

Dental Infection Control Proposed Rules Summary

The proposed rule development revises and establishes dental infection control standards everywhere dentistry is provided. The commission used the Centers for Disease Control and Prevention (CDC) Guidelines for Infection Control in Dental Health-Care Settings 2003, MMWR Vol. 52, No. RR-17, and the Summary of Infection Prevention Practices in Dental Setting: Basic Expectation for Safe Care as the basis for the proposed rule development. Case reports and public health events regarding transmission of diseases from patient to patient, dental health care provider to patient, and patient to dental health care provider have been published that demonstrate risk that was either unrecognized in the past or new.

A complete significant analysis and small business economic impact statement will be published with the CR102 proposed rule making.

WAC 246-817-615 Administrative, education and training, and program evaluation.

The proposed new section requires development and maintenance of written infection prevention policies and procedures. The proposed rule also requires review of policies and procedures annually and annual training for staff members. Documentation for policy, procedures, and training must be maintained for five years.

There is a cost to develop and maintain written infection prevention policies. There is additional cost for annual staff training. Costs greatly differ depending on whether the dentist and staff establish their own written infection prevention policies and training, or if the dentist determines to use an outside organization to develop policies and training.

For the dentist to develop, maintain, and provide training for infection control, the time spent is estimated at 20 hours for initial development, one staff person or dentist, two hours initial training for all staff members, and one hour annual training for all staff members.

- The cost for developing policies and procedures, initial training, and annual training ranges from \$625 to \$2,825.43 depending on whether the dentist, staff, or an outside organization provides training.

The infection control prevention training requirement can be combined with blood-borne pathogen training as portions will overlap. Training should note each separate topic as having been done and what information was covered. An annual refresher of information regarding infection control should remind everyone of best practices, required practices, and new developments. Periodically reminding all health care providers has been shown to result in better compliance and fewer problems.

WAC 246-817-645 Respiratory hygiene and cough etiquette.

The proposed new section requires dentists to post signs for:

- Cover cough or sneeze
- Use/dispose of tissue
- Hand hygiene (washing).

The proposed rule also requires dentists to provide tissues and no-touch receptacles, and to offer masks to coughing patients and visitors.

There is an estimated one-time cost of \$3 for printing signs available free online. There is an estimated cost of \$120 annually for providing patients and visitors tissues and masks when needed.

WAC 246-817-655 Sterilization and disinfection, environmental infection prevention and control.

The proposed new section follows CDC sterilization recommendations by using critical, semi-critical, and non-critical categories. The proposed new section specifically lists the following requirements:

- Sterilization of low-speed hand-piece motors;
- Follow manufacturer instructions;
- Disposable or single-use item cannot be sterilized;
- Store sterile instruments in covered or closed area, wrapped packages or containers must be opened as close to time of procedure as possible and may not exceed one hour prior;
- Follow manufacturer instructions for mechanical, chemical, and biological monitors when sterilizing;
- Weekly spore tests and maintaining test results for five years;
- Rinse dental impressions;
- Use barriers to protect clinical contact surfaces;
- Clean/disinfect contact surfaces;
- Use intermediate level disinfectant when visible with blood;

- Use Environmental Protection Agency (EPA) registered disinfectant for health care settings; and
- Use high volume evacuation (HVE) whenever possible in clinical situations expected to produce large amounts of aerosol or spatter.

The commission determined to delay implementation of sterilization of low-speed hand-piece motors for 18 months to help reduce the first-year cost impact of the proposed rules.

The estimated annual cost ranges depending on the quality of motor purchased and the life span of the motor. For a five- to 10-year life, the cost would be \$720 to \$800 annually for eight motors.

The CDC indicates in *The Centers for Disease Control and Prevention Guidelines for Infection Control in Dental Health-Care Settings* 2003, MMWR Vol. 52, No. RR-17 that dental hand pieces are considered a semi-critical item and should be heat-sterilized. The American Dental Association (ADA) recommends sterilization for low-speed hand-piece components used intraorally. Most manufacturers of low-speed hand-piece motors recommend heat sterilization.

Motors used only in a laboratory setting are not required to be heat-sterilized.

Store sterile instruments in covered or closed areas, wrapped packages or containers must be opened as close to time of procedure as possible and may not exceed one hour prior;

As demonstrated in the medical literature, the longer sterile instruments are left out and exposed, the more contaminated they become. Aerosols and skin microbes are the most common source of contamination and it increases with time. The exposure time must be as short as possible within the needs of setting up instruments. An examination set-up, with very few instruments, would reasonably be opened moments prior or during the patient sitting in the treatment chair. A complex surgical or restorative set-up may take much longer. Care should be taken that opened and arranged instruments are protected with sterile covers if they must be exposed and waiting for more than a few minutes. An hour is deemed as an extreme of set-up need and the expectation is that set up for nearly all procedures would be much more proximal to treatment time. To say that setting up one hour before all procedures is within the rules would be a violation of the intent.

Dentists typically have a dental vacuum pump in their office for use in multiple dental procedures. Most dentists will not need to purchase a new vacuum pump. The average portable HVE unit cost ranges from \$89 to \$500. The average life span of a portable HVE unit is five years. Portable HVE units are routinely used in temporary clinics.

The CDC recommends in *The Centers for Disease Control and Prevention Guidelines for Infection Control in Dental Health-Care Settings 2003*, MMWR Vol. 52, No. RR-17, use of HVE to minimize dissemination of droplets, spatter, and aerosols.

WAC 246-817-660 Dental unit water quality.

The proposed new section requires use of Environmental Protection Agency (EPA) standard drinking water. Additionally, a new requirement is to test the water delivery system quarterly, with additional testing following repairs or changes to the plumbing system. Testing documentation must be maintained for five years. There is a new cost for testing water lines. The average dental office has four operatories. The average test performed at a certified lab is \$25 to \$50.

The licensed dentist will collect a water sample from each water line connected to a unit into one container. That combined sample would be tested. If test results in unacceptable level of colony-forming units, the dentist may retest each line separately to determine the source or can shock the whole unit and test again as one combined sample.

Sterile water and bottle systems units must also be tested. In addition to the actual water being tested, the water lines must be tested to determine if they have biofilms forming in the lines.

The FDA, CDC, and ADA recommend routine monitoring of the water and to follow manufacturer's instructions for dental unit waterlines. Organization for Safety, Asepsis and Prevention (OSAP) issued a white paper in 2018, *Journal of Dental Infection Control and Safety-Dental Unit Water Quality*.

Frequently Asked Questions

Why are these new rules being implemented?

The CDC published specific dental health care setting guidelines in 2003 and updated those guidelines with the summary in 2016. The CDC guideline provides a thorough background explaining the guidelines are designed to prevent or reduce potential for disease transmission in a dental health-care setting.

<https://www.cdc.gov/oralhealth/infectioncontrol/guidelines/>

Do I have to buy the book of CDC guidelines?

No, it can be downloaded or accessed online free.

When do I need to wear gloves?

Whenever touching items that will go into a patient's mouth or touching items that have been in a patient's mouth. Gloves must be appropriate to the task.

When do I have to begin sterilizing (autoclave) my low-speed hand-piece motors?

The commission provided 18 months for dentists to comply with this new rule because of the increased cost to purchase additional hand pieces.

Sterilization destroys all microorganisms including substantial numbers of resistant bacterial spores.

Are new low-speed hand-piece motors required?

No. Most major brand low-speed hand-piece motors can be sterilized and are recommended to be sterilized according to manufacturer instructions. If you have a model that cannot be sterilized, you will need to purchase new low-speed hand-piece motors. The date of mandatory sterilization of low-speed hand piece motors will be specified in the final rule, 18 months after rule implementation.

Can my low-speed hand-piece motors be autoclaved?

All major manufacturers recommend autoclaving the motors, the CDC recommends it, and studies show that some motors will last longer with this care. That being said, motors that have been wiped down during use may have their lives shortened because of residual debris left inside and consequent autoclaving.

I have a battery-operated low-speed hand-piece motor. Does it have to be sterilized?

No. Sterilization is not required for those sections of a battery-operated hand-piece system that cannot be sterilized according to manufacturer's

instructions. However, battery-operated hand-piece systems that have specific engineering controls to isolate the sections that cannot be sterilized, render those sections "non-critical," must be used if commercially available; those sections that cannot be sterilized must be processed according to manufacturer's instructions between patient uses.

What is a high-volume evacuation or HVE device?

HVE devices usually have large, single-bore or multiple openings. It attaches to an evacuation system that draws a large volume of air. HVE is used to decrease the aerosols created by dental clinical situations expected to produce aerosol or spatter. A saliva ejector does not qualify as an HVE device.

Why do I need to test my water lines after a change in the plumbing of my office?

If the plumbing supplies water that is exposed to patients, any change in plumbing initiates waterline bacteria tests in five to 10 days and 21 days to 28 days. The tests must be in line with the plumbing change. If there is pooling or a dead end in the plumbing that was not there before, pathogenic bacterial biofilms can form, some quickly and some slowly dependent on the type of bacteria.

https://www.cdc.gov/healthywater/other/medical/med_dental.html

How do I test water lines?

- a) Remove hand pieces, attachments, and motors. Wipe water line outlet (syringe tips, hand piece tubing terminals, etc.) with alcohol wipe to avoid external contaminants.
- b) Collect an equal amount of water from each sampled outlet in each dental operatory (e.g. if there are two hand-piece tubing and two air/water syringes, collect about one-fourth of the water sample from each outlet). A separate mailer envelope and vial must be used for each operatory.
- c) Place the vials in the mailer envelopes and mail to testing organization.
- d) Results may be received electronically after seven days of incubation.
- e) Document the testing. Keep documentation for five years.

Who is authorized to test water samples?

Several organizations or laboratories provide water testing services. Additionally, do-it-yourself kits can be purchased for water testing.

How often do I have to test my water lines?

Quarterly, except when there has been any changes or remedial action to the water lines. See WAC 246-817-660 for details.

Do I have to test water lines if I have sterile bottle water system?

Yes. Sterile bottle water systems and self-contained units must be tested.

The purpose of the test is to determine if biofilms have formed in the water line.