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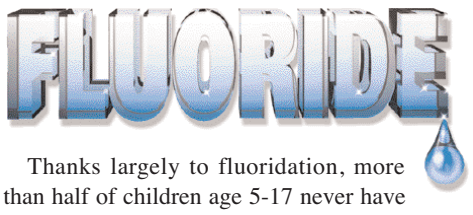
Scientific facts support fluoridation

This is the final installment of a two-part series examining political as well as scientific aspects of community water fluoridation, an issue once again making headlines nationwide.

By Clayton Luz

For more than 50 years, scientific data and experience has documented that optimally fluoridated drinking water reduces the prevalence of dental caries.



Thanks largely to fluoridation, more than half of children age 5-17 never have had a cavity in their permanent teeth. That compares with 37 percent in 1980 and only 28 percent in the early 1970s.

In 1962 the U.S. Public Health Service set the optimum fluoride concentration in a community's water supply between 0.7 to 1.2 parts per million, a variable range partly based on the principle that in warmer climates people drink more water and vice versa.

But how does the optimum concentration of fluoride in water reduce dental caries?

According to Dr. Laurence Chow, chief research scientist, ADA Health Foundation, Paffenbarger Research Center in Gaithersburg, Md., dental caries is generally believed to start at or near a tooth's surface in the enamel.

Ninety-seven percent of tooth enamel is composed of hydroxyapatite, he explains, a crystalline compound of calcium phosphate that also contains a small amount of carbonate, magnesium, fluoride and other substances. The remaining 2 percent of enamel is organic

See FLUORIDE, page 16

BRIEFS

Business confab space limited

It's time to get down to business.

The ADA Dentistry as a Business Conference, "Money, Management, Marketing and Technology," will meet at ADA headquarters July 23-24. Sponsored by the ADA Council on Dental Practice, the event will feature nationally recognized speakers.

Space is limited and early registration is recommended. For more information, call the council at 1-312-440-2895 or the ADA's toll-free number, Ext. 2895. Details are also posted on ADA Online, "http://www.ada.org", in the July "Event Calendar" section. ■

ADA1PLAN mileage benefit remains

If you've collected TravelReturns points with the ADA1PLAN Mellon Bank credit card, don't despair. Citibank—the nation's largest financial services company—bought the ADA1PLAN's credit card portfolios this year, and TravelReturns points are secure and redeemable.

"ADA cardholders will still receive one mile for every dollar, the same as in the past," says James Sweeney, FINCO's chief executive officer.

The Citibank plan continues to offer customers more opportunity to benefit from its use, too, with no caps on the amount of miles accrued per month or per year.

Mr. Sweeney says Citibank will provide ADA1PLAN customers with expanded flexibility, including online services. "We're negotiating with Citibank to expand the program to make it an even better customer benefit." ■

INSIDE

Digital radiography

Got questions? Maybe the answer's on page 28.

AMERICAN DENTAL ASSOCIATION
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ADA ONLINE, ECCo to add new service

Marketplace to debut this summer

By Laura McKee

Hate to shop? How do you feel about sitting?

A new on-line store, soon to come from the ADA, will allow members to shop around and purchase a wide array of consumer products right from their own computers.

To use the ADA ECCo Marketplace, member dentists will simply go to ADA Online's Shopping Mall and start shopping from more than 75 vendors. The service, which the ADA will launch this summer, will offer dentists not only unparalleled convenience, but discounts as well.

■ DMSO QUARTERLY STOCK CHART, PAGE 34

The Marketplace will admit only ADA members. Benefits at the site include discounts of 3 to 20 percent on a wide range of products in addition to free shipping and other free services.

The ADA is screening all vendors to ensure that they provide member-only security and meet customer service requirements. The site will include its own customer service to

See ECCo, page 23

Surgeon General's 2000 report finds oral, systemic health links

By Craig Palmer

Washington—The first Surgeon General's Report on Oral Health, expected early next year, will depart from other reports bearing the imprimatur of the U.S. Surgeon General in important respects, the report's editor said at a May 19 public hearing.

Dr. Caswell A. Evans Jr., project director and executive editor, described the report's potential in glowing terms to a National Academy of Sciences Institute of Medicine committee and said it would be distributed electronically on the world wide web "with features other (Surgeon General) reports haven't had."

He described the report in draft as a 350-page "product of a massive ad hoc committee" including 70 plus authors and some 100 reviewers that the current Surgeon General, David Satcher, M.D., Ph.D., will be prepared to speak to publicly. ADA nominated reviewers are among those chosen to review draft chapters as they are prepared.

■ SECRETARY SHALALA AT NYU DENTAL SCHOOL, PAGE 10

ADA President S. Timothy Rose noted that the Association's leadership has yet to review the draft.

He added, "We will reserve our commitment to promote recommendations the report may contain until such time as we have reviewed the final document."

See REPORT, page 11

Nevada governor signs bill creating new dental school

Supporters cite need to increase access for seniors, kids and needy

By Karen Fox

Las Vegas, N.V.—Nevada Gov. Kenny Guinn signed a bill June 8 that will pave the way for a new dental school at the University of Nevada Las Vegas.

Officials are optimistic that classes could begin as early as September 2000.

UNLV will be only the second dental school to open in the United States in more than 20 years, following the two-year old Nova Southeastern University College of Dental Medicine in Fort Lauderdale, Fla.

In 1998, the Northwestern University Dental School became the seventh dental school to announce its closing in the past 10 years. Northwestern's dental school will permanently close at the end of the 2001 academic year.

The UNLV dental school plan is unique in that it does not require any additional state money. The $30 million, 100,000-square foot building will be funded entirely through bonds that will be paid off by revenue collected from dental faculty, residents and students who take care of patients, mostly from low-income families.

Assembly Bill 527 allows UNLV

See NEVADA, page 33

Honored: On May 1, ADA executive director John S. Zapp, center, was inducted into the National Academies of Practice as a distinguished practitioner. Dr. Zapp is shown with dental academy chair, Dr. Daniel M. Laskin (right), and NAP president, Ronald Fair, O.D.

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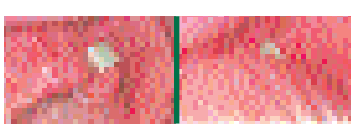
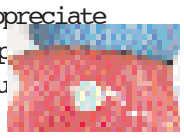


Denture Sores

Prior to injection



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Viewpoint

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James H. Berry, *Associate Publisher, Editorial* Judy Jakush, *ADA News Editor*

My view

Tales from the chairside

"I know you're highly recommended, but I really don't know what you can possibly do," insisted Rachel's mother. The blond-haired, blue-eyed, freckle-faced six-year-old did not look so tough. Her mother was telling me that four previous dentists had tried unsuccessfully to fill her daughter's two cavities. "None of them could get anywhere at all," she related, "and they practically threw us out of their offices! They said I have no choice but to take Rachel for general anesthesia."

I was never one to shrink from a difficult task. My mind recoiled at the thought of subjecting this child to the potential dangers of a general anesthetic. A difficult patient? Ha! I hadn't yet met a pediatric patient that I couldn't manage. I saw this child as a challenge that I could not resist. And besides, she looked so positively angelic!

Jeffrey Galler, D.D.S.

I told the mother that I'd like to try, and would like the mother to sit near the child in the dental operatory during treatment. I loved showing off to parents, just how good I am.

"Okay," sighed the mother, "but I'm warning you! She's absolutely unmanageable!"

I seated the child, and with great verbal and digital dexterity, charmed my way through administering an injection of local anesthetic. As soon as Rachel realized that she was getting numb, she began screaming.

Blood-curdling screams. Wave after wave of ear-splitting, blood-curdling screams, without letup. The child inhaled and screamed, inhaled and screamed, inhaled and screamed. I had seen it all before, and waited a few moments for the child to exhaust herself. Five minutes passed, 10 minutes passed; I admired the child's stamina.

The mother began to look concerned. I winked and nodded reassuringly. While I sat behind and to the right of the supine patient, Ronnie, a brand-new dental assistant, sat on the patient's left, and Rina, a more experienced assistant, sat near the child's legs, attempting to restrain the wild kicking.

"What's Dr. Galler going to do?" whispered the very pale and shaken new assistant. "Don't worry," soothed Rina, "he's very good with kids." He'll know what to do." I noticed, however, that her left eyebrow was arched and her lips set in a grim, straight line.

Meanwhile, the child continued to inhale and scream, inhale and scream.

I tried every trick in my repertoire. I tried the Tell-Show-Do technique. I help up her wrist and demonstrated. "See," I explained, "Mr. Tickle Tooth is going to wash all the dirt out of your tooth, and Mr. Thirsty here is going to

See MY VIEW, facing page

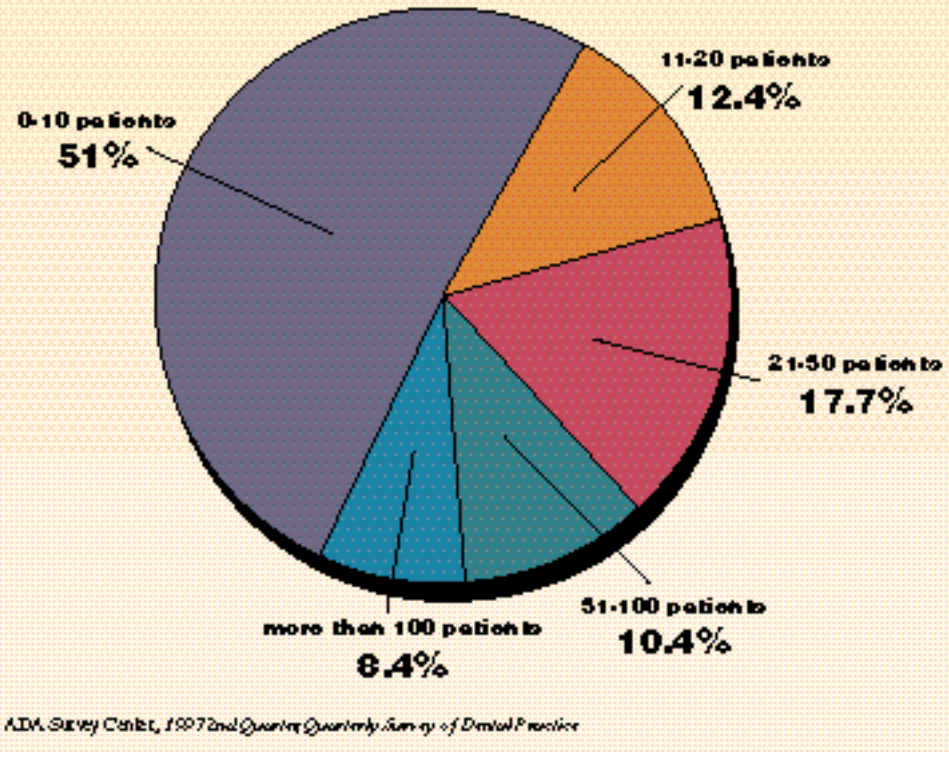
Letters policy

ADA News reserves the right to edit all communications and requires that all letters be signed. The views expressed are those of the letter writer and do not necessarily reflect the opinions or official policies of the Association or its subsidiaries. ADA readers are invited to contribute their views on topics of interest in dentistry. Brevity is appreciated. For those wishing to fax their letters, the number is 1-312-440-3538; e-mail to "ADANews@ada.org".

Snapshots of American Dentistry

Medicaid patients

Among those dental practices treating Medicaid patients, an average of 35.3 Medicaid insured patients were treated in the month prior to the survey. An average of 21.2 Medicaid insured children under the age 14 were treated in the previous month at practices treating Medicaid patients.



Letters

The first four letters are a representative sample of the letters the ADA News has received in response to the May 17 ADA News story, "Dr. Christensen Withdraws Affidavit, Retracts Statements in Toothbrush Lawsuit."

Multiple causes

In the May 17 ADA News, I was pleased to see that Dr. Gordon Christensen has withdrawn his affidavit from the toothbrush abrasion lawsuit.

However, later in the article, you quote Dr. Christensen as saying; "Yes, toothbrushes can cause toothbrush abrasion."

If that is an accurate quotation, then Dr. Christensen is again saying something that may be misleading. Do toothbrushes actually cause abrasion or is it the person who misuses it? Is it the toothbrush or the toothpaste that, by its very nature, is abrasive? Perhaps Dr. Christensen meant to say the "misuse" of a toothbrush "may" cause abrasion.

People can, and do, abrade their teeth with toothpicks, needles, pencils and other items.

Chewing abrasive foods, chewing tobacco and bruxism are known causes of abrasion. There is also controversy as to whether cervical abrasion is caused by mechanical stress or from the action of the bristles of a brush when misused. To say that a toothbrush causes abrasion is like saying using a comb causes your hair to fall out (I wonder if I can get an attorney to take that case?).

When a noted expert—or any of us, for that matter—says the brush "causes" the problem, he is playing into the hands of the legal fraternity and the public looking to blame anyone with money for their problems. This lawsuit has nothing to do with protecting the public from toothbrush "disease."

I am a great believer in individual responsibility. When we are required by law to warn someone that using an electric hair dryer in a bath tub filled with water can hurt them, or that razor blades are sharp, then we have a problem.

I have the utmost respect for Dr. Christensen but we all must be careful about what we say and/or sign! I only hope the courts see this lawsuit for what it is and put it where it belongs.

Richard D. Mogle, D.D.S.
Bryan, Texas

Enough is enough

"Utter amazement" is the phrase Dr. Christensen used to describe his reaction to this realization that he had been duped by some slick lawyers into letting his name be used in the lawsuit against the ADA and others concerning toothbrush abrasion.

"Utter amazement" is my feeling on not only that point but on the ADA's decision to cancel Dr. Christensen's lectures at the annual session this fall. Why is the ADA trying to alienate one of modern dentistry's true legends?

I hope on behalf of all the dentists who have yet to hear Dr. Christensen's message that you reconsider your decision to remove him from the annual session program.

I have been to numerous lectures by Dr. Christensen and he has always had good things to say about the ADA.

See LETTERS, facing page

My view

Continued from facing page

vacuum up all the dirt and water." The dramatic, blood-curdling screams intensified: inhale and scream, inhale and scream. I noticed that the receptionist raised the volume of the office's elevator music and closed the door to my treatment room tightly.

I leaned close to the child's ear and whispered, "I know why you're crying. You're crying because you're afraid. But, once you see how easy it is to clean your teeth, you'll never have to cry or be scared at the dentist, again."

No effect, the screaming continued.

I warned her that if she continued to scream, her mother would have to leave the room and wait outside. No success.

I sent the very apprehensive mother out of the room. There was no discernible let up in the screams. My receptionist came in and whispered that if I was trying to empty out our waiting room, I was doing a pretty good job of it.

I tried intimidation. Bribery. Pleading. Logic. Threats. I tried physical restraints. Nothing. The screaming continued unabated. It was cool in the room, but my forehead was covered with perspiration.

I was exhausted and at my wit's end. Suddenly, inspiration struck me. "Okay, Rachel," I announced, "I'm going to clean your tooth now, and I want you to scream as loud as you can, and kick your feet as hard as you can!"

The child turned to me suddenly and said, "Huh?"

"That's right," I continued, "please. I need you to scream very, very loud now while I clean your tooth."

Rachel folded her arms defiantly and pouted, "No! I will not!"

A warm glow passed over me. I grabbed my instruments and dove into the tooth. My assistant suctioned as I cleaned and shaped the cavity, all the while urging the child to please, please scream, cry and kick.

"No, no, I won't," insisted the stubborn child, through cotton rolls and numb lips.

I invited the mother back into the room. She looked stunned as I continuously implored the child to scream, while my assistant and I worked at super-fast motion, and the child refused to utter a single sound.

I completed the procedure. The mother stared in disbelief at her daughter.

"Now, Rachel," I begged, as I pulled off my gloves triumphantly, "please promise me that when you come next week for your other filling, you'll scream loudly and kick your feet up and down."

"No, " insisted the child, "I'm not going to make any noise, no matter what you want!"

I strode out of the room as the assistants and mother stared at me with their mouths wide open.

For the rest of the day, I was like a god to my staff.

Dr. Galler is a general dentist in Brooklyn, N.Y. His comments originally appeared in the May issue of the Bulletin of the Second District Dental Society of New York and are reprinted with permission.

Letters

Continued from facing page

I hope the shoddy treatment he has received over the last year does not completely sour his opinion of the ADA and that for all our sakes he would even agree to lecture for the ADA annual session if asked again.

Peter J. March, D.D.S.
Peotone, Ill.

Wisdom needed

Even a fish would not get hooked if it kept its mouth shut! Dr. Christensen's affidavit concerning toothbrush damage to teeth involving him in a lawsuit underlines a great problem in dentistry today.

Wisdom flees in the process of blaming dental problems on our colleagues and on dental products such as alloy or toothbrushes. Many plaintiff lawsuits are brought about by well-meaning but ill-stated responses to questions of patients and other parties.

Lamar V. Knight, D.D.S.
Jackson, Miss.

Free to disagree

The Council on ADA Sessions and International Programs cancelled Dr. Christensen's presentation for this fall's session in Hawaii because of his "involvement" in the toothbrush abrasion lawsuit.

And now he may be "considered" for presenting his lecture in the year 2000 because he recanted his statements for the lawsuit.

It is apparent that if you disagree with the ADA on its concepts and ideas, or are even remotely involved in a suit pending against the ADA, your chances of appearing as a speaker at the annual meeting is about as good as the proverbial "snowball in hell."

Speakers should be selected for what they say or advocate, whether they agree or disagree with your principles. There is a concept of freedom of speech and all of its ramifications.

In fact, the annual session might be an ideal forum for Dr. Christensen to present his ides on toothbrush abrasion, the lawsuit and the ADA. The ADA might also use a counterpresentation and meet the attacks or arguments with defensive or retaliatory steps.

I might disagree with some of Dr. Christensen's concepts, but I still subscribe to his CRA newsletter. And I may, and have, disagreed with some of the concepts of the ADA, but I am still a member of some 50 years.

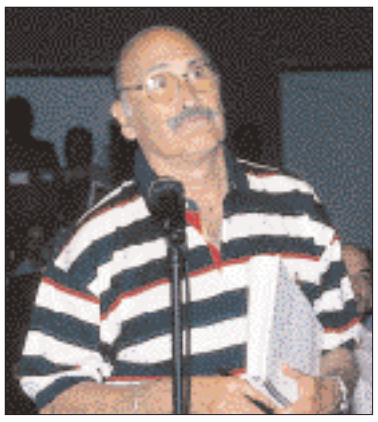
Dan J. Alessini, D.D.S.
Santa Monica, Calif.

See LETTERS, page 13

Science

Scientific Frontiers in Clinical Dentistry: Left, Dr. Phil Fox, Amarillo, Texas, discusses uses of saliva for diagnosis and disease management. Above, Dr. Kenneth J. Anusavice, talks about caries.

Presenting the future: Drs. M. Susan Runner, left, and Sandra L. Shire, both from the Food and Drug Administration, address laser use in their talk, "Laser Technology: Where are We? and How Did We Get Here?" The session covered the history of laser technology and what the future holds.



NIH presents ... Scientific Frontiers in Clinical Dentistry

Raising questions: Attendee Robert Sting poses questions during a conference session. The conference was held June 3-4 at the National Institutes of Health, Bethesda, Md.

Speakers: George Stookey, Ph.D., and Dr. Cynthia E. Hodge also take time to listen during the conference. Dr. Stookey is director of the Oral Health Research Institute for the Indiana University School of Dentistry. Dr. Hodge, who acted as a conference moderator, is president of the National Dental Association in Washington, D.C.

Conference attendees: Listen intently during a session. The conference, which featured 21 nationally recognized experts in dentistry and oral health, was sponsored by the National Institute of Dental and Craniofacial research with the ADA, American Association for Dental Research, American Association of Dental Schools, American College of Dentists, Hispanic Dental Association and National Dental Association.

WASHINGTON

Health insurance attacks collective bargaining legislation

By Craig Palmer

Washington—The health insurance lobby mounted a sharp attack on Association- and provider-supported collective bargaining legislation June 9, casting it as an expensive pawn in the patient protection debate.

The Association actively supports HR 1304 offered by Reps. Tom Campbell (R-Calif.) and John Conyers (D-Mich.) with 111 bipartisan House cosponsors (April 5 ADA News).

"The ADA worked with Rep. Campbell to develop this legislation and we are very enthusiastic about the concept and its potential to improve oral health care delivery," said ADA President S. Timothy Rose.

"This is about the ability of doctors to present a united front and negotiate from greater strength on behalf of our patients." The bill would allow dentists and other health professionals collectively to negotiate fees and other contract provisions with health plans.

Reps. Campbell and Conyers said HR 1304 would "help level the playing field between HMOs and health care providers and return decision making from insurance administrators to individual physicians, pharmacists, dentists and other providers and their patients."

"The ADA worked with Rep. Campbell to develop this legislation and we are very enthusiastic about the concept and its potential to improve oral health care delivery," said ADA President S. Timothy Rose.

The House Judiciary Committee tentatively scheduled a June 22 hearing on the bill, the Quality Health-Care Coalition Act of 1999, which has ADA, American Medical Association and other health profession support.

The Health Insurance Association of America, joined by the BlueCross BlueShield Association and an employer group, the National Association of Manufacturers, blasted the legislation at a National Press Club briefing as a scheme to increase provider profits.

"The bottom line here is that dollars will flow from premium payers to doctors," said HIAA President Chip Kahn.

"Exempting health care professionals from antitrust laws would be Robin Hood in reverse," he told reporters for national and trade media. "It would increase medical costs and wangle billions of dollars every year from hard-working consumers. Also, it would add more than 2 million Americans a year to the ranks of the uninsured."

The Blues see the bill as "even more worrisome" than patient protection legislation, which also has drawn insurance industry fire, for provisions allowing health professionals to negotiate collectively with health plans over payments and other contract terms.

"This blanket exemption from antitrust laws

See LOBBY, page 11

Prevention works

Sec. Shalala stresses its role in dentistry at '99 N.Y. University commencement

After the ceremony: Sec. Shalala meets Dr. Michael Alfano, left, dean of the NYU College of Dentistry, and Dr. Richard Mascola, ADA president-elect.

New York City—"Prevention works—and no profession has done a better job of it than dentistry."

With these words, U.S. Secretary of Health and Human Services Donna E. Shalala, Ph.D., delivered the commencement address June 1 at the New York University School of Dentistry.

Citing evidence that links poor oral health with serious health problems like diabetes, heart disease and low birth-weight babies, Secretary Shalala said dentistry can and must work hand-in-hand with public health and medicine.

"When it comes to science, we must cast our net far and wide—making sure it pulls in dental research that begins before the baby is born and extends to the end of life," said the HHS secretary. "Oral health must not be shortchanged."

An audience of 400 graduates, faculty and guests received a glimpse into the Shalala-commissioned Surgeon General's report on Oral Health. HHS expects to release the report next year.

"This will be a landmark report on what we know, and what we must learn and do to prevent oral disease and promote good oral health," she said.

"The report will identify barriers to good oral health. It will look at emerging diagnostic technologies to keep you on the cutting edge. The report will address questions about new therapeutics—and raise awareness about barriers low-income people face in getting access to dental care."

She said the report will attempt to place oral health issues in the larger context of social customs, nutrition and economic progress.

"Most important, the report is expected to make recommendations about how all Americans in the 21st century can live healthier lives through preventive dental care."

Throughout her speech, Secretary Shalala displayed compassion for dentistry and applauded NYU's College of Dentistry for providing care for low-income New York residents and free oral cancer screenings.

"Lives will be saved because of your extraordinary effort," she said.

The HHS secretary compared dentists to "the first firefighters who show up at a burning house—ready to assess, treat and call for more help."

"You're in a position to know the answers before anyone else, and to work in close collaboration with physicians, pediatricians, school nurses and other health professionals to assure good health and long life for millions of Americans."

Adding a dose of humor, Secretary Shalala contrasted consumer support of dentistry with the media's often-tepid response.

"What is it about Hollywood? They manage to make and remake every kind of medical show imaginable—except one about the heroics of dentistry and dentists.

"Shakespeare certainly understood that there are times when the one person you most want sitting by your side is a dentist. In "Much Ado About Nothing," he wrote, 'For there was never yet a philosopher that could endure the toothache patiently.'"

NYU also presented Dr. Richard F. Mascola, ADA president-elect, with the Strusser Award for excellence in public health dentistry.

Dr. Mascola had an opportunity to converse with Secretary Shalala after the ceremony. The HHS secretary indicated that one of her top priorities is to improve access to dental care for low-income patients, and the greatest obstacle is current Medicaid fees.

"In New York, dental fees have not been raised in 20 years, and our dentists cannot afford to provide services at the level Medicaid is paying," says Dr. Mascola.

"Secretary Shalala believes we must appeal to individual states to make programs like CHIP more effective in dentistry," he said. "She is very aware of these issues and is working toward improving the American public's oral health for the future."

Dr. Michael C. Alfano, dean, NYU College of Dentistry, agreed with Dr. Mascola's assessment.

"Oral health issues are important to this secretary," says Dr. Alfano. "She recognizes the important role dentists have as the first line of defense in disease prevention."

"The guiding principles she developed in her speech were forward thinking and clearly included dentistry as part of total health care." ■

Lobby

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is a recipe for immediately higher health care premiums," said Mary Nell Lehnhard, BCBSA senior vice president for policy and representation.

"It's one more example of Congress putting a lot of energy into legislation that's going to increase premiums," she said.

The insurance representatives reserved their harshest judgments for the impact of this and emerging state legislation, from Texas in particular, on health costs.

They were less willing to discuss the impact of health professionals collaborating to negotiate favorable patient care contracts, an intended goal of HR 1304.

"That's not at issue," said Mr. Kahn. "It's a dollar and cents issue and to say otherwise is disingenuous."

The industry attack on the legislation, indeed the legislation itself, has attracted little public interest and limited media attention. The Judiciary Committee has scheduled and delayed several hearings on the bill.

Monica Noether, Ph.D., vice president of Charles River Associates and a former Federal Trade Commission staff economist in the antitrust division, presented a report on the economic impact of HR 1304. Reporters asked about the economic impact of doctors bargaining collectively for favorable patient care provisions, which under current law could invite antitrust enforcement.

"Antitrust agencies would have to weigh the evidence on whether the net effect of such activity is cost effective," Ms. Noether replied.

Antitrust exemptions for health professionals are unnecessary and special protections are available already through FTC and Justice Department advisory opinions and business review letters, consent decrees and other legal and market mechanisms favoring health professionals, she asserted.

The insurance industry focused its attack on the economic impact, that is, the costs, of the legislation.

The Charles River Associates study for HIAA, "Antitrust Waivers for Physicians: Costs and Consequences," estimates collective bargaining rights for fee-for-service physicians, dentists and other professionals could increase health care costs by $35 billion-$80 billion a year and health insurance premiums as much as 11 percent depending on several scenarios evaluated in the study.

Provider fees would increase if the legislation were enacted, the study said.

"It (the legislation) would allow physicians, dentists and pharmacists to agree on the prices they are going to charge," Ms. Noether said.

HIAA is just as concerned with collective bargaining bills emerging in several states, said Mr. Kahn, who publicly urged Governor George W. Bush to veto a Texas bill relating to the regulation of physician joint negotiations.

The Campbell bill, at the federal level, is viewed as a pawn lurking in the wings as a potential amendment to a patient protection bill, Mr. Kahn said. ■

WASHINGTON

Report

Continued from page one

Dr. Evans discussed the process of developing the report rather than its details. "There will be strong associations raised between oral health conditions and general health conditions," he said.

"This is an opportunity once in a professional lifetime to craft how we think about oral health," Dr. Evans told an NAS/IOM committee on Medicare coverage extensions. The committee convened a two-day workshop on extending Medicare coverage to medically necessary dental services. An IOM report on Medicare coverage issues is expected by November.

"It's a great moment," Dr. Evans said of the Surgeon General's upcoming report. "We can recast our image of oral health. It's a window in time with opportunity for promoting oral health issues."

THE REPORT WILL POINT TO ISSUES AND SERVE AS A PLATFORM FROM WHICH FURTHER STUDIES AND POLICIES CAN BE DEVELOPED.

Panelists questioned him on the report's potential and timing. Dr. Evans is with the National Institute of Dental and Craniofacial Research, the National Institutes of Health institute which has lead responsibility for developing the Surgeon General's report.

The report will point to issues and serve as a platform from which further studies and policies can be developed, Dr. Evans told the audience of dental practitioners, academicians and researchers. An "eagerly awaited" draft will go to Health and Human Services Secretary Donna Shalala later this year for further review by her office and Dr. Satcher's, he said.

Public release is expected in the first quarter of the year 2000, Dr. Evans said. This will be the first of some 50 Surgeons General reports to focus exclusively on oral health.

About half of these reports have been tobacco related, the other half covering a range of health issues and some touching on elements of oral health, including the impact of tobacco use on oral health.

Dr. Evans said the new report would attempt to define oral health and discuss individual, familial and societal implications of oral health and how

Letters

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Warnings needed!

Regarding the potential lawsuit against you for not putting a warning label on toothbrushes as to their ability to cause abrasion with overuse, might I suggest the following:

- For dental floss: Warning: tying this product too tightly around your neck may cause strangulation.
- For toothpaste: Warning: applying this product to make your floor shiny may cause slipping, which could lead to falling injuries.
- For mouthwashes: Warning: submerging your head in this product for over two minutes may cause drowning.

Needless to say, I could continue giving you esoteric warning labels. Where will it end? That is the question I would like answered!

Harold I. Sussman, D.D.S.
Associate Clinical Professor
Department of Periodontics
New York University College of Dentistry
New York City

Media coverage

I agree with Dr. Richard J. Mielke's conclusion that "it is generally best for us to accept when the media ask for interviews. Having an unfairly small influence on the content of a story is better than having none at all." ("My View," May 17 ADA News).

However, I feel that this is only half the story.

Tabloid coverage of dental products, individual practitioners or dentistry itself, although persuasive, is only as damaging as we as dentists allow it to be.

By not communicating with patients about the latest techniques, products, studies, political and safety issues regarding dentistry, patient rights and the like, then we are unwittingly creating a patient population that is far more vulnerable to the media's inflammatory rhetoric.

It is imperative that dentists educate themselves about the legal, political and media events that are impacting dentistry, and by extension, public opinion.

We must resist the temptation to dismiss the tabloid reports out of hand as merely unscientific rhetoric, since the majority of our patients certainly don't view these reports with the same critical eye.

Instead, we must engage our patients in discussion of these issues. By doing so, we not only create a more educated patient population, but an audience far less vulnerable to the fallout of sensationalistic tabloid journalism.

Controversy sells magazines and bumps up ratings—Reader's Digest and "60 Minutes" have built careers based on this premise. However, by educating and discussing these infamous "exposes" with our patients with balanced and reasoned counter-arguments, we far better serve our patients and our profession.

Eric Weinstock, J.D.
Tufts University School of Dental Medicine
Class of 2000
Brookline, Mass.

Amalgam battles

Regarding "Amalgam Wars Revisited" by Dr. Elizabeth Ward, ("My View," May 3 ADA News), has anyone ever done a study to see what percentage of amalgams have recurrent decay under them? Has anyone ever done a study to see how many fracture lines existed under alloys? What about gold inlays and onlays and crowns? How do they compare to alloys when it comes to recurrent decay and fractures? There may be a way of collecting statistical data which could provide the information necessary to put part of the amalgam controversy to rest.

I suggest that the ADA work with the American Academy of Cosmetic Dentistry to collect data on what AACD dentists find when they are asked by their patients to replace metallic restorations with more esthetic restorations.

For those of us whose focus is to provide cosmetic dentistry, it is not unusual for our patients to demand the removal of amalgam, gold and PFM's if they detract from their smile. This has nothing to do with the mercury controversy but may shed some light on whether amalgam has some shortcomings that we are overlooking because of its initial low cost.

I have been practicing dentistry for more than 30 years. I do not have a busyness problem. I do not encourage my patients to remove amalgam because of mercury concerns. I must admit that it is beyond my comprehension why anyone would have mercury in their office, and I have a definite bias against amalgam. This is based on my anecdotal findings resulting from the removal of thousands of amalgams over many years as part of a reconstruction or cosmetic treatment plan.

Ninety-nine percent of the alloys I remove have some degree of recurrent decay under them. It is always more than what radiographs reveal. I also find a surprising amount of fracture lines under existing alloys.

It is pretty routine to find decay under a restoration that appears clinically acceptable. I do not find the same percentage of decay or fractures under cast restorations. Was the decay left in at the time of the amalgam placement? Or is there a leakage problem associated with alloys that we are denying?

I have been a member of the AACD for eight years and currently president of the Florida chapter. My interest is solely for the benefit of our patients. There is no personal gain or loss resulting from the use of amalgam, because it no longer fits into my daily protocol.

I know there are many ethical practitioners who are replacing alloys for cosmetic purposes and some have been brave enough to publish there findings which are always similar to mine. I suggest that the ADA take advantage of an everincreasing body of information and help put the amalgam controversy to rest.

Steven J. Krouse, D.D.S.
Sarasota, Fla.
See LETTERS, page 14

Dental access matching funds available through foundation program

Pawtucket, R.I.—Groups that utilize volunteers to alleviate dental access problems may be eligible for a new funding opportunity from the Robert Wood Johnson Foundation.

But applicants will have to act fast—the deadline for letters of intent is July 2.

The foundation's program, Volunteers in Health Care, is awarding $300,000 (up to $50,000 per organization) in grants to support non-profit groups (including local and state associations) and public agencies committed to increasing access to care for uninsured or underserved patients.

Ideal programs will have features that can be replicated in other locations. Other programs may include new/expanded dental services, new/expanded populations served, community-based research, collaboration building or consumer/provider engagement.

Applicants will be required to provide a 50 percent match for funds requested. Letters of intent (one page maximum) are due July 2. Letters must include:

- name and description of applicant agency;
- number of years agency has been in operation;
- number of paid and volunteer staff;
- experience (if any) operating a dental program;
- brief description of proposed project (2-3 sentences);
- name of organization expected to provide financial match.

Submit letters by mail or fax to Volunteers in Health Care, 111 Brewster Street, Pawtucket, R.I. 02860; fax 1-401-729-2955.

For more information, contact VIH at 1-877-844-8442 or on the Internet at "www.volunteersinhealthcare.org". ■

Orofacial pain group seeks specialty status

The ADA Council on Dental Education and Licensure has received one new application for specialty recognition from the American Academy of Orofacial Pain.

The council will review this application at its Nov. 1999 meeting. Subsequently, the council's recommendation concerning the application will be transmitted to the year 2000 ADA House of Delegates.

Written comments pertaining to the application may be submitted by individuals and organizations before Oct. 1, 1999. Comments must relate directly to the Council's requirements as contained in the Requirements for Recognition of Dental Specialties and National Certifying Boards for Dental Specialists, available through CDEL. Application review may be arranged by appointment with the council. Copies of the application, including the documentation, may be obtained for $150.

For more information, contact CDEL via the ADA toll-free number, Ext. 2698, or by e-mail to "nixj@ada.org". ■

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Editor's note: The ADA Division of Science notes that Dr. Ward, in her "My View" column, quoted an article that appeared in the November 1998 issue of JADA. The article noted that long-term clinical studies reported caries rates of less than 5 percent over a 13- to 14-year period. The authors of the JADA article further concluded, "dentists [should] continue to use amalgam as the material of choice if esthetic results are not of overriding concern." These facts support the continued use of dental amalgam for a large number of routine cases.

Given the scientific facts, the decision to choose an alternative to amalgam is, in most instances, an esthetic one.

Half and half

Regarding "Amalgam Wars Revisited," many years ago my mentor reminded me that 50 percent of what you know is scientific fact is wrong. We just don't know which 50 percent.

Willard Osmunson, D.D.S.
Sandpoint, Idaho

Mercury vs. amalgam

Let me state from the outset that I also don't agree with Dr. Huggins' treatments. However, Dr. Ward seems to be confused about mercury. I don't know where she went to school, but every one I've been to has taught that mercury is indeed unsafe. Why does she have that mercury spill hazard kit?

Telling people that mercury is unsafe is in no way misleading the public. There is absolutely no implication of "superiority" by saying that you have a "mercury-free office." The statement only informs the public that you do not use mercury in your practice and let's face it, many people do not want mercury in their mouths.

Focus

FLUORIDE

Continued from page one

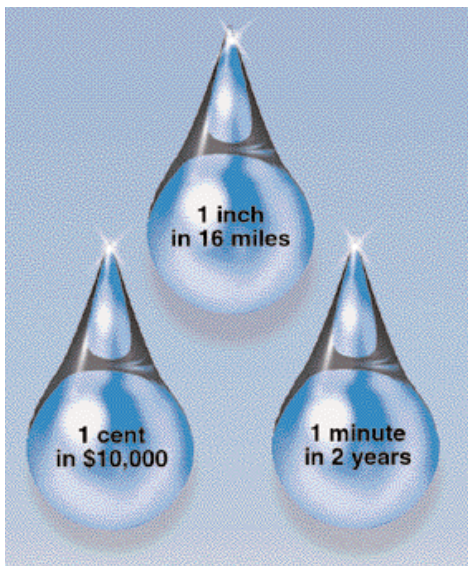
material and water.

Dr. Chow says the crystal structure of hydroxapatite is a network of calcium, phosphate and hydroxide ions. Hydroxyapatite is an ionic crystal that can accept the substitution of certain other ions.

"When fluoride, an ionic substance, is ingested via fluoridated water," he explains, "it readily substitutes for the hydroxide ion in the tooth mineral that is being formed. Hydroxyapatite, then, becomes a compound called fluor-hydroxyapatite."

He says that research evidence indicates that fluor-hydroxapatite at the tooth's enamel surface is more resistant to the acid attack and is partially responsible for lowering the incidence of dental caries.

For fluoride to substitute for the hydroxyl ion in hydroxyapatite, he adds, hydroxyapatite must be forming in the body during tooth formation. The manner in which fluoride is obtained by ingestion into the body and incorporated into forming tooth structures is systemic—through the



Heavy drops: One milligram per liter (mg/L) is identical to one part per million (ppm). At 1 ppm, one part of fluoride is diluted in a million parts of water. Large numbers such as a million can be difficult to visualize. While not exact, the comparisons above can help with comprehending one part per million.

body's chemistry—says Dr. Chow.

Fluoridated water is also believed to work topically, Dr. Chow continues, when fluoride in plaque and saliva promotes the reparative process that repairs, or remineralizes, partially demineralized enamel in the early stage of dental caries.

"Maximum caries reduction and enamel fortication," says Dr. Chow, "is produced when fluoride is available for incorporation during stages of tooth formation and by topical effect after teeth have erupted."

As a public health measure community water fluoridation has provided an oral benefit for Americans at every socioeconomic level.

Fifty years of success prompted former U.S. Surgeon General C. Everett Koop to call fluoridation "the single most important commitment a community can make to the oral health of its children and to future generations."

But U.S. Army General Jack D. Ripper would have you believe that "fluoridation is the most monstrously conceived and dangerous Communist plot we have ever had to face."

Let us not forget, though, that Gen. Ripper is only a character from the 1964 film satire, "Dr. Strangelove."

But the mad-as-a-hatter general's claim that water fluoridation is a Communist plot to "poison our bodily fluids" was one of the claims echoed by fluoridation opponents early on in their tussle with public health officials over community water fluoridation during the Cold War era.

The Cold War is over. There is no Soviet Union.

Kids want their MTV, most adults want their fluoridation. A 1998 Gallup Organization poll revealed that 70 percent of adults believed community water should be fluoridated.

■ **Kansas Dental Association leads education, page 20**

Similar findings were reported in a 1991 Gallup poll in which 78 percent of parents approved of fluoridating drinking water. A majority of Americans, 62 percent, do enjoy the benefits of fluoridation.

Yet individuals and groups continue to object to water fluoridation for a number of reasons.

As they do with other public health measures, some oppose water fluoridation on philosophical grounds like freedom of choice. They don't want any government intrusion into their lives, period. Others reject fluoridation for conservation reasons. They prefer to leave the mineral at its naturally occurring water levels and instead obtain the benefits of fluoride from supplements.

But most often opponents reject fluoridation because they claim it causes adverse health effects, from allergies to cancer.

It's a charge that when tossed into a debate like wood scrap onto a bonfire, can fuel flames of

Fluoridation experts: Members of the ADA's National Fluoridation Advisory Committee met with the Council on Access, Prevention and Interprofessional Relations June 10-11 at ADA headquarters. Shown from left are Tom Reeves, Jane McGinley, Dr. Kathy McFarland, Dr. Ernest Newbrun, Jane Jasek and Dr. Herschel Horowitz.

emotion.

But what's unfair about such claims, say dentists and other health professionals, is that they unnecessarily provoke controvery. Science and not emotion, they say, should and does prove fluoridation's safety and efficacy.

Dr. Hardy Limeback, head of general dentistry at the University of Toronto, recently sparked media interest over his concerns about water fluoridation.

According to Dr. Limeback, whose comments were published in the Toronto Star, Canada's largest daily newspaper, the ingestion of fluoridation over an individual's lifetime seems to have a possibly strong correlation with increased incidences of weakened bone structure and even skeletal fluorosis.

A bold and oft-made claim by fluoridation opponents, skeletal fluorosis occurs when cartiladge and tendons become calcified from excess ingestion of fluoride.

Not true, says Dr. Ernest Newbrun, Professor Emeritus of Oral Biology and Periodontology, Department of Stomatology at the University of San Francisco, about Dr. Limeback's claim that long-term ingestion of fluoridated water increases bone density and weakens resistance to possible fracture.

"There are lot of different factors that contribute to bone fracture," says Dr. Newbrun, and "to identify fluoride as a primary variable is not valid."

He cites an NIH workshop which determined that "contemporary studies failed to establish an adequate basis for making firm conclusions related to fluoride levels in the drinking water with hip fracture and bone health."

Such studies, he maintains, have important limitations which restrict generalization about the results either to the population as a whole or risk of the individual for bone or hip fracture.

"The reason why you have these varying findings about hip fracture," he explains about the research studies Dr. Limeback cites to support his statement, "is that bone fracture is a multifactorial pathogeneis of osteoporotic fractures."

The risk factors for bone fracture are known, Dr. Newbrun says. "For example, if you have had one before, you're more likely to have one again. [Other factors] include cigarette smoking, increasing age and having a small thin frame under 120 pounds.

"These are risk factors cited by the National Osteoporosis Foundation from its 1998 guidelines. These are all factors known to contribute to the risk for hip fracture. It's a multifactorial relationship and to pull out fluoride as being an overriding factor [that weakens bone structure] does not work."

In 1993 the Journal of American Health published two studies demonstrating that exposure to fluoridated water does not contribute to an increased risk for hip fractures.

One study examined the risk of hip fractures in residents of two similar communities in Dr. Limeback's own Canada, in the province of Alberta.

Researchers there compared a city with fluoridated drinking water optimally adjusted to 1 ppm to a city whose residents drank water containing natural fluoride at a concentration of 0.3 ppm. No significant difference was observed in the overall hip fracture hospitalization rates for residents of both cities.

According to the report, the findings "suggest that fluoridation of drinking water has no impact, neither beneficial nor deleterious, on the risk of hip fracture."

Here in the United States, the second study examined the incidence of hip fracture rates before and after water fluoridation in Rochester, Minn. Researchers compared the hip fracture rates of men and women aged 50 and older from 1950 to 1959, (before the city's water supply was fluoridated in 1960), with the 10-year period after fluoridation.

According to the report, the study's data demonstrated no increase in the risk of hip fracture associated with fluoridation of the public water supply in Rochester. Further, the report stated, the finding "contrasts sharply with several recent ecological studies that have all suggested a

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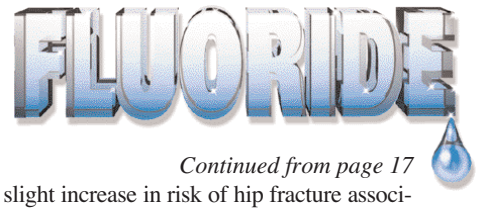

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slight increase in risk of hip fracture associated with water fluoridation."

Dr. Richard B. Hancock, co-chair of the San Diego Fluoridation Coalition, finds himself on the front lines of the fluoridation tempest currently swirling about Southern California.

"We really shouldn't be arguing about the safety and efficacy of fluoridation," Dr. Hancock maintains. "Probably no public health measure has been more researched than fluoridation."

But he says the issue in San Diego has generated a lot of media and public scrutiny because fluoridation opponents "cite a lot of studies that are of questionable value. The cited studies may have been published somewhere," he states, "but have never been repeated." Nor have some of the studies been peer reviewed, he adds.

Dr. Hancock labels the studies cited by fluoridation opponents to buttress their claims that fluoridation causes adverse health effects, "fringe science stuff," or "junk science," as it's more commonly known.

A term coined by public health officials, "junk science" characterizes data derived from atypical or questionable scientific techniques. Many believe that it plays an important role in provoking opposition to water fluoridation. In 1993 the U.S. Supreme Court issued a landmark ruling that will likely restrict junk science in the courts.

The court determined that while general acceptance is not needed for scientific evidence to be admissible, federal trial judges have the task of ensuring that an expert's testimony rests on a reasonable foundation and is relevant to the issue in question.

According to the Supreme Court, many considerations will bear on whether the expert's underlying reasoning or methodology is scientifically valid and applicable in a given case.

The court established four criteria judges could use when evaluating expert scientific testimony: (1) whether the expert's theory or technique can be (and has been) tested, using the scientific method; (2) whether it has been subject to peer review and publication (although failing this criteria alone is not necessarily grounds for disallowing the testimony); (3) its known or potential error rate and the existence and maintenance of standards in controlling its operation; (4) whether it has attracted widespread acceptance within a relevant scientific community, since a known technique that has been able to attract only minimal support may properly be viewed with skepticism.

Recently the Supreme Court expanded its ruling to apply to other kinds of technical and specialized expert testimony, as well.

Dr. Michael Easley is associate professor, Department of Oral Health Services and Informatics, at SUNY Buffalo School of Dental Medicine.

"I wouldn't even call it junk science," he says about the manner in which fluoridation opponents cite studies to bolster their claims.

Dr. Easley calls the debate over fluoridation as "a battle of messages." For him the decision whether community water fluoridation is safe and effective is "a simple, logical premise of fluoridation," based on the findings of reputable national and world health agencies.

"We have some of the world's premier epidemiologists and researchers," he says, citing the CDC and the National Institute of Dental and Craniofacial Research, "whose charge is to look at causes of disease and to obviate those things from happening."

If the adverse health claims made by fluoridation opponents were well-founded, he says, "you would start to see the diseases emerging from communities that have been fluoridated for more than 50 years. We are now going on three generations of people who have had access to fluoridated water," he continues. "You would think by now that these disease trends would be starting to emerge. But they aren't."

Dr. Easley echoes Dr. Newbrun's response on the skeletal fluorosis claim leveled by fluoridation opponents.

He says that the "studies that [fluoridation opponents] look at consider fluoride as the only factor. But if you go to the CDC web site and look at morbidity and mortality statistics and look up skeletal fluorosis, you're not going to find it. That's because it's not supported by the scientific community."

Dr. Scott M. Presson is chief of the Program Services Branch Division of Oral Health, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention.

He says that the CDC continually reviews "emerging, credible peer-reviewed literature to assure ourselves and the public that community water fluoridation is safe. We feel very confident in recommending fluoridation at optimal levels."

Responding to another claim fluoridation opponents often make—that community water fluoridation causes dental fluorosis, a non-harmful cosmetic change in the appearance of teeth—Dr. Presson says, "We believe that dental fluorosis is not related to water fluoridation at optimal levels, but related to the inappropriate use of other oral products that have fluoride."

Details on how to reduce the risk of dental fluorosis by monitoring the proper use of fluoride products by young children were published in the Jan. 25 issue of the ADA News featuring Dr. Herschel Horowitz, a public health dentist and member of the ADA's National Fluoridation Advisory Committee.

Dr. Kimberly McFarland, dental health director of Nebraska, chairs the NAFC. Recently the committee recently met at ADA headquarters to address, among other issues, the proliferation of sites about fluoridation on the World Wide Web.

Internet use is growing exponentially. In 1993 about 90,000 Americans had access to the Internet. By 1999 that number had increased to 81 million.

What concerns the committee, says Dr. McFarland, is that some of the scientific and technical information available on the web does not accurately represent the generally accepted scientific literature on fluoridation.

"I think the public often doesn't have any other reference point besides what's on the Internet,"

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Kansas Dental Association leads state on fluoridation education

By Clayton Luz

Wichita, Kan.—The Two Step is a popular dance around these parts.

Across the state Greg Hill performs his own variation of the Two Step. He partners with communities and takes the lead on educating them about the benefits of community water fluoridation.

Mr. Hill is director of fluoridation development for the Kansas Dental Association.

As detailed in the June 7 ADA News, the United Methodist Health Ministry Fund is promoting fluoridation in Kansas by making grants

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available for communities interested in fluoridation.

Awarded grants will help pay for water fluoridation equipment, facility changes to accommodate fluoridation, engineer consultation services and miscellaneous costs related to implementation of a new fluoridation system.

According to Dr. Philip S. Zivnuska, KDA's president, UMHMF contacted the KDA after being overwhelmed by inquiries about its oral health initiative.

Together the two parties created the director of fluoridation development, a KDA outreach position designed to "provide information to communities across the state about fluoridation," he says.

Dr. Zivnuska, who is also a member of UMHMF's dental advisory board, states the mission of the KDA and UMHMF "is to bring about fluoridation in as many communities as possible."

Currently about 60 percent of Kansas' communities have access to fluoridated drinking water.

Mr. Hill, a graduate of the Washburn University School of Law in Topeka, says acquiring water fluoridation is a two-step process. First, the community has to decide if it wants fluoridation, then it has to apply for the grants.

In non-fluoridated communities considering the public health measure, Mr. Hill's charge is to inform their civic leaders, health professionals and citizens learn about the benefits of water fluoridation.

Mr. Hill explains his "job is to educate the communities and work with its members so that that the issue of fluoridation is passed."

To date Mr. Hill has appeared before two city councils touting the merits of fluoridation. Located a tumbleweed's distance from Wichita, the two communities of Hesston and Harper passed their respective fluoridation measures.

Mr. Hill partly attributes those modest successes to KDA's informational brochure, "Something to Smile About." Developed from the ADA's list of fluoridation supporters, the 4-page brochure features an impressive list of fluoridation endorsements from national and world health organizations.

"For individuals who have doubts about fluoridation's efficacy and safety," he says, "the brochure really seems to sway them."

Mr. Hill remembers one council member who, after reading the brochure, remarked during a council meeting on fluoridation, "This answers all my questions. Why would all these people put their credibility on the line?" ■

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says Dr. McFarland. "Our eventual goal is to provide multiple sources of accurate information for the public and our members."

Web sites that disseminate information not supported by generally accepted science, say fluoridation advocates, make it difficult for consumers to make well-informed decisions on fluoridation.

"People who are opposed to fluoridation do create unnecessary fear and confusion," agrees Dr. Presson.

In truth, community water fluoridation's history is so impressive, Dr. Presson states, that in October the CDC will publish an article lauding community water fluoridation as one of the 10 great public health achievements in the 20th century.

"Fluoridated water is safe, efficient and cost-effective," he adds. "The CDC still believes it's the foundation for preventing caries."

For Dr. Easley, the best way to get the issue of fluoridation's oral health benefit across to the consumer is to "get the vote out" at the grassroots level.

"The public can't cut through all the political noise the fluoridation opponents make," he says. In communities considering fluoridation, he says: "The issue of fluoridation has to be run like a political campaign. Spend your time and effort getting out the vote."

Citing the 1993 Gallup poll in which more than 70 percent of adults surveyed favored fluoridation, Dr. Easley says that fluoridation advocates have occasionally lost referendums because "we haven't done a good job of getting that 70 percent to show up at the polls.

"That's where the political issue is. You do everything you need to do to motivate that 70 percent to come out and vote. Then you win your referendum," he asserts.

"When fluoridation advocates do that, they've been successful. And the first place for a consumers to get the right answer," Dr. Easley adds, "is to go their dentist. Fluoridation

Dr. Sargenti dies in Switzerland

Locarno, Switzerland—Dr. Angelo G. Sargenti, whose research helped popularize a number of endodontic techniques, died here March 12, just one week short of his 82nd birthday.

Dr. Sargenti

Dr. Sargenti was best known as father of the technique that led to the development of the controversial "N2" root canal filling cement. He stated the technique allowed general practitioners to endodontically treat and preserve teeth.

Dr. Sargenti received his dental degree from the University of Zurich and began presenting clinical studies on N2 in 1948. He was on the faculty of the University of Pavia in Italy. ■

AGD's editor emeritus, Dr. William Howard, dies

Portland, Oregon—Dr. William W. Howard, the Academy of General Dentistry's Editor Emeritus, died April 21 here following a long illness. He was 76.

In his 46-year dental career, Dr. Howard was a private practitioner, editor, professor, author, speaker and volunteer. AGD named him editor of General Dentistry and AGD Impact in 1974.

His articles and editorials garnered several journalism awards and were reprinted in ADA News and the British Dental Journal. He was named AGD Editor Emeritus upon his retirement in 1996.

Dr. Howard maintained a private practice in Portland for 23 years until 1973 when he became professor and chair of the department of fixed prosthodontics at Oregon Health Sciences University.

Dr. Howard

He was named professor emeritus when he retired from OHSU in 1994.

Dr. Howard wrote seven dental texts, most of which were published internationally.

In 1996, he was awarded the Hillenbrand Award by the Board of Regents of the Academy of Dentistry International and in 1998, the William Thomas Green Morton National Award for the Advancement of General Dentistry.

He also held the prestigious AGD Mastership award.

Dr. Howard received his dental degree from the University of Oregon School of Dentistry (now OHSU) in 1950.

He was an American Dental Association Life member and served as advisor or member of many councils, including the Blue Ribbon Editorial Advisory Board. ■

ECCo

Continued from page one

address members' issues and concerns.

"The ADA ECCo Marketplace will be a great member benefit," said Clay Mickel, associate executive director, Division of Communications. "As one of our first ventures into e-commerce, it's fitting that the Marketplace will enable ADA members to buy discounted consumer products from some 75 vendors, including the IBMs and Amazon.coms of the world. And as we add other vendors and products to the online ADA ECCo Shopping Mall, I'm confident it will become one of ADA Online's most popular content areas," Mr. Mickel said.

The ADA has contracted with BATNET to provide the Marketplace. BATNET, the Business and Trade Network Inc. is a New Jersey-based internet marketing company specializing in affinity groups, trade associations, alumni groups and employee programs. Each BATNET marketplace is customized to the membership group.

To use the new service, members will simply log on to ADA Online at "http://www.ada.org". From there, you will be able to click on the ADA Shopping Mall button and then the ADA ECCo Shopping Mall. You will then click on the "ADA ECCo Marketplace" and fill in the "login screen" by typing in your e-mail address and password. Next, you'll type in the information requested on the "Create Your Profile" page. You will be in the ADA ECCo Affinity Marketplace where you will be able to browse and shop. ■

MANAGEMENT

Association's Members Retirement Program adds new fund to menu

The menu of investment choices available in the ADA Members Retirement Program just got even better. Effective July 1, the program will add a new equity fund option—Putnam Equity Income Fund.

The addition increases the total number of investment choices that program members have to 11 and the equity fund choices to seven. Dr. Sigmund Abelson, chairman, ADA Council on Insurance, said the additional fund gives ADA members access to a fund "that uses a 'value' style of investing that complements the investment styles of the other six equity funds available in the program."

The Members Retirement Program also offers investment funds managed by State Street Global Advisors, Alliance Capital Management, Templeton Global Advisors and Massachusetts Financial Services Company. In addition, the ADA offers a real estate fund and two guaranteed rate accounts.

Edward Bousa: Value funds may help investors weather market storms.

To help ADA members learn more about the value style of investing, the ADA News talked with Edward Bousa, Putnam's senior vice president. Mr. Bousa has managed the fund since 1993.

ADA News: How does this fund work?

Mr. Bousa: The fund uses a value investing approach, and that makes it a so-called "value" fund. The primary goal is to provide investors with current income. The secondary goal is capital growth.

ADA News: What are the advantages of a value fund?

Mr. Bousa: A value fund is a good choice for investors who like investing in established companies, have an investment horizon of at least three to five years and want limited risk. This type of fund is conservative. The objective is to hold companies with price to earnings ratios that are lower than the S&P 500, but dividend yields that are greater.

ADA News: How risky is this fund and how do you measure its performance?

Mr. Bousa: We feel the fund carries a less than average risk. The performance benchmark is the S&P 500, and the fund's carefully selected portfolio seeks to outperform the S&P 500, and with less risk.

ADA News: What is the benefit of a value fund?

Mr. Bousa: Value funds may help investors weather market storms. Because a value fund moves in a different cycle than, say, a growth fund, investors can use a value fund as a diversification tool to help them handle market fluctuations and lower their overall investment risk.

ADA News: How much of the portfolio's total funds are invested in equities?

Mr. Bousa: Normally, we will invest at least 65 percent of fund assets in income producing-common stocks of established companies. The fund may also invest in foreign securities and in cash or money market instruments. Typically, the fund invests approximately 90 percent of assets in equities.

ADA News: What kinds of companies are in the fund's portfolio?

Mr. Bousa: We look for established companies that might not be as popular with investors but that have positive internal changes that might improve their operations and stock prices.

ADA News: What stocks are currently in the funds' portfolio?

Mr. Bousa: Because of the continuing low interest rate environment, one-quarter of fund

See FUND, next page

AMA moves to protect its editors

The American Medical Association has adopted a plan designed to safeguard the editorial independence of future editors of its Journal.

Through the editorial governance plan, a committee has been established to act as "a buffer and insulation" between the AMA and the Journal of the American Medical Association editor. This plan, announced May 26, would allow the editor to follow his or her editorial judgment.

The decision was made in the wake of the firing of JAMA editor George D. Lundberg, M.D., on Jan. 15. Dr. Lundberg was terminated after publishing a controversial article on oral sex during the impeachment trial of President Clinton.

The editorial governance plan will include a committee to act as a buffer between the JAMA editor-in-chief and the AMA management and a system to foster objective consideration of the issues that arise between the journal and AMA.

The committee will be charged with making any additional recommendations to AMA executives and board concerning the governance and structural reforms necessary to ensure JAMA's editorial independence.

The seven-member committee will include one member of AMA senior management, one member from outside the AMA with publishing business experience, and five members representing the scientific, editorial, peer-reviewer, contributor and medical communities.

Under the editorial governance plan, the editor will have full responsibility for the editorial content of JAMA. ■

Communications: Dr. William J. Tonne, left, of Savanna, Ill., June 4 addresses his final meeting as chair of the ADA Council on Communications. In the center is Dr. Richard Hewitt, Greenville, S.C., council vice-chair, who is next to Dr. Robert Bartro of Woonsocket, R.I.

Fund

Continued from previous page

holdings are in the financial sector. BankAmerica, Citigroup and Bank One Corp. are among the top 10 holdings.

ADA News: What about other industry sectors and top stock holdings?

Mr. Bousa: As of March 31, four sectors account for nearly half the fund's remaining holdings: energy, utilities, consumer staples and consumer cyclicals. Others include GTE, American Home Products, Exxon, AT&T, Mobil, Bristol-Myers Squibb and Pharmacia & Upjohn. Please remember that fund holdings and sectors will vary with economic and market conditions.

ADA News: Are you planning any changes to the fund's portfolio?

Mr. Bousa: Two changes are in the works. One, we are looking into possibilities in what we consider the undervalued energy industry sector. We are also considering adding positions in the property casualty insurance sector.

ADA News: What's in store for the market?

Mr. Bousa: Barring unexpected events, the current sound economy, low interest rates and low inflation provide support to the bull market.

An information package announcing the addition of Putnam Equity Income Fund to the ADA Members Retirement Program, including a prospectus, has been mailed to eligible program participants. Please read the prospectus before investing in Putnam Equity Income Fund.

To learn even more about how to put the ADA Members Retirement Program to work for you, call 1-800-523-1125, ext. 2455, from 9 a.m. to 5 p.m., Eastern time, any business day. Or visit the Retirement Program's section on ADA Online, www.ADA.org ■

ANNUAL SESSION

Count 'em: 100-plus chances to learn

Photo courtesy of Hawaiian Visitors Bureau

Hula Happiness: The Hula Kodak Show celebrates '50s nostalgia at the Waikiki Band Shell in Kapiolani Park.

Honolulu—Wondering how to keep current with the latest developments in the science, practice and art of dentistry?

The information you need is available from more than 100 scientific sessions offered during the American Dental Association's annual meeting here, Oct. 9-13.

The following registered clinics are offered Oct. 9 from 10 a.m.-12:30 p.m. and 2-4:30 p.m.

- "Unmasking Your Mystery Patients: How to Gain and Retain Patients in Challenging Times" (RC4) reveals the key factors of the patient decision-making process. Suzanne Boswell presents a clinic that will show you how to retain patients in challenging times and what it takes to build long-term patient loyalty. Also discussed are how to increase patient trust and strengthen patient loyalty;
- "Restorative Heroics vs. Replacement Antics" (RC5) presents a decision process from which attendees can learn to evaluate therapeutic options and make a decision that will create a result essential for success and patient satisfaction. Dr. John C. Kois will discuss how to determine the optimal modality for your patient in any situation that uses state-of-the-art techniques.

The following clinics are offered Oct. 10 from 8-10:30 a.m. and noon-2:30 p.m.

- "Practical Cutting Edge Techniques for State-of-the-Art Composite Dentistry" (RC6)

See CLINICS, next page

Team building key to success

Honolulu—Maximize your practice by building a dynamic dental team.

Learn how to effectively reduce stress, enhance delegation, eliminate procrastination and increase motivation.

The ADA's Team Building Conference IV: Formula for Success (RC2) can show you and your dental team how.

Scheduled Oct. 8-9 from 8 a.m. to 4:30 p.m, the conference will feature prominent practice management experts, lectures, interactive workshops, panel discussions and lunch.

Dr. Jeanne Altieri, a general dentist from Hartford, Conn., attended last year's Team Building Conference III with her partner and four team members.

"Our team came away from [the conference] really energized," Dr. Altieri recalls. Learning to communicate and work better with each other, she added, allowed "us to work better as a team."

The conference develops each team member's skills and responsibilities. The result, according to Dr. Altieri, is a team dynamic that can benefit patients.

"If a patient senses the staff working together as a team," she says, "the chairside patient relaxes because anxiety is reduced."

Ticket cost for Team Building Conference IV is $260 (RC2) for dentists, $195 (RC2A) for each staff member.

The conference will be held at the Ilikai Nikko Hotel.

To register online or for more information, visit ADA ONLINE, the Association's Web page, at "http://www.ada.org/session" or pick-up a copy of the April 19 ADA News. ■

Post-session goes to nearby

Honolulu—Poet Jorge Luis Borges once said about education, "I have always imagined that paradise would be a kind of library."

Perhaps he was referring to this year's ADA Post-Session seminars scheduled Oct. 14-15 at one of three nearby Hawaiian islands.

To continue your post-session education after annual session ends, register for one of three seminars at Maui (Aston Wailea Resort), Kauai (Kauai Marriott Resort) and Hawaii (Hilton Waikoloa Village) using the ADA Advance Registration Form.

The seminars will include the topics of esthetic restorative dentistry and porcelain veneers, practice management strategies and esthetic dental treatments for the new century.

To reserve hotel rooms for the seminars, attendees are required to complete Section 4 of the ADA/I.T.S.

Reservation Form and submit a deposit of $200 per room. The arrival date for the ADA Post-Session Seminars is Oct. 13 and the departure date is Oct. 16.

Space is limited and advance registration is recommended.

To register online or for more information, visit ADA ONLINE at "http://www.ada.org/session" or pick-up a copy of the April 19 ADA News. ■

Photo courtesy of Kauai Marriott Resort

Post-session nirvana: The Kauai Marriott Resort on the island of Kauai is one of three post-session seminar locations. The Aston Wailea Resort on Maui and the Hilton Waikoloa Village on the Big Island will host the other seminars.

Clinics

Continued from previous page

shows how to construct time-saving, perfect gingival margins in every composite situation. Dr. Paul C. Belvedere discusses resin bonded direct composites; an efficient approach to cosmetic, non-metallic restorations; and step-by-step demonstrations of a restorative system, direct veneers, luting of porcelain veneers with minimal clean-up time and crowns;

- "The Art of Endodontics: Concepts and Techniques for the New Millennium" (RC7) discusses instruments and procedures that provide more ideal shaping, cleaning and obturation results more quickly.

Dr. L. Stephen Buchanan presents the research and reasoning behind these recent innovations in clinical endodontics and the way in which this new technology has simplified the creation of ideally tapered root canal preparations and 3-D filling of lateral and accessory canals.

The following clinic is offered Oct. 11 from 8-10:30 a.m. and noon-2:30 p.m:

- "State-of-the Art Adhesive Dentistry" (RC9) presents a critical look at new technologies, including air abrasion and devices for high-energy polymerization, lasers and plasma lamps. Dr. John A. Kanca III discusses the principles of adhesion, recommended products and techniques.

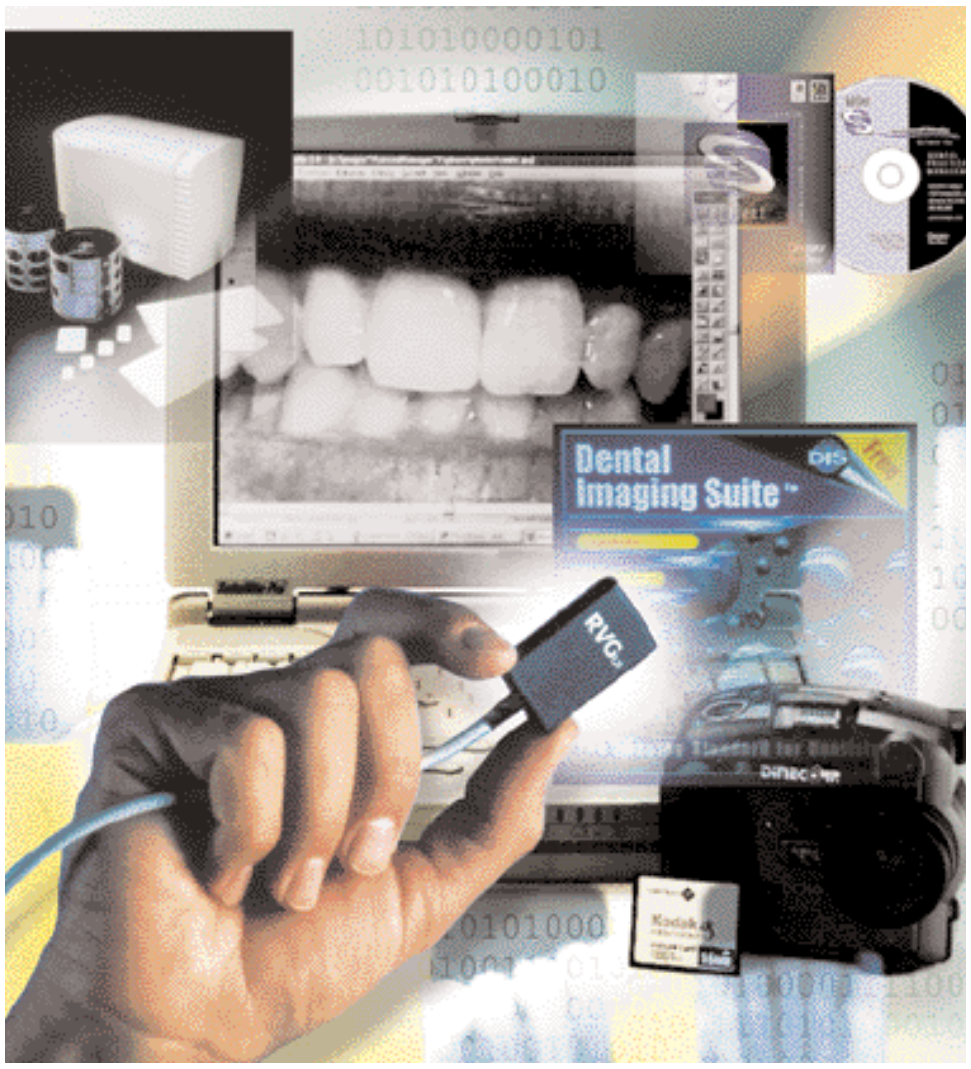
Registered clinics will be held on the third level of the Hawaii Convention Center.

To register online or for more information, visit ADA ONLINE, the Association's Web page, at "http://www.ada.org/session" or pick up a copy of the April 19 ADA News. ■

DENTAL PRACTICE TODAY

Is it time yet?

Digital X-rays are here to stay, but how do you decide when to switch radiography systems?



By Stacie Crozier

■ WHAT THE COMPANIES SAY ABOUT THEIR PRODUCTS, PAGE 30

Does the dental practice of the new millennium need to invest in new imaging techniques and equipment?

The definitive answer right now is: "maybe."

Digital imaging technology is one of the hottest and most debated topics in dental practice today.

But how do you know if it's the right time for your practice to go digital? There are several basic questions that each dentist must address before ordering equipment and/or software:

- What are the positives and negatives of going film-free in the dental office?
- What digital imaging technologies are available to dentists?
- What kinds of equipment and training are needed to go digital?
- Does digital imaging provide the same image quality as film?
- How much will a digital imaging system cost up front and to operate over the long term?
- Am I ready to change patient care delivery, record-keeping and communications with consulting dentists or insurance providers?
- What do my colleagues say about digital imaging?
- What do I really want to do?

What is digital radiography and how does it work?

Though relatively new to dental applications, digital imaging technology isn't new to the world, explains Dr. Dale Miles, a former professor for the Indiana University School of Dentistry and the current Chair of Oral Health Sciences at University of Kentucky College of Dentistry.

"If you have used a fax machine, intraoral video camera, home video camera or a DVD (digital video disk), you have already adopted digital technology," he says. "Some dental practices are already looking to archive their dental images—film or digital—on CD-ROM. All of these systems or devices are a form of digital technology."

Three digital imaging technologies available for dentists include a wireless photostimulable phosphor plate (PSP) system as well as two systems that use wired sensors—charge coupled device (CCD) and complimentary metal-oxide semiconductor (CMOS) systems.

PSP digital imaging captures intraoral, panoramic and cephalometric images in a two-step process on a reusable plastic imaging plate coated with a photo-stimulated phosphor substance. The phosphor material stores the X-ray energy, like a latent image with film, until it is scanned by a laser. The light excited and released by the laser is captured as an electrical signal that is converted to a digital image for display on the computer. The plate is read by either a laser drum scanner or a laser scanner built into a computer. No cables are used, and the phosphor plate is placed in the patient's mouth like film.

A CCD imaging sensor is an X-ray, or light-sensitive, silicon chip with electronic circuit embedded in the silicon. The CCD uses a single-step process to store images in pixels briefly before transmitting the information via an electronic signal to a computer for display. It is connected to the computer by a cable and the CCD receptor is placed in the patient's mouth.

CMOS sensors are also "wired" to a computer for virtually instant image transmission. A CMOS receptor uses much less power and is less expensive to make than a CCD receptor and works well in bright light conditions. But CMOS images have more "noise"—lesser image clarity—than CCD images and hold less diagnostic information than a CCD image. CMOS receptors are relatively new and unproven for use in X-rays. They are widely used in video and digital still cameras, video games and computers.

All types of digital images can be stored using digital imaging software or, in some cases, using practice management computer software that can store all patient information in one place.

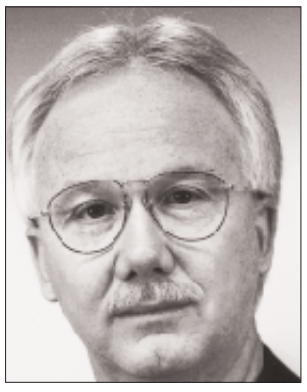
Original images from digital technologies can never be altered. Using software-based enhancement techniques, such as colorization, changing brightness or contrast, smoothing or other processes, a dentist can reproduce, then enhance an image to make certain diagnostic data more evident, but will always be able to revert and/or refer back to the original image that was taken of the patient's dentition. Other persons who view digital images will be able to tell, by the way the image is marked, whether or not the image is original or enhanced.

A new resolution

Digital imaging equipment manufacturers use image quality measurements as one of the main selling points when marketing to dentists, notes Dr. Miles. How do you know if the system you're looking at will provide you with the resolution you need?

Resolution in digital radiography is measured in "line pairs per millimeter" (lp/mm). This is a measurement assigned to describe a system's ability to capture detail.

"Manufacturers claim anywhere from 6 lp/mm to as much as 22 lp/mm," Dr. Miles says. "The human visual system can only resolve about 8 lp/mm at the best of times without magnification. So does 12 lp/mm or 20 lp/mm resolution really matter? The answer is 'No.' All current digital X-ray systems use sensors capable of capturing a diagnostically acceptable image."



Dr. Miles

The number of gray shades a CCD or CMOS receptor is capable of displaying on a computer monitor is also a measure of image resolution, he notes. Some companies advertise 12-bit capability, or 4,096 grays. PSP systems can display even more gray shades.

"None of the manufacturers actually display a 12-bit image because the computer monitor is usually only capable of displaying an 8-bit image or 256 shades of gray," he says. "So, do you need 4,096 grays? No! The human visual system can only separate the differences between 64 grays. Once again—it doesn't matter."

Digital imaging: some pros, cons

The benefits of using digital imaging technology are many, say dental imaging experts and equipment vendors. They identify some common pluses and minuses (indicated below by the plus (+) or (-) symbols) as well as individual benefits and potential problems of particular digital technologies. Digital imaging may not be the answer at this time for dentists who are well-established and happy with a film system.

Safety:

+ Patients, staff and dentist are exposed to 60-90 percent less radiation by using a digital, rather than a film-based, imaging system.

+ Eliminating use of chemicals is safer for staff, more environmentally friendly and leaves no darkroom mess. Using less chemicals may also contribute to reduction of liability and insurance costs.

Diagnosis:

+ Digital images are clearer, have higher resolution than film, and can be enhanced in a variety of ways to facilitate accurate diagnoses.

+ Digital images are easily retrieved at patients' followup visits, so suspicious areas that need to be watched can be easily, quickly compared over time.

+ Images are of consistent quality when equipment is set up to the appropriate parameters. No adjustments from patient to patient should be needed.

- Many dentists currently report not being able to make easier or more accurate diagnoses with enhanced digital images vs. traditional film radiographs.

Time Management:

+ Processing times are virtually eliminated with CCD and CMOS technologies, resulting in less down time if an image has to be taken again and eliminating darkroom waiting time and time-consuming processing mistakes.

+ Digital images can be easily, quickly

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ALL TYPES OF DIGITAL IMAGES CAN BE STORED USING DIGITAL IMAGING SOFTWARE OR, IN SOME CASES, USING PRACTICE MANAGEMENT COMPUTER SOFTWARE THAT CAN STORE ALL PATIENT INFORMATION IN ONE PLACE.

Defining the digital radiograph: Who sets the standards for consistency and quality?

By Stacie Crozier

Like any other emerging technology, leaders in the field of digital imaging have worked to develop standards that manufacturers and software developers can use to provide dentists and patients with high-quality products.

The ADA, working with the DICOM Standards Committee and the Accredited Standards Committee MD 156 Task Group on Dental Informatics, developed standards to ensure that dental images can be captured and communicated in a common format, that dentists can gain quicker access to the information they need to make diagnoses and treatment decisions and that the long-term electronic storage of images in a shared archive is a reality.

"The Digital Imaging and Communications in Medicine (DICOM) Standard is a detailed specification that describes a means of formatting and exchanging images and associated information, such as patient name, date of birth, patient ID, date and time of examination," said Robert E. Lapp, ADA director of dental informatics.

"The standard applies to the operation of the interface that is used to transfer data in and out of an imaging device."

DICOM is a result of a cooperative effort begun in the mid-1980s by potential users of digital imaging and companies that manufacture medical equipment. The DICOM Standards Committee was formed in November 1996 with all biomedical images under its purview.

In February 1997, the committee approved a proposal for the establishment of the Digital Radiography Working Group. The working group's purpose was to develop a new supplement to address digital projection radiography, which includes about 80 percent of all medical radiography and 95 percent of all dental radiography.

As secretariat of the working group, the Association served an important role in this development, explained Sharon Stanford, director of standards administration for the ADA.

The Digital X-ray Supplement to the DICOM standard was officially approved by the DICOM Standards Committee on Aug. 27, 1998. The resulting standard is now recognized as the standard for digital imaging by many countries worldwide.

Dentists or other DICOM users can provide imaging services within facilities or across geographic regions, gain maximum benefit from existing resources and keep costs down through compatibility of new equipment and systems. By providing this mechanism for interconnectivity, DICOM becomes an important step in cost-effectiveness in health care.

For example, thanks to DICOM, workstations, intraoral cameras, intraoral digital radiography systems, digital panoramic machines, film digitizers, shared archives, laser printers, host computers and mainframes made by many different vendors can communicate with each other across an open system network.

"A growing number of dental products conform to DICOM standards. The rapid adoption of DICOM by the dental imaging industry is opening new opportunities for dental care organizations to increase the quality and cost effectiveness of patient care" according to Dr. Robert Ahlstrom, chair of the ASC MD 156 Task Group on Dental Informatics.

Other DICOM supplements are in development to assure that in the future dentists will be able to continue communicating secure image information using DICOM standards."

The ADA's involvement with DICOM stems from its role as a national and international leader in the development of standards and guidelines for materials, information and technology that have an impact on dental practice and the safety and health of the public.

All ADA standards activities are administered by the Department of Standards Administration in conjunction with ADA councils.

The ADA Department of Dental Informatics focuses attention on the emerging informatics industry and provides technical content in standards-setting activities affecting administrative and clinical applications in dentistry.

The primary goals of dental informatics are to improve patient care and increase dental office efficiency through the use of technology for information management.

After evaluating current informatics activities, in 1992 the ADA Board of Trustees approved a group of projects relating to clinical activities (Trans. 1992: 597,606).

A task group of the ASC MD 156 was created by the Association to initiate the development of technical reports, guidelines and standards on tools for clinical workstations used in dental practice. That task group was approved as a separate standards committee to solely address these emerging technologies in 1999.

Meanwhile, the Council on Scientific Affairs says it would be willing to evaluate digital radiography equipment under the ADA Seal Program, using its Dental Equipment Guidelines. The council is also drafting a report to the profession that recommends the proper use of radiographic equipment. A part of that report will discuss digital radiography

Time?

Continued from facing page

e-mailed to insurance companies or consulting dentists, but be sure they can be accepted.

+ Digital images can be stored easily and economically on Zip disks, CDs or a DVD, saving office filing space and putting patient records at the dentist's fingertips.

- With PSP plates, patients and dentist still have to spend 5-7 minutes processing images in a scanner.

- CCD- and CMOS-based technologies require using different techniques in patient care, and present a learning curve that must be met before using the techniques on a regular basis.

- Dentists and staff must invest training time and costs before becoming proficient in using CCD- or CMOS-based technology.

- Training programs outside of the dental school environment are not widely available.

Patient Comfort/Convenience:

+ Patients can more easily see problem areas enhanced on a computer screen, and as a result, may be more receptive to patient education and participation in treatment planning.

+ Patients who relocate or change dentists can have their complete dental records easily e-mailed if the new dentist, either across the street or across the country, can accept them.

- Wired sensors can be bulky and uncomfortable for patients.

Cost:

+ Over time, the average dentist can recoup an investment in digital radiography technology in a few months, says Dr. Miles.

+ Operating costs can be lower overall, explains Dr. Miles, because of eliminating the need for buying chemicals and film.

+ PSP systems can often use a dentist's existing X-ray generating equipment, eliminating the need to buy a completely new system.

- Start up costs for equipment and/or software can be high, as much as $10,000, depending on how much you want or need to buy.

- Sticking with a film-based system can continue to provide cost-effective, high-quality images, especially when all equipment is already in place.

- CCD sensors, one of the most expensive investments in digital radiography, can have unpredictable life expectancies and may need to be replaced often.

- Multiple operatory practices must make a large financial investment to have digital radiography networked to all operatories.

- CMOS systems use less energy and are less expensive to purchase, but offer unproven, perhaps lower quality, diagnostic imaging.

Office Design/Management:

+ Some available software programs can store complete patient records, including digital radiographs, scanned film radiographs, periodontal charts and more, all in one computerized location. Some software also integrates practice management capabilities or can "bridge" to current popular practice management programs on the market.

- CCD and CMOS cords, which must be connected to a computer, can offer a placement challenge for office design, patient comfort and caregiver convenience.

- A dental office's current practice management software may not be compatible with the digital imaging system he or she purchases.

- Some digital radiography products do not meet Digital Imaging and Communications in Medicine (DICOM) standards, which determine how image information is collected, encoded, exchanged and stored.

- Dentists who are not currently proficient in using a computer in other areas of practice may be hesitant or not willing to change to a computer-based imaging system.

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Radiography equipment, software firms have their say

A sampling of the systems and software available for dentists are described here in order to show readers a range of the types of products available at this time. The product descriptions were provided by the companies themselves and the American Dental Association or its subsidiaries are not responsible for the accuracy of their claims.

Description of products and features from a specific manufacturer or omission of a manufacturer or product should in no way be considered as an endorsement or a critique by the ADA or its subsidiaries.

DENTAL PRACTICE TODAY

Hardware and system packages: PSP technology

Dentsply Gendex

An easy way to "go digital" in an established dental practice is to adopt a PSP system, such as the DenOptix Digital Imaging System, says Dominique Mondou, product manager for digital imaging for Dentsply Gendex.

"We feel that phosphor technology is the only viable digital imaging technology for complete dental use—intraoral, panoramic and cephalometric imaging," says Mr. Mondou. "The biggest advantage in using the DenOptix system is that it works just like film, but also offers the benefits of digital technology."

Flexible phosphor plates can capture all sizes of intraoral, panoramic and cephalometric X-rays at the same size images as film, from 0-4, Mr. Mondou notes. Plates are also reusable.

DenOptix "wireless" technology, he notes, provides maximum patient comfort, easy integration into the operatory setup and virtually no learning curve for dentists and staff because it is used on a patient exactly like a film system. It is also compatible for use with many dentists' existing film generators and pan/ceph machines, so the only startup costs would be for a scanner system, software and phosphor plates.

Digital images are processed with a drum laser scanner, the only part of the imaging process that requires training before use, he adds.

For more information, Contact Dentsply Gendex at 1-800-800-2888 or visit the website at "http://www.gendexxray.com".

Hardware and system packages: CCD technology

Cygnus Imaging, a Zila Company

A "SmartBox" interface allows CygnusRay2 digital radiography system users the ability to have three different-sized sensors plugged in simultaneously.

"The SmartBox is a convenient interface for dentists because it eliminates the problem of constantly accessing the back of the computer by bringing the sensor connectors into the open," says Brian P. Opal, Cygnus Imaging spokesman. "It easily mounts on top of the computer, on cabinets or to the dental chair, and, with up to three sensors attached simultaneously, it allows the dentist to select the desired sensor size within the CygnusRay2 software and the system does the rest."

The system and interface also make using a single set of sensors more user friendly in a multi-operatory environment, Mr. Opal adds.

CygnusRay2 uses Panasonic sensors in three sizes, customized software compatible with many practice management software, complete set-up, training and ongoing support.

For more information, call 1-800-626-2664 or visit the website at "http://www. zila.com".

Dental/Medical Diagnostic Systems Inc.

Dental/Medical Diagnostic Systems Inc. has gotten "the skinny" on emphasizing patient comfort and ease of use in its MegaPixel Diagnostics Digital Radiography (MPDx) system.

"MPDx's sensor are the thinnest sensors available at only 3.2 mm thick," notes Dr. Jack Preston, executive vice president. "Patient feedback indicates that MPDx's thin sensors are even more comfortable than film during the imaging process."

DMD has three sensor sizes and two resolutions, with no clipping of images, in addition to maximum patient comfort, he adds.

The MPDx system also features "patient-centric" software that was designed by dentists that allows image filtration, contrast and brightness adjustment, pan and zoom, image reversal and colorization, calibrated measurement and anno-

tation. It is Windows 3.1, 95 and 98 compatible and may be integrated with most dental software.

For more information, call 1-800-399-0999 or visit the website at "http://dmdcorp.com".

Sirona USA

Sirona USA's SIDEXIS digital imaging management system helps the user put together all the pieces used in intraoral, panoramic and cephalometric imaging as well as to integrate patient data, X-ray images, treatment documentation, digital photographic or video images and communications capabilities.

"With SIDEXIS, the dentist can process, view, store and share images as well as link them electronically to the patient's file for easy treatment planning and chairside patient education," says Pete Steinhausen, vice president, marketing and sales. "The linking also streamlines billing procedures, simplifies communication with third-party carriers and facilitates referrals and colleague consultations via e-mail."

SIDEXIS was designed, he says, to help dentists quickly and easily enhance digital images for more accurate diagnosis.

SIDEXIS is compatible with Sirona's entire family of imaging equipment, including the Heliodent DS intraoral digital imaging system, the Orthophos digital panoramic system, the Orthophos DS/Ceph system and the Sirocam intraoral video system.

For more information, call 1-800-659-5977 or visit the website at "http://www.sirona.com".

TREXtrophy Dental Division

Complementing the family of products by TREXtrophy Dental Division is its Logicon Caries Detection diagnostic software, designed to assist the dentist in locating and classifying proximal surface caries in digital intraoral radiographs, notes spokesperson Anne J. Smith.

"Logicon analyzes digital X-ray images acquired by the TREXtrophy RVG digital radiography system in seconds, and displays an enlarged imaged with the possible decay area," she adds. "It is the only caries detection software cleared by the FDA and available on the market."

TREXtrophy's RVG system works with most conventional X-ray generators and TREXtrophy's generators—the IRIX 70-C and the ELITYS—can be used with either film or with the RVG digital imaging system. The Orthoslice 1000 panoramic unit can also be upgraded for use in panoramic and cephalometric digital imaging.

For more information, call 1-800-667-1780 or visit the TREXtrophy website at "http://www.trexmedical.com".

Software solutions

Dentsply Infosoft

The latest version of SoftDent also includes digital imaging interface, internet access, e-mail capabilities and an electronic claims program to help dentists get the most out of their digital imaging.

"SoftDent is the most popular practice management software on the market," says Bob Chaisson, director of sales and marketing. "We've been around since the mid-1980s and are currently in more than 11,000 dental offices nationwide. We continue to listen to our customers develop new and enhanced features, like digital imaging management and electronic communications, to grow with the profession."

SoftDent, owned by Dentsply Infosoft, also allows the dentist to manage all patient information, including digital images, in one complete record, without switching software programs. Its "power bar" graphic allows access to most software functions and features with a push of a button.

For more information, call 1-800-433-2409 or visit the Denstply Infosoft website at "http://www.softdent.com".

DICOM Imaging Systems Inc.

DICOM Imaging Systems Inc. wants to give dentists free software that can help them use digital imaging and make better diagnoses, in hopes that they will want to use specially designed digital image management software to provide additional treatment options to their patients.

"With up to 70 percent of dentists hoping to add digital imaging to their technological capabilities and more and more patients asking for digital technology, we think our Dental Imaging Suite is a terrific software option for dentists," says Dr. David Gane, president. "A dentist shouldn't have to use the software that comes with digital imaging equipment, but should be able to pick the features that fit his or her needs."

DIS's "Image Explorer" is a dental image management and archiving program that reads and writes files, captures images in popular graphic file formats from digital cameras, intraoral cameras, select digital X-ray systems and operating video microscopes and stores them in an electronic patient file cabinet for future review, comparison, printing and communication.

For more information or to check computer system requirements for the software, call toll free 1-877-62-IMAGE or visit the website at "http://www.dicom-image.com".

Lester A. Dine Inc.

Quality software at a reasonable price is the key to Lester A. Dine Inc.'s Imaging Suite Software, says Matt Glassgold, company spokesperson.

"We looked at what was available on the market and sought out feedback from customers," he says. "What they told us was that software is too expensive. Our goal was to develop a high-quality software at a much lower price than the $3,000-$4,000 options on the market. That's how Dine's Imaging Suite Software was born."

Priced at around $500 for the software or $1,500 for a software/camera package, Dine's Imaging Suite, features imagine archiving, manipulation, presentation and printing capabilities and works with any digital camera or video camera.

"The software can create patient or case files," Glassgold adds. "Dentists can store related case data with images and every word in the case data is cross-referenceable. It also allows users to create computerized slide show presentations and add their own narration and to instantly access information for patient education or treatment planning."

For more information, call 1-800-624-9103 or visit the website at "http://www.dinecorp.com". ■

DENTAL PRACTICE TODAY

Time?

Continued from page 29

What about film?

The gold standard in dental imaging—film—continues to be a viable option for dental practice. This proven, relatively safe and well-known technology is accepted not only by practicing dentists, but by patients and insurance providers.

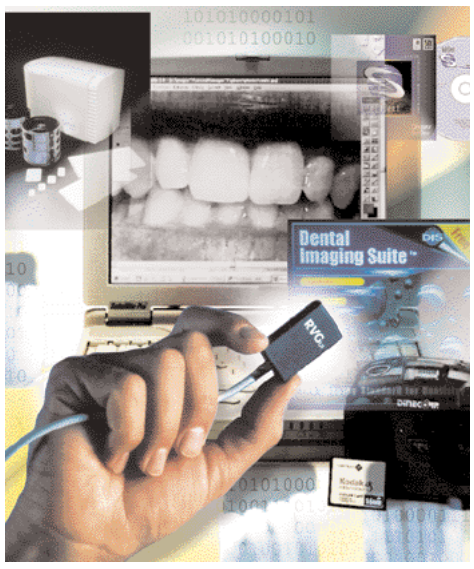
But as new technologies in imaging continue to emerge, dentists will have to make their own decisions on the issue of film vs. filmless imaging.

"There is a strong future for film in dental imaging," says Richard Hirschland, worldwide strategic planning director for Kodak. "Kodak's dental division is a part of its $2 billion per year health imaging division—a worldwide leader in the medical and dental marketplaces."

Though a leader in the film industry, Kodak has strong core competencies in the digital imaging field, he points out.

"Eastman Kodak is a leader in digital cameras and film digitization in the consumer markets and a leader in various digital imaging technologies in the medical imaging market," Mr. Hirschland says.

"We have a proven competency in the area of digital imaging, but our research in the dental marketplace tell us that two of the most important considerations for dentists about an imaging technology are image quality and cost. Film continues to offer the dentist the highest quality images at a cost that can't be beaten by digital systems."



Notes Mr. Hirschland, "We are investing in both film systems as well as digital systems to ensure we continue to offer differentiated product solutions where we choose to participate."

When dental digital imaging technology and the dental marketplace reach "the right point," he adds, Kodak may choose to enter the digital imaging market.

The market: more like evolution than revolution?

The shift to digital imaging in dentistry, predict dental imaging experts, will probably be gradual as practicing dentists slowly integrate computers into their offices and digital imaging technology becomes more widely available and lower priced.

"There are a number of reasons why I think the use of digital imaging in dentistry will grow, but not replace film soon," says Dr. Sharon L. Brooks, Professor, Department of Oral Medicine/Pathology/Oncology, University of Michigan School of Dentistry. "Many dentists are still not completely comfortable with computers. They may use them for some purposes, but are not ready to convert everything they do in daily practice."

Although well-established in the medical community, digital radiography is fairly new to dentistry. Equipment and software manufacturers with products specific to dental practice have only recently begun to market to dentists.

"A number of dentists have told me that they are interested in digital imaging, but they want to wait until it becomes more tested and stable and prices fall, just as they have for many other electronic devices," Dr. Brooks adds. "They tell me they won't be the last dentist to buy a system, but they definitely don't want to be one of the first, either."

Dr. Brooks notes that the cost of a computer network, especially in a large practice, is another factor that will affect the speed at which dentists adopt the new technology.

"It's not convenient to store the images on a computer and roll the computer on a cart into an operatory so the dentist can view the images while at work," says Dr. Brooks. "It is expensive to network an office at this time. In fact, lack of appropriate infrastructure is the biggest reason why we have not adopted digital imaging for routine patient care at the University of Michigan School of Dentistry."

The market: more like evolution than revolution?

Investing in a digital imaging system can be compared to buying an automobile, notes Dr. Miles. You evaluate your options and choose a system that offers the features you want.

"Once you decide you need a digital imaging system, you first select the model—CCD, CMOS or PSP—then you compare the features and technical specifications, 'test drive' the ones you like and decide which dealer will give you the best service and best price," Dr. Miles says. "Only then can you make an informed decision about the system that's right for you."

A dentist should look for three important "musts" before buying, he adds.

"You need to choose a system that is in compliance with DICOM standards," he says. "You also should look for a system with a manufacturer that is dedicated to providing outstanding, ongoing service and a system that is compatible with your current practice management software, unless you are willing to change that as well." ■

1990-1998 UPDATE

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Dentists asked to identify victim

Weatherford, Texas—The skeletal remains of a woman were found in the Weatherford, Texas, area and authorities are hoping a dentist might be able to determine the name of the victim.

A full set of dental records were obtained and a clay reconstruction was made using the skull.

The deceased was found on Oct. 7, 1998, near a truck stop in Weatherford. She had been dead between one and four weeks.

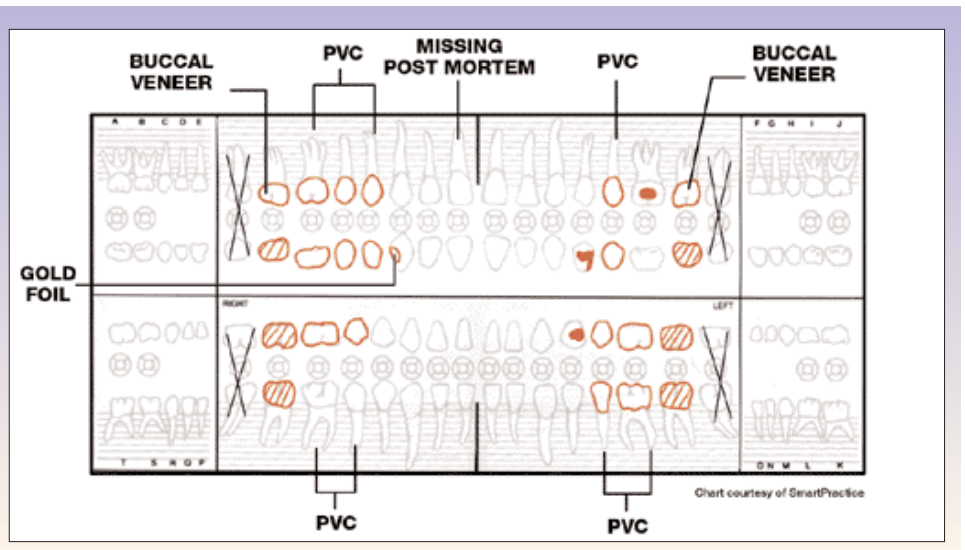
She was wearing a blue wind suit, and white sneakers.

The tags from all her clothing had been removed.

She may have undergone mastectomy and hysterectomy surgeries. Her eyeglasses and wig were found nearby.

She was Caucasian, and believed to have been between 40 and 60 years old and between 5'3" to 5'7" tall.

Dentists are asked to study the dental chart. Anyone thinking he or she might have information about the victim is asked to call Dr. Rodney Crow at the Tarrant County Medical Examiners Office, 1-817-920-5700. ■



Nevada

Continued from page one

to issue bonds up to $35 million for construction of the new school. State Sen. Raymond D. Rawson, a dentist and director of the dental programs for the University and Community College System of Nevada, says the plan is ideally suited for that state.

"Nevada has the poorest dentist-to-patient ratio in the country and we're one of the states with the lowest percentage of people who are insured," says Dr. Rawson. "We have a lot of patients here and a funding source. Generally speaking, we're approaching 200,000 kids that do not have access to dentistry, and that's our biggest target for dental care."

Dr. Rawson says the growing senior population will benefit from the dental school's services as well.

"There are a lot of ways to deal with the problems," says Dr. Rawson. "The dental school is going to resolve a lot of access issues for the indigent, seniors and children."

Sen. Rawson is hoping to win approval from the Health Care Financing Administration to use state Medicaid funds to begin construction of the building. The Las Vegas Sun reports that he wants to transfer $5.5 million of the $13 million currently allocated to treat Nevada Medicaid patients' dental needs.

UNLV President Carol Harter is willing to provide $125,000 from the university's budget in July and as much as $400,000 in loans through October to support start-up costs and hiring of faculty, according to the Sun.

The Nevada dental community is proud of Dr. Rawson's efforts to make the UNLV dental school a reality, says Dr. Jade A. Miller, Nevada Dental Association president, but questions about funding and education concern many dentists.

"We want to make sure a steady stream of revenue has been secured before the school opens," says Dr. Miller. "We don't want to see it closed down because a long-term source of revenue hasn't been obtained. If we can't get approval from HCFA, where is the money going to come from?"

Dr. Miller agrees the new school will improve access to care for patients, but mainly those in southern Nevada.

"It's important that Medicaid-eligible patients have access to care," says Dr. Miller. "Since Nevada is such a large state, we want to make sure people outside Las Vegas have the same access to care."

Dr. Rawson says the dental school's focus on Medicaid-eligible patients will benefit the state since 70 percent of Nevada's indigent population is in the Las Vegas area.

UNLV will also provide dental care to Nevada child health insurance program (CHIP) recipients and many self-funded groups, according to Dr. Rawson.

Three dental residents will begin the newly

See NEVADA, page 35

SCIENCE

Science council tackles nitrous

Looking at effective ways dentists can reduce exposure

By Daniel McCann

When P.L. Fan, Ph.D., talks about one of the Council on Scientific Affairs' latest studies, he projects the kind of enthusiasm you might expect from someone who finally has the chance to get to the bottom of a longstanding, nagging issue.

The topic is nitrous oxide, and as the senior director of research in the Division of Science makes clear, it's a subject that's received

"This summer," he says, "we will begin research on how much dentists can reduce levels of nitrous oxide in their offices by following ADA recommendations and using current equipment. For some time now, that's been a very important, but unanswered, question. And now with this study we hope to learn the answer."

During the pilot phase of the project, ADA researchers will focus on six dental offices that have implemented the Association's 1997 recommendations (see story, facing page) for controlling nitrous oxide.

Scientists will monitor each dental office, where nitrous oxide will be administered daily, for ten consecutive days. Dentists and chairside assistants will wear badges designed to gauge exposure levels.

As scientists review the data, they'll be looking to see whether the readings fall within a fairly close range. If so, it would indicate that the researchers' goal of identifying an average, minimal level of nitrous oxide, applicable to all dental offices, is a feasible one. CSA scientists would then move on to phase two of the study, in collaboration with the ADA Health Foundation, which calls for expanding the project to include more dental offices across the country.

The aim here is to examine a larger sample size—one that incorporates, for instance, different office designs and different practices, such as pediatric as well as general and oral and maxillofacial surgery.

"The ADAHF hopes to send out requests for proposals to begin phase two of the project by next year," says Dr. Fan. "And with that larger sample size," he continues, "we should be able to extrapolate data showing us what can reasonably be expected of dentists when it comes to enhanced equipment, educated staff and environmental monitoring of nitrous oxide in their offices."

The two-phase study, prompted by HR 95H-97, is just one of the council's ongoing projects dealing with the nitrous oxide issue. CSA also has sent letters to manufacturers of scavenging systems, encouraging them to refine their equipment and make it more effective.

Also, the council will review its Acceptance Program guidelines on Nitrous Oxide-Oxygen Conscious Sedation systems for possible revisions to bring Accepted systems' instructions for use into line with the council's 1997 recommendations.

With the House's '97 resolution, the nitrous oxide issue became a research priority for the science council. The primary concern, of course, has been safety.

Back in 1977, the National Institute of Occupational Safety and Health issued an Alert, cautioning health professionals not to exceed the agency's recommended exposure level of 25 parts per million.

In the July 1980 issue of the Journal of the American Dental Association, Ellis Cohen, M.D., published a study titled "Occupational Disease in Dentistry and Chronic Exposure to Trace Anesthetic Gases."

The results of that 10-year, retrospective epidemiologic research showed increased rates of kidney, liver and neurological disease among male dentists and chairside assistants "who were heavily exposed to anesthetics." Moreover, the wives of the male dentists had a higher-than-average incidence of spontaneous abortion.

At the time of Dr. Cohen's study, nitrous oxide scavenging systems were not standard fare in dental offices.

But the importance of such equipment was becoming apparent. The same year that Dr. Cohen released his findings, in 1980, the ADA Council on Dental Materials, Instruments and Equipment recommended that dentists equip their offices with scavenging systems.

Further council suggestions for minimizing exposure followed during the next decade. Council members worked to educate dental staff about potential nitrous oxide hazards; they offered tips on maintaining anesthetic equipment, checking for leaks and more.

In 1994, NIOSH reiterated its cautionary that exposure to nitrous oxide be limited to 25 ppm.

The following year, CSA convened an expert panel to review the scientific literature on nitrous oxide and determine what might be an appropriate, or safe, level.

While the group never reached a consensus, they did agree that the NIOSH recommendation appeared unreasonably low. The panel then issued its recommendations, published in 1997, for minimizing exposure in the dental office.

See NITROUS, facing page

Stock Listings For Publicly Traded
Dental Management Service Organizations
Initial Public Offerings vs. Current Stock Price

Company Name/Symbol	IPO Date	IPO Price	Price at Close 6/10/99	Change (IPO vs. Close)	52-Week Range 6/10/99
American Dental Partners Inc. (Nasdaq:ADPI)	04/16/98	15	12	-3	6 7/8 - 15
Apple Orthodontix Inc. (AMEX:AOI)	05/23/97	7	1 7/8	-5 1/8	1- 6
Birner Dental Management Services (Nasdaq:BDMS)	02/10/98	7	3 1/8	-3 7/8	2 3/16 - 6
Castle Dental Centers (Nasdaq:CASL)	09/12/97	13	7	-6	4 - 11
Coast Dental Services (Nasdaq:CDEN)	02/11/97	8	6 7/8	-1 1/8	5 - 22
Interdent Inc. (f/k/a Dental Care Alliance Inc.) (Nasdaq:DENT)	11/04/97	12	7 1/8	-4 7/8	4 - 10
Monarch Dental Corp. (Nasdaq:MDDS)	07/18/97	13	3 3/16	-9 13/16	2 - 16 7/8
Orthodontic Centers of America Inc. (NYSE:OCA)	12/20/94	2	12 15/16	10 13/16	10 13/16 - 16-22
Omega Orthodontics Inc. (Nasdaq:ORTH)	10/01/97	6	15/32	-5 17/32	-2
OrthAlliance Inc. (Nasdaq:ORAL)	08/21/97	12	7 3/8	-4 5/8	7 - 15 3/8
Pentegra Dental Group Inc. (AMEX:PEN)	03/25/98	8	2 3/8	-5 9/16	1 5/16 - 8 11/16
Princeton Dental Management Corp. (OTC BB: PDMC)	4/15/92	4 7/10	1/8	-4 23/40	1/8 - 2 3/8

The information included in this chart is believed accurate, but is not guaranteed by the ADA. Because many of these stocks are traded on the over-the-counter market, the "price at close" may represent either the bid or ask for such stock as of the market close. Data and information is provided for informational purposes only, in compliance with a resolution (109H-98) adopted by the 1998 ADA House of Delegates. Data and information are not intended for trading purposes and should not be relied upon by investors. The ADA shall not be liable for any errors in the data and information provided, or for any actions taken in reliance thereon. In addition, this listing of publicly traded DMSOs may not encompass all publicly traded DMSOs active in 1999. The chart also does not reflect any subsequent public offerings that may have been made by the companies listed. The ADA wishes to thank Dr. Jeffrey D. Dorfman of New York for his assistance in preparing this stock listing.

Councils give tips on working with nitrous

By Daniel McCann

In 1997, the ADA councils on Scientific Affairs and Dental Practice brought together a panel of researchers and asked them how dentists might best control nitrous oxide concentrations in their offices.

After studying the scientific literature on nitrous oxide, the panelists issued 11 recommendations:

- The dental office should have a properly installed nitrous oxide delivery system. This includes appropriate scavening equipment with a readily visible and accurate flow meter (or equivalent measuring device), a vacuum pump with the capaicty for up to 45 liters of air per minute per workstation, and a variety of sizes of masks to ensure proper fit for individual patients.
- the vacuum exhaust and ventilation exhaust should be vented to the outside (for example, through the vacuum system) and not in close proximity to fresh-air intake vents.
- the general ventilation should provide good room air mixing.
- Each time the nitrous oxide machine is first turned on and every time a gas cylinder is changed, the pressure connections should be tested for leaks. High-pressure line conections should be tested for leaks on a quarterly basis. A soap solution can be used for testing. Or, alternatively, a portable infrared spectrophotometer can be used to diagnose an insidious leak.
- Prior to first daily use, all nitrous oxide equipment (reservoir bag, tubings, mask, connectors) should be inspected for worn parts, cracks, holes or tears. Replace as necessary.
- The mask may then be connected to the tubing and the vacuum pump turned on. All appropriate flow rates (that is, up to 45 L/min. or per manufacturer's recommendations) should be verified.
- A properly sized mask should be selected and placed on the patient—and a good comfortable fit ensured. The reservoir (breathing) bag should not be over- or underinflated while the patient is breathing oxygen (before administering nitrous oxide).
- The patient should be encouraged to minimize talking and breathing through his or her mouth while the mask is in place.
- during administration, the reservoir bag should be periodically inspected for changes in tidal volume and the vacuum flow rate should be verified.
- Upon completing administration, 100 percent oxygen should be delivered to the patient for five minutes before removing the mask. In this way, both the patient and the system will be purged of residual nitrous oxide. Do not use oxygen flush.
- Periodic (semiannual interval is suggested) personal sampling of dental personnel, with emphasis to chairside personnel exposed to nitrous oxide, should be conducted (for example, use of diffusive sampler [dosimeters] or infrared spectrophotometer). ■

Nitrous

Continued from facing page

Identifying safe levels of exposure to nitrous oxide is a problematic undertaking, say scientists. The complexities of writing protocols for a clinical study, the time, the money, the necessary sample size and, not least, the ethical concerns, all but rule out such a project, they say.

Another option might be to conduct a retrospective survey among U.S. practitioners with the aim of correlating levels of nitrous oxide exposure with health problems. Again, the goal would be to determine safe levels of exposure.

But in its 1998 report to the House, CSA noted that "Even with a comprehensive research plan involving substantial resources and time, the possibility still exists that such levels may not be conclusively determined or that the results may not be accepted by all interested parties without further validation."

Still, by identifying how much dentists can reduce exposure in their offices, researchers will be providing the profession with some long-sought answers.

"And we won't be stopping there," says Dr. Kenneth Burrell, CSA's senior director. "The council will continue to work with manufacturers to improve their equipment and we do what we can to educate members about how important it is to install and properly maintain nitrous

Nevada

Continued from page 33

established practice residencies at UNLV on July 1, 1999, working in Las Vegas at the University Medical Center and Community College of Southern Nevada facilities.

Dr. Rawson believes the UNLV residency program will eventually generate revenue and become self-sufficient.

Several UNLV regents believe the legislature should have provided funding for the dental school without taking money from existing programs in the state university and college system to fund the dental school faculty and residency program.

Following ADA Commission on Accreditation action in January 2000, UNLV may be able to begin recruiting dental students for the first classes in the fall of 2000.

The ADA Commission on Dental Accreditation confirmed that UNLV has filed an accreditation eligible application and paid the required fee. The Commission plans to make a site visit on August 19-20, 1999 and will consider the report of the site visit team in January 2000.

"Accreditation is a long process. It's not something that happens in just one year," says Dr. Donald E. Demkee, chair, Council on Dental Education and Licensure. ■