidence. Born of i-CAT excellence, the i-CAT FLX gives dentists information that helps them provide better dental care for their patients.

Company representatives note that i-CAT scans already offer greater confidence and control for individualizing treatment to a specific patient’s needs; and the high-resolution, volumetric images enable thorough analysis of bone structure and tooth orientation. Treatment tools exclusive to i-CAT streamline workflow, allowing for smooth movement from scan to plan to treatment.

Control over radiation dose is an important factor in the decision to add a cone-beam 3-D scanner to the practice. The all-new i-CAT FLX offers 3-D imaging at a lower radiation dose than a panoramic X-ray, with the all-new QuickScan+. This, combined with clear 2-D and 3-D images produced by Visual iQuity image technology, offer the optimal balance between image quality and patient safety. Add that to rapid reconstruction rates, and in less than 30 seconds, patient and practitioner can be in consultation-planning mode.

Optional i-PAN also offers traditional 2-D panoramic and cephalometric images. And, for a guided acquisition workflow, SmartScan STUDIO has an easy-to-follow touchscreen user interface. This customizable solution offers step-by-step guidance, allowing clinicians to select the appropriate scan for the individual patient at the lowest acceptable radiation dose.

i-Collimator electronically adjusts the field-of-view to limit radiation only to the area of scanning interest. In addition, the Ergonomic Stability System (ESS) offers easy patient positioning. The ESS includes seated positioning, robust head stability, and adjustable seating controls to minimize patient movement. This reduces the need for retakes, as well as providing wheelchair accessibility.

Of course, the i-CAT FLX also includes Tx STUDIO™, the advanced 3-D software designed exclusively for i-CAT. Tx STUDIO is beneficial from beginning to the end of treatment across a gamut of specialties, from diagnostics to implant and orthodontic treatment planning. In addition to facilitating communication with other clinicians, i-CAT scans help dentists educate patients about their dental conditions, thus improving case acceptance.

Tx STUDIO software delivers confident planning of implants, airway, TMD orthodontics and many surgical procedures.

• For orthodontists, Tx STUDIO has an optional 3-D cephalometric analysis package that allows for the creation of cephal tracings with greater accuracy and in less time than with traditional 2-D cephal tracings. The face-MATCH™ photo-wrapping feature allows easy and immediate wrapping of a facial photo taken with a standard digital camera onto the 3-D volume to visualize treatment impact on soft tissue and facial 3-D scans customized to need, at low radiation dose. 

Photo/Provided by Imaging Sciences International

• i-CAT, page A18

IndusTer News

The new i-CAT FLX cone-beam 3-D unit brings even more flexibility to Imaging Sciences’ family of 3-D imaging products. Treatment tools exclusive to i-CAT streamline workflow, enabling smooth movement from scan to plan to treatment. 

The new i-CAT FLX cone-beam 3-D unit brings even more flexibility to Imaging Sciences’ family of 3-D imaging products. Treatment tools exclusive to i-CAT streamline workflow, enabling smooth movement from scan to plan to treatment. 

Photo/Provided by Imaging Sciences International

A17

Dental Tribune U.S. Edition | February 2013
Report examines clinical performance of BruxZir Solid Zirconia and Bridges

Clinical study in The Dental Advisor measures performance over 18-month period

Purpose
The purpose of this clinical study was to determine the clinical performance of BruxZir® Solid Zirconia Crowns and Bridges (Glidewell Dental Laboratories, Newport Beach, Calif.) during an 18-month period.

Clinical Evaluation Protocol
At recall time, more than 390 full-contour, monolithic BruxZir restorations (crowns and bridges) were placed. All restorations were fabricated at Glidewell Dental Laboratories.

Most of the restorations were cemented with self-adhesive resin cement or adhesive resin cement.

Placement
The following parameters were evaluated at placement: esthetics, marginal accuracy, fit, interproximal contacts and occlusion. Restorations were evaluated on a 1-to-5 rating scale: 1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent.

Esthetics, marginal accuracy, fit and interproximal contacts of more than 96 percent of the restorations were rated excellent at placement. Very few restorations (less than 2 percent) had to be remade because of improper fit.

A few restorations had light interproximal contacts and had to be remade.

For the category of occlusion, 84 percent of the restorations received an excellent rating. In many cases, the occlusion was light, and in some cases the restoration was out of occlusion. Based on customer feedback, Glidewell Dental Laboratories designs most of its crowns light in occlusion.

Results at 18 months
In December 2012, 367 BruxZir restorations were recalled and evaluated. Of the 367 restorations observed (Fig. 1), there were:

- 287 posterior single crowns
- 36 units: 12, three-unit bridges
- 24 units: six, four-unit bridges
- 10 units: two, five-unit bridges
- One, three-unit inlay bridge
- Seven, implant crowns

Of the 367 restorations, 121 (33 percent) had been in function for 18 months, while 246 (67 percent) had been in function for one year.

The recalled BruxZir restorations were evaluated in the following categories:
- Resistance to fracture or chipping
- Retention
- Esthetics
- Resistance to marginal discoloration
- Wear on zirconia/opposing dentition

Restorations were evaluated on a 1-to-5 rating scale: 1 = poor, 2 = fair, 3 = good, 4 = very good, 5 = excellent.

(Source: Glidewell Dental Laboratories)

To view the full report, visit www.bruxzir.com.

About BIOLASE
BIOLASE is a biomedical company that develops, manufactures and markets dental lasers and distributes and markets dental imaging equipment. Its laser products incorporate approximately 250 patented and patent-pending technologies that provide biological treatment and clinically superior performance with less pain and faster recovery.

Its imaging products provide cutting-edge technology at competitive prices for the best results for dentists and patients.

BIOLASE’s core products include dental laser systems that perform a broad range of procedures (including cosmetic and complex surgical applications) as well as a full line of dental imaging equipment and CAD/CAM systems. BIOLASE has sold more than 21,000 lasers. Other products under development address ophthalmology and other medical and consumer markets.

(Source: BIOLASE)

• SOLUTION, page A16

important improvements,” said Dmitri Botousov, BIOLASE chief technology officer and long-time head of the company’s innovative R&D department.

Newform compact CBCT technology
Finally, the pavilion has full-size models of Newform Cone-Beam Computed Tomography (CBCT) technology. The technology, relatively new to dentistry, is a more compact version of standard imaging that uses a cone-shaped X-ray beam for multiple radiographs that construct digital 3-D models of maxillofacial anatomicures. The Newform VGi is reported to have the finest image quality of any CBCT system in dentistry, with a minimal dose of radiation to patients.

Dentists using the Newform CBCT technology report increased treatment plan acceptance, improved diagnostic capabilities and other advantages.

• i-CAT, page A17

features. Other options include the ability to order virtual study models in occlusion that contain full dentitions (crowns, roots and bone) and tools to predict soft-tissue changes derived from orthodontic or surgical treatments. There’s also an anchor-pin library for virtual TAD placement.

For dentists who treat sleep apnea and airway disorders, Tx STUDIO’s airway tracing tool facilitates analysis of airway anatomy with instant measurement of total airway volume, localization and area measurements of maximum constriction, and automatic color-coded constriction values of the airway volume.

Oral surgeons can accurately measure bone density and assess disease and deformities such as cysts, tumors, lesions and changes of the jaw. They can determine precise position of impacted teeth within the alveolar bone, as well as proximity to adjacent teeth and vital structures such as the nerve canal, sinus walls and cortical borders.

All of these options increase confidence and help to avoid complications during the course of treatment.

Imaging Sciences International has built a 20-year tradition of imaging expertise and award-winning products. The i-CAT FLX is a welcome addition to the i-CAT family, for a complete 3-D treatment solution.

(Source: Imaging Sciences International)