Infection Control
IN PRACTICE

Dentistry’s Newsletter for Infection Control and Safety

Special Series on Circumstances

Our series of topics for this year is designed to help you with infection control and safety by addressing some different circumstances that can occur in the office. This issue explores “Frequently Asked Questions”. Earlier issues were “So you just became the Office Safety Coordinator—What do you do now?”, “When Stuff Happens”, “Special Patients”, “Bringing the Outside In” and “High-tech Infection Control”.

Frequently Asked Questions (FAQ’s)

In the past 21 months OSAP has received almost 400 questions about infection control and safety in the dental setting. OSAP’s Technical Department does a wonderful job managing this question/answer process, and has categorized the issues brought to our organization. The following chart shows the percent of the total questions asked in each of the major infection control areas.

When taking a closer look at the types of questions asked, there are several recurring questions that indicate confusion about some topics, such as:

- procedures for using spray disinfectants vs. disinfectant wipes;
- why the need for external and internal chemical indicators;
- knowing the Occupational Safety and Health Administration (OSHA) rules and the Centers for Disease Control and Prevention (CDC) recommendations;
- who to contact regarding specific state infection control laws, and;
- offices being told by some sales representatives that it’s OK to use dish washers and cooking ovens to clean and sterilize dental instruments.

We have addressed some of these FAQs under Responses to FAQs on page 3.

Questions posed to OSAP are also of benefit in determining our OSAP member needs. For instance, there have been:

- increased concerns about H1N1 influenza;
- continued requests for OSAP to provide templates (e.g. check-list for managing exposures, managing employee compliance, exposure control plan, list of first aid supplies, etc.);
- requests for OSAP to recommend specific brands of products; and
- more offices posing questions about how to “go green”.

Although it is not in the scope of OSAP to recommend specific products, we encourage and appreciate all questions as we strive to address these pertinent topics and requests in ICIP content or via OSAP online resources.

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Learning Objectives

After reading this publication, the reader should be able to:

► answer some frequently asked questions about infection control and safety.
► identify where to locate rules and recommendations from the U.S. Occupational Safety and Health Administration and the Centers for Disease Control and Prevention.
### Challenge Yourself
Below is a list of the questions addressed in this issue. See if you can come up with the answers before reviewing the responses given under **Responses to FAQs**.

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Responses to FAQs

Disclaimer: This information is brought to you as a service of the Organization for Safety and Asepsis Procedures (OSAP), dentistry's resource for infection control and safety. We assume no liability for actions taken based on the information herein. OSAP is not in a position to provide legal or medical advice nor do we test, evaluate, endorse, promote or recommend products.

General Infection Control

Should our uniforms be long sleeved?

Answer: If your uniforms are the outer layer of clothing you wear at chairside, then the uniform is considered as personal protective equipment (PPE). The doctor has the responsibility to determine what is appropriate PPE based on the types of exposure that may occur during the various tasks performed in the office. According to OSHA, PPE will be considered “appropriate” only if it does not permit blood or other potentially infectious material to pass through to, or reach, the skin, employees’ underlying garments, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time that the PPE will be used. Thus if the tasks that you are performing could contaminate your forearms with the patient’s blood or saliva droplets, then long sleeved protective clothing should be worn when performing those tasks.

The doctor won’t let me take my uniform home to clean, but when we launder it in the office it looks terrible. Can you please tell him that it’s OK for me to launder it at home?

Answer: The doctor is correct. It is his/her responsibility to provide and clean staff’s protective clothing, and if you take it home, it is out of his/her control. The other option besides laundering in the office is to contract with a medical laundry service. But since you already have in-house laundering, it seems like your best approach would be to work on improving your laundering and ironing procedures. If the uniform is worn in place of street clothes and a protective garment is used over the uniform during procedures likely to generate splash, spray or spatter, then it is not necessary for the employer to launder the uniform. If the uniform is worn as the protective attire it must be removed prior to leaving the work environment and the employee may not take the uniform home for laundering.

Dried composites are very hard to clean off instruments. Is it OK to wipe off these instruments at chairside?

Answer: Only if done very carefully. If you choose to do this, make it a safe work practice. For example, hold a 2 x 2 gauze pad down on a flat surface with cotton pliers or other instrument, and while holding the dirty instrument in the other hand, wipe the tip off on the pad. Never hold the pad with your fingers. Another option for debridement of instruments is to tape 2-3 cotton rolls onto the covered tray surface and wipe instruments without touching the cotton rolls with your fingers. If desired, the cotton rolls can be moistened to help remove debris.

Rules and Recommendations

What’s the difference between engineering controls and work practices?

Answer: Engineering controls are items that physically address (isolate or remove) bloodborne pathogen hazards in the office. Examples include, safety syringes/needles, the rubber dam, sharps containers, and high-volume evacuators. Work practice controls are procedures that reduce the likelihood of exposure by changing the manner in which a task is performed. Examples would be safely recapping a used needle with the one-handed scoop technique rather than using two hands; positioning the patient’s head properly during ultrasonic scaling; not touching blood/saliva-contaminated surfaces with bare hands; not reaching blindly into a tray containing contaminated sharp instruments.

What are my infection control responsibilities for temporary employees?

Answer: If the employee comes from an employment agency, the agency is responsible for bloodborne pathogens training, vaccinations, and providing proper follow-up evaluations following an exposure. You would be required by OSHA to provide training specific to your office, personal protective equipment, and a safe and healthful work environment. It is best if the contract between you and the agency describes who will be responsible for what.

Where do I go to find the specific infection control laws in (my state)?

Answer: Contact the state’s dental association. Also go to this Web site to contact the local or regional OSHA office for your state (http://www.osha.gov/html/RAmap.html). You also may wish to contact a dental school in your area and ask for the infection control officer.

Should we be following CDC or OSHA laws?

Answer: OSHA is charged by Congress to protect the workers of America and therefore promulgates rules that can be considered laws with penalties for non-compliance. The CDC is not a regulating body but promulgates evidence-based disease prevention recommendations directed at protecting workers and the public (e.g., patients). So if you just follow OSHA rules that protect the office staff, you’ll not be providing adequate protection for your patients. The prime example is that OSHA’s Bloodborne Pathogens Standard does not have...
specific rules about routine instrument sterilization (covered by the CDC) because this primarily relates to patient protection. So it is important to comply with both OSHA’s regulations and CDC’s recommendations to help ensure the safety of all in the practice.

What’s the difference between universal precautions and standard precautions?

Answer: Universal precautions come from OSHA’s blood-borne pathogens standard and indicate that precautions should be taken about contacting mainly blood. Standard precautions broaden universal precautions by emphasizing the importance of blood AND all other body fluids (except sweat), non-intact skin and mucous membranes. See the Glossary on page 6.

Instrument Processing

Why package instruments before sterilization? Doesn’t this keep the steam from contacting the instruments?

Answer: Packaging the cleaned instruments before placing them in the sterilizer protects the instruments from re-contamination after removal from the sterilizer and before being opened at chairside. All sterilizers legally marketed in the U.S. must have shown the Food and Drug Administration (FDA - who clears sterilizers for marketing) that packaged instruments become sterile when processed as directed by the sterilizer manufacturer (i.e., processed at the correct time and temperature). Only use packaging intended for use in the type of sterilizer you are using and do not reuse pouches.

Can I use washable cloth towels to replace disposable sterilization wraps and pouches? This would save on the environment.

Answer: No. It is important to save the environment but not by compromising infection control procedures. Woven cloth does not provide a good barrier to microbes, so the instruments inside can become re-contaminated after the cloth package is removed from the sterilizer and before being opened at chairside. Sterilization wraps, bags and pouches are medical devices regulated by the FDA. Part of the FDA acceptance requirements is that the sterilization packaging material must maintain sterility after being removed from the sterilizer.

Since we seal all of our wrapped cassettes with autoclave tape, why are we supposed to put another indicator inside each cassette? Isn’t this overkill?

Answer: Chemical indicators placed inside of packages (e.g., cassettes) show if sterilizing conditions have been met inside next to the instruments. This confirms that sterilizing conditions inside the package were reached and were not impeded by too many layers of wrap, by using improper wrapping material, or by overloading the sterilizer chamber. Chemical indicators placed on the outside of packages (and those indicators that are inside but visible from the outside of see-through packaging) show that a package has been processed through a sterilizer. Without this indicator the packages that have not been processed through the sterilizer can look just like those that have been processed. So this is why the CDC recommends to “use an internal chemical indicator in each package. If the internal indicator cannot be seen from outside the package, also use an external indicator”.

Disinfection

What brand of disinfectant does OSAP recommend?

Answer: OSAP does not test, evaluate, recommend, endorse, or promote specific brands of products. The U.S. Environmental Protection Agency (EPA) and state EPAs register disinfectants based upon a review of the product labeling and information submitted by the manufacturer, which includes test results on product safety and types of microbes killed. OSAP does help the profession by compiling a list of surface disinfectants including kill claims, copies of the labels and more information at www.osap.org.

What disinfectants are approved by OSHA?

Answer: OSHA does not approve specific brands of disinfectants and only uses the phrase “appropriate disinfectant” in the bloodborne pathogens standard. For clinical contact surfaces the CDC recommends using “an EPA-registered hospital disinfectant with a low- (i.e., human immunodeficiency virus [HIV] and hepatitis B virus [HBV] label claims) to intermediate-level (i.e., tuberculocidal claim) activity after each patient. Use an intermediate-level disinfectant if visibly contaminated with blood.” See the Glossary on page 6.

What’s the proper way to use disinfectant wipes?

Answer: First of all it’s important to follow the manufacturer’s direction for use of a disinfectant. Many feel it’s also still important to clean a surface before disinfecting it. Thus use one disinfectant wipe to clean the surface and then use a fresh wipe to disinfect the surface.

What is a green disinfectant?

Answer: This is a disinfectant that is “more friendly” to the environment than another disinfectant used for the same purpose. Beware that a product referred to as a “green disinfectant” is not just one in which the active ingredient has been diluted. Such dilution may be friendlier on the environment but may also be less effective in killing microbes.
Infectious Diseases

Can the aerosols from our sonic scaler spread hepatitis B?

**Answer:** Hepatitis B is not known to be transmitted through the air. The CDC states: “Although it is known that bloodborne pathogens can be transmitted through mucous membrane exposure, there are no known instances of a bloodborne pathogen being transmitted by an aerosol in a clinical setting.” Also, studies performed in dental operatories and hemodialysis centers showed that hepatitis B surface antigen was not detected in the air during treatment of hepatitis B carriers by procedures known to generate aerosols.7, 8

What does H1N1 stand for, and where can I find more information about this type of influenza?

**Answer:** Hemagglutinin (H) and neuraminidase (N) are macromolecules on the surface of influenza viruses. The neuraminidase is an enzyme that degrades mucus allowing the virus to directly contact cells lining our respiratory tract. The hemagglutinin then binds the virus to the surface of those cells allowing the virus to penetrate and begin to multiply. The molecular structure of the H and N can vary from one type of influenza virus to another. This particular virus has type 1 H and type 1 N. Another influenza virus may have type 2 H and type 3 N and be referred to as H2N3. More information about H1N1 influenza is available from CDC.9 OSAP also has an H1N1 page on its website with dental specific information on preventing the spread of this virus.

Waterlines

How often should we check our waterlines?

**Answer:** Since all untreated dental unit waterlines are contaminated with biofilm, it’s not necessary to determine if your lines are contaminated. When you begin to use a waterline treatment product or apparatus, follow the recommendation of the manufacturer of the product or apparatus about testing the microbial content of the water. This post-installation testing can help determine if the installation was correct and if the treatment procedure is being performed correctly. More information is available from OSAP.10

What’s Wrong With This Picture?

Can you identify any breach in infection control and safety procedures in this photo? Check your answers below.

1. Operator and patient are not wearing safety glasses.
2. Cross-contamination of hands.
3. Partially noisy isolation by mask and cloves. Expression is no cross-contamination of mask and gloves.
4. Operator’s arm is exposed.
5. Operator is bending over.

**Answers**

1. Operator and patient are not wearing safety glasses.
2. Cross-contamination of hands.
3. Partially noisy isolation by mask and cloves. Expression is no cross-contamination of mask and gloves.
4. Operator’s arm is exposed.
5. Operator is bending over.

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Miele ► miele.com
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Live a healthier life with clinically proven products that safely clean, disinfect and control disease infection.

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SciCan Inc., the final word in all dental instrument reprocessing.

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Septodont, providing better dentistry through pain control, restoratives and infection control products.

SmartPractice ► smartpractice.com

SPSmedical Supply Company ► spsmedical.com
Sterilization monitoring (spore tests), chemical indicators/integrators and pack-agging products (wrap and pouches).

Sultan Healthcare ► sultanhealthcare.com
Products to complete the cycle of infection control.

TotalCare ► kerntotcare.com
Offering high-quality infection prevention products to protect staff and patients in the dental operatory.
Glossary

Hospital disinfectant: A germicide registered by the U.S. Environmental Protection Agency that is effective against *Staphylococcus aureus, Salmonella choleraesuis* and *Pseudomonas aeruginosa* for use on nonliving objects in dental and medical facilities.

Intermediate-level disinfectant: A liquid chemical germicide registered with the U.S. Environmental Protection Agency as a hospital disinfectant with tuberculocidal activity. Intermediate-level disinfection inactivates vegetative bacteria, most fungi, mycobacteria, and most viruses but not bacterial spores.

Low-level disinfectant: A liquid chemical germicide registered with the U.S. Environmental Protection Agency that is a hospital disinfectant and may also have a label claim for effectiveness against hepatitis B virus and HIV. Low-level disinfection inactivates most vegetative bacteria, some fungi, and some viruses but cannot be relied upon to inactivate resistant microbes such as mycobacteria or bacterial spores.

Universal Precautions: An approach to infection control where all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV and other bloodborne pathogens.

Standard Precautions: Practices and procedures that integrate and expand the elements of universal precautions into a standard of care designed to protect healthcare workers and patients from pathogens that can be spread by blood or any other body fluid, excretion, or secretion; applies to contact with blood; all body fluids, secretions, and excretions (except sweat), regardless of whether they contain blood; nonintact skin; and mucous membranes.

**OSHA’s Bloodborne Pathogens Standard:** A set of rules from the U.S. Department of Labor’s Occupational Safety and Health Administration on how to protect workers from occupational exposure to blood or other potentially infectious materials.¹

**OSHA’s Hazard Communication Standard:** A set of rules from the U.S. Department of Labor’s Occupational Safety and Health Administration on how to protect workers from occupational exposure to hazardous chemicals.³

**CDC’s Infection Control Recommendations:** Recommendations from the U.S. Department of Human Health and Service’s Centers for Disease Control and Prevention for preventing and controlling infectious diseases and managing personnel health and safety concerns related to infection control in dental settings.⁴

Links to Resources


If you wish to obtain one (1) hour of continuing education (CE) credit, complete the following test by selecting the best answer and fax or mail it to the OSAP Central Office for grading. Please include a check or credit card to cover the handling charges. Pending satisfactory results (at least seven out of ten), you will be issued a letter for one (1) CE credit hour. OSAP is recognized by the American Dental Association as a CERP Provider. For more information, call 216-398-7822.

For each item, pick the best answer.

1. The N in H1N1 stands for:

2. According to OSHA, controls that reduce the likelihood of exposure by changing the manner in which a task is performed are called:
   a. work practice controls. b. infection controls.  c. engineering controls.  d. standard controls.

3. Which of the following was noted based on the types of questions submitted to OSAP?
   a. Infection control is becoming less important in the eyes of dental assistants
   b. The vast majority of U.S. dental offices used some form of dental unit waterline treatment
   c. Very few U.S. dental offices use alcohol-based hand rubs
   d. Some are still confused about the need for external and internal chemical indicators

4. All of the following are examples of engineering controls EXCEPT:
   a. puncture-proof sharps containers.
   b. rubber dams.
   c. using a one-handed scoop technique to recap a needle.
   d. high-volume evacuators.

5. According to OSHA who is responsible for providing PPE to the office staff?
   a. Each staff member provides their own  b. The employer  c. OSHA  d. CDC

6. Which governmental agency clears sterilizers for marketing in the U.S.?
   a. CDC  b. OSHA  c. FDA  d. EPA

7. The H in H1N1 stands for:

8. Which U.S. governmental agency registers surface disinfectants?
   a. CDC  b. OSHA  c. FDA  d. EPA

9. Who has infection control responsibilities for temporary employees?
   a. The employment agency
   b. The employing dental office
   c. Both, the employment agency and the employing dental office
   d. The temporary employee and the employing dental office

10. Which of the following types of disinfectants is tuberculocidal?
    a. Hospital disinfectants
    b. Low-level disinfectants
    c. Intermediate-level disinfectants
    d. a, b and c

All OSAP Courses are $25.00 and only available online

Instructions for taking courses online

1. Go to www.ineedce.com
2. Register or log in (if already registered)
3. Click on the online CE tab at the top
4. Scroll down until you see the course of choice (courses are in alphabetical order) Make sure the sort by is set to ALL COURSES.
5. Add course to cart
6. Click on the view cart tab at the top, or the item in cart link located in the upper right of the page.
7. Enter coupon code if any click on Apply
8. Click Continue
9. Verify information and click continue
10. Enter payment information (unless using 100% off coupon code)
11. Click Submit ordered items
12. Print receipt for your records and click continue
13. Click on Take Exam to enter the answers or View PDF for the course material
14. After entering answers click continue
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16. Fill out Evaluation and click submit
17. Review evaluation and click continue
18. Click on verification form
19. Print
   You can return at any time to print the verification form. Just log in with your user name and password. Click on my CE Archives.
Roadmap to OSAP

If you have received this newsletter from a friend or associate, you can access other helpful resources and timely information on infection control and safety by becoming a member of the OSAP community.

**Member resources include:**

► Topical updates such as recent information on Novel Influenza A(H1N1) Virus
► Written references responses to your IC questions (“Ask OSAP”)
► Surface disinfectants chart
► Free online CDC Guidelines course
► Weekly and monthly online IC news round-ups
► Infection control training course - January 11-14, 2010 in Atlanta, GA
► Annual infection prevention symposium - June 10-13, 2010 in Tampa, FL
► Infection Control Educator’s Kit
► Free downloads of mission trip IC guide, traveler’s guide and much more!

**Member registration is easy.**

Online at [www.osap.org](http://www.osap.org) or by phone: 1-800-298-OSAP (6727) within the U.S. or 1-410-571-0003 outside the U.S.

**Current membership levels:**

► Individual member (within the U.S.) $110       ► Individual member (outside the U.S.) $160
► Web-only member (anywhere) $100             ► Student member $25
► Corporate memberships are welcome; please contact OSAP for more information.