Operatory Equipment Asepsis Guide

Introduction

Asepsis is a permanent reality in dentistry that involves consideration from both practitioners and equipment suppliers. Firstar is committed to providing care and maintenance guidelines developed from recommendations from the Centers for Disease Control and Prevention (CDC), the U.S. Food and Drug Administration (FDA), and our various suppliers that balances proper asepsis of your operatory and prolonging the life of your Firstar equipment.

Rest assured, Firstar continually evaluates asepsis products and procedures along with customer feedback to deliver the best recommendations possible.

For additional resources on asepsis and infection control, explore the Resources section at the end of this guide.

Surface Control Guidelines

The effects of disinfecting and cleaning chemicals is a strong consideration for all of our products during the design and production processes. With the plethora of requirements and abundance of diverse cleaning products, it is impossible to specify a single material that is impervious to all chemicals, but we do our best to ensure robust chemical resistance to a majority of cleaning and disinfecting agents.

Proper asepsis is a two pronged approach, specifically prevention and treatment. In terms of equipment preservation the old adage rings true - “an ounce of prevention is worth a pound of cure”.

As part of our best practice guidelines, the use of FDA approved single use barriers should be used whenever and wherever possible to reduce the frequency of chemical applications. Eliminating direct contact and exposure of surfaces on your dental equipment extends the life of your equipment by reducing the effects of chemical exposure.

It is important to note that damage to dental equipment isn't reserved to chemical effects during the asepsis process. Exposure to various environments and substances experienced during a normal day's workflow can also have negative effects on upholstery, paint, and plastics. Those factors include temperature, humidity, ultraviolet (UV) light exposure, abrasive cleaners and applicators, and chemical residues on gloves can all contribute to adverse conditions for your equipment. Being cognizant of these factors will help you choose the best and most appropriate controls to better preserve your Firstar equipment.

Surface Care and Infection Control

Firstar Dental has developed the following protocols to satisfy proper infection control requirements while minimizing negative effects to your dental equipment:

1. All items that enter the oral cavity must be heat sterilized or disposed of and replaced between patients. These items include but are not limited to:
    - Saliva Ejectors (SE) and High Volume Evacuator (HVE) tips
    - Syringe tips
    - Handpieces and associated attachments
    - Curing Lights
2. Identify and minimize all surfaces that require direct contact. Examples of such include light handles, handpiece hangers, touchpad buttons, etc. Direct contact with surfaces should be avoided if at all possible as this significantly increases the chances of cross contamination.
3. Identify all surfaces that come in contact with direct touch surfaces. These might include the portion of the handpiece hanger that contacts the handpiece itself, the portions of the control head that instruments are set on, etc. These surfaces may not come in direct contact with pathogens, but may still contain them due to the transfer between one surface and another.
4. Firstar recommends the use of FDA approved single use barriers on all surfaces identified in Parts 2 and 3 if possible.
    a. **If barriers are used as described above:**
    - Wearing gloves remove and dispose used barriers after each patient

- With clean gloves, apply new barrier to all surfaces identified in Parts 2 and 3 before each new patient
- If a barrier fails to adequately cover a surface, or visual inspection reveals that the barrier material was compromised, disinfect the surface according to the guidelines in the "Disinfecting Guide and Requirements" section of this document between patients and also once at the end of each day.

b. If barriers are NOT used as described above:

- Immediately disinfect all surfaces identified in Parts 2 and 3 according to the guidelines in the "Disinfecting Guide and Requirements" section of this document between patients and also once at the end of each day.

5. Using mild cleaners, clean all other surfaces not identified in Parts 1, 2, and 3 at least once each day, or if the surface has been visually contaminated, following the guidelines listed in the "Cleaning Guide and Requirements" section of this document.
6. Using barriers on the headrest upholstery in addition to the adjustment button (a direct contact surface from Part 2) is a best practice for preventing degradation to the upholstery by reducing the amount of cleaning and disinfection required throughout the day.
7. The use of barriers on the rest of your chair upholstery is highly recommended and serves as a replacement for disinfection between each patient as long as the barrier adequately covers the upholstery surface and it is uncompromised. Using barriers will significantly extend the life and reduce discoloration of your upholstered products.

In general, it is recommended to use barriers and regular cleaning as your primary methods of infection control, especially for upholstery. By limiting the application of disinfecting chemicals, you also limit the degradation of materials through exposure while still accomplishing the end result of asepsis. If barriers are used for infection control, be sure to replace them between each patient and at the end of the day.

Cleaning Guide and Requirements

Regular cleaning of your Firstar equipment and upholstery is required at least once a day. Start by removing any visible soiling or debris from all surfaces.

Regardless of barrier use, apply a mild cleaning solution, or a mixture of dish soap and warm water, directly to the surface or a moistened cleaning towel. Wipe all surfaces clean and then dry with a clean paper towel or cloth.


WARNING: Do not use abrasive applicators or cleaners containing abrasives.


WARNING: Do not use cleaning solutions that contain household bleach (sodium hypochlorite based), alcohol, or ammonia.


WARNING: Refer to the cleaning manufacturer's Material Safety Data Sheet (MSDS) for proper care and handling instructions.


WARNING: Follow all precautions listed by the cleaner manufacturer when handling. Use gloves when possible to avoid direct contact with skin.

Disinfecting Guide and Requirements

Equipment surfaces should be disinfected between patients if barriers are not utilized or if the barrier surface is compromised, and at the end of every work day.

1. Properly clean surfaces per the Cleaning Guide and Requirements section prior to disinfection of equipment.
2. Apply an intermediate level, Healthcare intended use, Environmental Protection Agency (EPA) registered disinfecting agent such as Caviwipes™ to surfaces. Follow the manufacturer's instructions regarding dwell time and application. Ensure the entire surface is moistened with disinfectant during the required dwell time. If a spray type disinfectant is used, DO NOT allow spray to pool or enter connections between two separate parts.
3. At the end of the contact period, wipe away the remaining disinfecting solution with a dry cloth or paper towel. DO NOT allow disinfectant to dry on surfaces as this will degrade any surface treatments on metallic parts, or lead to cracking of plastic components.
4. Clean any residues left behind with a dish soap and warm water solution. Wipe the surface dry after cleaning.

 WARNING: Do not allow disinfectant solution to enter the LED light housing. Sustained exposure and disinfectant residues will lead to cracking of the clear plastic lens.

 WARNING: Do not use household bleach (sodium hypochlorite) based disinfectant.

 WARNING: Avoid or minimize the content of ammonia and alcohol in disinfectant.

 WARNING: Do not allow disinfectant to remain on surfaces after the manufacturer specified dwell time. Disinfectant left behind can cause discoloration or significant damage to any surface treatments of parts.

 WARNING: Refer to the disinfectant manufacturer's MSDS for proper care and handling instructions.

 WARNING: Follow all precautions listed by the disinfectant manufacturer when handling. Use gloves when possible to avoid direct contact with skin.

Resources

From The Centers for Disease Control and Prevention (CDC):
Guidelines for Infection Control in Dental Health-Care Settings - 2003
https://www.cdc.gov/oralhealth/infectioncontrol/pdf/recommendations-excerpt.pdf

Guideline for Disinfection and Sterilization in Healthcare Facilities - 2008
https://www.cdc.gov/infectioncontrol/pdf/guidelines/disinfection-guidelines-H.pdf

Summary of Infection Prevention Practices in Dental Settings:
https://www.cdc.gov/oralhealth/infectioncontrol/pdf/safe-care2.pdf

The American Dental Association (ADA):
https://www.ada.org/

The Organization for Safety and Asepsis Procedures (OSAP):
https://www.osap.org/

The Food and Drug Administration (FDA):
https://www.fda.gov/