



by Noel Kelsch, RDHAP  
n.kelsch@sbcglobal.net

# New CDC guidelines

The Centers for Disease Control and Prevention (CDC) issued its “Guidelines for Disinfection and Sterilization in Healthcare Facilities 2008” in November 2008. According to the Organization for Safety and Asepsis (OSAP), this 158-page document presents evidence-based recommendations on the preferred methods for cleaning, disinfection, and sterilization of patient-care medical devices and for cleaning and disinfection of the health-care environment. The areas of focus that will have a direct effect on the practice of dentistry are:

- Updated recommendations on cleaning, disinfection, and sterilization
  - Inactivation of antibiotic-resistant bacteria, bioterrorist agents, emerging pathogens, and bloodborne pathogens
  - Toxicologic, environmental, and occupational concerns associated with disinfection and sterilization practices
  - Disinfection of patient-care equipment used in ambulatory settings and home care settings
  - New sterilization processes, such as hydrogen peroxide gas plasma and liquid peracetic acid
  - Disinfection of complex medical instruments
  - Reducing the potential of transmitting infectious agents by educating health-care workers on the variables surrounding the use of disinfectants and sterilants

So what does this mean to you? The CDC’s “Guidelines for Infection Con-

trol in the Dental Health-Care Settings — 2003” gave dental providers evidenced-based recommendations for infection control in the dental setting. The new document updates those recommendations and reveals current science based findings.

Here are a few previews of the information contained in this document:

## 1. Updated recommendations on cleaning, disinfection, and sterilization.

**Tidbit:** Several studies have demonstrated variability among dental practices while trying to meet the recommendations for sterilizing instruments. In one study of Minnesota dental offices, operator error caused 87% of failures. The focus of scientific articles and publicity made dental professionals and the public aware of the possibility of transmitting infectious agents with dental instruments. Understanding cross-contamination in the dental setting is vital. The recommendations in this study support the need to evaluate daily practices of cleaning, disinfecting, and sterilization in the dental setting. Some of the recommendations to reinforce these concepts are:

a. Chemical indicators should be placed inside and outside of sterilization packaging. The outside indicator allows the dental professionals to see the package has been processed through the cycle easily. The internal indicator allows the dental professionals to verify sterilant penetration. Many companies

such as DUX Dental make packages that already have this system in place. Packaging materials are considered a medical device and must be accepted by the Food and Drug Administration.

b. The importance of environmental cleaning and choices in room surfaces. Studies indicate the possibility of contamination of carpeted areas, and protective covering prevents cross-contamination and limits exposure to chemicals.

c. All handpieces must be sterilized after use. Discontinue use of any handpieces that cannot be sterilized.

d. Disinfectants and sterilant chemicals:

- Formaldehyde-alcohol has been deleted as a recommended chemical sterilant or high-level disinfectant.
- 3% phenolics and iodophores have been deleted as high-level disinfectants.
- 1:16 dilution of 2% glutaraldehyde-7.05 phenol-1.2 % sodium phenate has been deleted as a high-level disinfectant.
- Federal law requires all applicable label instructions on EPA-registered products to be followed (for example, dilution, shelf life, storage, material compatibility, safe use, and disposal). If the user selects exposure conditions (such as exposure time) that differ from those on the EPA-registered products label, the user assumes liability for any injuries resulting from off-label use and is potentially subject to enforcement

action.

## 2. Toxicologic, environmental, and occupational concerns associated with disinfection and sterilization practices.

**Tidbit:** Health hazards associated with the use of germicides in health care vary from mucous membrane irritation to death. Every disinfectant that is being used in the dental setting has a side effect. Follow safety precautions for use and use only for the intended purpose. Recommendations include being aware of and following the guidelines for:

a. Every office needs to establish a program for monitoring occupational exposure to regulated chemicals that follows federal, state, and local regulations. Key factors to assess the risks of chemical exposure include duration, intensity, and route of exposure. Material and safety data sheet information must be available for all products that are in the dental setting. OSHA governs exposure limits to these chemicals. They use a time-weighted average (TWA) for these chemicals. For information on workplace exposure and methods for reducing exposure, go to OSHA.org.

b. Disposal of chemicals can vary from state to state. It is important to check with waste management before making a decision about purchasing or handling chemicals. Some chemicals can be neutralized by reaction with chemicals such as sodium bisulfite or glycerin.

## 3. Disinfection of patient-care equipment used in ambulatory settings and home care.

**Tidbit:** Many dental hygienists are now able to increase access to care for patients by seeing them in their place of residence. Infection control standards for home interaction with patients will be very important. Some of the information includes:

a. Education of patients and patients' caregivers about asepsis and infection control is a must.

b. Regular household cleaners such as vinegar, borax, and ammonia are not EPA registered and should not be used for disinfection.

c. Sterilization of critical care items in the home may not be practical. It can be done by chemical sterilization or sterilized at a dental office or hospital. Disposable items are one way of eliminating the need for this step.

Over the next year, this column will be addressing the tools to manage and implement this document into the practice of dentistry. According to Therese Long, OSAP's

executive director, OSAP has assembled a team of experts who are analyzing the new guidelines. A brief "Guide to the Guidelines" will help dental workers understand and implement them appropriately in their work settings. The new guidelines may be downloaded at the OSAP Web site at [www.OSAP.org](http://www.OSAP.org). ●●●

**Author's note:** Much of the information above was discussed in a personal interview in November 2008 with Therese Long, OSAP's executive director.