

*Hu-Friedy*

# THE ESSENTIAL GUIDE TO INFECTION CONTROL



PART 1: GETTING STARTED  
AS AN INFECTION CONTROL  
COORDINATOR

How the best perform



**Infection control is the cornerstone to any successful dental practice.** While transmission of infectious agents and diseases in the dental setting is rare, it does happen.<sup>1-4</sup> Lapses in infection control often involve simple and routine infection prevention procedures such as treating dental unit waterlines or heat-sterilizing handpieces.<sup>1-4</sup> For this reason, the Centers for Disease Control and Prevention (CDC) encourages making infection prevention a priority and an integral part of creating a culture of safety.<sup>5</sup>

Both the CDC and Occupational Safety and Health Administration (OSHA) state it is essential that at least one infection control and prevention coordinator be assigned in all dental practices. Whether it's an individual position or included as part of the job duties of a dental assistant, an office manager or dental hygienist depends on the size and demands of the dental practice.<sup>5</sup> In addition to the practice benefits, there are many benefits to the individual that accepts the role of infection control coordinator. The role can provide an opportunity to gain valuable leadership and coaching experience, subject matter expertise and, by taking on additional responsibility, it can make the individual a more valuable asset to the practice.

The infection control coordinator must have training or be willing to be trained in infection prevention. They must also stay on top of updates in infection prevention protocols, manage the inventory of personal protective equipment and reusable patient care items, train the staff, and monitor the program.<sup>6,7</sup>

Where does this person start? How do they ensure that evidence-based guidelines, regulations, standards, and best practices are being adhered to? How do they create the protocols necessary to be in compliance? What governing agencies do they need to be aware of?

**Part 1** of this guide is designed to lead the infection control coordinator through the first crucial steps of setting up an infection control program. **Part 2** will take a deep dive into the critical topic of instrument reprocessing, including best practices in instrument transportation, cleaning and sterilization. Together, these guides will provide you with a strong foundation and the confidence necessary to tackle the important role of your practice's infection control champion.

**Let's get started!**

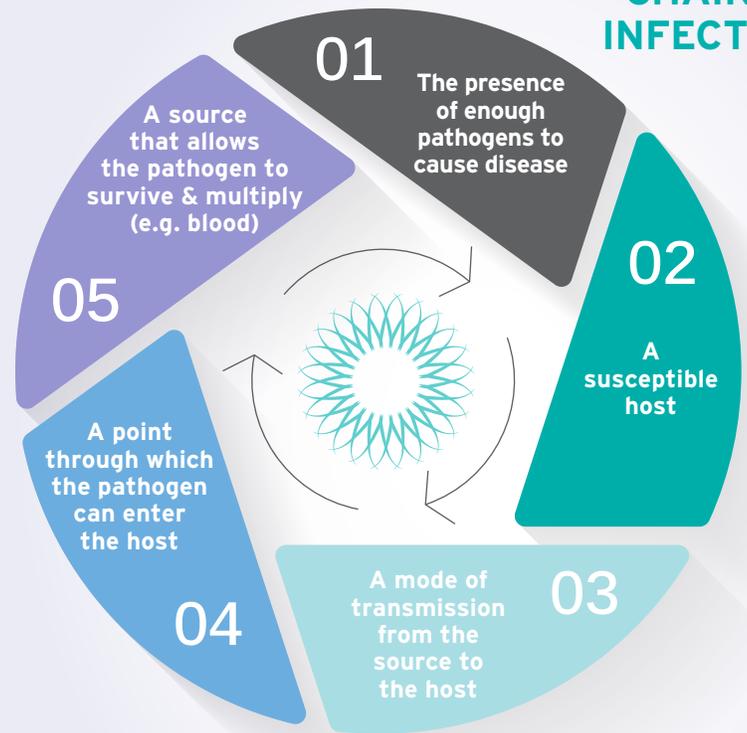


## RESPONSIBILITIES OF THE INFECTION CONTROL COORDINATOR

- Create written infection prevention protocols (policies and procedures) based on current guidelines, regulations, and standards
- Keep the program consistent with current regulations, requirements, policies, and procedures
- Adhere to state and federal requirements and assess best practices
- Provide ongoing training as needed and conduct annual OSHA bloodborne pathogen training
- Oversee infection control program and act as a resource to the rest of the staff
- Keep equipment in working order and ensure that staff is trained to use office equipment and that they follow instructions for use (IFUs) and adhere to the safety requirements
- See that necessary infection prevention supplies are available, including personal protective equipment (PPE) for staff and patients
- Continually review policies and standard operating procedures to identify gaps and outdated material
- Maintain related permits, licenses, immunization records, copies of all manufacturer IFUs and other documents
- Monitor compliance through checklists, interviews, and observations



## CHAIN OF INFECTION



By reinforcing effective infection control strategies with your team, you can help prevent the spread of disease by interrupting one or more links in the chain of infection.

## CULTURE OF SAFETY

Applying a culture of infection control safety to the dental setting can bring the team together. Helping your team understand the process of implementation ultimately increases their level of compliance.

Many areas within the dental practice need written protocols, training, education, and monitoring systems. As an infection control coordinator, it is your responsibility to create training modules and protocols for the team. It can seem overwhelming, but a good first step is to review the chain of infection to help your team understand the concepts of infection control and prevention. Then you can move on to prevention strategies and guidelines.

## GOVERNMENT AGENCIES THAT OVERSEE INFECTION CONTROL IN DENTISTRY

### Centers for Disease Control & Prevention (CDC)

The mission of the CDC is “to protect America from health, safety, and security threats.” The recommendations and guidelines set forth by the CDC for infection prevention are generally adopted by state dental boards and legislatures as law.

### Occupational Safety & Health Administration (OSHA)

The mission of OSHA is “to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance.” As part of the U.S. Department of Labor, their requirements are the law.

### U.S. Food & Drug Administration (FDA)

The FDA governs many things in dentistry, including drugs, medical devices, and electronic products that give off radiation.

### U.S. Environmental Protection Agency (EPA)

The EPA controls the disposal of toxins such as amalgams and hospital-grade disinfectants, which have to be approved before you can use them for cleaning and disinfecting clinical contact surfaces.

### State Dental Boards

Your state dental board develops and enforces the laws surrounding infection control. The laws that they put into place generally meet or exceed the guidelines and mandates from OSHA, the CDC, FDA, and EPA.

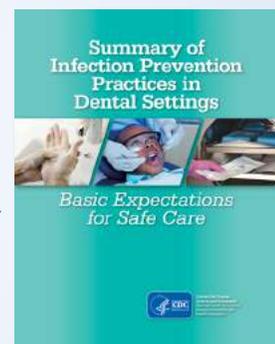
### Health Departments

The local and state health department is also a resource and can help through crises and challenges.

## HELPFUL TIP

One simple way of assessing the needs of your dental practice is to review the [Guidelines for Infection Control in Dental Health-Care Settings - 2003](#) and utilize the CDC checklists included in the [2016 Summary of Infection Prevention Practices in Dental Settings](#).

The checklists were developed to help ensure that offices have infection prevention practices in place to ensure a safe working environment. It also gives the infection control coordinator the tools to systematically assess staff compliance and provide feedback.





## HAND HYGIENE

Hand hygiene is the single most effective way to break the chain of infection and prevent the spread of bacteria in healthcare settings.<sup>5,8-9</sup> Depending on the procedures to be performed and the state of the healthcare worker's hands, proper hand hygiene practices should include the use of all of the following: plain or antimicrobial soap, alcohol-based hand sanitizers and skin moisturizers.

For dental examinations and nonsurgical procedures, clinicians can use soap (plain or antimicrobial) and water or an alcohol-based hand antiseptic to clean or disinfect hands

### HAND HYGIENE TIPS

- Hand washing must be done if there is the possibility that debris, blood, or body fluids such as saliva are present.
- Alcohol-based hand sanitizers can be used in the medical setting when hands are free of debris.
- Hands must always be washed before putting gloves on and after taking them off.
- Make sure hand hygiene products are medical-grade and will not degrade glove materials.
- Read and follow the label directions, paying special attention to recommended application and contact time.
- Hand hygiene is always the last step to the removal of personal protective equipment.



prior to donning exam gloves and immediately following their removal. When hands are visibly soiled, they should always be washed with soap and water first. It is always good practice to ensure hands are completely dry before donning a new pair of gloves as wet hands can attract pathogens. For surgical procedures, perform a surgical hand scrub before putting on sterile surgeon gloves.

Repeated hand washing, antiseptic application and glove use can result in dry skin or other skin conditions such as dermatitis. Because of this, medical-grade, glove-compatible hand moisturizers should be used regularly to maintain healthy, unbroken skin—the body's natural defense against infections. The use of a therapeutic cream can help restore the skin's natural moisture barrier while delivering necessary nutrients to the skin. As an example, [Hu-Friedy's Skin Repair Cream](#) contains Olivamine®, a patented blend of ingredients that delivers all of the essential nutrients necessary for optimal skin health including amino acids, vitamins, antioxidants, and methylsulfonylmethane (MSM). For all types of hand hygiene products, look for those specifically designed for use in healthcare settings and follow the product manufacturer's label for instructions. In particular, take note of the recommended product application method and, in the case of antiseptics, the required amount of time that the product should remain wet on the skin. Antiseptics with a high alcohol content such as [Hu-Friedy's Sterillium Comfort Gel](#)®, which contains 85% alcohol, kills 99.99% pathogens within 15 seconds. Products with lower alcohol content will require larger dosages and longer contact times. Finally, it is important to emphasize with your staff that gloves do not take the place of proper hand hygiene.

A great resource for hand hygiene is the [2002 CDC Guideline for Hand Hygiene in Health-Care Settings](#)<sup>10</sup> which you can share with your team. After researching the guidelines from the CDC, your state dental practice act, and other resources for hand

hygiene, you can work with the staff to review best practices for the office's specific settings.

From there, you can move on to teach your staff about the other areas that have been identified as needing training.

## HOW TO ENCOURAGE HAND HYGIENE

Studies indicate the rate of compliance for proper hand hygiene in the healthcare field is about 40%.<sup>10</sup> For that reason, visual cues have been shown to be a valuable tool in hand hygiene, decreasing the rate of infection.<sup>11</sup> Simple things from posters to statements on compliance posted in the setting can help increase compliance throughout the day.<sup>12</sup>

[The Hu-Friedy Hand Essentials Hand Care Guide](#)<sup>13</sup> is a great example of a tool that the whole dental team can use.

## PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment (PPE) refers to wearable equipment that is specifically designed to protect the healthcare provider and patient from exposure to infectious agents. PPE effectively covers personal clothing and skin likely to be soiled with blood, saliva, or other potentially infectious materials. The PPE that should be made available include gloves, face masks, protective eyewear (for both the clinician and the patient), face shields, and protective clothing. Lack of or improper personal protective equipment can put both the

clinician and the patient at risk.

## GLOVES

Gloves must be worn when there is a potential for contact with blood, body fluids, mucous membranes, open wounds, or contaminated equipment.<sup>5, 18</sup>

### Exam Gloves

Single-use, disposable exam gloves are intended for examining patients and performing non-invasive procedures. They should always be changed between patients and when torn or punctured. Only medical-grade, powder-free gloves cleared by the Food and Drug Administration (FDA) can be used. Exam gloves are available in a variety of materials, including nitrile, latex, and vinyl and are generally made to be able to be worn on either hand. It is important to keep in mind that some individuals may be allergic to natural rubber latex. If your practice is using latex exam gloves primarily, it is prudent to have options available for use with a patient or by a clinician with latex allergies. Other considerations when choosing an exam glove for your team can include fit, comfort, tactile sensitivity, and durability.

### Sterile Gloves

Patient exam gloves are not intended for surgical procedures such as biopsies, periodontal surgery, apical surgery, implant surgery, and the surgical extraction of teeth. For surgical procedures, perform a surgical hand scrub before putting on sterile surgeons' gloves. Sterile or surgical gloves are labeled as such and come sterile in individually packaged pairs, commonly with hand-specific designs for enhanced ergonomics.

### Utility Gloves

Utility gloves are vital and yet underutilized. The CDC recommends the use of puncture- and chemical-resistant utility gloves when cleaning instruments and performing housekeeping



tasks involving contact with blood, other potentially infectious materials, or chemicals.<sup>15-18</sup> Puncture-resistant utility gloves are designed to provide protection during operatory cleanup and reprocessing of instruments. It is important that each clinician have their own pair of well-fitting utility gloves.<sup>16</sup>

Unlike exam or surgical gloves that are for single use only, some utility gloves can be sterilized, washed, or disinfected for reuse. For example, [Hu-Friedy's Lilac Utility Gloves](#) can be autoclaved up to five times for ease of use and care. Prior to donning, utility gloves should be inspected for punctures, tears, cracks or other signs of deterioration and replaced when necessary.<sup>17-18</sup> When utility gloves are worn during the cleaning step, gown or jacket sleeves should be tucked in and cuffs should be folded over to prevent liquids from accidentally contacting bare skin.



#### PROPER GLOVE USE TIPS

- Change exam gloves between patients
- Do not wear the same pair of exam gloves for more than one patient
- Do not take exam gloves off and put them back on as they are single-use and the material can be compromised
- Do not wash exam gloves for purpose of reuse
- Remove any glove that has been torn, cut, or punctured, then perform hand hygiene and put on new gloves
- Do not use wet utility gloves to package a clean and dry instrument or set-up

#### PROTECTIVE EYEWEAR

Protective eyewear must be worn by both clinicians and patients during procedures that are likely to generate airborne debris, splashes or sprays of blood or other body fluids. It is especially important when high-speed handpieces are being used. The protective eyewear for a patient may also help with sensitivity to the overhead light.

Reusable protective eyewear should be cleaned with soap and water and disinfected between patients when visibly soiled.<sup>15,20</sup>

OSHA requires all employers to supply eyewear or face shield protection for all their employees. Eye protection should be made of impact-resistant plastic and include side protection in compliance with American National Standards Institute (ANSI) Z87.1-2010.<sup>20</sup> Reader glasses do not take the place of protective eyewear.

#### FACE MASKS

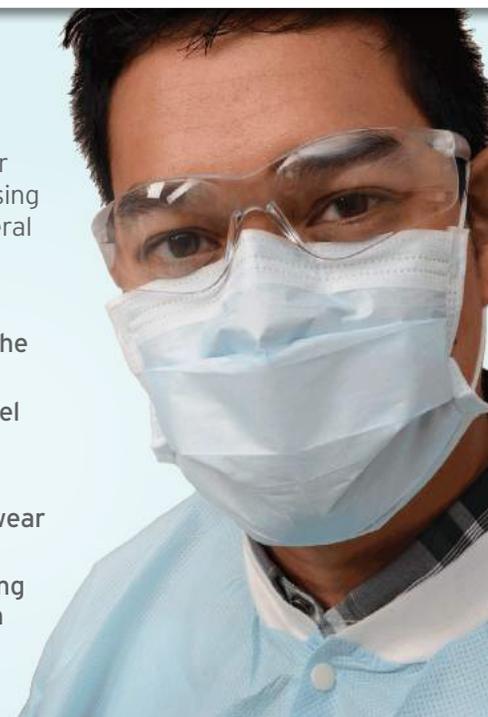
Because not all masks are made the same, only face masks designated as a medical device by the FDA, generally referred to as surgical masks, should be used in dental settings. Healthcare personnel should wear a surgical mask that covers both their nose and mouth during procedures and patient-care activities likely to generate splashes or sprays of blood or body fluids. A surgical mask protects the patient against microorganisms generated by the wearer and also protects dental healthcare personnel from large-particle droplet spatter that may contain bloodborne pathogens or other infectious microorganisms. Though the mask may offer some protection from airborne pathogens, it is not meant to take the place of evaluating patient and clinician health before delivering treatment. It is important that the mask fits well or it will not filter the air.<sup>19</sup> Masks should not be worn down around the chin or neck as it creates an opportunity for cross contamination.

#### WHAT TO LOOK FOR IN A MASK

No one mask works for everyone. When choosing a mask, there are several considerations.

##### Masks should:

- Create a seal over the nose and mouth
- Have a filtration level of at least 95%
- Allow for breathing
- Work well with eyewear to limit fogging
- Fit face well, covering the nose and mouth



When a surgical mask is used, it should be changed between patients or during patient treatment if it becomes wet.<sup>15,19</sup> Have a variety in the office with different filtrations (i.e. N95 with high filtration should be available should a patient with possible TB present).<sup>18</sup>

## PROTECTIVE CLOTHING

A gown or lab jacket must be worn during procedures or activities where contact with blood, saliva, or other potentially infectious materials is anticipated.

Gowns are a barrier that protects the skin and clothing from debris, aerosols, fluids, and other materials. They should be removed when leaving the operatory, lab, or sterilization area and should not be worn in eating areas, lobbies, lavatories, or offices. They should be changed daily or when visibly soiled.<sup>15</sup> They need to be knee-length and have a cuff at the wrist to ensure that fluid doesn't penetrate the skin. Please note that scrubs do not take the place of PPE.

**Protective gown should never be worn outside of the operatory, sterilization area, and lab. To counteract this issue, put up more clothing hooks in the operatory, lab area, and sterilization area to give staff more places to place their gowns when not in use.**

## PPE IN INSTRUMENT REPROCESSING

One of the areas where personal protective equipment is of utmost importance is in the instrument reprocessing area. Healthcare professionals that work in this area have the possibility of being exposed to every single patient's pathogens that were treated in a given day. Therefore, each task may require additional protection and must be looked at individually. For example, if you anticipate splashes or splatter in the task you are undertaking, the addition of a water-resistant apron and a splashguard or face shield can help prevent disease transmission and chemical exposure. Please note this topic will be covered in greater detail in Part 2 of this guide.

## PPE REVIEW

### Can face shields protect employees instead of safety goggles or spectacles?

Face shields alone do not protect employees from impact hazards. Face shields may be used in combination with safety goggles or spectacles to protect against impact.

### Is training required before eye and face protection is used?

Yes, training must be provided to employees who are required to use eye and face protection. The training must be comprehensive, understandable, and recur annually, and more often if necessary. This training should include at a minimum:

- Why the eye and face protection is necessary and how improper fit, use, or maintenance can compromise its protective effect
- Limitations and capabilities of the eye and face protection
- Effective use in emergency situations
- How to inspect, put on, and remove
- Maintenance and storage
- Recognition of medical signs and symptoms that may limit or prevent effective use

For more information from OSHA, click [here](#). ➤

## ENVIRONMENTAL SURFACES

In the dental operatory, environmental surfaces (i.e., a surface or equipment that does not come into contact with patients directly) can become contaminated during patient care. Although they have not been associated directly with transmission of infection to either DHCP or patients, these surfaces, especially ones touched frequently (e.g. light handles, unit switches, and drawer knobs), can serve as reservoirs of microbial contamination, which must be managed through barrier protection and regular cleaning and disinfection.



## Clinical Contact Areas

Clinical contact areas are those that come into contact with contaminated instruments, devices, hands, or gloves. Use FDA listed barrier protection to protect as much as possible during treatment, especially in areas that are difficult to clean, such as the X-ray head and switches. When barriers are not used, clinical contact surfaces must be cleaned and disinfected between patients by using an EPA-registered hospital disinfectant with an HIV, HBV claim (i.e., low-level disinfectant) or a tuberculocidal claim (i.e., intermediate-level disinfectant).

## Housekeeping Surfaces

Housekeeping surfaces (e.g., floors, walls, sinks) have a limited risk of disease transmission and can be cleaned with detergent and water or an EPA registered hospital disinfectant if visibly contaminated with blood.

## Surface Disinfection

When breaking down the room or cleaning and disinfecting the surfaces with an EPA-grade disinfectant, you must wear personal protective equipment, including a mask, eye protection, a gown, and chemical- and puncture-resistant utility gloves.

There are two steps involved in disinfecting a surface area. The first step is to clean the surface, removing debris and blood so that the disinfectant can penetrate the surface. The second step is to apply the disinfectant according to the directions on the label. Often this involves thoroughly saturating the area to be disinfected and allowing the surface to remain visibly wet for the specified duration of time. Remember that allowing the disinfectant to dry is part of the process. Many surface disinfectants today both clean and disinfect. Always read the manufacturer's label and directions for use.

## BARRIERS

Using surface barriers to protect computer equipment and clinical contact surfaces, particularly those difficult to clean, could save time for the office and limit exposure to chemicals.

Barriers that are used to protect equipment or areas of the office should be designated as non-permeable, FDA listed medical devices. They come in many sizes and forms, including clear wrap, wrap with adhesive, bags, sheets, and tubing. Make sure they fit well and stay in place. They should also be easy to place and remove.



You can have clinicians in the practice review the items and surfaces in the operator and choose a protocol for post-care: either barrier protection and/or cleaning and disinfecting. A good resource is the CDC's [Summary of Infection Prevention Practices in Dental Settings](#).<sup>5</sup>

## EPA-APPROVED DISINFECTANTS AND HOW TO USE THEM

Disinfectants are specifically designed to be used on hard, inanimate surfaces and objects.

Categorized as pesticides by the EPA, disinfectants either destroy or irreversibly inactivate infectious viruses, fungi, and bacteria.

To be utilized in healthcare settings, disinfectants must state that they are a "Hospital Disinfectant" and have an EPA registration number on the label.

Over-the-counter products such as household bleach do not take the place of an EPA-registered disinfectant. It is federal law to know and follow the label directions.

They include where, how much, how often, and when to use the disinfectant as well as how to store and dispose of it.

**Do not make your own wipes.**

The bleach in cotton two-by-twos can render the disinfectant inert.<sup>19,21</sup>

For details about your product, click [here](#).

For details about disinfectants in general, click [here](#).

## HOW LONG MICROORGANISMS LIVE ON SURFACES

Microorganisms can live on surfaces for a long time which is why following proper cleaning and disinfection protocol is critical to ensuring the safety of the patient and clinician.

MICROORGANISM	LENGTH OF TIME
MRSA	7 days – 7 months
Hep A	2 hours – 60 days/2.5 months
Herpes	4.5 hours – 8 weeks/2.5 months
Rotavirus	6 days – 60 days/2.5 months
Hep C	6 weeks/1.5 months
Hep B	Less than 1 week
Fl	1 – 2 days

SOURCE: [BMC Infectious Diseases 2006](#)

## BARRIER PROTOCOL

First, clean and disinfect the area at the start of the day and then place the barrier protection. Because barriers can become contaminated, they are single-use items. They should be removed and discarded between patients while wearing utility gloves.

Carefully remove the barrier so that you do not contaminate the surface you are protecting. Large bags can be removed by turning them inside out as you remove them. After removing the barrier, examine the surface to make sure it did not inadvertently become soiled. If contamination is evident, the surface should be cleaned and disinfected.

After removing gloves and performing hand hygiene, the healthcare professional should place clean barriers before the next patient. At the end of the day, remove all barriers and clean and disinfect all environmental surfaces (clinical contact and housekeeping surfaces) in the operatory as per the guidance provided above.

All items that enter the mouth that cannot be heat sterilized will require both barrier

protection and cleaning and disinfection. It is important to follow the instructions for use for all product including barriers, cleaning and disinfection products. Dental handpieces (including the low speed motor) and other devices not permanently attached to air and waterlines do not fall into this category. They must be cleaned and heat-sterilized according to manufacturer instructions.<sup>5</sup>

## DIGITAL SENSORS

Because digital sensors are sensitive and come in contact with mucosa, saliva, and blood, they require special handling. FDA listed barriers can be used to cover the sensor. Barriers should be changed between patients. After the surface barrier is removed, the sensor is ideally cleaned and heat sterilized or high-level disinfected according to the manufacturer's instructions. If the item cannot tolerate these procedures, the sensor should at least be cleaned and disinfected with an intermediate-level EPA-registered hospital disinfectant.

Consult manufacturers regarding compatibility of heat sterilization.

## DENTAL UNIT WATERLINES

Another important aspect of infection control and prevention within the operatory is the cleaning and maintenance of dental unit waterlines. Colonies of microorganisms, or biofilm, have a strong tendency to form on the inside of the tubing that transports water from the dental unit to the handpieces and air-water syringes. The biofilms continue to grow and multiply and have the potential to contaminate patient treatment water.

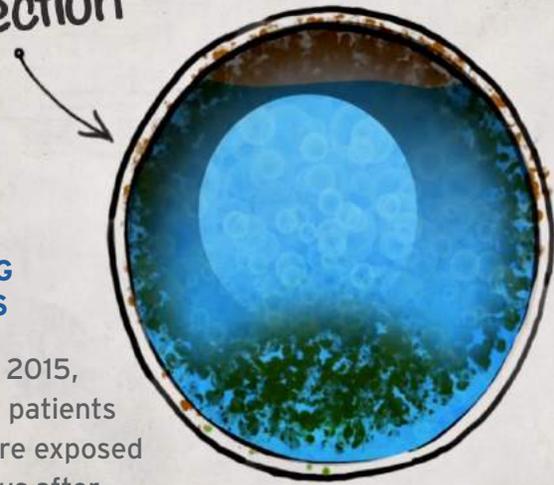
Research shows microbial counts can be as high as 200,000 colony-forming units per milliliter (CFU/mL) within five days of installing a new dental unit waterline. This rapid growth is due to a number of factors, including waterlines with small diameters, water warming to room temperature, slow water flow, and low overall water usage.<sup>18</sup>

Because of the presence of biofilm, the CDC recommends that water used for routine dental treatment meet EPA regulatory standards for drinking water (fewer than 500 CFU/mL of heterotrophic water bacteria). When performing surgical procedures, sterile solutions must be used in conjunction with devices specifically designed for their delivery.

If water is not properly cleaned and maintained, dental units cannot produce water that meets these drinking water standards and should not be used for patient treatment. Therefore, waterlines must be properly maintained and monitored, following the recommendations for monitoring water quality provided by the manufacturer of the unit or waterline treatment product. In addition, water and air should be discharged for a minimum of 20-30 seconds after each patient, from any device connected to the dental water system that enters the patient's mouth (e.g., handpieces, ultrasonic scalers, and air/water syringes).<sup>18</sup>

The infection control coordinator needs to know how and when to monitor the waterline. You must know the instructions for use for the dental unit,

## waterline cross section



### THE DANGERS OF IGNORING WATERLINES

In September 2015, nine pediatric patients in Georgia were exposed to *M. abscessus* after contaminated water was used during their pulpotomies, which introduced the bacteria into the chamber of the tooth during irrigation and drilling.<sup>22</sup> This specific bacteria is ubiquitous in the environment and can pose a contamination risk, leading to severe infections.

as well as the waterline cleaner and maintenance products and understand how to keep the water at or below 500 CFU/mL of heterotrophic water bacteria.<sup>18</sup>

“To prevent infections associated with waterlines, dental practices should follow manufacturer guidelines to disinfect waterlines, monitor water quality to ensure recommended bacterial counts, use point-of-use water filters, and eliminate dead ends in plumbing where stagnant water can enable biofilm formation,” writes the CDC. “Health care providers should promptly report suspected outbreaks of infectious diseases to public health authorities so that an investigation can be initiated and appropriate control measures implemented.”<sup>18</sup>

It is important to utilize a complete dental unit waterline system that both cleans and maintains the water in order to remove the microbial contamination. Utilizing a proper maintenance product is also necessary to help prevent the waterborne organisms from attaching and forming in the tubing again between cleaning protocols.

Incorporating a dental unit waterline cleaning and maintenance protocol is simple. Various waterline treatment products are available to address microbial contamination and potential health risks. One of the more popular product types for both cleaning and maintaining waterlines uses chemical agents. Table 1 above lists the criteria that should be used when choosing a product for your office. Just remember to follow the manufacturer's instructions for use for each product. With [Hu-Friedy's Team Vista™ Dental Unit Waterline Cleaner](#), cleaning and maintaining waterlines is a quick and easy process that includes shocking the waterlines monthly and adding daily irrigant drops to maintain the waterlines. Click here to view or print the [Hu-Friedy Step by Step Instruction Guide](#).

OSAP has a great resource for the infection prevention coordinator: the [Waterline Tool Kit](#). This kit provides a comprehensive overview of the background and process necessary to keep the waterline safe, incorporating CDC recommendations and resources.<sup>24</sup>

### PUTTING INTO PRACTICE WITH PROTOCOL DEVELOPMENT

Protocol-based practices are systematically developed, taking into consideration the individual circumstances of delivery of care.<sup>25</sup> They are a benefit to medicine, increasing understanding of the steps involved to be in compliance and improving patient care. Developing a protocol is an ongoing process that involves continual evaluation.

The first step in developing protocol is to assess the needs of your practice against the CDC Guidelines, state board laws and regulations, etc. Ask yourself what needs to be done, and then review once again the regulatory requirements and recommendations. At that point, you can also research best practices – that is, the steps followed to ensure the best results. Encourage staff input to make sure that you're developing a protocol that works for your practice.

**TABLE 1: What to look for in dental water treatment solutions**



1.	Works quickly
2.	Exhibits broad-spectrum antimicrobial activity
3.	Disrupts biofilms
4.	Nontoxic
5.	Nonpyrogenic
6.	Nonallergenic
7.	Noncorrosive
8.	Compatible with rubber and synthetic materials
9.	Does not interfere with dental procedures
10.	Environmentally friendly

SOURCE: [Dental water line infection control: A work in progress](#)



Once you've gathered the relevant information and input, you can begin to develop a written plan. Include a brief description of the problem or contributing factors, and make sure the information is based on scientific evidence. List the preventive measures and tasks that your staff should take, and include the details in question words such as who, what, when, where, why, and how. (There is an example of what a protocol should look like in the hand hygiene protocol below.)

At that point, you can draft and edit the policies and procedures behind the protocol and obtain approval from your supervisory staff member.

With the information in place, you can begin to educate the staff on the new protocol, communicating the need to adhere to it, as you will be monitoring and evaluating their use of the protocol.

After evaluating the protocol in the practice, you can make any necessary revisions. Even if they are also available electronically, all of a practice's protocols should be printed and stored together in one binder in the central sterilization area, easily and readily accessible by all staff members. All instructions for use for all infection prevention related equipment and products should be similarly organized and kept together with the practice protocols for easy reference.

## RESOURCES FOR THE INFECTION CONTROL COORDINATOR

### CDC

The "[Summary of Infection Prevention Practices in Dental Settings: Basic Expectations for Safe Care](#)" includes infection prevention checklists.<sup>5</sup> The "[Guidelines for Infection Control in Dental Health-Care Settings – 2003](#)" is also a good resource to keep handy.<sup>18</sup>

### OSHA

OSHA has an abundance of resources, including Safety and Health Topics: Dentistry, Medical & Dental Offices: A Guide to Compliance with OSHA Standards and Recommended Practices for Safety and Health Programs. This last document is an excellent resource, providing a step-by-step approach to implementing infection control protocol in the practice: [osha.gov](http://osha.gov).

### State Dental Boards

Find your state and download the infection control regulations: [ada.org](http://ada.org).

### OSAP

The Organization for Safety, Asepsis and Prevention has a plethora of resources on infection prevention. They also offer an annual training session and an annual meeting. Start here by reading "[The Role of the ICPC](#)". Sign up for their monthly newsletter to stay abreast

## DENTAL PRACTICE PROTOCOLS AND POLICIES CHECKLIST

Following are some areas that may require written protocols or policies per CDC Guidelines and your local state dental board:

- Exposure Control Plan
- Immunization Policy
- Hand Hygiene
- Respiratory Hygiene/Cough Etiquette
- Sharps Safety
- Safe Injection Practices
- Personal Protective Equipment
- Environmental Infection Prevention and Control
- Cleaning, Maintenance and Monitoring of Dental Unit Waterlines
- Sterilization and Disinfection of Patient-Care Items and Devices
- Cleaning and Sterilization Monitoring
- Dental Setting Response in the Event of a Reprocessing Failure or Error
- Education and Training Plan
- Routine Monitoring and Evaluation of the Infection Prevention and Control Program

of the latest infection prevention news and education specifically tailored to the dental industry. To learn more about the benefits of becoming a member to OSAP, please click [here](#).

### CE Courses

Look for qualified infection control speakers who are focused on sharing the guidelines and regulations instead of opinions and products. You can also find on-demand webinars on [Hu-Friedy's website](#).

### Hu-Friedy

For a more comprehensive and updated list on infection control resources, please click [here](#).

## CONCLUSION

Hopefully, as the new infection control coordinator, you feel comfortable knowing you know the steps to get started in your new role. Most of all, you should know the governing agencies and know where you can access key resources.

In the subsequent e-book (don't worry, there are only two!), you'll learn more about instrument reprocessing: everything from the flow of dirty to clean to how to transport, package, sterilize, and store instruments. And of course, we'll share the do's and don'ts and provide helpful tools and resources. By then, you'll be well on your way to commanding the position of infection control coordinator with the utmost responsibility.



Sample protocol to staff



### HAND HYGIENE PROTOCOL

<b>Purpose</b>	Maintain proper hand hygiene.
<b>Principle</b>	The CDC states that hand hygiene is the single most important measure for preventing the spread of bacteria in healthcare settings. The CDC Guidelines state "For routine dental examinations and nonsurgical procedures, handwashing and hand antisepsis is achieved by using either a plain or antimicrobial soap and water. If the hands are not visibly soiled, an alcohol based hand rub is adequate." For surgical procedures, surgical hand scrub must be performed before putting on sterile surgeons' gloves. "Lotions are often recommended to ease the dryness resulting from frequent handwashing and to prevent dermatitis from glove use."
<b>Policy</b>	<ul style="list-style-type: none"> <li>Hand hygiene is a mandatory task for all dental staff.</li> <li>Proper hand hygiene must be performed before and after treating all patients, before a clean or aseptic procedure, after body fluid exposure, after touching patient surroundings, immediately after a breach in infection control, before putting on gloves, and after taking gloves off.</li> <li>Hand hygiene must be performed closest to the point of contact, i.e. immediately upon entry to patient operatory or sterilization area and after personal protective equipment is removed prior to exiting operatory or sterilization area.</li> <li>Team members must use approved soap with water for hand washing when hands are visibly soiled (dirt, blood or the possibility of other body fluids including saliva). When hands are free of debris, team members may use approved alcohol-based hand rub.</li> <li>For surgical procedures, clinicians must perform a surgical hand scrub before putting on sterile surgeons' gloves.</li> <li>For all types of hand hygiene products, team members should follow the product manufacturer's label for instructions and the proper application technique as shown in the Hu-Friedy Hand Essentials Hand Care Guide posted in each operatory and in the sterilization room.</li> </ul>
<b>PPE Required</b>	n/a
<b>Approved Equipment and Products</b>	Hu-Friedy Hand Essentials Lotion Soap Hu-Friedy Sterillium Comfort Gel Hand Antiseptic Hu-Friedy Hand Essentials Skin Repair Cream Betadine Surgical Hand Scrub
<b>(How)</b>	
<b>Prepared by:</b>	Jane Doe, DA
<b>Approved by:</b>	Dr. Smith, DDS
<b>Approval Date:</b>	4/1/2017
<b>Next Review Date:</b>	4/1/2018

GENERAL DENTISTRY • COSMETIC DENTISTRY • ORTHODONTICS

## CLICK HERE TO REQUEST A FREE STERILIZATION OBSERVATION BY A HU-FRIEDY EXPERT

We will provide an in-depth assessment of your practice's instrument processing and infection prevention protocols against the current CDC Guidelines for Infection Control in Dental HealthCare Settings.

## THE BASIC STEPS OF WRITING A PROTOCOL

Protocol-based practices are systematically developed, taking into consideration the individual circumstances of delivery of care.<sup>25</sup> They are a benefit to medicine, increasing understanding of the steps involved to be in compliance and improving patient care. Developing a protocol is an ongoing process that involves continual evaluation.

Review regulatory requirements and recommendations

Assess needs: What needs to be done?

Research best practices and encourage staff input

Develop a **written plan**, which should include:

A brief description of the problem or contributing factors (evidence-based)

Preventive measures and tasks

The who, what, when, where, why, and how of the protocol

Draft and edit the policies and procedures

Obtain approval

Train and educate staff

Monitor and evaluate use of protocol

Review the protocol and make necessary revisions

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