Jet 'to replace dentist's drill'

A futuristic "plasma jet" that eradicates tooth decay without fillings could be replacing the hated dentist's drill in as little as three years, it was claimed.

The space-age device fires a beam of electrically-charged oxygen atoms into tooth cavities to obliterate decay-causing bacteria. Traditionally, the same job is done by drilling holes into the tooth that has to be filled.

Unlike the dentist's drill, the plasma jet is non-invasive and done by drilling holes into the tooth that has to be filled.

First Emirati professor joins Masdar

ABU DHABI // An academic who has received numerous awards for her scholastic achievements has become the first Emirati faculty member at Masdar Institute of Science and Technology.

Dr Amal Al Ghaferi will be an assistant professor at the institute, which is the research arm of the US$22 billion (Dh80.8bn) carbon-neutral Masdar City project. She will teach materials science and engineering and carry out research in nanotechnology and energy.

"I believe my position at Masdar Institute will open doors to pursue my research in nanotechnology and related fields," said Dr Al Ghaferi. "I am looking forward to this challenging mission and hope to become a role model for all UAE nationals."

She graduated in physics from UAE University, where her grade-point average was 3.98 on a 4.0 scale. She later earned a PhD in materials science and engineering.

"I am pursuing my research in nanotechnology and energy."

The article explains that bleeding in the gums allows bacteria in the mouth to enter the bloodstream and potentially infect a foetus – but can be stopped by the immune system.

Lead author, Yiping Han, said: 'There is an old wives' tale that you lose a tooth for each baby, and this is due to the underlying changes during pregnancy."

'But if there is another underlying condition in the background, then you may lose more than a tooth.'

Even though the amniotic fluid was not available for testing, Han suspects from work with animal models that the bacteria entered the immune-free amniotic fluid and eventually ingested by the baby.

'The timing is important here because it fits the timeframe of haematogenous (through the blood) spreading we observed in animals,' Han said.

Post-mortem microbial studies of the baby found the presence of F. nucleatum in the lungs and stomach. The baby had died few days before the stillbirth.

Approximately 75% of pregnant women experience gum bleeding due to the hormonal changes during pregnancy. These findings – by Yiping Han, a researcher from Department of Periodontics at Case Western Reserve University School of Dental Medicine – are discussed in an article in the February issue of Obstetrics & Gynecology.

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However, in this case, the mother also experienced an upper respiratory infection like a cold and low-grade fever just a few days before the stillbirth.

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Countries in Asia less than average in health care spending

Daniel Zimmermann

DTI

LEIPZIG, Germany—Asian countries have been found to spend less of their GDP’s for health care than most other countries in Europe and the US. According to a new health care report by the Organisation for Economic Co-operation and Development (OECD) in Paris, only New Zealand provided more money for health care than the average of all observed countries. Japan, Korea and Australia, however, spent less than the OECD average of 8.9 per cent of GDP.

The US currently spends more on health care than any other country—almost two and a half times greater than the OECD average of US$2,984, adjusted for purchasing power parity. Luxembourg, France and Switzerland also spend far more than the OECD average. At the other end of the scale, health-care expenditure in Turkey and Mexico is less than one-third of the OECD average.

The latest edition of Health at a Glance demonstrates that all the countries observed could do better in providing good quality health care, key indicators presented in the report provide information on health status and the determinants of health, including the growing rates of child and adult obesity, which are likely to drive higher health spending in the coming decades.

Based on new data on access to care, the report demonstrates that all OECD countries provide universal or near-universal coverage for a core set of health services, except the US, Mexico and Turkey.

Jet 'to replace dentist's drill'

The scientists infected dentine from extracted human molars with four strains of bacteria and exposed it to plasma for between six and 18 seconds. The longer the treatment continued, the greater the amount of bacteria that was eliminated.

Lead researcher Dr Stefan Rupf, from Saarland University in Homburg, said: "The low temperature means they can kill the microbes while preserving the tooth. The dental pulp at the centre of the tooth, underneath the dentine, is linked to the blood supply and nerves and heat damage to it must be avoided at all costs."

Baby death linked to mum’s gum disease

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First Emirati professor joins Masdar

Dr al Ghaferi has won two Sheikh Rashid Awards for Academic Excellence for her undergraduate and postgraduate work. The prize is typically conferred upon several hundred Emiratis per year who have excelled in their studies.

She has also received a fellowship from the US State Department and earned one of six British government research grants from a Dh1.1 million fund while she was employed at UAE University.

Dr John Perkins, the institute’s provost, said Dr al Ghaferi would make “a significant contribution” in both her research and teaching.

“She is also an excellent role model for young people interested in pursuing a career in science and technology,” he said.

There are now 22 faculty members at the institute recruited from universities around the world.
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Representatives of Dubai Healthcare City (DHCC) have announced the launch of new initiatives to address a number of issues in the Middle East’s growing health-care sector. Speaking at a press conference at Arab Health, an annual event for the health-care industry in Dubai in the UAE, senior vice-president Dr Ayesha Abdullah said that the DHCC’s programmes in 2009 will include a CME session on diabetes by the Harvard Medical School Dubai Center, as well as a variety of mobile, simulation-based courses for various levels of health-care professionals including dentists.

To support the training of regional and local health-care professionals further, the Dubai Harvard Foundation for Medical Research is offering a Science Writers and Journalists Fellowship Program in 2009 for the second consecutive year and post-doctoral research fellowships to train scientists and researchers. The foundation is also offering annual grants for two research teams under the Collaborative Research Center Programme.

Dr Ayesha added that one of DHCC’s many achievements in the last two years has been the region’s first health-care licensing examination centre, established to help develop and administer comprehensive examinations for health-care professionals. Doctors in Dubai and other countries in the Middle East usually choose to advance their specialist training credentials through the postgraduate examinations of the British Royal Colleges, such as the Membership of the Royal College of Physicians, which is hosted in Dubai, or the Membership of the Royal College of Surgeons.

Postgraduate programmes in dentistry are offered by the DHCC’s Boston University Institute for Dental Research and Education. The only private postgraduate dental institute in the Middle East received accreditation by the UAE government last year. Its programmes include endodontics, orthodontics, pediatrics, periodontology, and prosthodontics.

Fizzy Phone: Mobile Runs On Coca-Cola

Bulky mobile phone chargers could soon be a thing of the past with handsets running on soft drinks instead. Daizi Zheng designed the ‘greenphone’, which is powered by Coca-Cola, as part of her final university project. The Central Saint Martins graduate came up with the concept for Finnish mobile phone manufacturer Nokia.

Ms Zheng said the prototype could run up to four times longer than a traditional lithium ion battery and has the potential to be fully biodegradable.

The greenphone’s bio battery generates electricity using enzymes to catalyse sugar in the drink. As the battery dies out, only water and oxygen are left behind.

Unfortunately, Nokia will not be developing the greenphone prototype further in the near future. Ms Zheng told Sky News: “At the time they wanted something to bring out within the next two years and thought my design was too futuristic.”

But she added that bio batteries are being developed by large electronics companies and may be on the market in the next five years.
Oral cancer: Early detection saves lives

By Arlene Guagliano, RDH, MS

Cancer of the mouth or oral cavity is one of the most preventable cancers in the United States today, according to the Journal of the National Cancer Institute, more than 55,000 American men and women are diagnosed with oral or pharyngeal cancer this year.

It will cause more than 8,000 deaths, killing roughly one person per hour, 24 hours per day. Of those 55,000 newly diagnosed individuals, only half will be alive in five years. This is a number that has not significantly improved in decades.

Although the overall incidence of oral cancer has remained stable with numbers only slightly increasing each year, currently this is the second year in a row in which there has been an increase in the rate of occurrence, about 11 percent over last year.

The death rate for oral cancer is higher than that of other cancers in the body, occurring routinely, such as cervical cancer, Hodgkin’s lymphoma, laryngeal cancer, cancer of the testes and endocrine system cancers such as thyroid or skin cancer (malignant melanoma).1

Oral squamous-cell carcinomas (OMSCs) are the eighth most common cancer among men and the 14th most common among women in the United States.5

It includes many parts of the mouth: the lips, the buccal mucosa of the lips and cheeks, the gingiva and the area behind the wisdom teeth, the floor of the mouth, the hard palate, the soft palate and the uvula, the tonsils and the tongue.4

The ratio of men to women diagnosed with oral cancer is 2:1 over a lifetime, although the ratio comes closer to 1:1 with advancing age. Approximately 70 percent of oral cancer is diagnosed in persons older than 40, and the average age at the time of diagnosis is 63 years.5

However, recent evidence has emerged indicating that oral cancers are occurring more frequently in younger persons, those under 40 years old.2

Common symptoms of oral cancer include:

- A sore or ulceration in the mouth that does not heal within two weeks.
- A lump or thickening in the cheek.
- A white or red patch on the gingiva, tongue, tonsil or lining of the mouth.
- A sore throat or a feeling that something is caught in the throat.
- Difficulty moving the jaw or tongue.
- Painless swelling of the jaw that causes dentures to fit poorly.1

Oral cancer is caused by damage to the DNA of cells in the mouth. There are two distinct pathways through which most people come to have oral cancer. Many years ago, the most prevalent pathway was through the use of tobacco and alcohol, but today the growing pathway is through exposure to the human papilloma virus (HPV), the same one that is responsible for the vast majority of cervical cancers in women.1

Whichever the pathway, damage to the cells occurs and they malfunction, mutating into cancer cells. The anatomical malignancy sites associated with each pathway appear to also be different from each other.

In the broadest terms, they can be differentiated into the following areas: HPV-related appear to occur on the tonsillar area, the base of the tongue and the oropharynx while non-HPV positive tumors tend to involve the anterior tongue, floor of the mouth, the mucosa that covers the inside of the cheeks and alveolar ridges.1

It is now confirmed that HPV is the most common virus group in the world today, affecting the skin and mucosal areas of the body. More than 100 different types/versions of HPV have been identified. Different types of the human papilloma virus are known to infect different parts of the body. There are certain forms of HPV that are sexually transmitted and are a serious problem.7

Today, in the younger age group, including those who have never used tobacco products, there are those who have oral cancer, which is HPV-viral based.7

Two types of genital tract HPV in particular, HPV 16 and HPV 18, are known to be linked to oral cancer and have been conclusively implicated in the increasing incidence of young, non-smoking, oral cancer patients. The HPV group is the fastest growing segment of the oral cancer population to date.1

Oral cancer is among the most debilitating and disfiguring disorders seen in today’s oral health environment. Tumors affecting a patient’s mouth, tongue and soft palate can prohibit proper swallowing and speech.5

In addition, the cancer can spread to other parts of the body, causing disability and even death. The survival of patients and the quality of life after treatment depend on early diagnosis. Eighty-one percent of patients with oral cancer survive at least one year after diagnosis. Early detection is the key.4

The best defense against oral cancer is early discovery. Early detection is complicated by the fact that many lesions in their earlier stages may be completely asymptomatic. Historically, unaided visual examination, palpation and radiographs were the only methods available for oral cancer screening. In recent years, screening technology has forged forward and developed adjuncts for the oral health care professional to intervene when early signs are ushered in.

ViziLight Plus. Technology such as light-based detection systems increases a clinician’s ability to see tissue changes that the naked eye might miss. One such technology is ViziLight Plus, a simple screening tool that helps visualize suspect tissues in the oral cavity (Fig. 1).4

Lesions that may have gone unnoticed to the naked eye will be more visible using Toluidine blue (T-Blue) tissue dye and chemiluminescent light, which marks and identifies oral lesions.6

The patient rises with a diuretic acute solution, and abnormal squamous epithelium tissue will appear acutely with a patient’s history viewed under ViziLight’s diffuse low-energy wavelength light.7

Normal epithelium will absorb the light and appear dark, ViziLight can assist a dentist or hygienist in identifying an abnormality in the oral cavity that may need further testing, such as a biopsy.8

It has been difficult to determine which tissues in the mouth cause concern. For many years, screening technology has forged forward and developed adjuncts for the oral health care professional to intervene when early signs are ushered in.

VLScope. The VLScope integrates four key elements: illumination, sophisticated filtering, natural tissue fluorescence and therapy.4

Next to public awareness, which is essential regarding the risk factors in oral cancer, the role of the dental professional is the first line of defense in early detection of the disease.5

The VLScope illuminates tissue with specific wavelengths that interact with and provide metabolic and biochemical information about the cell at and just beneath the surface.6

This gives clinicians the ability to see early biochemical changes before they present more obviously, and therefore to detect lesions earlier in the disease process.7

Figure 5a is an image of a normal tongue in normal light, and Figure 5b is an image of a normal tongue with the use of the VLScope (images courtesy LED Dental).4

Figure 4a shows a tongue with an area that appears normal under white light. However, Figure 4b shows the area as seen under the VLScope. The dark area is VLScope positive, which was confirmed by biopsy as carcinoma in situ (images courtesy of LED Dental).4

In-office tissue test

OralCDx BrushTest. An essential tool for early detection of oral cancer is the OralCDx BrushTest, or oral brush biopsy (Fig. 5). This is the only painless test for oral dysplasia (pre-cancer) and cancer.3

The BrushTest was found to be at least as sensitive as a scalpel in ruling out dysplasia and cancer in every study in which the same tissue was simultaneously tested by both OralCDx and a scalpel biopsy.8,9

Figure 3a: Normal tongue in normal light.

Figure 3b: Normal tongue viewed with the VLScope.

Figure 1: The ViziLight Plus.

Figure 2: The VLScope.

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This procedure is simple and can be done right in the dentist’s chair. It results in very little or no pain or bleeding, and requires no topical or local anesthetic.

Firm pressure with a circular brush is applied to the suspicious area. The brush is then rotated five to 10 times, causing some pinpoint bleeding or light abrasion. The cellular material picked up by the brush is transferred to a glass slide, preserved and dried.

The slide is then mailed to a laboratory along with written documentation about the patient and a detailed description of the questionable area of the mouth. At the laboratory, the sample will be examined for cells that show signs of change, such as dysplasia or full malignancy.

A pathologist examines the cells to determine the final diagnosis. A lab report is then sent to the dentist, and experts from the pathology department provide patient-specific follow-up guidance by telephone for every abnormal OralCDx report.

A final word

The American Dental Association states that 60 percent of the U.S. population sees a dentist every year.

One only has to look at the impact of the annual PAP smear for cervical cancer, the mammogram to check for breast cancer, or PSA and digital rectal exam for prostate cancer to see how effectively an aware and involved public can contribute to early detection, when coupled with a motivated medical community.

The dental community needs to incorporate adjunctive technology to the screening process and assume the same leadership role as the medical community if oral cancer is to be brought down in the future from its underserved high ranking as a killer.

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About the author

Arlene Guagliano, RDH, MS, is an associate professor at Farmingdale State College in the department of dental hygiene and an assistant professor at Hostos Community College in the dental hygiene unit. Her professional experience includes 20 years in clinical practice specializing in geriatric dental care, oral cancer screening for early detection, dental hygiene education, caries management and periodontics. She can be reached at arlene.guagliano@farmingdale. edu or via phone at (516) 6890215.
Emergency dental implant procedures

Dr. Nicholas Caplanis and Jaime Lanada

Patients often present to the office with unscheduled emergency conditions that require immediate tooth removal.

These situations have become increasingly complex to deal with given the myriad available treatment options, which impact the treatment approach and methodology of both tooth extraction as well as provisionalization.

Unrestorable crown and root fractures are often ideal clinical scenarios for immediate implant placement given the frequent lack of overt infection and alveolar bone damage, which is often associated with other emergency conditions such as endodontic therapy was performed, specifically, endodontic treatment, post and core buildup and a tooth-supported crown. Immediate implant placement following an emergency extraction should therefore be an integral part of emergency treatment.

A one-year prospective study reported a 100 percent implant success rate and also suggested improved esthetic outcomes are achieved following this approach when compared to extraction alone without implant placement. The ability to quickly and effectively treat these emergency scenarios improves patient satisfaction, facilitates patient management and is a tremendous clinical service.

Therefore, the dental office team should be well-equipped, or referral guidelines be effectively established, to allow for efficient and predictable dental implant placement during these types of emergency appointments.

The following two clinical case reports describe a simple and effective process to treat hopeless fractured teeth using dental implants and either a bonded restoration or a provisional placed immediately on the implant.

Patient 1

A 65-year-old female patient presents for a new patient emergency exam, with an odontogenic crown and root fracture affecting her maxillary right central incisor. The fracture occurred spontaneously while eating, involved the entire facial surface of the tooth and extended to the alveolar crest (Figs. 1a, 1b). The clinical crown exhibited severe mobility and was painful upon palpation and percussion.

The prognosis was poor and extraction was advised. Treatment options to replace the tooth included and utilized a fixed partial denture as well as an implant supported crown. Given the excellent condition of the adjacent teeth as well as the patient’s history of having successful dental implant-supported restorations, she elected to have an implant placed.

The crown portion of the tooth was easily removed and, given its excellent condition, was retained to be used as a bonded provisional (Fig. 1c). The tooth root was extractedatraumatically without flap elevation and the socket deburred, irrigated and evaluated with a periodontal probe. The extraction defect had minor horizontal bone loss associated with a reduced periodontium secondary to a prior history of periodontitis, and the adjacent socket walls including the buccal crest were otherwise intact. Therefore the defect appeared amenable for immediate implant placement. A 4.5 x 16 mm Re- place® Select implant (Nobel Biocare®) was placed and utilized as the entire length of the alveolus and engaged the nasal floor, in order to achieve effective primary stability (Fig. 1c). After implant placement, the residual socket defect was grafted with a composite anorganic bovine bone matrix (BioOs® Osteohealth®) and a demineralized cortical bone allograft (OraGraft® LifeNet®). Composites were bonded to the fractured surface of the clinical crown in order to develop an ovate surface to maintain soft tissue esthetics. The modified clinical crown was then bonded to the adjacent teeth and served as a provisional restoration (Fig. 1d). The patient was then referred back to her restorative dentist the next appointment including the extraction and provisional crown was eventually seated at 35 nc stability (Fig. 1e).

Patient 2

A 55-year-old female presented at the emergency clinic of Loma Linda University School of Dentistry and was immediately referred to the Center for Implant Dentistry. She complained of trauma to her maxillary anterior dentition after an allied assault, a “blow to the face,” two days previously. Upon examination, the maxillary left central incisor was partially fractured and the patient was referred to her restorative dentist the next appointment including the extraction and provisional crown. A mid root and exhibited grade III mobility (Fig. 2a). The left lateral incisor was tender to percussion and exhibited grade II mobility, but it recorded a negative response with electric pulp tests.

The patient was then scheduled to undergo an emergency procedure at the clinic consisting of acute extraction of the affected tooth and immediate implant placement with immediate provisionalization. The fractured tooth was extracted and the remaining root fracture was removed utilizing a periosteal instrument (Fig. 2b).

The alveolus was curedted and no bone regeneration was noted. A Nobel active dental implant was used to replace the extracted tooth (Fig. 2c).

The osteotomy was performed palatal to the alveolus in order to obtain maximum stabilization for the implant. The implant was seated at 55 nc stabilization, which made the clinical situation viable for immediate provisionalization. A prefabricated abutment was placed and hand torqued to provide the support for the acrylic resin restoration. The provisional crown was therefore fabricated from all occlusal contacts (Fig. 2d).

The provisional crown was transferred from all occlusal contacts (Fig. 2d).

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LONDON, Uk: Children’s toothpaste that contains low concentrations of fluoride fails to effectively combat tooth decay. For optimal prevention of cavities in children over age six, toothpastes should contain at least 1,000 parts per million of fluoride, according to a study carried out by the University of Manchester School of Dentistry. Toothpaste containing fluoride concentrations of less than this is as ineffective as toothpaste with no fluoride all.

Low fluoride toothpaste
no good for children

About the authors

Dr. Nick Caplanis
Dr. Nick Caplanis is an assistant professor and part-time faculty member within the graduate program in implant dentistry at Loma Linda University School of Dentistry. Caplanis has a unique background with formal residency training in the inter-related fields of implant surgery, prosthodontics and periodontics. He is board-certified and a diplomate of both the American Board of Periodontology and the American Board of Oral Implantology and is a fellow of the American Academy of Implant Dentistry. He was also the general meeting chairman for the 57th annual meeting of the AAD, which was held in San Diego from Oct. 29–Nov. 1. Caplanis maintains a full-time private practice limited to periodontics and dental implant surgery, in Mission Viejo, Calif.

Dr. Jaime Lozada
Dr. Jaime Lozada is the director of the graduate program in implant dentistry and a professor at Loma Linda University School of Dentistry. Lozada has been involved with implant dentistry for more than 20 years. He completed his residency in implant dentistry in 1985 and his graduate prosthodontics certificate in 1987. Lozada has trained hundreds of residents and fellows in the latest techniques in oral implant surgery and prosthodontics. Lozada is a fellow and past president of the American Academy of Implant Dentistry and a diplomate of the American Board of Implant Dentistry. He is well-published and lectures nationally and internationally on implant dentistry and maintains a faculty practice limited to implant dentistry and prosthodontics at the Loma Linda University School of Dentistry.

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FDI, FOLA and DTI launch campaign for Haitian dentists

Javier M. de Bison
DT Latin America

PANAMA CITY, Panama: The president of the Haitian Dental Association, Dr. Samuel Prophet, has told Dental Tribune Latin America that he and several colleagues he was able to contact in Port-au-Prince were fine after the devastating earthquake in his country. “So far, we only have reports of two missing dentists,” Prophet wrote in an email.

The recent earthquake not only devastated Haiti’s meager health resources, but also most dental practices. In a country were there were only 500 dentists for nine million people before January 12th, the extent of the devastation has affected regular people and dental professionals alike.

The president of the Latin American Dental Federation (FOLA), Dr. Adolfo Rodriguez, launched a campaign immediately after the quake to help both the general population and dental professionals in Haiti. Dr. Rodriguez, who’s also the president of the Dominican Dental Association (AOP), is asking companies and dental professionals to donate dental instruments, materials, and equipment. He’s organising the campaign for Haiti with the help of FDI, FOLA and Dental Tribune International.

In addition, Dr. Rodriguez is putting together teams of dental volunteers to travel to Haiti once the major health and humanitarian crisis are under control or at least manageable, to attend to the dental needs of the population. The hub for this effort would be the headquarters of AOP in Santo Domingo.

“We also need to show our support for our colleagues in Haiti, most of whom have lost everything,” Rodriguez said. “We need to get them back on their feet by helping them to rebuild their practices.”

Lost Practices

Dr. Prophet said in his email that “many of our colleagues have lost their practices and we were thinking about how to help them. It’s very good news to know that FOLA, FDI and Dental Tribune are trying to help Haitian dentists.” If dentists know “that help is on the way they can have hope!” Dental Tribune will publicize in its worldwide print and online editions the campaign for Haiti.

At a meeting in Panama, Dr. Rodriguez of FOLA received the support of the presidents of Central American dental associations, and made an emotional appeal to dental manufacturers to donate much needed supplies. He said Colgate has already agreed to donate brushes and toothpaste, and that he intended to meet with KaVo do Brasil in the
Survey finds hygienist among best jobs in 2010

By Daniel Zimmermann
Group Editor DTI

Dental hygienists are in position No. 10 among the top 10 jobs in 2010, a new survey has found. According to CareerCast.com, a job search site based in Carlsbad, Calif., hiring outlooks for dental assistants were even better than those for other jobs in the top 10 list, including accountants or computer analysts. Dental technicians ranked 72 in the survey, while orthodontists ranked 94.

The report analyzed 200 jobs in North America based on a set of criteria, such as work environment, income, outlook, stress and physical demands. According to Tony Lee, publisher of the CareerCast.com 2010 Jobs Rated Report, the jobs that ranked near the top not only pay well, but also have the greatest potential for growth as the economy rebounds. “Conversely, [the job of] roustabout is a difficult and dangerous job working on an oil rig with a salary of about $31,000 per year, high unemployment and a negative outlook for growth, which is why it’s ranked as the nation’s worst job,” explained Lee.

He added that some white-collar jobs didn’t make the top of the list once other aspects of the position were factored in. “Surgeon, which is the highest-paying job, ranked toward the bottom of the list when you evaluate the profession’s stress levels, physical demands and work environment,” he said. To view the entire top 10 list, please visit, www.CareerCast.com. HT
By Fred Michmershuizen, Online Editor

As lawmakers in Washington hash out the details of proposed reform to the nation’s health care system, a number of dental associations—including the American Dental Association (ADA), the Academy of General Dentistry (AGD) and others—are crying foul over a key sticking point: a proposed tax on employer-sponsored health coverage.

The provision, as written, is “the opposite of health care reform,” said ADA President Ron Tankersley, DDS. “It would compel many employers to drop critical dental and other coverage to avoid the tax. It dismantles exactly the type of preventive, primary care that everyone agrees this country needs more of.”

Democrats from the House and Senate have been in discussions to resolve numerous differences in the health care reform bills passed by the two chambers to expand coverage to millions of Americans who lack any coverage and to rein in the costs of health care.

Under the Senate’s version of the bill, the federal government would impose a 40 percent tax on the value of employer-sponsored health coverage that exceeds $8,500 a year for individuals and $23,000 for families.

The Senate bill would make certain allowances for plans covering retirees 55 and older and workers in high-risk occupations. The Congres would raise $149 billion over 10 years. The House version of the bill would not tax health benefits.

President Barack Obama, who has indicated that he is in favor of the tax, is pushing for Congress to reconcile the bills so he can sign the legislation into law before his State of the Union address on Jan. 27.

But the proposed tax has unleashed a fury of opposition. Many argue that to avoid the tax, many employers would simply drop supplemental dental and vision coverage for their employees.

In addition to the ADA and AGD, a number of other dental associations are also opposed to the tax. They include the American College of Prosthodontists, the American Academy of Pediatric Dentistry, the American Association of Oral and Maxillofacial Surgeons, the American Association of Orthodontists and the Hispanic Dental Association.

All of these associations sent a joint letter to Congress asking leaders of the House and Senate to eliminate or substantially modify the excise tax on health benefits, including flexible spending accounts (FSAs), to ensure the final health care reform legislation does not adversely impact key and important goals of health reform, like primary and prevention-oriented care.

“Many employer-sponsored plans exceed or will exceed the PPACA excise tax threshold simply because the plans include many older workers or retirees with higher cost health care needs, or are concentrated in locations with high health costs,” the letter states.

“For example, the standard option BCBS Federal Employees Health Benefit plan, a basic plan that covers 3.8 million Americans today, will exceed the PPACA excise threshold in the first year of the tax (2013) for single coverage and in the third year of the tax (2015) for family coverage,” the letter continues. “As a result, the excise tax could lead many employers to reduce benefits by eliminating limited service supplemental dental and vision coverage in order to avoid the tax.

“Cuts in these crucial benefits will lead to a decline in access to necessary care. Patients rely on the preventive services covered by the dental, vision and limited service supplemental plans to prevent infections, slow the progress of chronic disease and facilitate early treatment of preventable conditions.”

The coalition is proposing alternatives to the tax, including the following:

- Excluding FSAs as well as managed and limited service dental, vision and stand-alone plans, from the calculation of health plan costs.

Don’t tax health benefits, dental groups say
WASHINGTON - Long suspected of causing brain tumors, mobile phones are now being eyed as key allies in the fight against Alzheimer's disease, US researchers said in a study.

Researchers at the University of South Florida (USF) found, to their surprise, that 96 mice they zapped twice daily for an hour each time with electromagnetic waves similar to those generated by US mobile (cellular) phones benefited from the exposure.

Older mice saw deposits of beta-amyloid -- a protein fragment that accumulates in the brain of Alzheimer's sufferers to form the disease's signature plaques -- wiped out and their memories improved after long-term exposure to mobile phones, the study published in the Journal of Alzheimer's Disease showed.

Young adult mice with no apparent signs of memory impairment were protected against Alzheimer's disease after several months' exposure to the phone waves, and the memories of normal mice with no genetic predisposition for Alzheimer's disease were boosted after exposure to the electromagnetic waves.

No one was more surprised by the results than the researchers themselves, who had embarked on the tests several years ago, convinced they would show "that the electromagnetic fields from a cell phone would be deleterious to Alzheimer's mice," lead author Gary Arendash, a USF professor, told AFP.

"When we got our initial results showing a beneficial effect, I thought, 'Give it a few more months and it will get bad for them.'" It never got bad. We just kept getting these beneficial effects in both the Alzheimer's and normal mice," Arendash said. It took several months of exposure before the benefits were seen in mice, and that would be the equivalent of many years in humans, Arendash said. But William Thies, chief medical and scientific officer of the Alzheimer's Association, said the study was "very preliminary" and warned against self-medicating by over-using a cell phone.

"No one should feel they are being protected from Alzheimer's, dementia, cognitive decline by using their cell phones based on this study," Thies said in a statement. The study "needs to be replicated in animals before we begin to even consider trying it in people, as animal models of Alzheimer's and people with the disease are very different," he said.

"If we can determine the best set of electromagnetic parameters to effectively prevent beta-amyloid aggregation and remove pre-existing beta amyloid deposits from the brain, this technology could be quickly translated to human benefit against Alzheimer's disease," said USF professor Chuanhai Cao. Around 56 million people will be living with dementia this year, according to international umbrella group Alzheimer's Disease International.
ADA, other groups petition against FTC ‘red flags’ rule

by Fred Michmershuizen, DTA

Following a recent federal court decision, the American Dental Association (ADA) has joined with three other national organizations representing professional health care providers calling on the Federal Trade Commission (FTC) to exclude health professionals from controversial new regulation intended to combat identity theft.

A letter sent to FTC Chairman Jon Leibowitz by leaders of the ADA, the American Medical Association (AMA), the American Osteopathic Association (AOA) and the American Veterinary Medical Association (AVMA) is the latest challenge to the so-called “red flags” rule.

According to the associations, the FTC’s interpretation of the regulation imposes an unjustified, unfunded mandate on health professionals for detecting and responding to identity theft.

“Congress did not intend the original red flags legislation to apply to small businesses, but rather it was intended to encourage large businesses like banks, credit firms and national retailers to implement best practices to protect customers’ from identity theft,” said ADA President Ronald Tankersley, DDS.

In their petition, the organizations asked the FTC to make it clear that the rule will not apply to their members given the result of recent litigation brought by the American Bar Association against the FTC. In that case, the U.S. District Court for the District of Columbia ruled that lawyers should be excluded from the requirements imposed by the red flags rule.

The court decision follows widespread criticism that the FTC’s overly broad interpretation of the Fair and Accurate Credit Transactions Act of 2003 (FACT) led the commission to create a rule that oversteps its authority. In response to these concerns, the FTC postponed the rule’s effective date to June 1, but it has never changed the position that the rule will apply to health professionals.

“The court ruling sends a clear signal that the FTC needs to re-evaluate the broad application of the red flags rule,” said AMA President J. James Rohack, M.D. “Our four organizations firmly believe that applying the rule to health professionals, but not to lawyers, would be unfair.”

“The court ruling sends a clear signal that the FTC needs to re-evaluate the broad application of the red flags rule,” said AOA President Larry A. Wickless, D.O. “Our four organizations need a commitment from the FTC that it will not apply the red flags rules to health professionals if it is not applied to lawyers.”

“The burdens of complying with this rule outweigh the benefits,” said AVMA President Larry R. Corry, D.V.M. “The FTC’s interpretation of the FACT Act should be re-defined to exclude health professionals.”

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Time to talk about dry mouth?

Dry mouth is an increasingly common condition, primarily related to disease and medication use. In fact more than 400 medicines can cause dry mouth and the prevalence is directly related to the total number of drugs taken.

Ask your patient

Some patients develop advanced coping strategies for dealing with dry mouth, unaware that there are products available that can help to alleviate the symptoms, like the biotène system.

Diagnosis may also be complicated by the fact physical symptoms of dry mouth may not occur until salivary flow has been reduced by 50%.

Diagnosing dry mouth

Four key questions have been validated to help determine the subjective evaluation of a patient’s dry mouth:

1. Do you have any difficulty swallowing?
2. Does your mouth feel dry when eating a meal?
3. Do you sip liquids to aid in swallowing dry food?
4. Does the amount of saliva in your mouth seem to be too little, too much or do you not notice?

Clinical evaluations can also help to pick up on the condition, in particular:

- use of the mirror ‘stick’ test - place the mirror against the buccal mucosa and tongue. If it adheres to the tissues, then salivary secretion may be reduced
- checking for saliva pooling - is there saliva pooling in the floor of the mouth? If no, salivary rates may be abnormal
- determining changes in caries rates and presentation, looking for unusual sites, e.g. incisal, cuspal and cervical caries.

Consequences of unmanaged dry mouth include caries, halitosis and oral infections.

Saliva’s natural defences

Saliva’s natural defences contain a mixture of proteins and enzymes, each of which plays a specific role.

Protein:
- lactoferrin – chelates iron. Deprives bacteria of iron, which is essential for bacterial growth.

Enzymes:
- lysozyme – disrupts cell walls of bacteria, resulting in cell death
- lactoperoxidase – synthesis of hypothiocyanite, a potent antimicrobial agent.

The biotène patented salivary LP3 enzyme system

The biotène formulation supplements natural saliva, providing some of the missing salivary enzymes and proteins in patients with xerostomia and hyposalivation to replenish dry mouths.

The biotène system allows patients to choose the right product to fit in with their lifestyles:
- relief products - Oral Balance gel
- hygiene products - toothpaste and mouthwash.

The range is specifically formulated for the sensitive mucosa of the dry mouth patient:
- alcohol free
- SLS free
- mild flavour.

The biotène formulation:
- helps maintain the oral environment and provide protection against dry mouth
- helps supplement saliva’s natural defences
- helps supplement saliva’s natural antibacterial system weakened in a dry mouth.

GSK welcomes biotène to its oral care family
With an outstanding balance of properties, Express™ XT VPS Impression Materials from 3M ESPE help you get an accurate impression on the first take.

- **Outstanding tensile strength** to resist tearing and allow multiple pourings.
- **Superior hydrophilicity** captures accurate detail in challenging moist conditions.
- **Nearly 100% recovery from elongation** virtually eliminates the risk of distortion upon mouth removal.
- **Much greater dimensional stability** so impression can be poured when convenient.

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