9th CAD/CAM & Digital Dentistry International Conference

DENTAL TRIBUNE

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SIGNATURE EVENT

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

>Page 3

mCME

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

>Page 6

AESTHETIC DENTISTRY

6th Dental-Facial Cosmetic International Conference
3rd AAID Global Conference

14-15 November 2014
Jumeirah Beach Hotel, Dubai

Dr. Munir Silwadi during the Hands-On Course in Dubai

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

By Dental Tribune MEA

DUBAI, UAE: Jumeirah Beach Hotel will once again become the venue hosting the regions dental elite for the 9th CAD/CAM & Digital Dentistry International Conference on 09-10 May 2014. The much anticipated event will have 27 International Speakers, 24 Presentations, 12 Sponsors and 19 Industrial Players, bringing the latest in the field of Dentistry.

This year's annual CAD/CAM & Digital Dentistry International Conference is co-organized by Emirates Dental Society, Saudi Dental Society, Lebanese Dental Association and Centre For Advanced Professional Practices - 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 Kurbad, Germany; Dr. Lida Swann, USA; Lee Culp, CDT, USA; Dr. Andrea Mastrorosa Agnini, Italy; Dr. Alessandro Agnini, Italy; 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 Session is complimented by eight hands-on courses, pre- and post-conference, including: Indirect Veneers; Laser: Unconventional Management for Soft & Hard Tissue; Mastering

> Page 32

Quest for the Perfect Restoration

Dr. Munir Silwadi, Chairman at the 8th CAD/CAM & Digital Dentistry Int'l Conf. in Dubai

By Dr. Munir Silwadi, UAE

ABU DHABI, UAE: CAD/CAM generated dental restorations were introduced nearly 30 years ago. It is beyond doubt that this introduction represents an extremely important milestone in our endeavor to reach the perfect restoration. Restoring damaged or missing teeth has always been a tough challenge all the way since ancient Egyptians untill our present time.

Though our restorations of-

> Page 15

First Dental Technician Forum highlights current developments in dental labs

By Dr. Dobrina Mollova, DDS

SINGAPORE: Dental technicians are a very important part of the dental team. As an extension of IDEM's educational offering, the first Dental Technician Forum organised by the Centre for Advanced Professional Practices in Dubai and Koelnmesse saw over 220 dental technicians from 18 countries come to Singapore to develop the knowledge and skills they need to keep pace with the rapid advances and innovations in dental technology. An exhibition sponsored by VITA, Sirona and SHERA, among other companies, created excellent networking opportunities and had the latest developments, systems and technologies on display.

Moderated by key opinion leaders from around the globe, the two-day event saw participants sharing and discussing cutting-edge knowledge and the newest clinical approaches in prostho-

> Page 2

Vanik Kaufmann-Jinoian, MDT, Switzerland

NEWS

Page 25
Scientists from Norway develop scaffolding to ...
Page 42
Dental photography made simple by Shofu

ORTHO TRIBUNE

Page 28
Aesthetics and function: Orthodontic – surgical...
Page 30
"The Middle East region is right up there in terms..."

HYGIENE TRIBUNE

Page 21
Keeping Hygienists in par with Continuing...

Maintenance of dental implants for the hygienist

IMPLANT TRIBUNE

Page 36
Case Report Maxillary Implant
Page 37
Stem cells in implant dentistry

ENDO TRIBUNE

Page 40
Visual information and imaging technology in...

"Continuous Education is a top priority for us, first...

< Page 1

dontics, 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 Mastrorosa 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.

"New educational format presented at IDEM Singapore a success"

A ceramist and professional photographer, Naoki Aiba 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 with 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, biocompatible 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. DT

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A white paper on world oral health was presented in London last week. (Photo courtesy of FDI World Dental Federation)

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 work-force 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 instil 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. DT

Passive micro-volume management of sodium hypochlorite in endodontic treatment

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

The passive utilization and micro-volume management of sodium hypochlorite as an endodontic irrigant has been illustrated with a laboratory demonstration and several clinical cases. By limiting the volume and pressure of sodium hypochlorite, the injurious effects 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, [1] 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.[2] 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 Prolube (DENTSPLY) and irrigants such as QMix (DENTSPLY). During clinical endodontics, the canal is filled with a cocktail of chemicals, as file lubricants and irrigants become a mixture.

Chlorhexidine gluconate (CHX) is an uncommonly used irrigant3 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.[4]

Sodium hypochlorite (NaOCl) still remains the most commonly used chemical,[2,3] because of its availability, cost and effectiveness.[2,5] 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.[5]

Injury from NaOCl is well established in the literature[3,5,6] and has been attributed to three main errors: poor handling, injection beyond the apical foramen and allergy.[6] Poor handling injury can result in operator and/or patient injury to the eye and/or skin.[6] Injection beyond the apical foramen can result in the following:[6]

- immediate and severe pain
- edema to adjacent tissue
- edema to the lip, infraorbital 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.[6]

Methodology

Although there is no universally accepted irrigation protocol regarding endodontic treatment,[3] it is the duty of clinicians to apply evidence-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.[7] By placing an instrument into a suitable container, the NaOCl will be carried within the surface texture of the instrument (Figs. 1, 2). As the operator inserts the instrument into the canal (Fig. 3), the NaOCl is carried with it. Upon instrument movement, the NaOCl is released into the canal space (Fig. 4). Surface tension and permeability of porous media (dentin) will also increase the ability of the liquid to percolate into the canal.[7] This approach is radically different than current philosophies, as the NaOCl is introduced into the canal space in a micro-volume amount without any pressure. 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).

Discussion

The canal system inside a tooth is very complex. Although there is the presence of one or more canals, there also exist numerous micro tunnels, ribbons and sheets throughout the canal network.[8] The canals are also housed within a porous dentinal structure, for which the permeability has been distinguished.[9] Although the elimination of the pulp is a relatively predictable clinical procedure, the introduction of liquids into this complex micro-network porous development further complicates matters. If the clinician introduces 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[11] and surface tension fluid mechanics[7] must be recognized to validate and further advance canal irrigation.

Micro-volume management of NaOCl has been suggested as a delivery modality to maximize its bactericidal effects yet minimize its injurious effects. Surface tension fluid mechanics and permeability[7,10,11] suggest that the NaOCl can be carried within the surface irregularities of endodontic instrumentation and deposited into the canal space and percolate within the complex network of the canal. The passive management of the irrigant in micro-volume would greatly reduce complications due to poor handling. CHX has

Fig. 1 DENTSPLY Vortex rotary file with sodium hypochlorite. (Photos/Provided by Les Kalman, B.Sc (Hon), DDS)

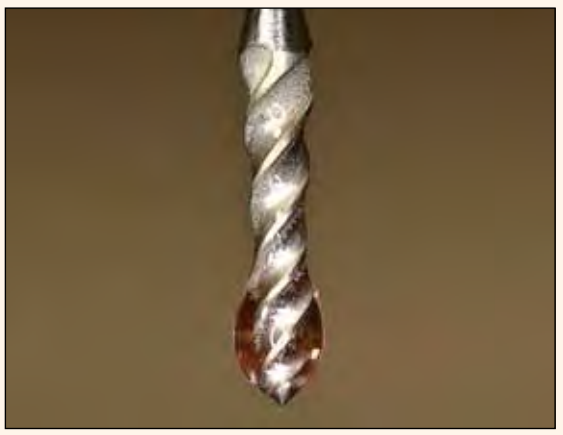

Fig. 2 DENTSPLY Profile rotary file with dyed sodium hypochlorite.

Fig. 3 Micro-volume delivery of sodium hypochlorite with rotary file.

Fig. 4 Sodium hypochlorite in block with rotary file.

> Page 7

< Page 6

Fig. 5 Radiograph of endodontic treatment on #47.

Fig. 6 Radiograph of endodontic treatment on #26.

Fig. 7 Radiograph of endodontic treatment on #16.

been suggested as the larger volume, positive pressure irrigant that may be delivered into the canal space. CHX has favorable antibacterial characteristics but minimal injurious effects, if mismanagement of the irrigant has occurred. If positive pressure delivery of CHX is required, the operator should regulate the pressure and avoid the risk of injection beyond the apex. The use of EDTA (ethylenediaminetetraacetic acid) could be employed after NaOCl, to minimize the formation of precipitates.[2]

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 Therma-Seal 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.

Fig. 8 Radiograph of endodontic treatment on #36.

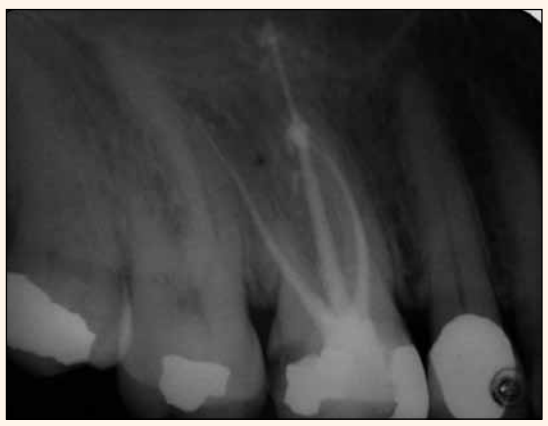

Fig. 9 Radiograph of endodontic treatment on #16.

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

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. Application of NaOCl as a passive, micro-volume liquid has been illustrated.

Further consideration is required to validate the theory. The potential to minimize morbidity while maximizing clinical endodontic success seems promising for both clinician and patient.

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About the Author

Les Kalman, B.Sc (Hon), DDS, graduated from the University of Western Ontario with a doctor of dental surgery degree in 1999. He then completed a GPR at the London Health Sciences Centre. He has been involved in general dentistry within private practice since 2000.

He has served as the chief of dentistry at the Strathroy-Middlesex General hospital. In 2011, he transitioned to full-time academics as an assistant professor at the Schulich School of Medicine and Dentistry. Kalman's research focuses on clinical innovations, including the Virtual Facebow app. Kalman is also the director of the Dental Outreach Community Services (DOCS) program, which provides free dentistry within the community. Kalman has authored articles ranging from pediatric impression to immediate implant surgery in both Canadian and American journals.

He has been a product evaluator for several companies, including GC America and Clinician's Choice. Kalman is the co-owner of Research Driven, a company that deals with intelectual property development. Kalman is a member of the American Society for Forensic Odontology, International Team for Implantology, Academy of Osseointegration, American Academy of Implant Dentistry and the International Congress of Oral Implantology.

He has been recognized as an academic associate fellow (AAID) and diplomate (ICOI). He can be contacted at lkalman@uwo.ca.

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

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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 39 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."[1]

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 state. In addition, 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 my 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 caries are 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.[2] Microscopic tests, DNA tests, or bacteriologic tests should be performed if periodontal infections are apparent.

Tests that can be performed in a dental practice:

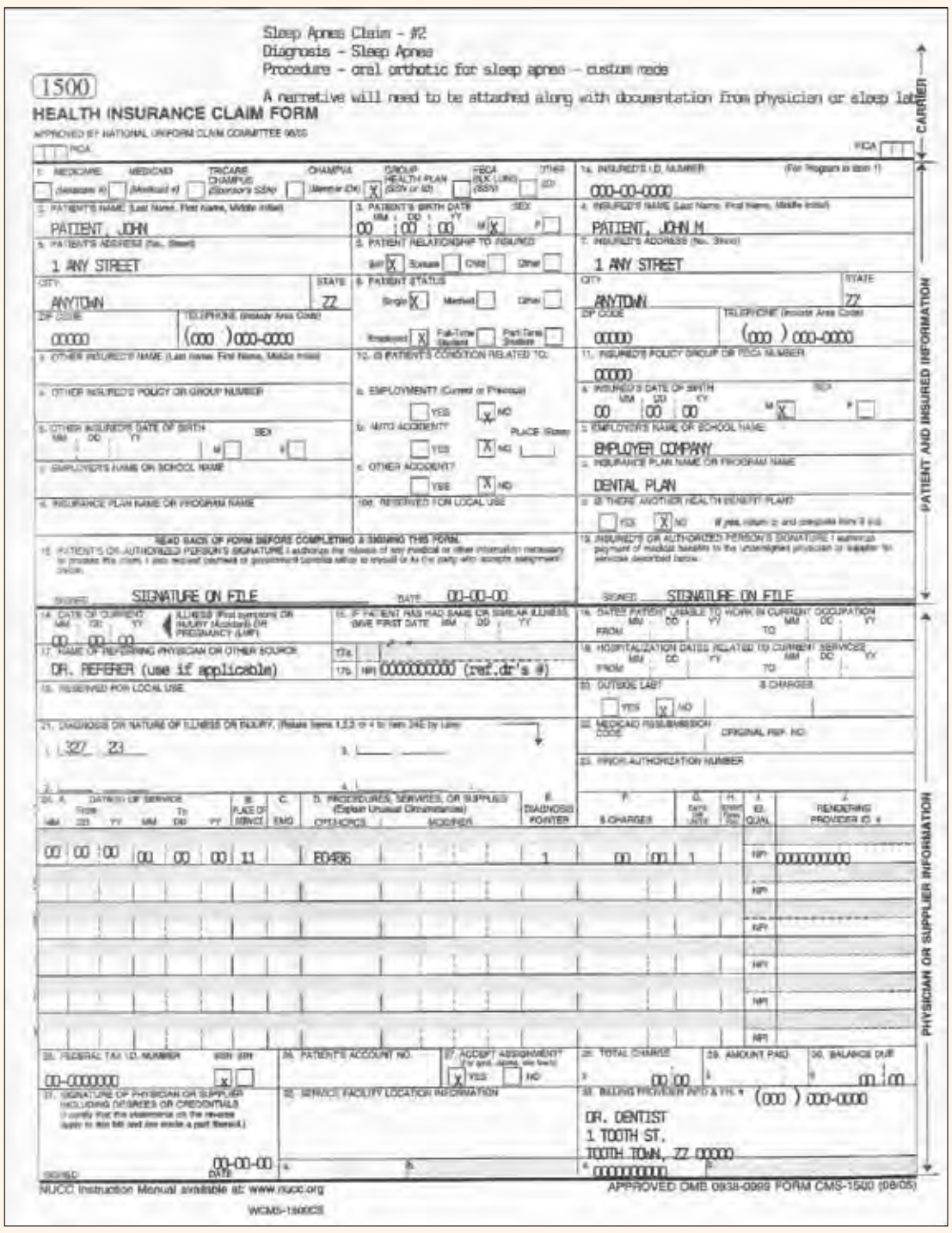
- HgA1c for blood sugar
- C-reactive protein (CRP) for inflammation
- BANA for bacterial pathogens or their byproducts
- DNA for the presence of specific pathogens or for patient susceptibility to periodontal disease
- TOPAS for inflammatory markers
- Oral HPV testing
- Diabetes testing with a glucometer — 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 makes regulations 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 encouragement 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. This puts a new slant on the same-old, same-old.

Power of cross coding

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

> Page 9


Sleep Apnea Claim - #2
Diagnosis - Sleep Apnea
Procedure - oral orthotic for sleep apnea – custom made

A narrative will need to be attached along with documentation from physician or sleep lab

1500
HEALTH INSURANCE CLAIM FORM
APPROVED BY NATIONAL UNIFORM CLAIM COMMITTEE 08/05

PICA

1. MEDICARE (Medicare #) | MEDICAID (Medicaid #) | TRICARE CHAMPUS (Sponsor's SSN) | CHAMPVA (Member ID#) | GROUP HEALTH PLAN (SSN or ID) [X] | FECA BLK LUNG (SSN) | OTHER (ID)
1a. INSURED'S I.D. NUMBER: 000-00-0000
2. PATIENT'S NAME (Last Name, First Name, Middle Initial): PATIENT, JOHN
3. PATIENT'S BIRTH DATE: 00 00 00 SEX: M [X] F
4. INSURED'S NAME (Last Name, First Name, Middle Initial): PATIENT, JOHN M
5. PATIENT'S ADDRESS (No., Street): 1 ANY STREET
6. PATIENT RELATIONSHIP TO INSURED: Self [X] Spouse | Child | Other
7. INSURED'S ADDRESS (No., Street): 1 ANY STREET
CITY: ANYTOWN | STATE: ZZ
8. PATIENT STATUS: Single [X] | Married | Other; Employed [X] | Full-Time Student | Part-Time Student
ZIP CODE: 00000 | TELEPHONE (Include Area Code): (000) 000-0000
9. OTHER INSURED'S NAME (Last Name, First Name, Middle Initial)
10. IS PATIENT'S CONDITION RELATED TO: a. EMPLOYMENT? (Current or Previous) YES | NO [X]; b. AUTO ACCIDENT? YES | NO [X] PLACE (State); c. OTHER ACCIDENT? YES | NO [X]
10d. RESERVED FOR LOCAL USE
11. INSURED'S POLICY GROUP OR FECA NUMBER: 00000
a. OTHER INSURED'S POLICY OR GROUP NUMBER
b. OTHER INSURED'S DATE OF BIRTH: SEX
c. EMPLOYER'S NAME OR SCHOOL NAME
d. INSURANCE PLAN NAME OR PROGRAM NAME
11a. INSURED'S DATE OF BIRTH: 00 00 00 SEX: M [X] F
11b. EMPLOYER'S NAME OR SCHOOL NAME: EMPLOYER COMPANY
11c. INSURANCE PLAN NAME OR PROGRAM NAME: DENTAL PLAN
11d. IS THERE ANOTHER HEALTH BENEFIT PLAN? YES | NO [X] If yes, return to and complete item 9 a-d.

READ BACK OF FORM BEFORE COMPLETING & SIGNING THIS FORM.
12. PATIENT'S OR AUTHORIZED PERSON'S SIGNATURE I authorize the release of any medical or other information necessary to process this claim. I also request payment of government benefits either to myself or to the party who accepts assignment below. SIGNED: SIGNATURE ON FILE DATE: 00-00-00
13. INSURED'S OR AUTHORIZED PERSON'S SIGNATURE I authorize payment of medical benefits to the undersigned physician or supplier for services described below. SIGNED: SIGNATURE ON FILE
14. DATE OF CURRENT: ILLNESS (First symptom) OR INJURY (Accident) OR PREGNANCY (LMP): 00 00 00
15. IF PATIENT HAS HAD SAME OR SIMILAR ILLNESS, GIVE FIRST DATE: MM DD YY
16. DATES PATIENT UNABLE TO WORK IN CURRENT OCCUPATION: MM DD YY FROM TO
17. NAME OF REFERRING PHYSICIAN OR OTHER SOURCE: DR. REFERER (use if applicable)
17a.
17b. NPI 0000000000 (ref.dr's #)
18. HOSPITALIZATION DATES RELATED TO CURRENT SERVICES: MM DD YY FROM TO
19. RESERVED FOR LOCAL USE
20. OUTSIDE LAB? YES | NO [X] $ CHARGES
21. DIAGNOSIS OR NATURE OF ILLNESS OR INJURY. (Relate Items 1,2,3 or 4 to Item 24E by Line): 1. 327 23 2. 3. 4.
22. MEDICAID RESUBMISSION CODE: ORIGINAL REF. NO.
23. PRIOR AUTHORIZATION NUMBER

24. A. DATE(S) OF SERVICE From MM DD YY	To MM DD YY	B. PLACE OF SERVICE	C. EMG	D. PROCEDURES, SERVICES, OR SUPPLIES (Explain Unusual Circumstances) CPT/HCPCS	MODIFIER	E. DIAGNOSIS POINTER	F. $ CHARGES	G. DAYS OR UNITS	H. EPSDT Family Plan	I. ID. QUAL.	J. RENDERING PROVIDER ID. #
00 00 00	00 00 00	11		E0486		1	00 00	1		NPI	0000000000
										NPI	
										NPI	
										NPI	
										NPI	
										NPI	

25. FEDERAL TAX I.D. NUMBER: 00-0000000 SSN | EIN [X]
26. PATIENT'S ACCOUNT NO.
27. ACCEPT ASSIGNMENT? (For govt. claims, see back) YES [X] | NO
28. TOTAL CHARGE: $ 00 00
29. AMOUNT PAID: $
30. BALANCE DUE: $ 00 00
31. SIGNATURE OF PHYSICIAN OR SUPPLIER INCLUDING DEGREES OR CREDENTIALS (I certify that the statements on the reverse apply to this bill and are made a part thereof.): SIGNED 00-00-00 DATE
32. SERVICE FACILITY LOCATION INFORMATION: a. b.
33. BILLING PROVIDER INFO & PH. #: (000) 000-0000
DR. DENTIST
1 TOOTH ST.
TOOTH TOWN, ZZ 00000
a. 0000000000 b.

PHYSICIAN OR SUPPLIER INFORMATION
PATIENT AND INSURED INFORMATION
CARRIER

NUCC Instruction Manual available at: www.nucc.org
APPROVED OMB 0938-0999 FORM CMS-1500 (08/05)
WCMS-1500CS

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.

< Page 8

coding is a cutting edge insurance system whereby dental practices can file a patient's medically necessary dental procedures with their medical plans. Implementing cross coding creates greater case acceptance 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 are 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 at least get the 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 play a significant role, but the hygienists can spearhead the process.

There are significant differences between dental and medical claims. The biggest difference is that, at present, medical insurance is diagnosis driven while dental insurance is not as of yet. Medical insurance uses diagnosis codes to explain why a procedure was performed. Without at least one appropriate diagnosis code, a claim will not be paid. The diagnosis codes are titled ICD-9-CM. The procedure codes are titled CPT codes. At present, there are growing numbers of dentally related diagnosis codes, which are very helpful when cross coding. However, it is not so easy to use the CPT codes because there are so few dental CPT codes. This is the area that makes cross coding more difficult. The medical claim form is a bit different than the dental claim form. It is titled the CMS-1500 form and is printed in red ink (Fig. 2).

The form provides spaces for at least four diagnosis codes and six procedure codes. There are also other codes within these code systems that are used to give further diagnostic information or to provide information on why a procedure might 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 file 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."[3] It is certainly worth the effort of a phone call to determine coverage. I always advise practices that cross code and receive negative 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.

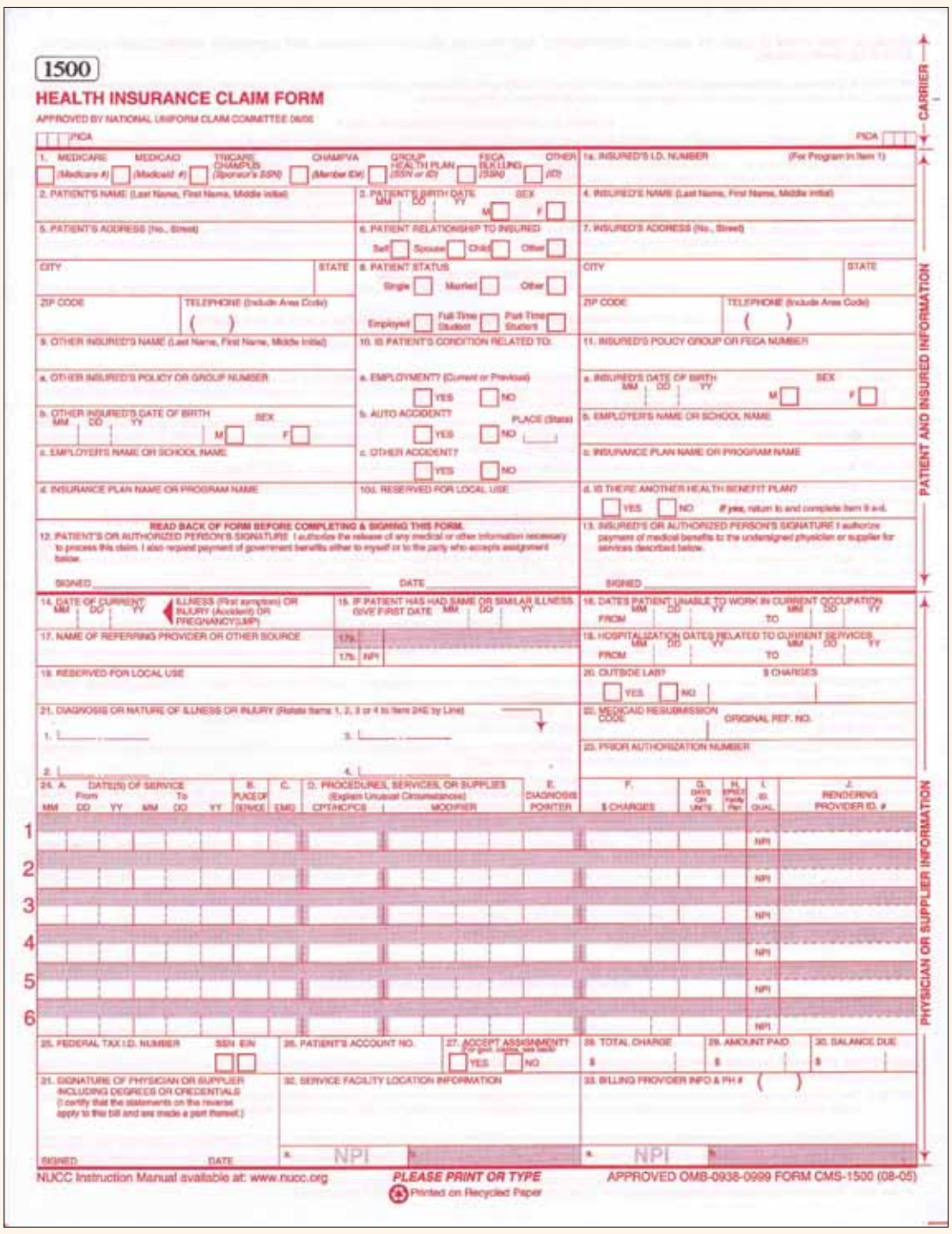


Fig. 2 Blank, original CMS-1500 form, which is printed in red ink, provides spaces for at least four diagnosis codes and six procedure codes. Codes within these code systems provide further diagnostic information or details on why a procedure might have been modified. The complexity serves as fair warning that cross coding is not an easy system to implement.

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

- Trauma procedures
- Oral surgical procedures
- TMD procedures
- Sleep apnea procedures
- Medically necessary endodontic procedures
- Medically necessary implant and periodontal procedures
- 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 practice will value the contributions of these hygienists, and hygienists will rarely face each day with that "same-old, same-old" feeling.

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About the Author

Marianne Harper is the CEO of The Art of Practice Management. Her areas of expertise include revenue and collection systems, business office systems and the training of dental practices in dental/medical cross coding.

Harper is a consultant, trainer, lecturer and author. Her published works include "CrossWalking — A Guide Through the Cross Walk of Dental to Medical Coding" and her "Abra-Code-Dabra" series on medical cross coding for sleep apnea, TMD and trauma procedures. She also is the author of many articles published in dental journals.

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