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# New Infective Endocarditis Guidelines Released

In April 2007, the American Heart Association (AHA) updated its guidelines regarding which patients should take a precautionary antibiotic before a trip to the dentist to prevent infective endocarditis (IE). The AHA appointed a writing group to review input from national and international experts on infective endocarditis and apply the findings to update the AHA's guidelines, *Prevention of Infective Endocarditis: Guidelines From the American Heart Association*, which were published in the online version of *Circulation* (April 19, 2007). The writing group—which included members of the Rheumatic Fever, Endocarditis, and Kawasaki Disease Committee of the AHA Council on Cardiovascular Disease in the Young and representatives from the American Dental Association (ADA), the Infectious Diseases Society of America, and the American Academy of Pediatrics—were chosen for their expertise in the prevention and treatment of infective endocarditis. The ADA first endorsed the AHA guidelines in 1972 when the AHA emphasized maintenance of good oral hygiene.

According to the AHA, the previous recommendations did not have a well-established basis—they were not based on expert opinion and descriptive studies that utilized surrogate measures of risk. The writing group concluded that the previous recommendations were overly complicated, which made it difficult for patients and health care providers to interpret or remember details. The guidelines also contained ambiguities and inconsistencies in the recommendations.

The revised guidelines are intended to identify which patients may benefit from IE prophylaxis and to define which dental procedures should have prophylaxis in that select group of patients. The writing committee hopes that the document will result in greater clarity for patients, health care providers, and consulting professionals.

The new AHA guidelines acknowledge that "...only an extremely small number of cases of IE might be prevented by antibiotic prophylaxis for dental procedures—even if such prophylactic therapy were 100 percent effective." The major changes in the document include the following:

- 1. IE prophylaxis for dental procedures should be recommended only for patients with underlying cardiac conditions with the highest risk of adverse outcome from IE.
- 2. For patients with those cardiac conditions, prophylaxis is recommended for all dental procedures that involve manipulation of gingival tissue or the periapical region of teeth or perforation of the oral mucosa.
- 3. Prophylaxis should not be recommended based solely on an increased lifetime risk of acquisition of IE.
- 4. Administration of antibiotics solely to prevent endocarditis is not recommended for patients who undergo a genitourinary or gastrointestinal tract procedure.

The AHA concluded that bacteremia resulting from daily activities is much more likely to cause IE than bacteremia associated with a dental procedure. In recognition of the fact that these new recommendations may cause concern among patients who have previously received antibiotic prophylaxis to prevent IE before dental or other procedures and are now advised that such prophylaxis is unnecessary, the committee created talking points to help doctors to educate patients about these changes. The talking points recommend that doctors tell patients that:

- 1. IE is much more likely to result from frequent exposure to random bacteremias associated with daily activities than from bacteremia caused by a dental, GI tract, or GU tract procedure.
- 2. Prophylaxis may prevent an exceedingly small number of cases of IE, if any, in individuals who undergo a dental, GI tract, or GU tract procedure.
- 3. The risk of antibiotic-associated adverse events exceeds the benefit, if any, from prophylactic antibiotic therapy.
- 4. Maintenance of optimal oral health and hygiene may reduce the incidence of bacteremia from daily activities and is more important than prophylactic antibiotics for a dental procedure to reduce the risk of IE.

For more information on the changes to the guidelines, visit the AHA Web site at *www.americanheart.org.* To read the guidelines document in its entirety, visit

http://circ.ahajournals.org/cgi/reprint/CIRCULATIONAHA.106.183095.

# **FYI Dental School Updates**

### LSU Dentistry School Receives FEMA Support

On April 16, 2007, the Federal Emergency Management Agency (FEMA) announced that it will provide \$1.3 million to the Louisiana State University (LSU) School of Dentistry in New Orleans to repair an administration building that was damaged by Hurricane Katrina in 2005.

### Sirona Dental Academy Open for CEREC Training

Sirona Dental Systems, Inc. is now offering CEREC training at their Charlotte, N.C., facilities. The first available course is "Clinical Proficiency with the CEREC Master Mode." Alex Touchstone, DDS, the clinical director of the Sirona Dental Academy, is the instructor for this course, which is offered on the following dates: June 22 and 23, July 20 and 21, Aug. 10 and 11, Sept. 7 and 8, and Nov. 9 and 10.

### **ADEA Collaborates with AAL**

The American Dental Education Association (ADEA) has launched an initiative with the Academy for Academic Leadership (AAL) to develop current and future faculty for academic dental institutions. The collaboration will be directed toward two initiatives. The Institute for Teaching and Learning provides practicing dentists and new dental educators with intensive training in teaching methods and course planning, as well as guidance for success in the academic environment. The Institute for Allied Health Educators will provide similar training for allied dental and other allied health professions educators.

### **Cheating Scandal at Indiana University**

According to *IndyStar.com* (May 8, 2007), nearly half of the Indiana University School of Dentistry's second-year class has been disciplined for a cheating scandal in which students broke into password-protected files to view examination material prior to testing. On Fri., May 4, 2007, the school's Faculty Council voted to dismiss nine of the 95 students in the class, suspend 16 students, and issue letters of reprimand to 21 students. The students accessed e-mails from professors, which contained password-protected images, including X-rays that were to be a part of the exam.

### University of the Pacific Receives \$100 Million

Bob and Jeanette Powell have made an estate gift of \$100 million to the University of the Pacific to establish the Robert C. and Jeanette Powell Fund. The University of the Pacific's San Francisco campus holds the Arthur A. Dugoni School of Dentistry. University officials and the Powells will consider the university's priorities and the Powells' interests to determine the best use of the funds. Only six other universities in California have received a larger gift, and only 29 other universities throughout the world have received a larger gift in the past 40 years. The university will propose that a significant portion of the Powell Fund will be used to ensure that the University of the Pacific will be accessible to talented students from all economic backgrounds.

### FYI From the Hill

The AGD serves as the eyes, ears, and voice of the general dentist. View the latest legislative news on the AGD Web site at *www.agd.org* under "Advocacy News."

### Health Insurance Legislation

New bills have been introduced to enable more Americans to obtain health insurance coverage. The first, introduced by Sens. Russell Feingold (D-WI) and Susan Collins (R-ME), would help small businesses reduce health care costs and improve the quality of their employees' health care. *Promoting Health Care Purchasing Cooperatives Act* (S 733) is designed to help businesses form group-purchasing cooperatives to rein in the rising costs of providing care to employees by obtaining enhanced benefits, reducing health care costs, and improving quality. By pooling their experience and interests, employers involved in a coalition could better address tough issues like rising health insurance rates and the lack of comparable health care quality data.

On the other side of the Capitol, Rep. Virgil Goode (R-VA-5) introduced a bill entitled the American LIFE Fund for the Medical Treatment of the Uninsured Act of 2007 (HR 1378). The program established by this legislation would allow taxpayers to donate a specified portion of any overpayment of tax (not less than \$1) for a taxable year to the Health Coverage for the Uninsured Trust Fund. Monies would be available to the Centers for Medicare and Medicaid Services and would be used to provide health coverage for catastrophic illnesses

and injuries to individuals who otherwise have no health coverage.

Rep. Pete Hoekstra (R-MI-2) introduced a bill (HR 1683) that would authorize \$45 million in federal grants for proven, locally designed and administered health care programs for the uninsured. The initiative would provide for flexibility, enabling communities to address their unique and diverse health care needs.

Finally, Rep. Bobby Scott (D-VA-3) introduced a bill (HR 1688) that would provide health insurance coverage to children and pregnant women by combining coverage under Medicaid and State Children's Health Insurance Program (SCHIP). The bill would establish a state-operated program that would receive federal financial assistance to provide comprehensive health coverage for children, as well as pregnant and postpartum women, in place of benefits previously provided under Medicaid and SCHIP.

### Lawmakers Discuss SCHIP; Rockefeller Introduces Reauthorization Bill

Although an increase in the cigarette tax has been discussed as a solution to the funding problems that would result from covering more children under SCHIP, the idea has faced opposition from tobacco-state lawmakers in the House. However, House Majority Leader Whip James Clyburn (D-SC-6), who represents tobacco farmers in the eastern part of his South Carolina district, recently endorsed this plan.

Sen. Gordon Smith (R-OR) successfully attached an amendment to the fiscal year 2008 budget resolution that called for increasing the federal tobacco tax as much as 61 cents (currently estimated at 39 cents a pack). However, House Energy and Commerce Chairman John Dingell (D-MI-15) has stated that he would prefer to reduce overpayments to other insurance programs rather than pay for an expansion of the SCHIP by imposing a new cigarette tax.

Meanwhile, Sen. Jay Rockefeller (D-WV) introduced a \$60 billion SCHIP reauthorization bill (S 1224) that includes a dental requirement. In April 2007, the Academy of General Dentistry released an SCHIP reauthorization position paper that offered four proposed changes to the program.

Also, language was included in the Findings section of the Senate version of the reauthorization bill that stated, "We strongly support maintaining the current flexibility under SCHIP that permits family coverage through waivers to cover parents, while assuring that children remain the primary focus of SCHIP."

The legislation would clarify language concerning Early Screening and Diagnostic Treatment (EPSDT) that was included in the Deficit Reduction Act in 2006. The act is ambiguous about state responsibilities regarding EPSDT coverage. This bill would clear up that confusion and would require states to include EPSDT coverage for all children.

The bill also gives states the option to expand SCHIP coverage for children whose family incomes are up to 300 percent of the poverty line and for pregnant women.

### FYI Research

#### **Certain Foods Take Taste From Cigarettes**

A study in the April 2007 issue of *Nicotine & Tobacco Research* indicates that consuming certain foods particularly fruits and vegetables, dairy products, and non-caffeinated drinks—diminishes the taste of cigarettes. The research also found that cigarette taste is enhanced after eating meat or drinking alcohol or beverages that contain caffeine. Researchers suggested that clinicians should consider advising dietary changes for patients trying to quit smoking.

### **Oral Fluid-Based HIV Test Introduced**

According to *The Times of India* online (April 13, 2007), scientists from McGill University Health Centre in Canada and the Mahatma Ghandi Institute of Medical Sciences in Sevagram, India, have successfully tested an oral fluid-based HIV test that has proved 100 percent accurate. The test involves rubbing a swab against gingiva twice in order to collect oral mucosal transudate fluid. The applicator on the stick then detects HIV antibodies in blood in 20 minutes or less. This study was a result of the Centers for Disease Control's call for more definitive studies than those involving OraQuick®, which indicate that OraQuick is not sufficiently accurate. Researchers say that oral testing is non-invasive and the results are available in minutes. In addition, it can be performed by health workers with minimal training, eliminating the need for specialist laboratory technicians.

### Hepatitis B Transmitted in Dental Setting

A report in the May issue of the *Journal of Infectious Diseases* documents the first patient-to-patient transmission of the Hepatitis B virus (HBV) in a dental office. The incident occurred in New Mexico. The New Mexico Department of Health and the Centers for Disease Control and Prevention have conducted an epidemiological investigation, which found that a 60-year-old woman contracted HBV from a 36-year-old

woman who had undergone an extraction procedure less than three hours prior to the 60-year-old woman undergoing a similar procedure in the same oral surgery operatory. According to the study, no cases of dentist-to-patient HBV transmission have been reported since 1987.

### Researchers Study How to Halt Biofilms

A National Institutes of Health (NIH) grant of \$1.25 million was given to a University of Maryland Dental School assistant professor to research vaccines that might prevent bacteria from banding together to create deadly biofilms. J. William Costerton, PhD, now at the dental school at the University of Southern California, coined the term *biofilm* in 1978 to describe microbes that clump together on wet surfaces, which was first discovered in dentistry as plaque. Biofilms are usually regarded as single-celled organisms, but they are comparable to an ant colony in their coordination and cooperation, as researchers have discovered.

The most alarming finding is that once bacterial infections form a biofilm, they become resistant to attacks from drugs to kill them, including antibiotics—against which they actually begin to fight. In addition, the stress response of the biofilms tricks the natural immune system into using white blood cells to combat the biofilms, which in turn destroy the white blood cells. What might be worse is that once patients cease using the antibiotics, new, free-roaming bacteria emerge from the biofilm and the infection spreads again. Researchers are now trying to find ways to prevent biofilms from forming in the first place.

# GE Healthcare Financing Program

GE Healthcare Financial Services is introducing a program specially designed for dental and health care practices. The Practice Preferred Financing Program can be used for a variety of practice needs, including equipment financing, working capital, and purchasing. The program offers a line of products, including an equipment financing line of credit for upgrading or expanding the practice with new equipment or technology, and a Business MasterCard® for general practice expenses like supplies and merchandise. Dentists and doctors receive a single monthly account statement that breaks out purchasing activity type and amount. Additionally, doctors and dentists will receive a pre-qualified line of credit.

### Portable Device Screens Periodontal Disease

A portable saliva test developed by two researchers can tell patients within minutes if they have periodontal disease. Testing has developed to the point where a dentist would only need a drop of saliva from a patient and less than 10 minutes to analyze the sample and to determine if the patient has periodontal disease. The kit measures the tissue-destructive enzyme matrix metalloptoteinase-8, a molecule released from cells that migrate to periodontal lesions. The results of an analytic test appeared in the March 27, 2007, issue of the *Proceedings of the National Academy of Sciences.* 

# What You Told Us About Your Expectations of AGD Membership...

The April's "Tell Us What You Think" online survey, located on the AGD Web site, asked members, "What are your expectations of AGD membership?" A total of 316 responses were received.

Members were asked about their primary reason for joining the AGD and maintaining their membership. The top three reasons for joining were continuing education (CE) courses, AGD transcripts, and FAGD/MAGD status, respectively. These also were the top reasons for maintaining membership; however, AGD transcripts took precedence over CE courses in this category.

Active general dentist members who have maintained membership for more than 20 years were the primary respondents to the survey. Survey respondents offered several valuable suggestions on how to improve their member experience. These suggestions will be reviewed by the appropriate staff and councils. Below are the full results of the survey:

# What was your primary reason for joining the AGD? (Select all that apply)

Advocacy/representation	40.82%
CE courses	71.84%
FAGD/MAGD status	56.01%
Networking with peers	30.06%
Publications	33.86%
Practice management/development	12.03%
Financial resources	3.16%
Mentoring opportunities	6.33%
AGD Benefits Plus (member benefit programs)	12.03%
AGD transcripts (CE recording)	62.03%

Other (please specify)	5.38%	
How long have you been an AGD member?*		
Less than three years	11.71%	
Four to 10 years	19.3%	
11 to 20 years	25.63%	
More than 20 years	42.72%	
What is your primary reason for maintaining your AGD membership? (Select all that apply)		
Advocacy/representation	52.22%	
CE courses	60.76%	
FAGD/MAGD status	56.33%	
Networking with peers	31.01%	
Publications	35.44%	
Practice management/development	11.71%	
Financial resources	2.53%	
Mentoring opportunities	8.23%	
AGD Benefits Plus (member benefit programs)	11.08%	
AGD transcripts (CE recording)	66.77%	
Other (please specify)	3.48%	
Which of the following best describes your men	hershin tyne?*	
Student member	1.58%	
Recent graduate member	4.11%	
Resident member	0.63%	
Active general dentist	88.61%	
Associate member	0.32%	
Retired member	1.27%	
Emeritus member	2.22%	
Affiliate member	0.00%	
Other (please specify)	0.63%	
*Some respondents may not have included length and type of membership.		

\*Some respondents may not have included length and type of membership.

We'd like to thank the many members who took time out of their busy day to answer the online survey. The results of surveys such as this help the AGD to improve the programs and services it offers to you. Don't forget to take a moment to check out this month's online survey at *www.agd.org.* 

### FYI Health

# Increased Vitamin C May Reduce Cancer

According to a study published in the March 2007 issue of the International Journal of Cancer, men with higher dietary intake of Vitamin C had a reduced risk of developing oral premalignant lesions (OPL). Over the 16-year study period, 207 oral premalignant lesions were identified in male subjects. The authors determined that increased consumption of vitamin C from dietary sources alone, not supplements, was associated with reduced OPL risk.

### More Decay in Baby Teeth

A report from the Centers for Disease Control and Prevention's National Center for Health Statistics, Trends in Oral Health Status—United States, 1998-1994 and 1999-2004, indicates that most Americans are taking better care of their teeth, but tooth decay in baby teeth among children is increasing. The report also highlights significant improvement, particularly in terms of tooth decay in permanent teeth among children, teens, and adults. Thirty-eight percent of children and teens aged 12 to 19 have had dental sealants, which contributes to decreased tooth decay in adult teeth.

### Health Gap Widens in Retirement

A study in the British Medical Journal (May 2007) indicates that the health gap between the lowest and highest paid occupational groups widens in retirement. The study found that living on low wages physically ages a person eight years earlier than higher earners. Physical health declined with age in all groups but most

rapidly among those in the lowest occupational grades. The study also indicated that retirement appeared to improve mental health and well-being among high earners, but no similar improvement was seen in lower occupational groups.

### SUMO Offers Hope for Brain Disease

Researchers at the University of Bristol say boosting levels of a protein in the brain could be a way of treating diseases like epilepsy and schizophrenia. The protein, called small ubiquitin-related modifier (SUMO), acts as a hindrance to the information transmitted to cells. In a healthy brain, synapses modify how efficiently they work by increasing or decreasing the amount of information transmitted. Having too much or too little communication creates health problems like epilepsy and comas. The findings were published in the May 7, 2007 issue of Nature.

### **Selenium May Combat HIV**

A study in Archives of Internal Medicine (January 2007) reported that taking daily selenium supplements may block the buildup of HIV in a patient's blood. The study found a lower HIV viral load in patients who took selenium supplements for nine months. Selenium deficiencies have been recorded in HIV patients and evidence suggests that selenium can improve the function of the immune system.

### **Treatment Could Reverse Memory Loss**

Scientists from the Massachusetts Institute of Technology published a study in Nature (May 10, 2007), which found that mental stimulation and drug treatment could help people with degenerative brain diseases (such as Alzheimer's) recover their memories. The study tested the treatments on mice and found the results suggested that memories of people with degenerative brain diseases were not erased from the brain, but rather could not be accessed because of the disease.

### Painkillers Defenseless Against Alzheimer's

Two studies have found that commonly used painkillers like aspirin and other non-steroidal antiinflammatory drugs that were thought to prevent Alzheimer's actually have no effect. The first study, published in the British Medical Journal, studied 6,000 women, and the second, published in Neurology, examined 2,000 participants who had a family history of Alzheimer's. In other studies, ibuprofen has been shown to dissolve protein clumps in the brain that are linked to Alzheimer's, but taking painkillers to reduce the onset of Alzheimer's is not recommended due to the dangerous side effects associated with overuse of these drugs.

# Pure Fruit Juice Not Causing Weight Gain

Researchers have found that kids who drink pure fruit juice are not at risk to become overweight. Inconsistent research findings have led to continued debate over the potential association between drinking 100 percent fruit juice and nutrient intake, as well as their relation to childhood obesity. Researchers determined that pure fruit juice's essential nutrients, in moderation, may actually help children maintain a healthy weight. The amount of pure fruit juice consumed daily in the study population was 4.1 ounces, which is in line with recommendations from the American Academy of Pediatrics. The research, which was presented at the Pediatric Academic Societies' annual convention in Toronto from May 5 to 8, 2007, also suggested that children who drank any amount of 100 percent juice ate less total fat, saturated fat, sodium, added sugars, and added fats. They also had higher intakes of key nutrients and ate more whole fruits.

July is... National Group B Strep Awareness Month July 1-31 The Jesse Cause—Saving Babies from Group B Strep 567 West Channel Islands Boulevard, #235 Port Hueneme, CA 93041 805.815.2944 www.thejessecause.org

# **UV Safety Month**

July 1-31 American Academy of Ophthalmology P.O. Box 7424 San Francisco, CA 94120-7424 415.447.0213 www.aao.org

# **Eye Injury Prevention Month**

July 1-31 American Academy of Ophthalmology P.O. Box 7424 San Francisco, CA 94120-7424 415.447.0213 www.aao.org

# Hemochromatosis Awareness Month

July 1-31 Iron Disorders Institute 2722 Wade Hampton Blvd, Suite A Greenville, SC 29615 888.565.4766 www.irondisorders.org

# National Youth Sports Week

July 10-14 National Recreation and Park Association 22377 Belmont Ridge Road Ashburn, VA 20148-4150 703.858.0784 www.nrpa.org

FYI Tools of the Trade

DetecTar<sup>™</sup> Mini Neks Technologies 2816 J.A. Bombardier Laval QC Canada H7P 6E2 866.887.6357 <u>www.neks.ca</u>



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i700B Dental Steam Cleaner Reliable™ Corporation 5-100 Wingold Avenue Toronto, ON Canada M6B 4K7 800.268.1649 <u>www.reliablecorporation.com</u>

The i700B professional stainless steel Dental Steam Cleaner is part of a new generation of steam cleaners that incorporate high grade stainless steel in the steam tank (to prevent contamination of the water supply) with a clean design. It offers a quick, efficient way to clean away leftover wax, plaster waste, and other debris. The i700B also includes 12-gauge wiring throughout, a ceramic terminal block, a steam gun, a built-in steam solenoid valve, automatic shut-off, and up to 70 p.s.o. operating pressure.

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