**Dental Tribune**

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**CAD/CAM Conference Dubai grows as fast as Digital Dental Technology**

Conference is co-organized by Emirates Dental Society, Saudi Dental Society, Lebanese Dental Association and Centre For Advanced Professional Practic-es - spearheaded by Dr. Dobrina Mollova, DDS, experienced provider of Continual Medical Education for the last 10 years in the Middle East and Asia.

The event enjoys accreditation from ADA CERP, DHA, HAAD and SCHS, including cutting edge presentations and an impressive lineup of lectures to be provided by opinion leading Dental Professionals such as: Prof. Dr. Dr. h.c. Georg Meyer, Germany; Dr. Andreas Kur-bad, Germany; Dr. Lida Swann, USA; Lee Culp, CDT, USA; Dr. Andrea Mastorossa Agnini, Italy; Dr. Alessandro Agnini; Prof. Alfred Hans Resch, Germany; Dr. Ulrich Wegmann, Germany; Dr. Maria Hardman, UK and Dr. Ziad Salameh DDS, MSc, PhD, Lebanon.

The two day Scientific Ses-sion is complimented by eight hands-on courses, pre- and post-conference, including: Indirect veneers; Laser; Un-conventional Management for Soft & Hard Tissue; Mastering..."...Continuing Education is a top priority for us, first..."

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**First Dental Technician Forum highlights current developments in dental labs**

By Dr. Dobrina Mollova, DDS

**SIGNATURE EVENT**

CEREC Desert Fest 12-13 September 2014 The Palace Hotel, Dubai

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**ASSET DENTISTRY**

**6th Dental-Facial Cosmetic International Conference**

14-15 November 2014 Jumeirah Beach Hotel, Dubai

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**MCE**

The power of cross coding: How hygienists can support their patients’ overall body health

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**Page 21** Keeping Hygienists in par with Continu-

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**ENDO TRIBUNE**

**Page 40** Visual information and imaging technology in... "Continuous Education is a top priority for us, first..."
All dentists, aesthetics in implantology, and CAD/CAM technologies, among others. “Things in the dental lab are changing in a rapid manner. Digital technology and workflows allow us to be more economical and creative with new materials and produce excellent aesthetics,” said Swiss master dental technician Vanik Kaufmann-Jinoian, who presented a lecture on minimally invasive restorations with CAD/CAM.

The four table clinic presentations, which ran concurrently, were among the most appealing and enjoyable sessions for all participants. Among other things, new hybrid materials and their benefits were presented. Participants were also given the opportunity to ask questions on real cases that were printed live with help of 3-D scanners and milling machines. By analysing different cases, brothers Drs Andrea Mastromarina Agnini and Alessandro Agnini from Italy gave the audience a surprising insight into the operational techniques that they have developed over time with their increasing knowledge of new materials. With new technologies replacing traditional materials and techniques, they said that achieving good clinical results has become more systematic and time-effective.

A ceramist and professional photographer, Naski Ilba demonstrated the capture of shade view photographs in order to communicate shade accurately. Tips for calibrating and coding a shade guide were also given. Hue and value analysis using Adobe Photoshop for shade view photographs utilising Adobe Photoshop for ceramic fabrication generated a great deal of interest and discussion during the session.

Rik Jacobs’ presentation on the latest developments concerning 3-D printers, software, bio-compatible materials and workflow management drew a large crowd of not only participants but also industry representatives. The ensuing discussion lasted over an hour with debates sparked about the suitability of alginate impression materials for scanning, the accuracy of models milled by the inLab MC XL (Sirona Dental Systems), the shade availability of crown and bridge materials, as well as which zirconia blocks are recommended for good aesthetics.
CEREC Desert Fest

The Palace Hotel Downtown
12-13 September 2014
Dubai, UAE
www.cappmea.com/cerecfest

Panel Show
Desert Night
Clinic Presentations
14-15 November 2014
Jumeirah Beach Hotel
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6th Dental - Facial Cosmetic International Conference

Joint Meeting with

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Dr. Munir Silwadi, UAE

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Dr. Eduardo Mahn, Chile

Direct Veneers: The Shade Dilema
Dr. Eduardo Mahn, Chile

Veneers/ Crowns
The Challenge in Smile Design
Dr. Eduardo Mahn, Chile

www.cappmea.com/aesthetic2014
World oral health report: Almost 100 per cent of adults suffer from dental caries

By Dental Tribune International

LONDON, UK: In celebration of World Oral Health Day, representatives of the FDI World Dental Federation presented the latest findings on oral health on 20 March at a press conference held in collaboration with the British Dental Association in London. The report identifies the main obstacles to achieving universal oral health and includes recommendations to improve oral health worldwide.

Among other aspects, the report, titled “Oral health worldwide: A report by FDI World Dental Federation”, highlights that nearly 100 per cent of adults and between 60 and 90 per cent of children worldwide have dental caries, which results in millions of lost school and work hours. For instance, in the US, an estimated 2.4 million days of work and 1.6 million days of school are missed owing to oral disease. In the Philippines, toothache is the primary reason for school absenteeism. The FDI stated that about 97 per cent of Philippine 6-year-olds have dental caries.

In addition, the report states that only 60 per cent of the world’s population have access to oral care, creating enormous disparities between different populations. According to the FDI, people of a lower socio-economic status visit the dentist less often and have fewer fillings, more missing teeth, higher tobacco consumption, higher rates of caries and untreated decay, and higher rates of periodontitis compared with those of a high socio-economic status.

In order to increase access to oral care, the training of the oral health workforce needs to be strengthened and expanded to improve the quality of and increase the number of oral health professionals. Moreover, emphasis needs to be put on the equal geographical distribution of oral health personnel, especially within developing countries, where the dentist-to-population ratio is approximately 1:150,000 compared with about 1:2,000 in most industrialised countries.

The FDI further highlighted that a solely curative approach to tackling the burden of oral health is neither realistic nor sustainable. The organisation asserts that the prevention of oral diseases and promotion of oral health must be at the core of national policies and programmes. In this respect, global and national surveillance should be strengthened to identify risk factors and oral health needs as a basis for developing appropriate approaches and measures, the FDI stated.

The event also saw the launch of The Tooth Thief, an illustrated book for children that includes oral health tips. The book emphasises the importance of good oral health to children to instill good oral care habits from a young age. The foreword was written by Yaya Touré, Manchester City Football Club player and three times African Footballer of the Year, who was this year’s World Oral Health Day ambassador. The book is available from the Apple iBooks Store and Amazon, and can be downloaded from the World Oral Health Day website, www.worldoralhealthday.com. The complete white paper can be accessed free on the website as well.
Passive micro-volume management of sodium hypochlorite in endodontic treatment

mCME articles in Dental Tribune have been approved by:

HAAD as having educational content for 2 CME Credit Hours
DHA awarded this program for 2 CPD Credit Points

By Les Kalman, B.Sc (Hon), DDS

The passive utilization and micro-volume management of sodium hypochlorite as an endodontic irrigant has been explored with a laboratory demonstration and several clinical cases. By limiting the volume of sodium hypochlorite, the injuries can be minimized while still benefiting from the ideal disinfecting characteristics. Further studies are required to understand the behavior of fluids, especially sodium hypochlorite, within the context of permeability, fluid mechanics and multiphase fluid flow through porous media.

Introduction

Endodontic treatment addresses the removal of the tooth’s internal pulp and microorganisms, primarily due to infection and necrosis. Once proper diagnosis and prognosis has been established, the patient has the option of maintaining the tooth’s form and function while the vitality becomes lost. Current endodontic treatment consists of utilizing rotary files to remove the pulpal tissue and shape the internal dentin chamber of the tooth. Chemicals, in the form of gels and liquids, are then implemented to disinfect the canal(s) and eliminate bacteria. The chemicals are then dried and the canal space filled with either gutta-percha or resin to create a hermetic seal.

The chemicals employed to clean and disinfect the intracanal space are vast and include file lubricants such as Prohoze (DENTSPLY) and irrigants such as CHX (DENTSPLY). Clinical endodontics, the canal is filled with a cored filled with a cored

Chlorhexidine gluconate (CHX) is an uncommonly used irrigant with several desirable properties. It provides antimicrobial activity against certain aerobic and anaerobic bacteria, exhibits no significant changes in bacterial resistance in the oral microbial environment and has no injurious effect to the skin or mucosa.4 In fact, CHX has a role as an oral rinse at the 0.12 percent concentration.1 Sodium hypochlorite (NaOCl) still remains the most commonly used chemical because of its availability, cost and effectiveness.4,5 Sodium hypochlorite is effective against broad-spectrum bacteria and has the ability to dissolve both vital and necrotic tissue.6 However, this irrigant is equally damaging to the patient and has a history of injurious effects.5 Typically the NaOCl is delivered into the canal space with a syringe dose of 2-10 ml that is expelled under pressure. The ability of NaOCl to escape either through poorly sealed isolation or other means can cause serious injury to the patient.7 Injury from NaOCl is well established in the literature1-5 and has been attributed to three main errors: poor handling, injection beyond the apical foramen and allergy.8 Poor handling injury can result in operator and/or patient injury to the eye and/or skin.9 Injection beyond the apical foramen can result in the following:8 • immediate and severe pain • edema to adjacent tissue • edema to the lips, introral region and side of face • intense bleeding from within the canal space • skin and mucosa bleeding • intestinal bleeding • paraesthesia • secondary infection.

Allergy from NaOCl is rare but has been reported and may result in severe pain, a burning sensation, edema and transient paraesthesia.9 Methodology

Although there is no universally accepted irrigation protocol regarding endodontic treatment, it is the duty of clinicians to apply evidenced-based dentistry within clinical parameters to provide their patients with the highest standard of care with minimal morbidity. The use of NaOCl has numerous beneficial factors that maximize treatment success; however, it is the application of the liquid that can cause injury. Micro-volume management of NaOCl has been proposed. The concept is based on the premise that endodontic instruments have irregular surfaces, crucial for dentinal preparation, and that liquids exhibit surface tension characteristics.5 By placing an instrument into a suitable container, the NaOCl will be delivered liquids, then the successful removal of those liquids is key to clinical success. Concepts of multiphase fluid flow through porous media, and capillaries, 10 permeability of porous media and surface tension fluid mechanics10 must be recognized to validate and further advance canal irrigation.

Micro-volume management of NaOCl has been suggested as a delivery modality to max-

Discussion

The operator has control of the minimized liquid while benefitting from its effectiveness. The micro-volume management of sodium hypochlorite has been applied to numerous clinical cases. Post-operative obturation radiographs of completed clinical cases have been presented (Figs. 5-9).
The application of micro-volume management of NaOCl suggests that the canal space can be effectively cleaned in a conservative manner. Application of this principle has been applied to clinical cases with little to no post-endodontic sensitivity. Obturation has been completed with ThermaSeal and Thermafil (DENTSPLY). Even though there is evidence of sealer extrusion, the absence of post-operative symptoms and pathology suggests adequate volume for sufficient disinfection.

Further laboratory studies are required to understand permeability, fluid mechanics and multiphase fluid flow through porous media and their relation to the micro-management of NaOCl. Additional clinical investigations should be implemented to assess and validate the efficiency and efficacy of micro-volume management of sodium hypochlorite on endodontic therapy.

Conclusions

Introduction of lubricants and irrigants into the canal complex is crucial for endodontic success. The action of fluids in the canal complex must be understood within the context of permeability, fluid mechanics and multiphase fluid flow through porous media.

NaOCl has several advantages for its role as an endodontic irrigant, but its use must be exercised with caution in order to prevent injury.

“NaOCl has several advantages for its role as an endodontic irrigant, but its use must be exercised with caution in order to prevent injury.”

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FOR INTERACTION WITH THE WRITERS FIND THE CONTACT DETAILS AT THE END OF EACH ARTICLE.
The power of cross coding: How hygienists can support their patients’ overall body health

By Marianne Harper

Have you lost the excitement? Are you content with what you might now perceive as the same-old, same-old every day? Day after day you may be performing hygiene procedures over and over again, all the while knowing you are helping your patients but perhaps you simply don’t feel as though you are truly making a significant difference in their overall health. If you feel that level of frustration, or even if you don’t, but you are interested in advancing your career, then read on to discover some ways in which you can make a significant difference in the health of your patients.

As you are aware, dentistry is becoming recognized as a medical discipline. We in the dental field are in a unique position to support our patients’ overall body health. Our patients who maintain their regular recare schedules are quite probably seen by us more frequently than they are seen by their primary care providers. Around 59 percent of adults see their physicians in a year while 64 percent see their dentists, which means we see 25 percent more patients than they do.

Hygienists can be key players in this opportunity. By thoroughly questioning their new patients and by providing and reviewing medical history forms that are updated with the most current medical questions, hygienists can begin an evaluation of their patients’ medical history. For condition, our established patients may have had a change in their medical history since their last appointment, so a recare update form is an efficient way to inquire about their health. If your practice is not familiar with recare update forms, please check your website to obtain a copy. Again, thorough questioning of all new and established patients is an essential component to getting the full picture of your patients’ health.

What is discovered from these questions can be a strong determining factor in how each patient is handled. Patient questioning should always be followed by dental exams, x-rays, blood pressure checks and clinical observations. For those patients who may have a systemic disorder, your practice should become proactive by referring the patient back to his or her primary care provider.

However, because dentistry has evolved over the last decade, there are more ways that the dental practice can help make these determinations. With the frequency of patients’ visits and the availability of numerous cutting edge diagnostic tools, we have the unique opportunity to administer different types of disease testing that, in the past, were performed only by medical practices.

If you are unfamiliar with the types of medical testing that are available for dental practices to perform, then the following information can make a big difference in the quality of your practice’s treatment, and it may help to make a significant change in how you perceive your career.

First of all, periodontal diseases and cavities are caused by bacterial infections, but the majority of dental practices diagnose these conditions through the use of periodontal probes and explorers. Have you considered that medical practices would never begin treatment without determining if they are treating bacteria or a virus? In dentistry, we need to differentiate between aspirin sensitivity, blood dyscrasias, other diseases, fungus, yeast or a cyst; so bacteriologic tests should be performed. Microscopic tests, DNA tests, or bac- teriologic tests should be performed if periodontal infections are apparent.

Tests that can be performed in a dental practice:
• DHEA and blood sugar
• C-reactive protein (CRP) for inflammation
• BANA for bacterial pathogens or their byproducts
• DNA for the presence of specific pathogens or for patient susceptibility to periodontal disease
• TOPS for inflammatory markers
• Oral HPV testing
• Diabetes testing with a glucometer – finger stick or blood sample taken from a periodontal pocket
• Oral cancer screening (e.g. ViziLite)
• HIV testing
• Screening for cardiovascular disease (e.g. HeartScore System)
• Saliva biomarker test – measures three specific biomarkers that play a role in cancer development in the oral cavity

As you can see, these tests cover many possible systemic conditions. Your practice will have to determine which staff members are allowed to administer these tests, because your state regulates controlling this. Hygienists may be allowed and, if so, this may make a difference in your career. Even if hygienists are not allowed per your state’s regulations regulations, your clinical support in the practice to add these tests to the practice’s procedure mix will be invaluable to the practice. In addition, hygienists need to realize the importance of their observations and questioning of the patients in helping to move these patients to better overall health.

Power of cross coding

There is, however, another area in which hygienists can make a significant difference in their practices. Dental-medical cross

Fig. 1 Photocopy of example CMS-1500 health insurance claim for treatment of sleep apnea, considered a medically necessary dental procedure that qualifies for coverage through health insurance. Many other dental procedures and tests also might qualify. But you need to know the diagnosis and procedure codes — and other nuances of the process.
coding is a cutting edge insurance system whereby dental practices can track their patients' medically necessary dental procedures with their medical claims. Implementing cross coding creates greater case acceptability resulting in increased patient affordability and practice profitability. Hygienists can play a key role in the implementation of cross coding. Hygienists can be the communicators for cross coding in their practices by alerting the practice of patients whom they believe are medically compromised. Such patients demand special consideration and have been considered excellent candidates for cross-coded claims.

As an example, hygienists can inquire about conditions that might indicate that a patient has sleep apnea (Fig. 1). For those practices that treat sleep apnea, the practice would then need to refer the patient for a sleep study before commencing treatment. If the practice does not treat sleep apnea, this referral would be the initial ball rolling for treatment by another provider. Hygienists can also be the champions for cross coding by encouraging that their practices implement a cross-coding system. In most practices, the business office staff will need to have been modified by a specific circumstance. As you can see, cross coding is not an easy system to implement. The answer to easing the difficulty with cross coding is to take a good course on the topic. You also can check out my website, www.artofpracticemanagement.com, to see the different tools available to help dental practices implement cross coding.

As mentioned already, the patient’s benefit from cross coding is that medically necessary dental procedure can be made more affordable. It is possible to fill the tests already mentioned with a patient’s medical insurance plan. There are diagnosis and procedure codes that apply to these tests, but those are too involved for the scope of this article to provide all of the codes needed. There is no guarantee that these tests would be covered by the plan. According to the Centers for Medicare and Medicaid Services, “the existence of a code does not, of itself, determine coverage or noncoverage.” It is certainly worth a call for a patient’s insurance carrier to determine coverage. I always advise practices that code cross appropriate responses to encourage their patients to complain to their employers. Insurance contracts are between the insurance company and the employer, so dental practices have little power to make any plan changes. However, the more that complaints are issued, the more likely that medical insurance carriers will begin to see the necessity for including these types of procedures in their plans.

The full scope of cross coding is much more extensive than just these tests. Dental hygienists should be cross coding for the following:

1. Trauma procedures
2. Oral surgical procedures
3. TMJ procedures
4. Sleep apnea procedures
5. Medically necessary endodontic procedures
6. Medically necessary implant and periodontal procedures
7. Exams, radiographs and diagnostic procedures for any medically necessary dental procedure

Between implementing disease testing and cross coding, a hygienist will significantly make positive changes to his or her career. These hygienists will not only help patients obtain optimal health, but they can also help make procedures more affordable. Patients will be able to see their dental practice truly cares about their health and will have more confidence in the practice. This is a true win-win situation. The dental practices will value the contributions of these hygienists, and hygienists will rarely face each day with that “same-old, same-old” feeling.

References
4. Medicare/medicaid dental procedures are included within dental/medical cross coding.

Hygienists are the CEO of The Art of Practice Management. Her areas of expertise include revenue and collection systems, business office systems and the implementation (CME) articles published in each issue. Contact her at: The Art of Practice Management, 2257 Fox Horn Road, New Bern, N.C., 28562, or by email at a.p.m.1@suddenlink.net. For more information please contact events@cappmea.com or +971 4 3631374.

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Clinical Tips: Demi™ Ultra and C.U.R.E™ Technology: (Curing Uniformity & Reduced Energy) what this brings versus competition?

By Kerr

C.U.R.E.™ Technology

1. COLLIMATION: collimated light is light with rays are parallel, and therefore will spread slowly as it propagates. The word is related to «collinear» and implies light that does not disperse with distance. A better collimation translates in more curing power and a less sensitivity to tip positioning.

2. DEPTH OF CURE: according to the JADA, %57 of all composite restorations are insufficiently cured (Fan et al. 2002). Demi Ultra, compared to other lights, guarantees, in addition to an optimal curing uniformity, the best depth of cure. C.U.R.E.™ Technology

1. TIP TEMPERATURE: an increase of °5.5C can cause irreversible damages to pulp.

Thanks to its proprietary C.U.R.E. technology, Demi Ultra is able to maintain low temperatures avoiding any tissue damage.

Universal curing? Seems to be a compromise.

Light and quality of cure.

The photopolymerization process of dimethacrylate-based dental resins is a reaction triggered by free radicals, which are generated by irradiation of a light-sensitive initiator and open the double bond of methacrylate groups (C=C), generating a chain reaction.

The depth of cure can settle by playing on light intensity (or irradiance), wavelength and concentration and/or type of light initiators.

Curing Lights with violet LED to cure alternative photoinitiators provide non-uniform beam irradiance that leads to non-uniform cure. The power is distributed inefficiently and additional energy is needed to cure in depth. This unnecessary energy increases the heat and the risk of pulpal damages.

A non-uniform beam also penalized the irradiance when increasing the tip distance as can be seen in the graph.

In dental composites, the most commonly used photoinitiator system is a combination of camphorquinone and tertiary amines (CQ/Amine). Other materials are blends of CQ and other photoinitiators.

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Item nr 35664
Contains: 1 x handpiece, 1 x 8 mm light attachment, 1 x charging dock with radiometer, 1 x power supply, 1 x protective light shield, 1 x hardness disk kit, 1 x -5pack disposable barrier bag, 1 x IFU

Accessories

Item nr 35665 Demi Ultra LED Light Attachment 8mm
Item nr 35666 Demi Ultra Charging dock with built-in radiometer
Item nr 35667 Demi Ultra Handpiece
Item nr 35668 Demi Ultra Light Shield
Item nr 35815 Demi Ultra Power Supply
Item nr 35837 Disposable Hardness Disk Kit (pack of 1)
Item nr 21042 Optics Maintenance Kit
Item nr PEDEMIULTRA100 -Demi Ultra Barrier Bag (pack of 100)
Moreover recent works reports that single diode blue LED light achieve similar degrees of polymerization than broadband (multiple diode) LED and halogen lights, just increasing the curing time when curing clear and white composite shades.

Light guide tip positioning!

The adequate positioning of the light guide tip/attachment can significantly affect the energy received by the RBC, and thereby the quality of its polymerization.

The light should be stabilized during the irradiation procedure.

The European University College hosts its official graduation ceremony

By European University College

The European University College (EUC), held its official graduation ceremony on February 22nd at the Fairmont the Palm Jumeirah in Dubai.

45 dental specialists were graduated during the event and earned their Master Degree certificates in Orthodontics and Pediatric Dentistry, Diploma in Advanced Education in General Dentistry, and High Diploma in Oral Implantology. A total of 55 guests of honor attended the ceremony including; Dr. Aisha Sultan, President of the Emirates Dental Association and Head of the Dental Department at the UAE Ministry of Health, Dr. Amer Shafik, Managing Director of the Education division of DHCC, Dr. Leila Al Habashi, Head of Pediatric Dentistry Unit at the Dubai Health Authority, Dr. Khadija Al Mafouz, Head of Pediatric Dentistry Unit at the Abu Dhabi Health Authority, and Dr. Hassna Al Saeed, Head of the Orthodontics Unit at the Dubai Health Authority.

The EUC is the first postgraduate dental institution to offer international training programs in the UAE and MENA Region. EUC’s international and “Western-trained” faculty come from reputed Universities and Research Centers based in the USA, Sweden, England, France, and the UAE. Staff selection criteria is based upon their prowess as teachers, clinicians, and researchers are all well known worldwide.

Since the launch of the EUC, the university has run an extensive range of postgraduate programs across a wide range of dental specialties. These high quality educational programs include the latest research and use innovative approaches to learning. There are currently international residents from Asia, Europe and the Middle East. The students have to meet rigorous theoretical, clinical and research requirements in order to meet the international educational requirements and patient care standards.

Professor Donald Ferguson, Dean of the EUC, expressed: “I am very proud and happy to see young professionals achieve the goals of academic and clinical education, and successfully present and defend a Master degree thesis, and assemble records that thoughtfully explain the forensics of patient care. They behave ethically, act responsibly and eye the world with standards of excellence.”

The EUC has been instrumental in enhancing the clinical capacity of its graduates. The university offers state-of-the-art services, latest trends and treatment philosophies, and uniquely handles highly complicated dental cases within the UAE.
Revolutionary aligner appliance expanding in the Middle East

By Inman Aligner

The Inman Aligner is a highly effective and unique evolution of the traditional spring retainer that moves upper and lower anterior teeth predictably, safely and quickly. This makes it a revolutionary appliance, often described as the “missing-link” between cosmetic dentistry and orthodontics. With a proven track record throughout the UK the Inman Aligner is now becoming highly recognized in the Middle East.

One appliance

What is unique with the Inman Aligner is that it can be used to align teeth either as a stand-alone treatment or before aesthetic or restorative treatment. In contrary to other treatments only one appliance will be used. The Inman uses super-elastic Nickel-Titanium open coil springs to move upper and lower anterior teeth with light but consistent forces, enabling correction of anterior crowding, rotations and some types of spacing.

Fast and predictable result

Most cases are completed within 4-6 weeks depending on the complexity of the case. The system is removable and very fast, and patients who were previously put off by brackets and months of treatment can now achieve alignment in 6 to 16 weeks, with a brace that can be worn for as little as 16 hours a day. As an Inman Aligner Certified dentist you will understand how to provide a realistic guide of what to expect for each case. For suitable cases, the Inman Aligner is almost always much faster than alternative orthodontic techniques. Treatment is backed up with a full and comprehensive free support forum with many trainers helping to treat plan cases safely and predictably.

The lecturer - Tif Qureshi

Dr Tif Qureshi qualified from Kings College London in 1992 and he is the Past President of the British Academy of Cosmetic Dentistry. Dr Qureshi has a special interest in simple orthodonties using removable appliances and was the first dentist in the UK to pioneer the Inman Aligner. To this date Dr Qureshi has completed over 1000 cases using Aligners as a stand alone treatment and to align teeth before cosmetic dentistry and functional dentistry. The coming APDC Exhibition in Dubai 17-19th of June Dr Qureshi will be having a lecture on the subject "Simple and consistent forces, enabling alignment, rotations and some types of spacing.”

Aesthetic Orthodontics for the General Dentist

Certification course

Apart from lecturing nationally and internationally, Dr Qureshi is a trainer on Inman Aligner certification courses world-wide. He will be training at the next hands-on course in Dubai on 20th of June. The course is a one day course at the SAS Royal Hotel located on Sheri Zayed Road. Participating dentists will benefit from Dr Qureshies acknowledged experience of Inman treatments and learn how to grow their business with this revolutionary aligner.

The Dental market is truly flourishing in Lebanon and in the Middle East

By Rodny Abdallah

Rodny Abdallah: Please share with our readers a short biography including your education and Laboratory experience.

Alain Sakr: My Name is Alain Sakr, I am a Certified Dental Technician, graduated from The Université Antoine at Raouche in 1991. I started my experience as an intern at Claude Thouson dentistry in the summer of the same year. Then I started to run my own dental lab until the present date.

How important is the choice of working for your colleagues and being the President of the Lebanese Dental Laboratories Association?

Recently, I have been elected by my colleagues to run the dental laboratory order for the coming three years, my main role and target will be to develop the order’s vision towards a better future.

Compared to when you first started in the dental lab field, how has dentistry in dental lab developed through the years?

The field of Dentistry has passed a long way since I first started my career. This profession has made a huge upgrade from being a totally manual labour or hand work to an almost fully computerized and mechanical dentistry due to the involvement of scanners, milling devices and 3D printers.

What do you think about the dental lab market in Lebanon and the Middle East?

The Dental market is truly flourishing in Lebanon and in the Middle East, we could notice that people are more aware of the importance of a healthy oral hygiene and the role of aesthetic dentistry is at a high demand.

How important is the involvement of digital dentistry in the daily work of dental laboratories?

Digital dentistry has impacted the dental laboratory field heavily in a positive way, it is helping in improving the skills and products used in our labs, especially in the aesthetic department. A new demand is being noticed as well in the role of a hybrid dental technicians skills.

What are the plans of OPDL in the coming years? As you have been elected for the coming three years.

My plans as elected president for the coming three years are to make sure that OPDL will continue to make decisions that will further develop our order and could be beneficial for all our colleagues. One of my targets is to push our profession to higher standards and elaborate future workshops with the contribution of opinion leaders in our field worldwide.

How important is the role of the dental technician in the dental team?

The dental technician has an important role in the dental team as he insures the fabrication and the refining of the devices that shall be used in the dental cavity as well as the role of the dentists. They both contribute in creating a good team as one hand does not clap alone.

How important is the dental media in the lab field or the association?

These days, the dental media is playing an important role in the development of our industry by sharing all news and updates to a large and wide range of people and highlighting on all new technologies and materials before we could see them in the dental events.

OPDL dental events have been well established over the years, what can you tell us about LDLS 2014?

LDLS 2014 (Lebanese Dental Laboratories Show 2014) is truly shaping up to be a remarkable
Now, everyone in your dental team can Shoot!

Ultra-Light  SIMPLE  Compact  Accurate

SHOFU Smart Digital EyeSpecial C-II

• 8 Pre-set dental modes with the option of customized settings
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One step further with CAD/CAM

By Dr Steven Soo, Singapore

CAD/CAM methods for conventional dental and implant-borne prostheses have gained popularity for a variety of reasons. Despite many advantages in terms of cost and convenience, the uptake of this relatively new technology is slow, hinting at a reluctance to try something new.

Many, if not most, clinicians still choose to have fixed implant-borne multi-unit prostheses fabricated by traditional methods of casting and veneering precious metal alloys. However, the associated high technical and material costs may be prohibitive to the group of patients who need this treatment modality the most. To this end, more cost-effective alloys, including base metal alloys, have been cast and veneered with a variety of tooth-coloured materials with good success. CAD/CAM takes this one step further. In fact, materials such as zirconia, which has revolutionised dental prostheses, would not be in use were it not for CAD/CAM.

There has been much discussion around the problem of achieving passivity of fit, the lack of which, it has been posulated, can contribute to mechanical and biological complications. The multiple steps and materials used in impression taking, casting a working model, producing a wax pattern, casting in metal alloy then veneering in tooth-coloured material all lead to a certain degree of misfit.

CAD/CAM can help to address this common problem. The use of digital dentistry is more common than clinicians might think, as the laboratory processes involved have already been widely implemented and dental technicians can take the credit for driving the use of the technology forwards. The next step is to adopt digital technology to replace some of the clinical steps in fabricating a prosthesis, namely the impression stage, which leads to production of a working cast.

These steps can introduce cumulative inaccuracies, as well as consume a variety of materials that are then discarded. In addition, there are time-savings to be made, perhaps not in the initial stages of learning and integrating new technology, but, once familiar with the systems involved, all will benefit from the improved and efficient workflow.

My presentation at the Dental Tribune Study Club Symposium highlighted some of the advantages and disadvantages of CAD/CAM. My goal was to enable clinicians to see how it might become more widely accepted in their daily practice and remove some of their reservations. The next generation of dentists will hopefully come to view traditional methods of manufacturing dental prostheses in the same way as we now view fixed partial dentures as a way to replace missing teeth before implants.

Having received his dental degree from the University of Liverpool in the UK, Dr Steven Soo now works as a dental specialist in prosthodontics at Specialist Dental Group in Singapore. During IDEM, he presented a lecture on the benefits of CAD/CAM technology for dental implant and restorative procedures at the Dental Tribune Study Club Symposium on Level 6 at Suntec City.

Straumann abutments now available to 3Shape software users

By Dental Tribune International

OPENHAGEN, Denmark/Basel, Switzerland: Global implant manufacturer Straumann and CAD/CAM software provider 3Shape have been working together to integrate Straumann CARES libraries into 3Shape’s software. Yesterday, the new software function was made available to 3Shape software users, enabling them to design and order customised zirconia or titanium abutments with Straumann original implant connections.

Using the new software capabilities, dental technicians who use the 3Shape Dental System software can design abutments and a range of customised prosthetics, including cobalt-chromium alloy, zirconium dioxide, and various full contour materials. These can be ordered with an original Straumann connection.

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event, this year we are involving esteemed speakers as well as fellow dental dealers who are eager to display the latest products in the dental field for 2014.

What are the challenges facing the dental lab order today? OPDL is an established order due to the solidarity of my fellow peers and colleagues. My main challenge is to involve securing the rights of our colleagues and perform strict laws for those who would try to practice our profession illegally.

What are your recommendations to the fresh dental lab graduates? I would like to tell all fresh graduates to enrol immediately after their graduation in our dental laboratory order to ensure a better future and uphold the right to practice as dental laboratory specialist legally and together we will be more powerful through solidarity. I would advise them as well to be honest individuals in their community.

President Sakr, truly an honour to interview you here today, would you like to share more topics to the Dental Tribune readers in the MEA region? I would like to thank you for giving me the opportunity to share with your readers all the discussed topics and keep reading the Dental Tribune.

“The human eyes and hands are not predictable when measuring and evaluating dimensions, angles, spaces, and all other calculations needed to achieve a satisfactory result.”

For our patients a large cascade of benefits, they do not come without disadvantages. Often than not, part of the remaining healthy tooth structure must be sacrificed to accommodate and retain the restoration. Regardless of the method of fabrication, whether direct or indirect, dental materials used usually exhibit dimensional as well as structural changes through the process leading to an array of problems.

It is paramount for perfect results to standardize procedures as well as different steps taken to fabricate a restoration. Manual fabrication involves numerous errors that are nothing but part of the human nature. The human eyes and hands are not predictable when measuring and evaluating dimensions, angles, spaces, and all other calculations needed to achieve a satisfactory result. Computers are, beyond doubt, far superior to humans in determining such critical parameters. Rapid developments in the field of CAD/CAM systems in the last decade are bringing us ever closer to our goal. Nowadays, digital workflow can be implemented with great confidence. Scanners, milling units, and 3D printers are getting so precise to the extent that results can exhibit preciseness of few if not single micron tolerances. Utilizing the very well advanced CAD software, we are able to come up with almost perfect restoration designs. CAM software are following suit. What we see on the screen is often what we got out of the milling unit or the 3D printer. It is the obligation of every one of us to join this fast moving industry. We owe it to our patients as well as to ourselves to get acquainted with and put in use all available technology to offer the best possible treatment.

I believe that Digital and CAD/CAM generated restorations are taking over in setting the standards of dental restorations. They are precise, predictable and much easier to produce. We are, beyond doubt, getting closer to our goal. The perfect restoration seems to be just around the corner.
Predictability in Implant Planning with 3D Imaging - Clinical Case Report

By Norberto Velázquez, DDS

Greenville, NC, Dr. Velázquez graduated from dental school in 2002 and attended a general practice residency (GPR) in Oklahoma City, Oklahoma from June of 2002 until June 2005. Shortly after finishing the GPR residency, Dr. Velázquez moved to Greenville, NC and worked in Kinston for the J.H. Rose Dental Clinic as the Dental Director for four years. Dr. Velázquez has advanced education in implantology and enjoys working on cosmetic procedures, oral surgery, crown and bridge (prosthetics), implants, and dentures. He just finished another intensive implant course.

The case presented represents a typical instance where an implant is required in the area of the first or second premolar. A three-dimensional scan is used to accurately locate the exact position of important anatomic structures or landmarks. The 3D scan and software allow moving, slicing, and viewing the anatomy from any direction. A critical step is the ability to mark the position of the nerve (marked in red in the images below) – this becomes especially helpful when virtual implants are used.

A first look might indicate that the implant on this image (1) could interfere with the inferior alveolar nerve and mental foramen. This is not the case. This image (2) is a disto-facial view of the 3D scan showing appropriate clearance between the implant, inferior nerve, and the mental foramen – as indicated by the mint circle. In addition, the Invivo software provides a visual indication of such clearance by coloring green the implant model in the lower left of the screen.

The arch section of the software shows axial, sagittal, and coronal slices. Multiple views (3) provide a more comprehensive understanding of the anatomical features of the patient. After surgery, a follow up with a post-operative image (4), either 2D or 3D, can be done based on the necessity. The GXDP-700 system offers several functionalities that benefit my patients. The advantages of the extra dimension to both the operator and the patient are significant. For example, the Invivo software allows me to see the entire root anatomy including adjacent root positions, in order to determine whether a treatment is necessary. Because details show up so clearly, patients can be more confident in a dentist’s decision. In addition, the use of dental imaging technology often creates a more comfortable and engaging dental visit for the patient.

The Gendex GXDP-700 Series features the pinnacle of 3D dental imaging technology, allowing dentists to plan for more predictable treatment outcomes by taking advantage of powerful 3D software analysis and simulation tools. Plus, dental practitioners can control the exposure and the size of scanned areas using the system’s flexible field-of-view (FOV) to meet individual patient and clinical needs. As a practice grows to offer additional imaging capabilities, the GXDP-700 imaging solution can be upgraded within your own timeline and budget.

For a dentist, the opportunity for improved diagnostic capabilities is always a benefit to the patient. While they are not always directly aware of all the advantages, the information that I obtain from these pans and scans is beneficial for their care. I witness these benefits every day, in increased patient communication and more successful treatment outcomes.

The new 3-in-1 Imaging Solution: Pan. Ceph. 3D

The new GXDP-700 Series gives clinicians dependable image capture of a wide variety of radiographs from 2D Panoramic to High Definition to 3D. These images are valuable for diagnosis and treatment planning of caries, root investigation, endodontics, implants, and other surgical procedures. The new GXDP-700 Series provides:

- **Flexibility**
  - Capture the images necessary for the procedures you perform.

- **Repeatability**
  - Acquire high-quality images, easily and consistently.

- **Ungroupability**
  - Advanced imaging to accommodate additional treatment options.

Learn more about the GXDP-700 and the full line of Gendex imaging solutions at: www.gendex-dental.com

By KaVo

Understanding the Advantages of 3D Dental Imaging

With the advent of any new technology, it’s important for dental professionals to consider not only cost and risks, but also the benefits of switching. In the case of 3D dental imaging, the advantages are clear, granting practitioners and patients alike a better clinical experience.

A dental 3D scan allows clinicians to view dental anatomy from different angles. A 3D scan can help gain a better view of bone structures, such as adjacent root positions, in order to locate canals and root fractures, as well as provide the ability to more accurately measure anatomical structures. These scans also support a wide range of diagnosis and treatment planning, making them extremely flexible. Further, they increase the possibility of treatment success, granting practitioners greater predictability and confidence in preparing for extractions, performing root evaluations, and placing implants.

3D dental imaging also delivers the power of repeatability, providing fast and accurate imaging that’s consistent—and thus, reliable. Using a 3D-dental scanner equips dental professionals with a comprehensive view, letting them see specific conditions in the region of interest to determine whether a treatment is necessary. Because details show up so clearly, patients can be more confident in a dentist’s decision. In addition, the use of dental imaging technology often creates a more comfortable and engaging dental visit for the patient.

For a dentist, the opportunity for improved diagnostic capabilities is always a benefit to the patient. While they are not always directly aware of all the advantages, the information that I obtain from these pans and scans is beneficial for their care. I witness these benefits every day, in increased patient communication and more successful treatment outcomes.

The GXDP-700 system offers several functionalities that benefit my patients. The advantages of the extra dimension to both implant patients for me, and orthodontic patients for my wife, is incalculable. This machine has become a basic part of their dental anatomy even before surgery begins. Before 3D, a surprise could pop up during surgery. Then, the patient would be disappointed that he or she was not going to get an implant immediately, but needed an additional procedure first, such as grafting. My patients understand that I have implemented this technology for the sake of their dental health.

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Dr. Velázquez's Conclusion

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Restoration is becoming Easier and Affordable for all Dental Practices

By Norberto Velázquez, DDS

O S Solutions is the title name for the new CAD-CAM system from Carestream Dental that was launched in the Middle East at AEEDC last February. The system consists of an intraoral scanner, CBCT impression scanning system, restoration design software, and chair side milling machine. All of the parts are separate creating an open Web-based system that enables dentists to use the complete product family or choose any of the products as a stand-alone unit. The benefit that this offers is an easy sharing of restoration cases between dentists and laboratories.

The important thing about any system is not having to be tied into using every individual product, software or consumable that is incorporated in that system. Although this may be beneficial if you feel there is security in working with one single supplier you may on the other hand prefer the features of another supplier’s product that you want to use instead of the one that is provided.

At Carestream Dental we have seen many Dentists choose the CS 5500 Scanner to capture images for their digital restoration work. They have preferred the elegant slim and easy to use design of the scanner which makes it simpler and more reliable to capture detailed scans of the patient’s teeth that can then be e-mailed to their laboratory for completion.

The CS 5500 scans patients’ teeth directly to acquire true colour, 2D and 3D images. With an average precision of 50 μm, the CS 5500 scans to a depth ranging from -2 to +43 mm and offers high-angulation scanning of up to 45 degrees. It features a light guidance system that enables dental professionals to focus more on patient’s mouths while capturing data by limiting the time practitioners need to watch a monitor during scans. The CS 5500 also has an internal heater that prevents the mirror from fogging during digital impression acquisitions. To further streamline the scanning process, the scanner does not require a trolley or the use of powder, saving practitioners time and making the experience more pleasant for patients.

Here is what Leading dentists have had to say about their experience using the CS 5500.

Dr. Carsten Stockleben Hannover, Germany http://www.stockleben.com/

“With the CS 5500, it’s easy. You just say ’I want my scanner,’ put it in, and start. It’s small, it’s light, it can be connected to any computer via USB, so I don’t have to have a big trolley with a computer and a monitor that have to be driven around the operatories. You don’t need powder, you don’t have to mess around in the patient’s mouth, keep it dry, put the powder in, and so on. It makes it much easier. It’s got a guiding system and that allows me to concentrate and to take the impression or the scan in the mouth, and that’s fantastic.”

Dr. Dan Delrosse North Rive Dental Ellenton, FL, USA www.northriverdental.com

“By using the CS 5500 intraoral scanner, we eliminate many of the problems that come with using impression materials and pouring casts—all you have to do is scan the tooth and send the data to your restoration software or the lab. But probably the most important feature of the whole scanner is something so simple—that it’s not connected to a trolley. It’s not connected to a tower or a workstation. You’re going to be able to take this light, ergonomic scanner and plug it right into your workstation in the operatory, quickly and easily.”

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• Versatile programs and views (from 8 cm x 9 cm to 4 cm x 4 cm)
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Isolite wins 2014 Scandefa Award in Copenhagen

By Dental Tribune International

COPENHAGEN, Denmark: Reporting on this year’s Scandefa, the organisers announced that over 10,000 visitors and about 200 exhibitors mainly from Denmark, Sweden and Germany attended the Scandinavian dental trade show from 2 to 5 April. At the opening of the show, dental equipment provider Unident was given the 2014 Scandefa Award for the Isolite oral isolation system.

Isolite is a single-use isolation mouthpiece that retracts and protects the patient’s cheeks and tongue, increasing patient safety. It obstructs the entrance to the throat, which not only adds to patient comfort, but also allows the dentist to monitor the patient’s airway.

“Using Isolite, practitioners can achieve optimal control of the oral environment and make the treatment more comfortable for the patient at the same time,” Marinette Larsson, Chief Marketing Officer at Unident, told Dental Tribune ONLINE in Copenhagen.

The mouthpiece, which is available in five different sizes, was developed by Isolite Systems, a US medical device manufacturer that specialises in dentistry. Unident is the exclusive supplier of the system in Scandinavia. Founded in 1992, the company today has offices in Stockholm in Sweden, in Horten in Norway, and Copenhagen in Denmark.

The next Scandefa will be held from 15 to 17 April 2015. The annual Scandefa Award recognises the most innovative dental products on the Danish market.

VITA SUPRINITY® – Glass Ceramic. Revolutionized.

The new zirconia-reinforced high-performance glass ceramic.

VITA SUPRINITY material belongs to the new generation of CAD/CAM glass ceramics. Now for the first time this innovative, high-performance material is reinforced with zirconia. This results in a high-strength material and processing safety coupled with an extraordinary degree of reliability. It features a particularly homogeneous structure that ensures simple processing and reproducible results. And what’s more, VITA SUPRINITY offers the benefit of a very wide range of indications.

For more information visit: www.vita-suprinity.com   facebook.com/vita.zahnfabrik
As a professor of surgery and research, P-I Brånemark is considered the father of modern dental implantology (Figure 1). In the early 50’s he discovered the process of osseointegration, which later was referred to as the direct structural and functional connection between living bone and the surface of a load-bearing artificial implant. (Figure 2)

Since then Brånemark and his team conducted numerous research aimed at Orthopedics, joint replacements, plastic surgery and tumor defects. In 1965 Brånemark treated the first human patient Gösta Larson with titanium dental implants who was missing teeth as a result of jaw deformities. Larson passed away in 2006 and used his implants for more than 40 years. (Figure 4 - page 34)

The initial reaction of skepticism and doubt was overcome in 1982 in North America at the Toronto conference on osseointegration. Here the biology, clinical research and applications of osseointegration were presented to the world and since then for 32 years millions of people have been able to benefit from the life changing contributions of osseointegration.

In 1989 Professor Brånemark founded the first The Brånemark Osseointegration Center (BOC) in Gothenburg, Sweden (www.branemark.com). BOC’s principal task was to offer management for patients with severe oral, maxillo-facial and orthopedic impairments. There are only 10 such clinics in the world and in the June of 2013 due to its excellence in dental implant treatment the Dubai BOC was founded by Dr Costa Nicolopoulos and Dr. Petros Yuvanoglu at the Dubai Healthcare City and named SameDay Dental Implants (www.Samedayimplants.com). This demonstrates a milestone of progress for the health system in Dubai being able to host a BOC in the Middle East.

By Safa Tahmasebi DDS MS

Figure 1. Professor Per-Ingvar Brånemark

Figure 2. (Scanning electron micrograph showing a bone cell attaching to titanium)

"The edentulous patient is an amputee, an oral invalid, to whom we should pay total respect and rehabilitation ambitions”. Per-Ingvar Brånemark

Figure 3. (Titanium optic chamber fixed to the rabbit’s tibia and fibula)

Figure 4. (Titanium optic chamber fixed to the rabbit’s tibia and fibula)
NEW: Philips Sonicare FlexCare Platinum

For outstanding cleaning, even deep between the teeth

Philips has the right sonic toothbrush for every cleaning need. The latest innovation is called Philips Sonicare FlexCare Platinum. Its innovative pressure sensor gives immediate feedback in a simple manner if too much pressure on the brush head minimizes the vibrations. This makes the Philips Sonicare FlexCare Platinum ideal for those of your patients who are worried about using too much pressure when cleaning with an electronic toothbrush. Nine individual settings and intensity levels thereby make adaptation to the individual cleaning requirements possible.

Pressure sensor
This innovative sensor gives simple and intuitive feedback if the brush head is pressed down too hard.

3 cleaning settings
• Clean – ensures optimal plaque removal (standard)
• White – removes discoloration of the tooth surface in 2 minutes, and the front teeth are whitened and polished in a further 30 seconds.
• GumCare – combines 2 minutes in the Clean setting with 1 minute of gentle gum massage for healthy gums.

3 intensity levels
Maximum comfort with the 3 adjustable intensity levels: low (for sensitive areas), medium and high. Each of the 3 intensity levels can be combined with each of the 3 cleaning settings.

Philips Sonicare InterCare brush head
Extra long filaments reach deep into the spaces between teeth and ensure an excellent plaque removal there compared to a manual toothbrush. For better tooth and gum health.

UV-Sanitizer
With the UV light technology from Philips, up to 99% of the bacteria and viruses\(^1\) on the brush head are rendered harmless – in only 10 minutes.

Lithium-ion rechargeable battery
With 3-week working life

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\(^1\) E. coli, S. mutans and HSV1, HA
Keeping Hygienists in par with Continuing Education initiatives

By Victoria Wilson, Dental Hygiene Therapist, UK

I t is our aim of the Dental Hygiene Tribune MEA to keep you, our valuable members and readers, on par with continuing education initiatives across the region. We will target and focus on the most up-to-date treatment methods available, the emerging scientific research and the current best practice techniques used in dental hygiene. Hygienists or Dental Care Professionals (DCPs) are ideally positioned to provide comprehensive support to dentists and patients - starting from pre- and post- restorative work through to periodontal treatment, maintenance and long term continuing care. In order to do this effectively, DCPs need to be continually updating and developing their knowledge and clinical skills, as well as being aware of the new technologies on the market.

I welcome the opportunity to bring my enthusiasm for Dental Hygiene Tribune to Dental Hygienists in the Middle East and offer an earnest commitment to meeting the need for high quality training and ongoing support in our commendable profession.

I am dedicated to liaising and representing the Continuing Medical Education (CME) team for Dental Hygiene Tribune members to ensure that your interests are being met. With your support, I look forward to developing new programmes for this publication to further encourage collaboration and clinical excellence in the hygiene field.

I would appreciate hearing your preferences for CME topics and any other suggestions that you would like to offer.

Contact Information
Ms. Victoria Wilson, Dental Hygiene Therapist, UK
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By Victoria Wilson

Maintenance of dental implants for the hygienist

Implant dentistry has become more and more prominent in our everyday practice as patients are keen to have implant-borne prostheses than a conventional bridge work or removable dentures. One of the most important factors for long term success of dental implants is the maintenance of healthy peri-implant tissues. Hygienists are now seeing more of their patients with dental implant and this is only going to increase in the future as implant therapy becomes cheaper. The role of the hygienist has increased in many ways with regards to dental implants. It is important for a hygienist to be able to diagnose peri-implantitis and to have the knowledge to treat simple to moderate peri-implantitis and to monitor the health of dental implants in the long term as part of the patients regular maintenance.

How do you know when an implant has problems?

It is essential to be methodical when monitoring the peri-implant tissues at review appointments to spot the early signs of peri-implantitis. The clinical markers that are used to assess the presence and severity of inflammation around the implant are:

- Plaque and calculus accumulation;
- Inflammation of the peri-implant tissues;
- Increase in peri-implant probing depth;
- Bleeding on probing;
- Suppuration from the peri-implant pocket;
- Implant mobility;
- Radiographic changes.

When probing peri-implant tissue, it is defining Continuing Professional Development (CPD) and outlining the need for it for dental professionals through a series of publications from Governing bodies, it can be seen that with proper planning, goal assessment and verifiable CPD activities, one can not only meet government regulations for CPD but gain insight and skill set for further professional and personal development.

Method

Review an analysis of CPD for dental professionals from online publications related to bodies in the UK, US, Canada, and the Middle East.

Results

CPD can be obtained through a wide range of activities. A structured approach when undertaking the CPD projects of choice, is in line with key targeted learning objectives, is key to achieving a noteworthy and credible progression in job performance.

Conclusion

Not only is a minimal amount of CPD required in most countries by law, it can be determined that CPD will not only enhance one’s performance and the overall operations of the facility/clinic, but will result in valuable public awareness for the safety and regulated practices of dental facilities in general.

Introduction

What is CME - CPD?

Continuing Medical Education (CME), otherwise referred as Continuing Professional Development (CPD), is the way in which professionals can enhance their knowledge and skills related through a structured approach.

CPD for dental professionals is an obligation in many countries. A mandatory amount of course-related points must be fulfilled in the form of: lectures, seminars, courses, individual study, peer review, clinical audit or E-learning activities. These hours can be recorded on a personal CPD record providing the courses are designed to advance professional development as a dental professional and is relevant to one’s practice. (1)

Why is CPD in Dentistry so Important?

Education and qualifications are only the first step towards obtaining a professional career. CPD is an obligation to one’s profession - not only for the personal benefits for individuals and clinics, but also for the overall perception and confidence that the public has in the dental industry.

Dentistry is constantly evolving through new methods and technologies to better meet the needs of patients. CPD will ensure that dental professionals continue to be at the forefront of this knowledge. It is important for patient comfort, well-being and safety.

It is also required by law for all registrants working under the local medical authority to undertake a minimum amount of CPD points in order to maintain the licence of the practice. If this minimum is not met by all of the professionals, the licence cannot be renewed.

Verifying CPD points

In some countries, such as the UAE, the Governing body acts to verify the CPD provider. Submission of papers for a CPD event must be approved by Dubai Health Authority (DHA), Dubai Health Care City (DHCC) or Health Authority Abu Dhabi (HAAD) prior to an event.

In other countries, such as the UK, parts of US and Canada, verifying the CPD provider is determined by the judgment of the registrant. It is a common requirement to have to keep documentary evidence in these countries for up to 5 years post CPD cycle. (4,5)

Table 1 – Dubai Health Authority (DHA) CPD Requirements (2)

<table>
<thead>
<tr>
<th>Category of Professionals</th>
<th>CPD Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians and Dentists</td>
<td>10</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>10</td>
</tr>
<tr>
<td>Nurses</td>
<td>15</td>
</tr>
<tr>
<td>Other Healthcare Professionals</td>
<td>10</td>
</tr>
<tr>
<td>Traditional Complementary &amp; Alternative Medicine Professionals</td>
<td>10</td>
</tr>
</tbody>
</table>

There will generally be documentary evidence that the CPD has been undertaken with concise educational aims and objectives and clear an-
In ‘bleeding on probing’ trials over 4 weeks, parodontax® demonstrated significant effects in reducing bleeding gums by 22% (p<0.01)

Bleeding on probing increased after 4 weeks of brushing with the fluoride control toothpaste

Adapted from Saxe et al 1994. All interdental spaces from 6 to 6 were tested at baseline and 4 weeks for bleeding on probing on the right side (buccal) and left side (lingual). Findings were recorded as 0=no bleeding; 1=slight/isolated bleeding; 2=marked bleeding. Mean scores were determined. n=22.

Baseline values [Mean ±SD]: Control (fluoride-containing toothpaste) group 24.75 ±6.34; parodontax® group 25.40 ±5.80. After 4 weeks: Control (fluoride-containing toothpaste) group 26.00 ±9.14; parodontax® group 19.80 ±7.38. *parodontax® vs control p<0.05.
Modern eating and drinking habits increase the exposure of tooth enamel to dietary acid that can lead to Acid Wear (erosive tooth wear), the biggest contributor to tooth wear. In the early stages of Acid Wear, a patient’s enamel can become translucent, anatomical features can be lost and molar cusp can occur.

GSK collaborated with leading experts in the field to develop Pronamel Daily Toothpaste to help protect patients at risk of Acid Wear. With its optimised formulation, Pronamel is proven in a range of clinical in situ and in vitro studies to reharden acid-softened enamel and protect against acid challenges.

Not all toothpastes are the same

In laboratory experiments Pronamel’s optimised formulation ensures more fluoride is available at the patient’s tooth surface to protect from the effects of Acid Wear compared to other toothpastes with the same marked fluoride levels.

Pronamel is proven to reharden acid-softened enamel and provide ongoing protection from the effects of Acid Wear:

- Low abrasivity
- Neutral pH (7.1)
- SLS*-free

Figure 1: DSIMS imagery to show amount of fluoride at the tooth’s surface in vitro

- Shows the lack of any fluoride uptake
- Fluoride retained at the tooth’s surface
- Increased concentration of fluoride retained at the tooth’s surface

Adapted from Edwards MT et al. Dynamic Secondary Ion Mass Spectrometry (DSIMS) of the fluoride content of human enamel exposed to a citric acid challenge followed by treatment for 2 minutes with a range of dentifrice slurries.

Figure 2: in situ rehardening microindentation study following treatment with dentifrices

Adapted from Hara AT et al. Bovine enamel specimens were subjected to an erosive challenge. This was followed by fixation to palatal appliques and a 24-hour inter-oral phase in 58 human subjects. This phase included tooth brushing with tested products and a further erosive challenge.

Pronamel has been clinically tested in situ to...

- Reharden acid-softened enamel
- Build protection against future acid challenges

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A better experience for your patients and your practice.

Philips Zoom In-Office Whitening kit makes treatments easier
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Unique products for your sensitive patients
Each treatment comes with a Patient Post Care and Maintenance kit that includes the Relief ACP Oral Care Gel. This unique formula combines potassium nitrate for sensitivity relief along with Amorphous Calcium Phosphate (ACP) that helps create healthier smiles through advanced enamel protection. To ensure a more comfortable experience all around, instruct patients to use it for 10-30 minutes after treatment.

New Philips Zoom WhiteSpeed Whitening LED Accelerator
The advanced Philips blue LED technology provides approximately 50,000 hours of use—reducing operating costs, downtime and is 40% more energy efficient. The light also emits 100% greater light intensity* with no compromise to safety. Redesigned to be easier to position and more ergonomic, your patients and your treatment will be better than ever.

New support for your practice
Philips Zoom is funding a worldwide public relations campaign to drive patients to dental professionals, and new programs to help you quickly and easily integrate Zoom into your practice.

“With this new light the patient’s sensitivity is minimal, making the procedure much more pleasurable.”
– Juban Dental Care - Baton Rouge, LA

Reveal your patients’ most healthy, radiant smile with Philips Zoom WhiteSpeed

Give your patients the immediate white smile they want and the healthy white teeth they need, with the new Philips Zoom WhiteSpeed. The number one patient-requested professional teeth whitening brand is clinically proven to deliver superior whitening results in just one office visit. WhiteSpeed is shown to whiten teeth up to 8 shades in 45 minutes; that's 40% better than a comparable non-light activated system.†

The new Whitening LED Accelerator’s variable intensity settings allow you to customize the output to ensure each patient receives a more comfortable treatment. 91% of patients experienced little to no sensitivity with Zoom WhiteSpeed.‡

Now better than ever — Philips Zoom WhiteSpeed.

* In the U.S.
† Compared to Philips Dash.
‡ Results based on 500-person study. Data on file.
Scientists from Norway develop scaffolding to repair severe teeth and jawbone defects

By Dental Tribune International

O SLO, Norway: Dental researchers at the University of Oslo have developed a new artificial scaffolding that aids bone regeneration. Within a few years, they hope to market their invention to help patients with serious teeth and jaw damage caused by severe periodontitis, mandible injuries, or trauma.

According to the researchers, the artificial scaffolding could be used in particular for cases in which the gap between two bone fragments is too wide, or when large parts of the bone have been damaged through surgical removal or radiotherapy. The scaffolding helps the body repair such serious defects, the researchers explained.

"With the new method, it is sufficient to insert a small piece of synthetic bone-stimulating material into the bone. The artificial scaffolding is as strong as real bone and yet porous enough for bone tissue and blood vessels to grow into it and work as a reinforcement for the new bone," said Prof. Ståle Petter Lyngstadaas, Dean of Research at the Department of Biomaterials at the university's Institute of Clinical Dentistry.

The scaffolding can be produced like cake blocks and cut into individual shapes to fit into specific bone defects. It is manufactured from a mixture of water and ceramic powder, which is poured through foam rubber that was designed to look like trabecular bone. The ceramic powder consists of medical-grade titanium dioxide monodisperse nanoparticles, which are also widely used as an additive in sweets, toothpaste and baked goods. Once the mixture has solidified, it is heated to a temperature that causes the foam rubber to dissolve into water vapour and carbon dioxide and the nanoparticles to knit into one solid structure. It has an open porosity of 90 per cent, containing mostly empty space that can be filled with new bone and blood vessels, which current materials do not provide.

While current materials are degraded gradually, the new scaffolding remains an integral part of the repaired bone, working as reinforcement, Lyngstadaas explained.

In addition, the generation process could be accelerated by the insertion of bone progenitor cells or bone marrow, containing stem cells.

Conventionally, damaged bone is repaired by removing tissue from healthy bones, such as the mandible or hip, for implantation. Patients often experience discomfort and complications after the surgery. This can be avoided by using the scaffolding.

Since the scaffolding has shown positive results in preliminary animal studies, the researchers are currently planning to undertake clinical trials on patients with periodontitis and damaged mandibular bone. They also hope that orthopaedists will show interest in the new method.

The new material was developed in collaboration with CertoCulis, a Norwegian company that specialises in innovative biomaterials. In order to market their invention, the researchers are currently looking for an industry partner.

Table 2 – Health Authority Abu Dhabi (HAAD) CPD Requirements (5)

<table>
<thead>
<tr>
<th>Principle 1</th>
<th>Principle 2</th>
<th>Principle 3</th>
<th>Principle 4</th>
<th>Principle 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients' interests first</td>
<td>Meet patients’ needs and wants</td>
<td>Ensure high standards and ethics</td>
<td>Comply with laws and regulations</td>
<td>Maintain standards for efficiency and effectiveness</td>
</tr>
</tbody>
</table>

Table 3 – U.K Standards for CPD

<table>
<thead>
<tr>
<th>Professional Development Plan</th>
<th>Training and Development</th>
<th>Proposed Action</th>
<th>Anticipated Outcome</th>
<th>Progress</th>
</tr>
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<td>Training and Development</td>
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<td>Anticipated Outcome</td>
<td>Progress</td>
</tr>
</tbody>
</table>

Table 4 – Example of Professional Development Plan

1. CPD must achieve outcomes that support practice in accordance with local Standards and Regulations.
2. Proper training and reflection with a PDP for CPD requirements is advisable.
3. All CPD should be verified or come from a strong reliable publication source in order to emphasise the importance of high quality CPD.
4. Annual CPD declarations should be introduced as a requirement of on-going registration.
5. Continuing Professional Development for Dental Professionals, Protection Patients, regulating the dental team.
6. Policy on Continuing Professional Development (CPD) Requirements, Health Regulation Department, Dubai Health Authority, July 2010.

References
1. General Dental Councils, Continuing Professional Development for Dental Professionals, Protection Patients, regulating the dental team.
2. Policy on Continuing Professional Development (CPD) Requirements, Health Regulation Department, Dubai Health Authority, July 2010.

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sues it is essential that a light force is used (0.25 Ncm) to avoid trauma to the tissues. There is a parallel attachment of the junc-
tional epithelium around the implant surface, therefore there is 
less resistance when probing around the implant. This will re-
sult in deeper peri-implant probing depths compared to probing around natural teeth. Peri-im-
plant probing depths of implants placed in sites excluding the aes-
thetic zone range between 2-4 mm under healthy conditions. 
In the aesthetic zone where the implant is usually placed 
deeper, the probing depths are greater than the normal range. 
It is important to note that most implant systems show evidence of 
a small amount of marginal bone loss within the first year of function. Smoking has been 
shown to be a risk factor to affect the long-term prognosis of dental implants therefore it is es-
sential to assess the health of the peri-implant tissues regularly in 
smokers. 

What to do if there is bone loss? 

If there is on-going bone loss it is important to ascertain the cause. 
The causes of bone loss are: 

- Occlusal overload; 
- Bacterial induced inflam-
mation.

Any occlusal overloading needs to be corrected by the implant 
dentist. 

Plaque induced inflammation is initially treated non-surgically but depends on the initial clinical 
presentation. This involves the removal of dental plaque with or without the use of locally 
delivered or systemic adjuncts. Lesions with probing depth of 
5 mm or more and bone loss of greater than 2 mm would need 
surgical intervention as recom-
mended by the International 
Team for Implantology (ITI) 
consensus report Figure1. 

A common cause of plaque in-
duced peri-implantitis is excess 

cement which has been forced 
into the tissue when the crown is 

cemented. If the excess cement is 

not thoroughly removed by 
the implant dentist, this will in-
duce inflammation of the tissue 
and possible bone loss. 

How to maintain dental im-
plants? 

It is important that good oral 
hygiene is performed to main-
tain healthy peri-implant tis-
sues. The use of toothbrushes, 
either manual or electric, helps 
to reduce the amount of plaque 
build-up on the implants. Dental 
brushes and interdental brushes is 
esential for access interprox-

dally. It is very important that 
oral hygiene for the patient is 
not made too complicated there-
by prolonging the time required 
by using too many oral hygiene 
aids. In the aesthetic zone, a 
cross over flossing technique 
can be used (Figs. 2a-f). 

A poor flossing technique or no 
flossing at all can lead to subging-
ival inflammation of the peri-
implant tissues. It is essential 
that if a cement retained crown 
is placed that all the cement is 
removed as subgingival irrit-
ts such as excess cement can 

Fig. 3a: Excess cement on implant surface. 

Fig. 3b: Severe bone loss due to 
excess cement forced in to the 
tissues. 

Fig. 4a: Subgingival inflamma-
tion due excess cement. 

Fig. 4b: Note the excess cement on 
the implant crown. 

Fig. 4c: A healthy gingival cuff 
around an implant. 

Fig. 5: Plastic Scalers. 

Fig. 6a: 8 mm pocketing UR2. 

Fig. 6b: After subgingival curret-
age of the pocket the patient was 
shown how to use a large inter-
dental brush with chlorhexidine 
gel twice a day. 

Calculus formation on dental 
implants is very similar to that 
found on teeth, the only differ-
ence is that the abutment and 
the porcelain are very highly 
polished, therefore the calci-
lus is not as tenacious as on a 
natural tooth. When removing 
supragingival calculus from the 
implant crowns, it is very im-
portant not to use stainless steel 
scalers as this will damage the 
titanium surfaces. Therefore it 
is recommended that one uses a 
material that is softer than tita-
nium either gold plated or rein-
forced plastic instruments (Fig. 
5). It is very important that an 
ultrasonic is never used on an 
implant as this will heat up the 
implant and could kill the bone 
that helps integrate the implant. 

When pocketing has been noted 
then using the CIST protocol 
will help treat the majority of peri-implantitis cases. Below 
is an example of an UR2 with 
8 mm pocketing, the site was 
treated non-surgically with local 
delivery antimicrobials and with 
the patient using chlorhexidine 
gel with the largest interdental 
brush (Figs. 6a-c). At the 2 week 
review the pocketing associated with the UR2 has reduced to 5 
mm with simple non-surgical 
therapy any further intervention 
will need to be reviewed by the 
implant dentist. 

Conclusion 

Good oral hygiene performed 
by the patient has a significant 
affect on the stability of the 
marginal bone around dental 
implants. Therefore regular hy-
gienist appointments are neces-
sary to ensure that your patients 
amaintaining a high standard 
of oral hygiene around their 
dental implants. 

Complex dental problems and the contribution of adjunctive orthodontics

By Professor Athanasios E. Athanasiou, DSDM

The goal of contemporary dentistry is the maintenance of natural dentition under biologically, functionally and esthetically optimal conditions, for the longest possible period. An increasing number of adult people present a variety of complex dental problems, which concern more than one clinical discipline or specialty. These include caries, periodontal diseases, dental trauma, edentulous sites, malocclusions, or their combination.

This article outlines existing orthodontic therapeutic possibilities for adjunctive dental work and emphasizes the importance of teamwork among the general dentist, the orthodontic specialist, and other dental specialists.

Principles of treatment planning for complex dental problems

The need to formulate problem-oriented treatment plans, which address patients’ chief complaint for complex cases necessitates consensus among the parties involved namely the general dentist, the specialist and the patient. Diagnosis must utilize patient’s data, derived from records interpreted by the clinician using strict scientific criteria. On the other hand, treatment planning constitutes an intellectual process where subjective elements are often involved. It is the path that the well-educated and experienced clinician follows in order to maximize the benefits for the patient, which must be contrasted to the cost and risk involved when certain procedures are adopted (1). An essential requirement for successful interaction is that both general practitioner and specialist are in agreement regarding the advantages and limitations of the treatment chosen.

Orthodontics and periodontics

It has been documented that orthodontic treatment in patients with severe periodontal destruction is no longer a contraindication (3). On the contrary such treatment might even enhance the possibilities of saving and restoring a dete-riorating dentition. During the orthodontic movement it is the entire periodontal unit (bone, periodontal ligament, and soft tissues), which moves with the tooth (4). This all-embracing movement has been shown to be beneficial when orthodontic uprighting of tipped molars is undertaken since the crestal bone exhibits predictable and considerable changes (5) (Figure 1). Forced eruption has also been reported to decrease the depth of isolated vertical infrabony defects and to expose tooth structure, thus allowing the prosthetic management of subgingival fractures, caries and lateral root perforations (6) (Figure 2).

Orthodontics and missing teeth

In cases where lateral incisors are congenitally missing and other malocclusion co-exist, in most instances the treatment of choice is the orthodontic movement of the canines to...

Figure 1. Extraction of the lower first molars has resulted several years later to a molar tipping of the second and third molars (A). When orthodontic uprighting of tipped molars was undertaken the crestal bone exhibited considerable changes (B).

Figure 2. Forced eruption of the upper second premolar (A) has resulted in the repositioning of the lower second premolar (B) and of the lower impacted canine (C).

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Aesthetics and function: Orthodontic—surgical collaboration as a key to success

By Drs Martin Jaroch & Friedrich Banz, Germany

Oral surgery is an important cornerstone in orthodontic treatment of malocclusions. Tooth movement is only possible to a limited extent and always depends on the normal development of the maxilla and mandible in relation to each other, as well as on deformities of the jaw in relation to the other facial bones. Abnormalities may be congenital or acquired and may affect patients in childhood already. If so, the focus of orthodontic treatment is not primarily in the aesthetic correction, but is guided by functional and prophylactic concerns. Efficient occlusion and restoration of masticatory function are decisive factors for tooth preservation and prevention of secondary disorders (Figs. 1a–c). Without a doubt, aesthetic improvements, as well as the associated self-consciousness, is the main concern of adult patients, which can be pursued through surgical correction.

Causes of malocclusion

Generally, patients visit an orthodontic practice only after symptoms or significant anomalies have already presented. Clinically, this results in late mixed dentition or permanent dentition. Unluckily, this complicates an accurate mapping of the reasons for this malocclusion. In the literature, the causes of malocclusion and the aetiological structure of the symptoms of malocclusion in orthodontic patients are controversial issues. No explicit information on the percentage of patients with acquired anomalies is available. The reasons for the malocclusions can be found in a study by Schopf (1981) on the exogenous factors, which would be responsible for the development of malocclusion. However, from the assessment of individual patients’ symptoms, all symptoms of malocclusion could be associated with aetiopathological factors only in 48% of patients. Brodman and Sankel (2001) concluded from Schopf’s report that only 20% of the anomalies were hereditary and thus could not be affected by prophylactic interventions. Accordingly, 80% of malocclusions could be resolved through prevention and better oral hygiene. This idea is contrary to the results of the German Oral Health Study. In this study, a decrease in childhood caries was observed. However, the aetiology of these results was not associated with a lower need of and need for orthodontic treatment. The study at the University of Greifswald, Germany, found that 26.5% of the symptoms were hereditary. They were defined, 44.3% were exogenous and 35.5% were not precisely defined. The assumption that 80% of malocclusions can be resolved by prevention and better oral hygiene is very questionable of unexpected growth pattern or unilateral abnormal hyperplasia and can affect the results of the operation. Combined orthodontic-surgical treatment requires not only strong and focused interdisciplinary collaboration, but also absolute acceptance of the treatment plan by patients and parents. The treatment is time-consuming and post-operative corrections cannot be excluded. A detailed medical preoperative discussion should inform patients about the risks of combined treatment and the consequences of untreated malocclusions. Malocclusions can cause numerous side-effects, such as back pain and chronic headaches (Fig. 5a–c), hyperplasia of the maxillary sinus, which can manifest as obstructive sleep apnoea syndrome (Hochhan et al., 1997).

In adult patients, it is normally useful to determine the amount of malocclusion and force bite using a flat-plane bite splint. The splint is worn for six to eight weeks, and guarantees the identification of the physiological condylar position. Pursuing orthodontic correction depends on the intended post-operative situation. Therefore, such correction is only dentoalveolar and does not transfer bite forces.

Patients

Combined orthodontic-surgical treatment requires not only strong and focused interdisciplinary collaboration, but also absolute acceptance of the treatment plan by patients and parents. The treatment is time-consuming and post-operative corrections cannot be excluded. A detailed medical preoperative discussion should inform patients about the risks of combined treatment and the consequences of untreated malocclusions. Malocclusions can cause numerous side-effects, such as back pain and chronic headaches (Fig. 5a–c), hyperplasia of the maxillary sinus, which can manifest as obstructive sleep apnoea syndrome (Hochhan et al., 1997).

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Surgical technique

The choice of technique for the osteotomy depends on various factors. The future of maxillofacial surgery is not only dependent on the growth of the jaw, but is also influenced by the degree of displacement of the jaw as a result of adverse occlusion. Furthermore, teeth have an influence on the access to the surgical field and wisdom teeth must be removed before osteotomy in certain cases.

Fig. 1a–c: Deep bite, prognathism and latero-gnathias according to clinical examination, they can be resolved with orthodontic-surgical treatment. This means that in malocclusion cases that cannot be resolved by functional orthodontics solely, orthodontic–surgical planning can be done before any treatment is attempted by pure dentoalveolar compensation. Compensation of dental discrepancies is limited to the maximum of 5 mm. In cases where the deformities are dentoalveolar or skeletal, allowing of the limitations of conventional orthodontic treatment, skeletal discrepancies can be rarely be entirely resolved. In those cases, combined orthodontic–surgical treatment is necessary. During growth, it is mostly possible to treat malocclusions successfully without surgery by purely orthodontic treatment using removable appliances or brackets.

Children and young people for whom functional orthodontic treatment has not led to the desired result are treated surgically. In cases where the deformities are dentoalveolar or skeletal, allowing of the limitations of conventional orthodontic treatment, skeletal discrepancies can be rarely be entirely resolved. In those cases, combined orthodontic–surgical treatment is necessary. During growth, it is mostly possible to treat malocclusions successfully without surgery by purely orthodontic treatment using removable appliances or brackets.
operation of Obwegeser–Dal Pont and Le Fort I osteotomy. The
bimaxillary approach seems reasonable, since the maxilla and mandible influence each other during growth. However, it is frequently only possible to obtain a very good and risk-free result by using Obwegeser–Dal Pont surgery. Fixation in split osteotomy of the mandible is usually realised by using mini-
mally invasive plate osteosyn-
thesis. In modified techniques of Obwegeser–Dal Pont surgery, a displaced rami is fixed using osteosynthesis screws only (Hu-
chuan 1997; Figs. 8a & b). This
modification avoids the compli-
cated surgical removal of osteo-
synthesis plates.

Operation risk
Any surgical procedure can lead to unexpected complications,
which must always be consid-
ered according to the risk–ben-
efit principle. Today, the need
for osteotomy remains contro-
versial because a jaw deformity
is not a serious illness like a tu-
mour, abscess or bone fracture, which is necessarily treated by
surgery. Since deformities are
often aesthetic corrections and can be classified as elective
procedures, operation safety is
a chief concern. Isolated oste-
stonies of the mandible, which
present a significantly lower surgery risk, should be the first
choice for orthodontic–surgical
interventions.

The most significant risk of os-
teotomy of the mandible is a
probability of about 5% of dam-
aging the sensory nerve, called
the inferior alveolar nerve. This
can cause sensibility problems
of the lower lip and chin area
(Figs. 9a–c). Additional serious
risks are not expected using Ob-
wegeser–Dal Pont surgery and
post-operative bleeding can be
controlled very safely.

Interdisciplinary collaboration
The literature review of work
done in the 1970s makes clear
that today’s conscientious col-
laboration between surgeons
and orthodontists is not a mat-
ter of course. Over the years,
orthognathic surgery was con-
sidered to be the last option for
treating orthodontic cases that
could not be resolved using
standard treatment techniques.
Therefore, operations were car-
ried out based on tolerance of
dentoalveolar compensation
and likely made further correc-
tive surgery more probable.

Today, in almost all cases of
malocclusion, orthodontic
Treatment is preceded by sur-
gical treatment. Nowadays,
the planning of the operation
based on simulated cast surgery
and the creation of a splint is a
very safe method by which to
achieve predictable and stable
long-term results (Figs. 10a &
b). Individual dentoalveolar
discrepancies in occlusion can
be corrected preoperatively or
post-operatively by orthodontic
treatment. Therefore, inter-
disciplinary collaboration is
always a benefit for the patient
and treatment team.

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“The Middle East region is right up there in terms of Global Orthodontic standards”

By Dr. Khaled Abouseada, KSA

It was a pleasure to interview Dr. Nikhil Vaid, who could be ranked as one of the key doctors to enrich and strengthen our orthodontic section in India, as mentioned in the Ortho Tribune, bringing it to new heights by displaying a wide screening of Dr. Nanda’s vast crucial achievements. The focus objective was encapsulating the accumulated information I received from him in an easily digestible manner providing a platform for all the diverse ideas, updates, ethics and principles of orthodontic practices and researches conducted by Dr. Nikhil Vaid and his team. Working with the philosophy of placing an attractively remarkable plan to shine light on the distinguished professionals of orthodontists to paint the path forward for our science-related readers. Dr. Vaid is an innovative leader in the field of Orthodontics and has demonstrated a remarkable role in the development of the orthodontic field in the Middle East region. 

Dr. Nikhil Vaid: “To be very honest I have not been an orthodontist for that long, to see a decade-by-decade shift in the practice of orthodontics has been intriguing. 

In the last 12 years from when I did start out, the major thrust has been the incorporation of technology in all spheres: Diagnostic, Research, Planning, Mechanics and Appliances. A lot of purists feel the skills level of the contemporary Orthodontist are becoming redundant because of technology; I would like to think otherwise. The skill required to handle changing and change is the only thing constant with any science. Fundamental principles will still govern Orthodontic care delivery, but incorporation of technology in the service delivery is the quality of life of both the orthodontist and the orthodontic patient. 

Today Micro implants are the mainstay of anchorage control, I only use Self-ligating brackets, because of chair control, I only use Self-ligating brackets, because of chair control; I only use Self-ligating brackets, because of chair control. This has influenced us to be receptive to new advances, without the dogma of orthodontics. The bonding and the camouflage amongst colleagues as well as the discipline that kept us on our toes, were actually lessons that have moulded me to assume greater responsibilities in life.

Do any of your teachers stand out who encouraged you to pursue this career? What would you tell them now?

Well the soul of any teaching programme is the Programme Director or a Guide in a Masters Programme, whatever the nomenclature is in any part of the world. The biggest influence in my life has been my Professor, Prof. E. T. Boy, who has mentored me as an Orthodontist in my years in my Masters programme. He is a strict disciplinarian, and was responsible for influencing my life beyond Orthodontics as well. Its important to inspire your residents to be complete professionals, Orthodontics is only a part of what we do. The spirit to serve my profession and professional organization is something that he has inculcated in me. Dr Ashok Sinha, Dr Ravi Gupta, Dr Ravi Sahle, Dr Shailshesh Doshuksh and Dr Spaid Nagarskar have taught me Orthodontics at different stages of my life as an undergraduate and graduate student. My colleagues during my Masters programme, and later, most importantly Dr Meghna Vandrekar, Dr Gurjeet Singh and Dr Jacob John are also responsible for what I am today. I would like to thank each of these individuals for touching my life and promise to make them proud with everything I attempt to do.

What can you tell us about your experience as the president elect of the Indian Orthodontic society and Editor in Chief of the Asian Pacific Orthodontic Society?

I have just been elected President Elect of the Indian Orthodontic society, which is amongst the largest Orthodontic Societies globally. We have an obligation to contribute to the knowledge bank of global Orthodontics, and encourage scientific content of the highest caliber. I will be President in the year 2020, and will enhance our member’s lives with the changes global trends in Orthodontics. We were appointed Editor of the APPOS Trends in 2011 and the Chief Editor in 2013. Today the Journ is indexed by multiple indexing agencies. I have an excellent young and enthusiastic team which is committed to the cause of achieving excellence in documentation of scientific data from the Asian Pacific region. It is an obligation to orthodontists across the globe at no cost, I have to compliment the past APOS President Dr Loh Kai Woh, for his vision, Dr Kazuo Tanane, President APOS and Dr Bryce Lee, Secretary General, APOS, for their support as well as American Orthodontists for being the corporate sponsor of this endeavor for 2013-14.

What golden advice could you provide to orthodontists considering their future careers as Orthodontists?

I don’t now if I’m qualified enough to advice, but I am greatly influenced by a quote of our times, “The dinosaur of the 21st century will not be the ones who cannot read or write but the ones who cannot unlearn and relearn new things.” Science today is progressing at a pace where the global knowledge bank doubles in just a few years. We have to open our minds and the willingness to be students all our lives. If we can’t assimilate our minds to this aspect, success in every sphere of life will follow.

As having a lot of scientific publications in the field of orthodontics, can you tell us how we can come to a statistically significant scientific conclusion that needs to be published and the benefit of being published?

I believe documentation of every form of scientific data is paramount. That is creating database, which is critical to any form of research and future reference. As long as any form of information serves to enhance the knowledge bank of orthodontics and follows guidelines and procedures of research that are contemporary, it needs to be considered for publication. Statistically significant information also can give information that is of clinical relevance. It’s important to understand that phenomenon. With respect to the benefits of publication, I would not dwell on the fact that we need it for career advancement. It is our contribution to our profession. If Andrews did not publish the “Six keys to occlusion”, or Angle, the classification of malocclusion”, would we have evolved to where we are today?

Conclusion

My main purpose will always revolve around focusing and bringing Professors of the highest level into focus to enhance quality, ensuring this top quality and therefore creating the ultimate satisfaction for our readers. I hope that our crew have gained the trust of our readers by always respecting them, providing the best service possible and improving our material. I can guide you to our next steps. Continuous improvement of this section is our main objective and the growth is our distinct mission, which we hope would be envisaged to meet your needs.

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It is critical to understand that publishing and work are not an obligation to our specialty. We cannot do more, we should not dare to do less!

What are your future expectations in Orthodontics?

I envision a tomorrow, where Orthodontic care will be available in every corner of the world, provided by a specialist Orthodontist. From a health care perspective, the scope of orthodontics should also include interdisciplinary and adjunctive therapies. Collaboration with Sleep Medicine, Plastic Surgery, ENT, other Oral and Dental specialists will be the tomorrow of Orthodontics. Aesthetic orthodontics using CAD CAM and Robotics will be a regular feature of our appliance as well as our Diagnostic and Finishing protocols. Diagnostic Aids will become 3 Dimensional for a fact. Research in Genetics, Bone Biology and Molecular Genetics will play a significant role in the way we approach the growing patient in the next decade. It is an exciting time to be an Orthodontist.

Regarding our Middle East region, as you are an active contributor in many events in the area, what can you say about the Orthodontic mark in the area?

I think the Middle East region is right up there in terms of the delivery of orthodontics and advancements. I have travelled to lecture in UAE, Jordan, Lebanon and Oman, and have impressed with the quality of work and enthusiasm in the region.
The 2nd International Students’ Dental Conference 2014

By University of Sharjah Dental Students Association

April 9-10, 2014, saw more than 700 students from ten countries gather together at the University of Sharjah College of Dental Medicine for the 2nd International Students’ Dental Conference. The conference was opened by His Highness Crown Prince Sheikh Sultan bin Mohammed bin Sultan Al Qasimi who toured all the exhibits from eight companies such as Listerine/ML, Crest Oral B and GlaxoSmithKline, asking many questions along the way, before he oversaw the opening ceremonies.

The conference was a huge success for the students of the University of Sharjah Dental Students Association, who created, planned, organized and executed the whole conference of exhibits, poster presentations, oral research presentations and debates. The two debates focusing on the treatment options of endodontics versus implants, and the other debate on where to draw the line between prevention and restorations, oral in cases of incipient caries, drew lots of interest and resultados in lively and sometimes passionate discussion.

Additionally, a number of participation workshops on topics ranging from layering of anterior resin composite, to TML, lasers, rotary endodontics, implants, veneers and a suturing clinic gave participants some outstanding hands-on experiences.

All-in-all, the conference was a culmination of very hard work from the Executive Committee of the Student Association and the Organizing Committee. Dean of the College, Professor Richard J. Simonsen noted in his strong praise of the students that he has never seen a more active and giving group of young people in his over 40 years in dental education.

“This is quite remarkable that a group of 20-year old young students (mainly ladies by the way!) could pull this off” - Prof. Richard Simonsen, Dean of the University of Sharjah College of Dental Medicine.

The main organizer, Rawand Naji, the President of the USDSA was very pleased with the program and participation from countries as far afield as Russia and Poland. “Next year we hope to consolidate this conference into a regular annual highlight on the dental calendar and eventually attract many more students from all over the world to the University of Sharjah” said student-doctor Rawand.

Social events such as a desert safari, go karting, and a dinner cruise in Dubai were added attractions for the international students which also included large contingents of students from the Kingdom of Saudi Arabia, Sudan and Malaysia as well as students from all the local schools.

The President of the USDSA was ably supported by the rest of her Board of student-doctors, Mays Faris, Jumana Lisa Irbaye, Abeer Sha’al, Shoukou Mahmoud, Sally Masoud Manla, Sara Anbari, Deema Rashdan and Mohammed Hussein Haider, all from the second-year dental program at US. “It is quite remarkable that a group of 20-year old young students (mainly ladies by the way!) could pull this off with such success while still studying hard for upcoming final exams,” said Dean Simonsen.

Faculty support was provided by Dr. Karim Satch and Dr. Eman Mustafa, and huge support was provided by former USDSA Presidents, Faraj Edher and Hiba Abdulhadi, who were the first to give the credit to the student association leadership, and all the many other students who helped out with the execution of this remarkable conference.

Attendance figures are also expected to increase by 12 per cent, with many new visitors coming from nearby countries like Cambodia, Myanmar and Taiwan. “Not just a place where East meets West, IDIM Singapope is also increasingly being considered a gathering point for different parts of the East to meet one another,” Dreyer said.

“...IDEM also offers the opportunity to share knowledge, ideas and practical applications in dentistry.”

Aside from the trade fair bustle, clinical presentations as part of the scientific programme will continue today at Level 4 with lectures and workshop focussing on fields like prosthodontics and orthodontics. A special presentation by US dentist Dr Barry Freydberg on 05 April 2014 at 4.50 p.m. focused on the detection and prevention of oral cancer, which is among the few types of cancer which are currently on the rise worldwide. At the Dental Tribune Study Club Symposium at booth 6P-22, Singapore’s own prosthodontic expert, Dr Stephen Soo of Specialist Dental Group, will provide insight into CAD/CAM and how its use can benefit workflow in dental practices.

New concepts and methods for dental labs will be discussed at the Dental Technicians Forum, one of the new educational formats specifically targeting other members of the dental profession. In addition to these presentations, lectures for dental hygienist/therapists were also held throughout the days.

Still lots to see and discover at IDEM

By Dental Tribune International

SINGAPORE: In the presence of Singapore’s Health Minister Gan Kim Yong and senior representatives of Koelnmesse, the Singapore Dental Association, and FDI World Dental Federation, the eighth edition of IDEM Singapore was officially opened on 09 April 2014 at the Suntec Singapore International Convention and Exhibition Centre. The Minister, who graced the traditional Opening Ceremony outside the Exhibition Hall on Level 4 as Guest of Honour, congratulated the organisers of the show that, in his words, “has evolved to be a ‘must-attend’ event for all dental healthcare professionals and related industries in the Asia-Pacific region.”

Praise was also given by Singapore Dental Association’s President Dr Kuan Chee Keong, who said that the ongoing support of Gan’s Ministry and other sponsors is a testament that IDEM Singapore has firmly consolidated its status as the focal event for the Asia-Pacific dental community. “Besides the opportunity to interact with friends and dental professionals from around the world, IDEM also offers the opportunity to share knowledge, ideas and practical applications in dentistry,” he said.

IDEM 2014 is poised to be the largest dental show ever to be held in Singapore since it was launched in 2000. According to Koelnmesse’s Vice President of Asia Pacific, Michael Dreyer, 50 per cent more dental manufacturers and distributors have signed up for the event, which is being staged for the first time along with group presentations from established markets like Italy, China and the US. In total, over 500 exhibitors are presenting their latest products and solutions for dentistry at Levels 4 and 6.

IDEM also offers the opportunity to share knowledge, ideas and practical applications in dentistry.”

(Please see next page for more details)
Dentistry – your dream profession

By Danube Private University

At Danube Private University, students undergo a six-year course in dental medicine, and on completion of the course are awarded the internationally recognized degree Dr. med. dent. This elite course of study at the leading edge of medical and dental science, utilising state-of-the-art medical and dental equipment, practical facilities and our in-house clinic, stress to both challenge and support its students. We want our graduates to be among the acknowledged leaders of their profession. The dental faculty of the University includes many highly respected scientists who take great pleasure in being a part of a new, innovative project in basic dental studies that is of particular benefit to society – led by our Chancellor, Professor Dr. Dr. Dieter Müssig and our Dean, Professor Dr. Dr. h.c. Andrej Kielbassa.

In addition to instruction in medical and dental subjects, the President of the University, Honorary Consul M.B. Wagner-Pischel, is dedicated not only to the achievement of excellence in research, instruction and innovation, but also to the holistic education of the young people, ensuring that they receive a solid grounding in the arts, literature, science journalism and music, as well as training in empathy. The aim is to promote the well-rounded development of the young people, and equip them with positive approaches for their subsequent career that enhance their communicative intelligence. Dental health and personal care and hygiene play a key role in how people are perceived today. Beauty and mindfulness are required more than anywhere else in oral and dental health. A good dentist can be compared to an artist, as she requires an exceptional understanding of form and colour as well as spatial visualisation skills. When combined with the state of the art in medical and dental knowledge, the result is uncompromising excellence in patient treatment.

For President Wagner-Pischel, a life spent in the exercise of a profession about which one is passionate is an important and meaningful life commitment as well as a significant contribution to the welfare of society as a whole.

“Our students at Danube Private University have excellent life and education opportunities. We offer them a top dentistry course equipped with state of the art technology that focuses on students’ needs and values them above all else, while upholding the finest traditional humanistic values. Danube Private University emphasises not only medical and dental science, but also human interaction among students and instructors as well as responsibility to both patients and society,” explains M.B. Wagner-Pischel, President of Danube Private University.

To date, the student body of Danube Private University is made up mostly of the children of dentists and doctors from German-speaking Europe. Young people from all over the world are interested in studying at Danube Private University. In response, we are offering a preparatory course of study for students outside of German-speaking Europe.

Composite Veneers and Masking Discoloration; About Red & White Aesthetics; Direct Veneers Diastema Closure; Virtual Articulator and CAD/CAM Designing Workshop.

The second day of the conference will feature the new Dental Hygiene Seminar focused entirely on the Dental Hygienist providing the latest in Periodontal Instrumentation and Oral Prevention and Management of Dentine Hypersensitivity.

Additional to the knowledge delegates will exchange, all attendees will benefit from the networking opportunities in the cozy atmosphere provided by Jumeirah Beach Hotel where you can meet your colleagues from across the globe while lunching at Dubai’s best restaurant.

All Dentists, Dental Technicians and Dental Hygienists are welcome to get the most updated scientific exchange and view the latest technology, trends and developments in CAD/CAM & Digital Dentistry. The future is here and all are welcome to join.