DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
Atlanta GA 30333

August 1986

Dear Colleague:

This letter includes what we consider to be some exciting topics, especially in the area of smokeless tobacco: a report of the Surgeon General's Advisory Committee on Smokeless Tobacco; signing of the Smokeless Tobacco Education Act; the Inspector General's report on smokeless tobacco; and pertinent educational information.

With regard to fluoridation, EPA has made a final ruling on the National Primary and Secondary Drinking Water Regulations; and more fluoride engineering training courses are scheduled for the near future.

In the area of infection control, we have included a synopsis of the National Conference on Infection Control in Dentistry held on May 13-14 in Chicago; the most current resources available from CDC on hepatitis B, AIDS, and infection control; and information on EPA's intent to restrict unwarranted claims concerning disinfectant products.

Other information of interest includes a summary of the 1986 National Oral Health Conference held March 16-21 in Williamsburg, Virginia; an upcoming conference on Baby Bottle Tooth Decay; and the availability of materials in a variety of areas (mercury, nosocomial infections, fluoridation, and smokeless tobacco).

Thanks to those of you have made contributions to this letter. With your assistance, we can continue to provide the most current information concerning the prevention of oral diseases and the promotion of oral health.

Stephen B. Corbin

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Chief, Dental Disease Prevention
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Center for Prevention Services

SMOKELESS TOBACCO

REPORT OF THE SURGEON GENERAL'S ADVISORY COMMITTEE ON SMOKELESS TOBACCO

"Americans now have scientific evidence that chewing tobacco or dipping snuff is not a safe alternative to cigarette smoking, can cause cancer, and lead to addiction or dependence."

Senator Orrin Hatch (R-Utah), made the above statement at a news conference held on March 25, 1986. He was referring to the report of the "Surgeon General's Advisory Committee on the Health Consequences of Using Smokeless Tobacco" which was subsequently issued on April 1, 1986. "In an age when most Americans are zealous in their attempts to maintain good health and prevent illness, this report provides factual information that refutes claims that the use of smokeless tobacco products is less harmful than smoking cigarettes. I think this report is timely and useful as we continue the public education effort to let citizens know what they can do to help ensure their good health," Hatch said.

Also participating in the news conference were Dr. C. Everett Koop, U.S. Surgeon General, and Senator Richard Lugar (R-Indiana), who along with Hatch, sponsored the Comprehensive Smokeless Tobacco and Health Education Act of 1985 which subsequently became public law (see following article).

Dr. Koop states in the Foreword to the report, "This report completes the Public Health Service's (PHS) initial examination of smokeless tobacco's role in the causation of cancer, noncancerous and precancerous oral diseases or conditions, addiction, and other adverse health effects. Almost 30 years after the PHS's first statement on the health effects of cigarette smoking, it is now possible to issue the first comprehensive, in-depth review of the relationship between smokeless tobacco use and health."

The following statement was issued by the committee in the Preface of the report:

> "After a careful examination of the relevant epidemiologic, experimental, and clinical data, the committee concludes that the oral use of smokeless tobacco represents a significant health risk. It is not a safe substitute for smoking cigarettes. It can cause cancer and a number of noncancerous oral conditions and can lead to nicotine addiction and dependence."
>
> The major conclusions of this report are the following:
>
> 1. It is estimated that smokeless tobacco was used by at least 12 million people in the United States in 1985 and that half of these were regular users. The use of smokeless tobacco, particularly moist snuff, is increasing, especially among male adolescents and young male adults.
>
> 2. The scientific evidence is strong that the use of snuff can cause cancer in humans. The evidence for causality is strongest for cancer of the oral cavity, wherein cancer may occur several times more frequently in snuff dippers compared to nontobacco users. The excess risk of cancer of the cheek and gum may reach nearly fifty-fold among long-term snuff users.

3. Some investigations suggest that the use of chewing tobacco may also increase the risk of oral cancer, but the evidence is not as strong and the risks have yet to be quantified.

4. Experimental investigations reveal potent carcinogens in smokeless tobacco. These include nitrosamines, polycyclic aromatic hydrocarbons, and radiation-emitting polonium. The tobacco-specific nitrosamines often have been detected at levels at 100 or more times higher than Government-regulated levels of other nitrosamines permitted in foods eaten by Americans.

5. Smokeless tobacco use can lead to the development of oral leukoplakias (white patches or plaques of the oral mucosa), particularly at the site of tobacco placement. Based on evidence from several studies, a portion of leukoplakias can undergo transformation to dysplasia and further to cancer.

6. Gingival recession is a commonly reported outcome of smokeless tobacco use.

7. A number of studies have shown that nicotine exposure from smoking cigarettes can cause addiction in humans. In this regard, nicotine is similar to other addictive drugs such as morphine and cocaine. Since nicotine levels in the body resulting from smokeless tobacco are similar in magnitude to nicotine levels from cigarette smoking, it is concluded that smokeless tobacco use also can also be addictive. Besides, recent studies have shown that nicotine administered orally has the potential to produce a physiologic dependence.

8. Some evidence suggests that nicotine may play a contributory or supportive role in the pathogenesis of coronary artery and peripheral vascular disease, hypertension, peptic ulcers, and fetal mortality and morbidity.

DDPA has been advised that copies of this report are being mailed by the Office on Smoking and Health to State and Territorial personnel, attendees at the National Oral Health Conference held in Williamsburg, and attendees at the NIH Consensus Development Conference on Smokeless Tobacco. The mailout should have been completed by mid-July. If you have not received a copy, or if the above is not applicable to you, copies of the report may be obtained from:

U.S. Department of Health and Human Services, PHS
National Cancer Institute, NIH
Blair Building, Room 427
Bethesda, Maryland 20892-4200

SMOKELESS TOBACCO EDUCATION ACT SIGNED

On February 27, 1986, President Reagan signed into law the "Comprehensive Smokeless Tobacco Health Education Act of 1986" (Public Law 99-252).

The following citations, which should be of special interest to the dental community, have been excerpted from the full Act:

Sec. 2. PUBLIC EDUCATION

(a) DEVELOPMENT - (1) The Secretary of Health and Human Services shall establish and carry out a program to inform the public of any dangers to human health resulting from the use of smokeless tobacco products. In carrying out such program the Secretary shall -

(A) develop educational programs and materials and public service announcements respecting the dangers to human health from the use of smokeless tobacco;

(B) make such programs, materials, and announcements available to States, local governments, school systems, the media, and such other entities as the Secretary determines appropriate to further the purposes of this Act;

(C) conduct and support research on the effect of smokeless tobacco on human health; and

(D) collect, analyze, and disseminate information and studies on smokeless tobacco and health.

(b) ASSISTANCE - The Secretary of Health and Human Services may provide technical assistance and may make grants to States -

(1) to assist in the development of educational programs and materials and public service announcements respecting the dangers to human health from the use of smokeless tobacco,

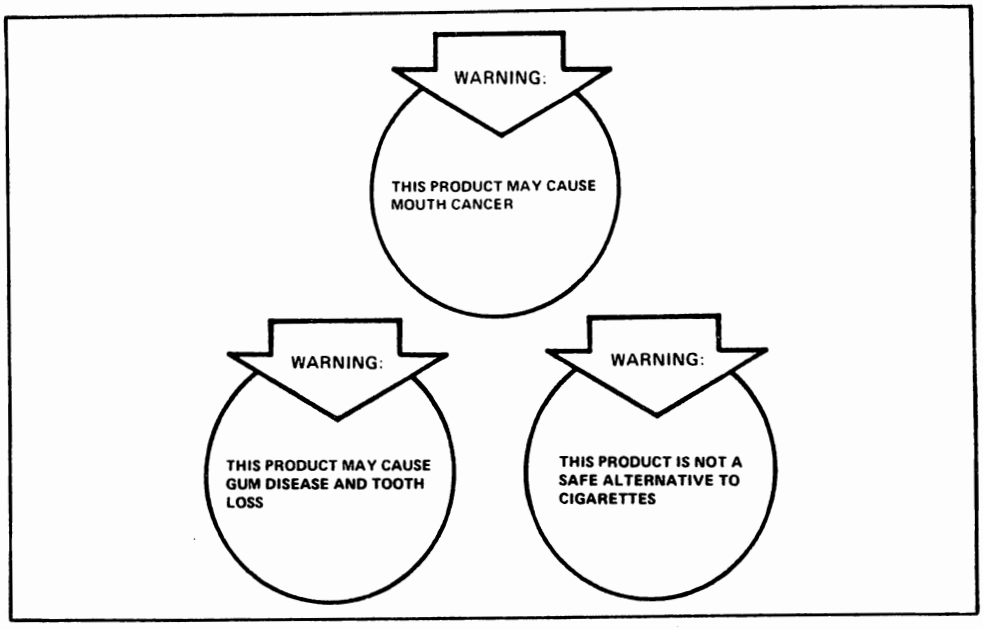
(2) to assist in the distribution of such programs, materials, and announcements throughout the States, and

(3) to establish 18 as the minimum age for the purchase of smokeless tobacco.

SEC. 3. SMOKELESS TOBACCO WARNING

(a) GENERAL RULE -

(1) It shall be unlawful for any person to manufacture, package, or import for sale or distribution within the United States any smokeless tobacco product unless the product package bears, in accordance with the requirement of this Act, one of the following labels:



(2) It shall be unlawful for any manufacturer, packager, or importer of smokeless tobacco products to advertise or cause to be advertised (other than through the use of outdoor billboard advertising) within the United States any smokeless tobacco product unless the advertising bears, in accordance with the requirements of this Act, one of the labels required by paragraph (1).

SMOKELESS TOBACCO REPORT FROM INSPECTOR GENERAL

Following a survey taken on use of smokeless tobacco among youth, the Office of the Inspector General has issued a report, "Youth Use of Smokeless Tobacco: More than a Pinch of Trouble." The purpose of the survey was to provide the Surgeon General with information about duration, frequency, intensity, and quality of smokeless tobacco use from current and former smokeless tobacco users and "key informants." A "user" was defined as one who has dipped or chewed on more than 100 occasions; or presently uses daily or at least 3 days per week, dipping at least three times on days of use. A "non-user" was defined as one who has never dipped or chewed, or has only tried it a few times, but fewer than 100 times. "Key informants" were defined as school officials such as principals, teachers, coaches, and nurses; health providers such as dentists and physicians; State health and education officials; and public interest groups such as the American Cancer Society. Also, knowledge, attitudes, and beliefs about use such as perceived social acceptability, perceived legal aspects, perceived health risks, and reasons for use and continued use were assessed in this survey.

The survey was conducted in 1985 in 16 States, and included 31 schools (11 junior high or middle schools and 20 senior high schools), with a total of 525 respondents. Although the number of schools and respondents was small, the survey does provide qualitative data that had not been previously available.

Some of the major findings from this report are:

- o Youth start dipping and chewing at very young ages (average age of first use is only 10 years).

- o Use of smokeless tobacco by secondary and even primary school students has increased at a rapid rate in recent years.

- o Smokeless tobacco advertising does encourage youth to try dipping and chewing according to a strong majority of study respondents.

- o Many health providers and educators say youth are unaware of the health risks of dipping and chewing. About 6 of 10 junior high school users and 4 of 10 senior high school users say there is either no risk or only a slight risk from regular use.

- o A considerable amount of inaccurate information exists on the risks of smokeless tobacco among users. For example, 81 percent of users see smokeless tobacco use as much safer than cigarettes; about 5 of 10 users believe gum and mouth problems among dippers are rare; and 25 percent think snuff does not contain nicotine. One-fourth of junior high school users say regular use is not addictive and one-third do not think it may lead to mouth cancer.

- o Based on self-reports, many young dippers are experiencing serious health effects. About 4 of 10 users have had site specific leukoplakia; 37 percent have experienced sores, blisters, and ulcers on their gums, lips, and tongues; and 20 percent have bleeding gums.

- o Addiction is a very serious problem for many users. Many (70 percent) say they've tried to quit, often many times, but most (78 percent) fail due to "addiction," "craving," or "habit."

- o The study concludes that youth use of smokeless tobacco is a growing national problem with serious current and future health consequences and recommends that the Surgeon General:

  - Launch an educational public media campaign on the risks of use.

  - Support school health educational efforts.

  - Seek funding for basic research on smokeless tobacco use and risks.

  - Provide strong leadership on the smokeless tobacco issue.

Copies of the entire report may be obtained from:

DHHS/OIG/OAI
Attention: Mr. Ralph Tunnell
1100 Commerce Street, Room 4-E6
Dallas, Texas 75242
Telephone: (214) 767-3310

Reference:

U.S. Department of Health and Human Services, Office of Inspector General, Office of Analysis and Inspections, "Youth Use of Smokeless Tobacco: More than a Pinch of Trouble," January 1986, Control Number P-06-86-0058.

IDAHO CANCER COORDINATING COMMITTEE CONDUCTS SCHOOL TOBACCO EDUCATION PROGRAM

The Idaho Cancer Coordinating Committee, Inc., in cooperation with the Idaho Department of Health and Welfare, has been conducting a comprehensive "School Tobacco Education Program" in Idaho which places a great deal of emphasis on smokeless tobacco. This year over 15,000 students are participating in the program and it is hoped that the program will be expanded to include 20,000 next year.

The committee also conducts pre-test and post-test evaluation questionnaires to measure knowledge, attitudes, and behaviors of program participants in grades 6-12 concerning smokeless tobacco. Thirty-nine school districts participated in the program during the 1984-85 school year. Of the 5,605 students who completed the pre- and post-tests, 6.4 percent use smokeless tobacco (11.2 percent males, 1.6 percent females) while 4.2 percent of respondents smoke cigarettes. Of those who use smokeless tobacco, 44 percent started before age 10 and 41 percent started between 10 and 12 years of age. Of those who smoke cigarettes, 51 percent started before age 10 and 38 percent started between 10 and 12 years of age. Because of these findings, the program committee is considering developing a smokeless tobacco program for youth in grades 4 and 5. From the 5,605 students surveyed in grades 6 to 12, 133 students quit using tobacco (both cigarettes and smokeless) during the time between pre- and post-test.

Audiovisual materials, including a film, videotapes, slide-sound presentation, brochures, etc. are available. For further information about this program contact:

Wadie Elaimy, Dr.P.H.
Executive Director
Idaho Cancer Control Program
Idaho Cancer Coordinating Committee, Inc.
1655 Fairview, Suite 202
Boise, Idaho 83702
Telephone: (208) 343-7888

or

Dr. Thomas Bruck
Dental Health Section
Bureau of Child Health
450 West State Street
4th Floor - Statehouse
Boise, Idaho 83702
Telephone: (208) 334-4142

SMOKELESS TOBACCO POSTER FROM MASSACHUSETTS

On the following page is a reproduction of a new smokeless tobacco poster from Massachusetts.

For more information contact:

Dr. Gregory N. Connolly
Director, Division of Dental Health
Massachusetts Department of Public Health
150 Tremont Street, Room 8-M-20
Boston, Massachusetts 02111
Telephone: (617) 727-0732


Smokeless Isn't Harmless
CHEW
TRASH
If you dip or chew get the facts.
FACT: Smokeless tobacco can cause mouth sores and gum disease.
FACT: Smokeless tobacco contains nicotine, an addictive substance.
FACT: Smokeless tobacco can cause tooth discoloration, tooth loss and bad breath.
FACT: Smokeless tobacco can lead to mouth cancer.

FLUORIDATION

EPA FINAL RULING ON NATIONAL PRIMARY AND SECONDARY DRINKING WATER REGULATIONS: FLUORIDE

The Environmental Protection Agency (EPA) has issued the final ruling on actions regulating fluoride in public drinking water systems under the Safe Drinking Water Act (SDWA). The following summary of the final rule appeared in the Federal Register, April 2, 1986:

> "EPA is promulgating a National Revised Primary Drinking Water Regulation (NRPDWR or Revised Regulation) setting an MCL of 4.0 mg/l for fluoride. EPA is also promulgating an amendment to the existing National Interim Primary Drinking Water (NIPDWR or Interim regulation) for fluoride which revises the Interim Maximum Contaminant Level (MCL) to 4.0 mg/l. This amendment to the Interim Regulation and the new Revised Regulation are based on a Recommended Maximum Contaminant Level (RMCL) of 4 mg/l promulgated in the Federal Register of November 14, 1985 (50 FR 47142) to protect against crippling skeletal fluorosis. While the RMCL is a nonenforceable health goal, Interim and Revised Regulations are enforceable standards for the protection of public health.
>
> "The agency is also promulgating procedures by which systems may obtain variances from the Interim and Revised Regulations.
>
> "Under the variance procedures, a system must install or agree to install, one of the identified best technologies generally available (BTGA) unless none of them are technically available and effective. In any event, the system must install other technologies if their use is technically feasible, economically reasonable, and will achieve reductions commensurate with the costs incurred. EPA has also concluded that exemptions are available under the Act for the Revised Regulation.
>
> "A National Secondary Drinking Water Regulation (NSDWR or secondary regulation) is promulgated establishing a Secondary Maximum Contaminant Level (SMCL) of 2.0 mg/l to protect against objectionable dental fluorosis. EPA is also establishing monitoring, reporting, and public notification regulations to support the Interim and Revised Regulations. Secondary regulations are federal guidelines for the protection of public welfare. EPA also is establishing a public notification requirement for systems which exceed the SMCL."

Effective Date:

1. "The revised MCL and the requirement that compliance monitoring data be produced by laboratories that have met certain requirements will take effect October, 1987."

2. "All other regulations promulgated today will take effect May 2, 1986."

For further information, contact:

Joseph A. Cotruvo, Ph.D.
Director, Criteria and Standards Division
Office of Drinking Water (WH-550)
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460
Telephone: (202) 382-7575

FLUORIDATION TRAINING COURSES

Basic Engineering Course

The Dental Disease Prevention Activity, Centers for Disease Control, (CDC) and the State of Tennessee periodically conduct training courses on the basic engineering aspects of community water fluoridation. Courses have been designed primarily for State-employed engineers and/or technicians who are involved with community or school water fluoridation. However, other personnel, i.e., State, county, and local dental directors, fluoridation program managers, and others involved in fluoridation programs have benefited from the course.

The 5-day training courses include the topics of fluoridation and public health, fluoride chemicals, types of fluoride equipment, equipment installation, system design, and school fluoridation. Course methodology includes lectures, group discussions, and hands-on training.

The last basic course was held on July 14-18, 1986. It is anticipated that three more basic courses will be held in 1987 (no dates have been set).

Annual Fluoridation Engineering Workshop

CDC and the State of Tennessee have also established an Annual Fluoridation Engineering Workshop for those who are more technically involved in fluoridation to provide information about the most recent advances in equipment and operation and maintenance, both from equipment manufacturers and each other. Only graduates of one of the basic fluoridation engineering courses are eligible to attend.

The next workshop will be held on October 20-24, 1986.

Both the basic course and workshop will be held at the Tennessee State Department of Health's Operator Training Center in Murfreesboro, Tennessee, which is located 35 miles east of Nashville. Transportation will be provided daily to and from the training facility.

For further information or to register for one of these courses, contact Tom Reeves or Darrell Sanders, Fluoridation Engineers, at the following address:

Dental Disease Prevention Activity, CPS
Freeway Park, Room 345
Centers for Disease Control
Atlanta, Georgia 30333
Telephone: (404) 329-1833
FTS: 236-1833

INFECTION CONTROL

NATIONAL CONFERENCE ON INFECTION CONTROL IN DENTISTRY

The American Dental Association (ADA) hosted the National Conference on Infection Control in Dentistry on May 13-14, 1986, at ADA headquarters in Chicago, Illinois. Co-sponsored by the ADA, CDC, and NIH, the conference discussed infection control procedures in dental practice. More than 200 persons attended, including representatives from dental schools, State dental associations, State dental public health directors, military dental services, dental specialty organizations, dental trade, commercial dental laboratories, the American Dental Hygienists' Association, the American Dental Assistants' Association, the Dental Manufacturers of America, and the National Association of Dental Laboratories.

Strict adherence to infection control procedures can prevent the transmission of AIDS, hepatitis B, herpes, and other infectious diseases. Prevention techniques that were discussed at the 2-day conference included the routine use of gloves, masks, protective eyeware, sterilization of dental instruments, disinfection of office surfaces, and proper disposal of contaminated materials.

To date, there are no reports of occupational transmission of AIDS in dental practices. The ADA and the Centers for Disease Control (CDC) believe that strict adherence to specific guidelines for infection control should effectively eliminate any risk of transmission of AIDS or other infectious diseases in a dental care setting.

Dentistry has been in the forefront of promoting improved infection control measures for the protection of patients. "The purpose of this conference was to enhance the widespread use of these guidelines in all dental care settings. The conference also served as a mechanism to distribute this information through the leaders in dentistry who have the ability to reach as many dental professionals as possible," said Stephen B. Corbin, D.D.S., Chief, Dental Disease Prevention Activity, CDC.

RESOURCE PACKETS ON HEPATITIS B, AIDS, AND INFECTION CONTROL

The Dental Disease Prevention Activity has recently developed three resource packets on Hepatitis B, AIDS, and Infection Control for dental professionals. Each packet contains pertinent and current articles on each of these topics. Specific titles are listed below.

Hepatitis B

1. "Recommendations for Protecting Against Viral Hepatitis," CDC MMWR, June 7, 1985, Vol. 34, No. 22.

2. "Hepatitis B among Dental Patients - Indiana," CDC MMWR, Feb. 8, 1985, Vol. 34, No. 5.

3. "Hepatitis B and the Dental Professional," JADA, Vol. 110, April 1985.

4. "Risk of Hepatitis B in Dental Care Providers: A Contact Study," Sywassink, JM, and Lutwick, LI, JADA, Feb. 1983, Vol. 106.

5. "Update on Hepatitis B Outbreak in Indiana," DDPA Dear Colleague Letter, Nov. 1985.

AIDS

1. "Facts about AIDS for Dental Professionals," Council on Dental Therapeutics, ADA, Feb. 1986.

2. "USPHS Recommended Precautions for Health Care Workers and Allied Professionals Regarding AIDS," CDC MMWR, Nov. 5, 1982, Vol. 31, No. 43.

3. "Inactivation of AIDS Virus in Clothing," Bond, WW, JAMA, May 3, 1985, Vol. 253, No. 17.

4. "Oral Viral Lesion (Hairy Leukoplakia) Associated with AIDS," CDC MMWR, Sept. 13, 1985, Vol. 34, No. 36.

5. "Facts about AIDS," USPHS, Winter 1986.

6. "Summary: Recommendations for Preventing Transmission of Infection with HTLV-III/LAV in the Workplace," CDC MMWR, Nov. 15, 1985, Vol. 34, No. 45.

7. "Recommendations for Preventing Transmission of Infection with HTLV-III/LAV During Invasive Procedures," CDC MMWR, April 11, 1986, Vol. 35, No. 14.

Infection Control

1. "Guidelines for Infection Control in the Dental Office and Commercial Dental Laboratory", ADA, June 1985.

2. "Chemical Disinfection of Medical and Surgical Materials," Favero, MS, Disinfection, Sterilization, and Preservation, Block, SS (ed.), 3rd edition, Lea and Febiger, Philadelphia, 1983.

3. "Quaternary Ammonium Compounds Not Acceptable for Disinfection of Instruments and Environmental Surfaces in Dentistry," Council on Dental Therapeutics, ADA, JADA, Vol. 97, Nov. 1978.

4. "Sterilization, Disinfection, Housekeeping, and Waste Disposal to Prevent Transmission of HTLV-III/LAV," CDC MMWR, Nov. 15, 1985, Vol. 34, No. 45.

5. "Recommended Infection Control Practices for Dentistry," CDC MMWR, April 18, 1986, Vol. 35, No. 15.

Due to printing constraints, we are placing a limit of one (of each topic packet per request. Packets may be requested from:

Dental Disease Prevention Activity
Freeway Park, Room 345
Centers for Disease Control
Atlanta, GA 30333
Telephone: (404) 329-1830
FTS 236-1830

RECENT CDC RELEASES ON PREVENTION OF INFECTION DURING INVASIVE PROCEDURES AND INFECTION CONTROL PRACTICES FOR DENTISTRY

Two articles which should be of interest to dental health care workers have recently appeared in the CDC Morbidity and Mortality Weekly Report (MMWR) and are reproduced below in their entirety:

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PUBLIC HEALTH SERVICE

from *MMWR*, Vol. 35, No. 14, April 11, 1986, pp. 221-223

Recommendations for Preventing Transmission of Infection with Human T-Lymphotropic Virus Type III/ Lymphadenopathy-Associated Virus during Invasive Procedures

BACKGROUND

On November 15, 1985, "Recommendations for Preventing Transmission of Infection with Human T-Lymphotropic Virus Type III/Lymphadenopathy-Associated Virus in the Workplace," was published (*1*). That document gave particular emphasis to health-care settings and indicated that formulation of further specific recommendations for preventing human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV) transmission applicable to health-care workers (HCWs) who perform invasive procedures was in progress.

Toward that end, a 2-day meeting was held at CDC to discuss draft recommendations applicable to individuals who perform or assist in invasive procedures.* Following the meeting, revised draft recommendations for HCWs who have contact with tissues or mucous membranes while performing or assisting in operative, obstetric, or dental invasive procedures were sent to participants for comment. In addition, 10 physicians with expertise in infectious diseases and the epidemiology of HTLV-III/LAV infection were consulted to determine whether they felt additional measures or precautions beyond those recommended below were indicated. These 10 experts did not feel that additional recommendations or precautions were indicated.

DEFINITIONS

In this document, an operative procedure is defined as surgical entry into tissues, cavities, or organs or repair of major traumatic injuries in an operating or delivery room, emergency department, or outpatient setting, including both physicians' and dentists' offices. An obstetric procedure is defined as a vaginal or cesarean delivery or other invasive obstetric procedure where bleeding may occur. A dental procedure is defined as the manipulation, cutting, or removal of any oral or perioral tissues, including tooth structure, where bleeding occurs or the potential for bleeding exists.

RECOMMENDATIONS

There have been no reports of HTLV-III/LAV transmission from an HCW to a patient or from a patient to an HCW during operative, obstetric, or dental invasive procedures. Nevertheless, special emphasis should be placed on the following precautions to prevent transmission of bloodborne agents between all patients and all HCWs who perform or assist in invasive procedures.

1. All HCWs who perform or assist in operative, obstetric, or dental invasive procedures must be educated regarding the epidemiology, modes of transmission, and prevention of HTLV-III/LAV infection and the need for routine use of appropriate barrier precautions during procedures and when handling instruments contaminated with blood after procedures.

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*The following organizations were represented at the meeting: American Academy of Family Physicians; American Academy of Periodontology; American Association of Dental Schools; American Association of Medical Colleges; American Association of Oral and Maxillofacial Surgeons; American Association of Physicians for Human Rights; American College of Emergency Physicians; American College of Nurse Midwives; American College of Obstetricians and Gynecologists; American College of Surgeons; American Dental Association; American Dental Hygienists Association; American Hospital Association; American Medical Association; American Nurses' Association; American Public Health Association; Association for Practitioners in Infection Control; Association of Operating Room Nurses; Association of State and Territorial Health Officials; Conference of State and Territorial Epidemiologists; U.S. Food and Drug Administration; Infectious Diseases Society of America; National Association of County Health Officials; National Dental Association; National Institutes of Health; National Medical Association; Nurses Association of the American College of Obstetricians and Gynecologists; Society of Hospital Epidemiologists of America, Surgical Infection Society, and United States Conference of Local Health Officers. In addition, a hospital administrator, a hospital medical director, and representatives from CDC participated in the meeting. These recommendations may not reflect the views of all individual consultants or the organizations they represented.

2. All HCWs who perform or assist in invasive procedures must wear gloves when touching mucous membranes or nonintact skin of all patients and use other appropriate barrier precautions when indicated (e.g., masks, eye coverings, and gowns, if aerosolization or splashes are likely to occur). In the dental setting, as in the operative and obstetric setting, gloves must be worn for touching all mucous membranes and changed between all patient contacts. If a glove is torn or a needlestick or other injury occurs, the glove must be changed as promptly as safety permits and the needle or instrument removed from the sterile field.
3. All HCWs who perform or assist in vaginal or cesarean deliveries must use appropriate barrier precautions (e.g., gloves and gowns) when handling the placenta or the infant until blood and amniotic fluid have been removed from the infant's skin. Recommendations for assisting in the prevention of perinatal transmission of HTLV-III/LAV have been published (*2*).
4. All HCWs who perform or assist in invasive procedures must use extraordinary care to prevent injuries to hands caused by needles, scalpels, and other sharp instruments or devices during procedures; when cleaning used instruments; during disposal of used needles; and when handling sharp instruments following procedures. After use, disposable syringes and needles, scalpel blades, and other sharp items must be placed in puncture-resistant containers for disposal. To prevent needlestick injuries, needles should not be recapped; purposefully bent or broken; removed from disposable syringes; or otherwise manipulated by hand. No data are currently available from controlled studies examining the effect, if any, of the use of needle-cutting devices on the incidence of needlestick injuries.
5. If an incident occurs during an invasive procedure that results in exposure of a patient to the blood of an HCW, the patient should be informed of the incident, and previous recommendations for management of such exposures (*1*) should be followed.
6. No HCW who has exudative lesions or weeping dermatitis should perform or assist in invasive procedures or other direct patient-care activities or handle equipment used for patient care.
7. All HCWs with evidence of any illness that may compromise their ability to adequately and safely perform invasive procedures should be evaluated medically to determine whether they are physically and mentally competent to perform invasive procedures.
8. Routine serologic testing for evidence of HTLV-III/LAV infection is not necessary for HCWs who perform or assist in invasive procedures or for patients undergoing invasive procedures, since the risk of transmission in this setting is so low. Results of such routine testing would not practically supplement the precautions recommended above in further reducing the negligible risk of transmission during operative, obstetric, or dental invasive procedures.

Previous recommendations (*1,3,4*) should be consulted for: (1) preventing transmission of HTLV-III/LAV infection from HCWs to patients and patients to HCWs in health-care settings other than those described in this document; (2) preventing transmission from patient to patient; (3) sterilizing, disinfecting, housekeeping, and disposing of waste; and (4) managing parenteral and mucous-membrane exposures of HCWs and patients. Previously recommended precautions (*1*) are also applicable to HCWs performing or assisting in invasive procedures.

References

1. CDC. Recommendations for preventing transmission of infection with human T-lymphotropic virus type III/lymphadenopathy-associated virus in the workplace. MMWR 1985;34:682-6, 691-5.
2. CDC. Recommendations for assisting in the prevention of perinatal transmission of human T-lymphotropic virus type III/lymphadenopathy-associated virus and acquired immunodeficiency syndrome. MMWR 1985;34:721-6, 731-2.
3. CDC. Acquired immune deficiency syndrome (AIDS): precautions for clinical and laboratory staffs. MMWR 1982;31:577-80.
4. CDC. Acquired immunodeficiency syndrome (AIDS): precautions for health-care workers and allied professionals. MMWR 1983;32:450-1.

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PUBLIC HEALTH SERVICE
from *MMWR*, April 18, 1986, Vol. 35, No. 15, pp. 237-242

Recommended Infection-Control Practices for Dentistry

Dental personnel may be exposed to a wide variety of microorganisms in the blood and saliva of patients they treat in the dental operatory. These include *Mycobacterium tuberculosis*, hepatitis B virus, staphylococci, streptococci, cytomegalovirus, herpes simplex virus types I and II, human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV), and a number of viruses that infect the upper respiratory tract. Infections may be transmitted in dental practice by blood or saliva through direct contact, droplets, or aerosols. Although not documented, indirect contact transmission of infection by contaminated instruments is possible. Patients and dental health-care workers (DHCWs) have the potential of transmitting infections to each other (*1*).

A common set of infection-control strategies should be effective for preventing hepatitis B, acquired immunodeficiency syndrome, and other infectious diseases caused by bloodborne viruses (*2-4*). The ability of hepatitis B virus to survive in the environment (*5*) and the high titers of virus in blood (*6*) make this virus a good model for infection-control practices to prevent transmission of a large number of other infectious agents by blood or saliva. Because all infected patients cannot be identified by history, physical examination, or readily available laboratory tests (*3*), the following recommendations should be used routinely in the care of all patients in dental practices.

MEDICAL HISTORY

Always obtain a thorough medical history. Include specific questions about medications, current illnesses, hepatitis, recurrent illnesses, unintentional weight loss, lymphadenopathy, oral soft tissue lesions, or other infections. Medical consultation may be indicated when a history of active infection or systemic disease is elicited.

USE OF PROTECTIVE ATTIRE AND BARRIER TECHNIQUES

1. For protection of personnel and patients, gloves must always be worn when touching blood, saliva, or mucous membranes (*7-10*). Gloves must be worn by DHCWs when touching blood-soiled items, body fluids, or secretions, as well as surfaces contaminated with them. Gloves must be worn when examining all oral lesions. All work must be completed on one patient, where possible, and the hands must be washed and regloved before performing procedures on another patient. Repeated use of a single pair of gloves is not recommended, since such use is likely to produce defects in the glove material, which will diminish its value as an effective barrier.

2. Surgical masks and protective eyewear or chin-length plastic face shields must be worn when splashing or spattering of blood or other body fluids is likely, as is common in dentistry (*11, 12*).

3. Reusable or disposable gowns, laboratory coats, or uniforms must be worn when clothing is likely to be soiled with blood or other body fluids. If reusable gowns are worn, they may be washed, using a normal laundry cycle. Gowns should be changed at least daily or when visibly soiled with blood (*13*).

4. Impervious-backed paper, aluminum foil, or clear plastic wrap may be used to cover surfaces (e.g., light handles or x-ray unit heads) that may be contaminated by blood or saliva and that are difficult or impossible to disinfect. The coverings should be removed (while DHCWs are gloved), discarded, and then replaced (after ungloving) with clean material between patients.

5. All procedures and manipulations of potentially infective materials should be performed carefully to minimize the formation of droplets, spatters, and aerosols, where possible. Use of rubber dams, where appropriate, high-speed evacuation, and proper patient positioning should facilitate this process.

HANDWASHING AND CARE OF HANDS

Hands must always be washed between patient treatment contacts (following removal of gloves), after touching inanimate objects likely to be contaminated by blood or saliva from other patients, and before leaving the operatory. The rationale for handwashing after gloves have been worn is that gloves become perforated, knowingly or unknowingly, during use and allow bacteria to enter beneath the glove material and multiply rapidly. For many routine dental procedures, such as examinations and nonsurgical techniques, handwashing with plain soap appears to be adequate, since soap and water will remove transient microorganisms acquired directly or indirectly from patient contact (*13*). For surgical procedures, an antimicrobial surgical handscrub should be used (*14*). Extraordinary care must be used to avoid hand injuries during procedures. However, when gloves are torn, cut, or punctured, they must be removed immediately, hands thoroughly washed, and regloving accomplished before completion of the dental procedure. DHCWs who have exudative lesions or weeping dermatitis should refrain from all direct patient care and from handling dental patient-care equipment until the condition resolves (*15*).

USE AND CARE OF SHARP INSTRUMENTS AND NEEDLES

1. Sharp items (needles, scalpel blades, and other sharp instruments) should be considered as potentially infective and must be handled with extraordinary care to prevent unintentional injuries.

2. Disposable syringes and needles, scalpel blades, and other sharp items must be placed into puncture-resistant containers located as close as practical to the area in which they were used. To prevent needlestick injuries, disposable needles should not be recapped; purposefully bent or broken; removed from disposable syringes; or otherwise manipulated by hand after use.

3. Recapping of a needle increases the risk of unintentional needlestick injury. There is no evidence to suggest that reusable aspirating-type syringes used in dentistry should be handled differently from other syringes. Needles of these devices should not be recapped, bent, or broken before disposal.

4. Because certain dental procedures on an individual patient may require multiple injections of anesthetic or other medications from a single syringe, it would be more prudent to place the unsheathed needle into a "sterile field" between injections rather than to recap the needle between injections. A new (sterile) syringe and a fresh solution should be used for each patient.

INDICATIONS FOR HIGH-LEVEL DISINFECTION OR STERILIZATION OF INSTRUMENTS

Surgical and other instruments that normally penetrate soft tissue and/or bone (e.g., forceps, scalpels, bone chisels, scalers, and surgical burs) should be sterilized after each use. Instruments that are not intended to penetrate oral soft tissues or bone (e.g., amalgam condensers, plastic instruments, and burs) but that may come into contact with oral tissues should also be sterilized after each use, if possible; however, if sterilization is not feasible, the latter instruments should receive high-level disinfection (*3,13,16*).

METHODS FOR HIGH-LEVEL DISINFECTION OR STERILIZATION

Before high-level disinfection or sterilization, instruments should be cleaned to remove debris. Cleaning may be accomplished by a thorough scrubbing with soap and water or a detergent, or by using a mechanical device (e.g., an ultrasonic cleaner). Persons involved in cleaning and decontaminating instruments should wear heavy-duty rubber gloves to prevent hand injuries. Metal and heat-stable dental instruments should be routinely sterilized between use by steam under pressure (autoclaving), dry heat, or chemical vapor. The adequacy of sterilization cycles should be verified by the periodic use of spore-testing devices (e.g., weekly for most dental practices) (*13*). Heat- and steam-sensitive chemical indicators may be used on the outside of each pack to assure it has been exposed to a sterilizing cycle. Heat-sensitive instruments may require up to 10 hours' exposure in a liquid chemical agent registered by the U.S. Environmental Protection Agency (EPA) as a disinfectant/sterilant; this should be followed by rinsing with sterile water. High-level disinfection may be accomplished by immersion in either boiling water for at least 10 minutes or an EPA-registered disinfectant/sterilant chemical for the exposure time recommended by the chemical's manufacturer.

DECONTAMINATION OF ENVIRONMENTAL SURFACES

At the completion of work activities, countertops and surfaces that may have become contaminated with blood or saliva should be wiped with absorbent toweling to remove extraneous organic material, then disinfected with a suitable chemical germicide. A solution of sodium hypochlorite (household bleach) prepared fresh daily is an inexpensive and very effective germicide. Concentrations ranging from 5,000 ppm (a 1:10 dilution of household bleach) to 500 ppm (a 1:100 dilution) sodium hypochlorite are effective, depending on the amount of organic material (e.g., blood, mucus, etc.) present on the surface to be cleaned and disinfected. Caution should be exercised, since sodium hypochlorite is corrosive to metals, especially aluminum.

DECONTAMINATION OF LABORATORY SUPPLIES AND MATERIALS

Blood and saliva should be thoroughly and carefully cleaned from laboratory supplies and materials that have been used in the mouth (e.g., impression materials, bite registration), especially before polishing and grinding intra-oral devices. Materials, impressions, and intra-oral appliances should be cleaned and disinfected before being handled, adjusted, or sent to a dental laboratory (*17*). These items should also be cleaned and disinfected when returned from the dental laboratory and before placement in the patient's mouth. *Because of the ever-increasing variety of dental materials used intra-orally, DHCWs are advised to consult with manufacturers as to the stability of specific materials relative to disinfection procedures.* A chemical germicide that is registered with the EPA as a "hospital disinfectant" and that has a label claim for mycobactericidal (e.g., tuberculocidal) activity is preferred, because mycobacteria represent one of the most resistant groups of microorganisms; therefore, germicides that are effective against mycobacteria are also effective against other bacterial and viral pathogens (*15*). Communication between a dental office and a dental laboratory with regard to handling and decontamination of supplies and materials is of the utmost importance.

USE AND CARE OF ULTRASONIC SCALERS, HANDPIECES, AND DENTAL UNITS

1. Routine sterilization of handpieces between patients is desirable; however, not all handpieces can be sterilized. The present physical configurations of most handpieces do not readily lend them to high-level disinfection of both external and internal surfaces (see 2 below); therefore, when using handpieces that cannot be sterilized, the following cleaning and disinfection procedures should be completed between each patient: After use, the handpiece should be flushed (see 2 below), then thoroughly scrubbed with a detergent and water to remove adherent material. It should then be thoroughly wiped with absorbent material saturated with a chemical germicide that is registered with the EPA as a "hospital disinfectant" and is mycobactericidal at use-dilution (*15*). The disinfecting solution should remain in contact with the handpiece for a time specified by the disinfectant's manufacturer. Ultrasonic scalers and air/water syringes should be treated in a similar manner between patients. Following disinfection, any chemical residue should be removed by rinsing with sterile water.

2. Because water retraction valves within the dental units may aspirate infective materials back into the handpiece and water line, check valves should be installed to reduce the risk of transfer of infective material (*18*). While the magnitude of this risk is not known, it is prudent for water-cooled handpieces to be run and to discharge water into a sink or container for 20-30 seconds after completing care on each patient. This is intended to physically flush out patient material that may have been aspirated into the handpiece or water line. Additionally, there is some evidence that overnight bacterial accumulation can be significantly reduced by allowing water-cooled handpieces to run and to discharge water into a sink or container for several minutes at the beginning of the clinic day (*19*). Sterile saline or sterile water should be used as a coolant/irrigator when performing surgical procedures involving the cutting of soft tissue or bone.

HANDLING OF BIOPSY SPECIMENS

In general, each specimen should be put in a sturdy container with a secure lid to prevent leaking during transport. Care should be taken when collecting specimens to avoid contamination of the outside of the container. If the outside of the container is visibly contaminated, it should be cleaned and disinfected, or placed in an impervious bag (*20*).

DISPOSAL OF WASTE MATERIALS

All sharp items (especially needles), tissues, or blood should be considered potentially infective and should be handled and disposed of with special precautions. Disposable needles, scalpels, or other sharp items should be placed intact into puncture-resistant containers before disposal. Blood, suctioned fluids, or other liquid waste may be carefully poured into a drain connected to a sanitary sewer system. Other solid waste contaminated with blood or other body fluids should be placed in sealed, sturdy impervious bags to prevent leakage of the contained items. Such contained solid wastes can then be disposed of according to requirements established by local or state environmental regulatory agencies and published recommendations (*13,20*).

Developed by Dental Disease Prevention Activity, Center for Prevention Svcs, Hospital Infections Program, Center for Infectious Diseases, CDC.

Editorial Note: All DHCWs must be made aware of sources and methods of transmission of infectious diseases. The above recommendations for infection control in dental practices incorporate procedures that should be effective in preventing the transmission of infectious agents from dental patients to DHCWs and vice versa. Assessment of quantifiable risks to dental personnel and patients for specific diseases requires further research. There is no current documentation of patient-to-patient blood- or saliva-borne disease transmission from procedures performed in dental practice. While few in number, reported outbreaks of dentist-to-patient transmission of hepatitis B have resulted in serious and even fatal consequences (*9*). Herpes simplex virus has been transmitted to over 20 patients from the fingers of a DHCW (*10*). Serologic markers for hepatitis B in dentists have increased dramatically in the United States over the past several years, which suggests current infection-control practices have been insufficient to prevent the transmission of this infectious agent in the dental operatory. While vaccination for hepatitis B is strongly recommended for dental personnel (*21*), vaccination alone is not cause for relaxation of strict adherence to accepted methods of asepsis, disinfection, and sterilization.

Various infection-control guidelines exist for hospitals and other clinical settings. Dental facilities located in hospitals and other institutional settings have generally utilized existing guidelines for institutional practice. These recommendations are offered as guidance to DHCWs in noninstitutional settings for enhancing infection-control practices in dentistry; they may be useful in institutional settings also.

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EPA TO RESTRICT UNWARRANTED CLAIMS CONCERNING DISINFECTANT PRODUCTS

The Environmental Protection Agency (EPA) is currently concerned about unwarranted claims for antimicrobial pesticides used against human pathogens, especially against hepatitis B virus (HBV), the causative agent of serum hepatitis, and human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV), the etiologic agent for acquired immunodeficiency syndrome (AIDS).

The EPA has barred companies from claiming that disinfectant products are effective against human pathogens such as HBV or HTLV-III/LAV unless those claims are supported by data submitted with the product registration (Federal Register, Vol. 51, No. 102, May 28, 1986).

"Data are inadequate to demonstrate that disinfection provides adequate control against HBV contamination when sterilization may be the only effective control measure. This discrepancy in control procedures (i.e., disinfection rather than sterilization) could result in failure to reduce HBV contamination, thereby increasing public health risks."

"If HTLV-III/LAV can be recovered from inanimate surfaces, it appears that an acceptable protocol can be developed to test the efficacy of antimicrobial products (Journal of Immunological Methods 76:171-183, 1985). However, since no acceptable protocol has been developed, and no data submitted, no claims have been accepted against AIDS virus for any product."

ADDITIONAL NOTEWORTHY ITEMS

1986 NATIONAL ORAL HEALTH CONFERENCE

The 1986 National Oral Health Conference was held in Williamsburg, Virginia, March 16-21. Nearly 300 individuals attended the conference, making this a meeting of some national import, if by numbers alone. The three-and-one-half days of scientific sessions provided a forum for local, State, and Federal dental health professionals to discuss the development and implementation of oral health strategies.

The keynote address, "Oral Health: A Model for Prevention," was presented by Dr. Jeffrey Koplan, Assistant Director for Public Health Practice, Office of the Director, CDC.

Panel sessions addressed the following topics: "Oral Health Data Bases and Trends," "Targeting Oral Health Promotion/Disease Prevention Efforts," "Appropriateness of Oral Health Services," "Public Health Aspects of Periodontal Disease," "The Public Health Aspects of Using Smokeless Tobacco," and "Primary Oral Health Care."

Fluoridation presentations included a wide variety of topics: a summary of 40 years of fluoridation; a summary of 1985 referenda with emphasis on San Antonio; the availability of fluoride chemicals; ADA fluoridation activities; the MCL action by EPA; monitoring and surveillance; defluoridation; update on the Venturi saturator; and computer activities.

Additional topics included: "Communicating Our Mission: A Developing Role for Computers," "An Update on Use of Sealants in Dental Disease Prevention Programs," and "Person Protection: Occupational Exposure to AIDS, Overview of Mercury Debate, and Child Identification Programs/Issues."

At the Public Health Service Program Reports luncheon, Dr. Samuel Lin, Deputy Assistant Secretary for Health, discussed "State and Federal Health Operations Under Current Economic Policy" and Dr. Robert Mecklenburg, Chief Dental Officer, USPHS, discussed "Oral Health and Public Policy in the 1980's: Public Health Service Emphasis and Direction." The evening banquet on March 19 featured Dr. C. Everett Koop, U.S. Surgeon General, who addressed the topic "Public Health in a Changing World."

On March 19, Dr. Koop, Dr. John Bomba, Past President, American Dental Association (ADA), and Dr. James Kenley, Commissioner of Health, Virginia Department of Health, participated in a press conference about smokeless tobacco. Dr. Koop expressed concern over the increasing number of people, especially male adolescents, who are using smokeless tobacco products and announced the April 1, 1986, release of the "Report of the Surgeon General's Advisory Committee on the Health Consequences of Using Smokeless Tobacco." Dr. Koop stated, "This report sets the stage for a broad range of new Federal, State, and community actions to protect the public's health." Based upon this report of scientific findings and earlier reports on smoking, Dr. Koop called for the design of new methods for increasing public understanding of health risks associated with tobacco use. (Details of the report are included in the Smokeless Tobacco section of this letter.)

At the press conference Dr. Koop also commended public health dentistry for its leadership in reducing dental decay by the use of fluoridation and pit and fissure sealants; controlling infectious diseases; organizing services for the disadvantaged and handicapped of all ages; monitoring changing patterns of dental health; and defining oral health goals for the future. Dr. Bomba discussed the ADA perspective concerning smokeless tobacco and stated, "It is not a safe alternative to smoking as some people believe, and we must educate the public on these hazards." Dr. Kenley addressed the legislation introduced in Virginia banning the sale to, purchase by, and possession of tobacco products for children 16 years of age and younger. This legislation was signed into law and became effective on July 1, 1986.

Overall reaction to the conference has been very positive and we look forward to continued opportunities for professional exchange in the future.

ADDITIONAL PUBLICATIONS AVAILABLE

Article on Mercury from Consumer Reports

An article entitled "The Mercury Scare" appeared in the March 1986 issue of Consumer Reports, a publication of Consumers Union (CU). This is a comprehensive document which refutes the recent allegations that mercury in fillings causes health problems. The summation of the article states, in part, that "Amalgams have been used for more than 150 years. Except for a few people with a genuine allergy to mercury, CU knows of no one who's been harmed by them."

DDPA is obtaining reprints of this article and hopes to have them available by the end of July. If you wish to obtain a copy, please contact:

Dental Disease Prevention Activity
Freeway Park, Room 345
Centers for Disease Control
Atlanta, Georgia 30333
Telephone: (404) 329-1830
FTS 236-1830

CDC Guidelines for the Prevention and Control of Nosocomial Infections

The following revised CDC Guidelines for the Prevention and Control of Nosocomial Infections are now available for purchase from the National Technical Information Service:

"CDC Guideline for Handwashing and Hospital Environmental Control," 1985, Stock No. PB85-923404, Domestic Price $7*, Foreign Price $14**

"CDC Guideline for Prevention of Surgical Wound Infections," 1985, Stock No. PB85-923404, Domestic Price $7*, Foreign Price $14**

Please order by Stock Number and send check or money order to:

National Technical Information Service
U.S. Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22161
Telephone: (703) 487-4650

* Add $3 for shipping and handling per total domestic order.
**Add $4 for shipping and handling per total foreign order.

Fluoridation Pamphlet from New Jersey

A new (1986) 6-page fluoridation pamphlet entitled "Fluoridation and You" is available from New Jersey.

For further information contact:

New Jersey Department of Health
Dental Health Program
120 S. Stockton Street, CN 364
Trenton, New Jersey 08625
Telephone: (609) 984-2516

NATIONAL CONFERENCE ON BABY BOTTLE TOOTH DECAY

A national conference on Baby Bottle Tooth Decay (BBTD) titled "BBTD: Parents Can Make a Difference!" will be sponsored by Head Start on November 5-7, 1986. The purpose of the conference is three-fold: (1) Raise consumer and professional awareness of the extent of the BBTD problem; (2) train Head Start staff and parents to take appropriate steps to prevent BBTD; and (3) develop strategies for intervention, follow-up, and evaluation.

The conference will be held at the Radisson Hotel Centennial, 200 North Centennial Way, Mesa, Arizona, 85201. The registration fee is $25.00 for Head Start staff and parents and $35.00 for other participants. The number of participants has been limited to 400.

For further information contact:

Ms. Claude S. Endfield
Baby Bottle Tooth Decay Conference
White Mountain Apache Head Start
P.O. Box 738
Whitewater, Arizona 85941
Telephone: (602) 338-4938

NIH CONSENSUS DEVELOPMENT CONFERENCE STATEMENT ON SMOKELESS TOBACCO

On January 13-15, the National Cancer Institute, the National Institute of Dental Research, and the Office of Medical Applications of Research, National Institutes of Health, convened a consensus development conference on Health Implications of Smokeless Tobacco Use. A consensus panel which included representatives of epidemiology, cancer, dentistry, psychology, pediatrics, psychopharmacology, education, and the public considered the evidence and agreed on answers to the following questions: (1) What are the current trends in the use of smokeless tobacco in the United States? (2) does the use of smokeless tobacco increase the risk of oral or other cancers? (3) does the use of smokeless tobacco increase the risk of periodontal disease or other oral and health problems? (4) what are the behavioral consequences of smokeless tobacco use? (5) what issues regarding the health consequences of smokeless tobacco use require further research?

The panel concluded, in part:

- The human evidence that use of snuff causes cancer of the mouth is strong.
- Smokeless tobacco use increases the frequency of localized gum recession and leukoplakia.
- The presence of lead in smokeless tobacco may pose a special risk for the developing fetus.
- The primary behavioral consequence of regular use of smokeless tobacco is long-term nicotine dependence and its associated health risks.
- Use of smokeless tobacco is one of a number of health endangering behaviors which frequently coincide, raising the clear potential for long-term and serious consequences.

DDPA has a limited quantity of these proceedings in pamphlet format. If you are interested in obtaining copies, contact:

Dental Disease Prevention Activity
Freeway Park, Room 345
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FOR YOUR INFORMATION

The Dental Disease Prevention Activity (DDPA) "Dear Colleague" letter is developed by DDPA and produced by Technical Information Services, Center for Prevention Services, Centers for Disease Control, Atlanta, GA 30333. Articles and/or written comments should be sent to:

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