

# The Importance of Equipment and Surface Cleaning/Disinfection

Training material developed in  
collaboration with:



# Objectives

- ❖ Identify which clinic surfaces are vulnerable to contamination
- ❖ Identify contact time options
- ❖ Review patient & staff safety tips
- ❖ Determine how often clinics should be executing infection control on their surfaces

# Pre-Test

1. Why should staff wear gloves when using surface cleaners?
  - A. To prevent cross contamination of pathogens from staff's hands
  - B. To protect themselves from pathogens
  - C. To protect themselves from chemicals in the wipes
  - D. All of the above

# Pre-Test

2. What surfaces should be cleaned after each use?
  - A. Door handles
  - B. Front desk area
  - C. Treatment tables
  - D. Hydrocollator
  
3. What areas in a clinic cannot be disinfected?
  - A. Cracked or torn vinyl
  - B. Rusted metal
  - C. Corrugated cardboard
  - D. All of the above

# Pre-Test

4. What is “Contact time?”
  - A. The time spent with the patient
  - B. The time a cleaning product must remain wet on a surface for it to achieve the prescribed level of disinfection
  - C. The time a cleaning product can be used before it loses its effectiveness
  - D. The time a cleaning product can be in contact with your skin before damage may occur

# Clinic Cleanliness and Patient Perceptions

- ❖ Patient perception of your clinic cleanliness impacts their perception of the “safety” of your clinic.
- ❖ “In our culture, cleanliness is an important aspect of healing environments, conjuring feelings of freshness, purity, and safety. Its opposite, dirtiness is associated with unsafe, septic environments. Perceptions of cleanliness respond to inputs from several of the senses including smells and physical feelings in addition to what they can see.”

# Improving Perception of Cleanliness

## ❖ Checklist for patient perception of cleanliness:

- Minimize clutter across all areas of the clinic
- Keep clean walls and floors
- Repairing upholstery with rips or that is worn
- Remove dead plants
- Frame anything on a wall
- Reduce excessive noise as possible – train staff to speak quietly in a calm voice

# Additional Cleanliness Tips

- ❖ Do not store clean and dirty laundry items in the same location in the clinic
- ❖ All laundry can be in the same room but should have clear spacial separation and labeled containers (clean vs. dirty)
- ❖ A general recommendation if they are located in the same room is 3-6 feet separation between clean and dirty
- ❖ Keep food out of the clean or dirty supply storage areas

# Surface cleaning to prevent HealthCare-Associated Infections (HAI)

- ❖ Surface cleaning is a fundamental principle of infection prevention in healthcare settings\*
- ❖ Contaminated surfaces play an important role in the transmission of dangerous pathogens.\*
- ❖ Regular disinfection/cleaning of all clinic surfaces is a necessary step to reduce exposure to dangerous pathogens.
- ❖ In 2011, there were an estimated 722,000 HAIs, per CDC survey

\*AHRQ Environmental Cleaning for the Prevention of Healthcare-Associated Infections (HAI)

# Surface Cleaners and Disinfectants

- ❖ Products used in health care settings should be EPA or FDA approved depending on how they are used.
  - EPA (Environmental Protection Agency) approves products designed for use on equipment or the environment (i.e., disinfectant wipes or sprays)
  - FDA (Food and Drug Administration) approves products for use in or on people/animals (i.e., hand hygiene products)

# What is Contact Time?

- ❖ Contact time is the amount of time a disinfecting product must remain wet on the surface in order to achieve efficacy (effective time required to disinfect)
- ❖ To determine the contact time of the cleaning products used in your office, check the product label or contact the manufacturer.

# Contact Time Examples

## ❖ PDI® Sani-Cloth® AF3 wipes

- alcohol free & contain aquaternary ammonium compd.
- 3 minute contact time



## ❖ Oxivir® Tb Wipes

- hydrogen peroxide & alcohol
- 1 minute contact time



# Wipes

- ❖ **Oxivir® Tb** is an environmentally-safe product. It has one of the best safety ratings of products used for disinfection of health care equipment.
- ❖ If a product like Oxivir® Tb is not recommended, an alternative to this product is the alcohol free disinfectant product, **PDI® SANI-CLOTH® AF3** (alcohol free and fragrance free).
- ❖ Though there currently is no recommendation for using sprays vs. wipes for disinfection, however, the sprays may be harmful if inhaled extensively over time.
- ❖ An advantage of the disinfectant wipes is that when used you can see where you have wiped a surface and it is wet and the friction of wiping helps to destroy the microbes.

# Protecting Staff and Patient Safety

- ❖ Use gloves for cleaning and disinfecting surfaces
  - Protects staff hands from drying
  - Further reduces risk of hands becoming soiled or soiling a clean surface
- ❖ Avoid using latex gloves. Latex allergies are a significant concern for patients and staff.
- ❖ Perform hand hygiene after gloves have been removed

# Demonstrating the effectiveness of surface disinfecting

- ❖ All items were measured using a “Clean Trace Luminometer” which measures ATP, an enzyme found in all living cells
  - Pre-test
  - Items were cleaned
  - Post-test to measure effectiveness
  - In health care less than **500 RLUs** (relative light units) is considered clean

# Effectiveness of surface disinfecting

## ❖ Treatment Table Example

- **First reading: 2513 RLU's**
- Cleaned with 1-minute contact using Oxivir® Tb Wipes
- **After disinfecting: 134 RLU's**

## ❖ Front Desk Example

- **First reading: 743 RLUs**
- Cleaned with 1-minute contact using Oxivir® Tb Wipes
- **After disinfecting: 14 RLUs**

## ❖ Office Keyboard Example

- **Before disinfecting: 944 RLUs**
- Cleaned with 1-minute contact using Oxivir® Tb Wipes
- **After disinfecting: 52 RLUs**

# Common surfaces to clean

## ❖ Items to clean weekly

- Front desk area (all items)
- Office supply areas
- Keyboards and mouse
- Door handles
- Break room equipment (microwaves, fridge handles)
- Hydrocollator – See manufacturer instructions
- Welch Allyn BP Cuffs, Otoscopes, Ophthalmoscopes (1:10 bleach wipes, 0.5% hydrogen peroxide wipe)
- Children toys

## ❖ Clean after each use

- Treatment tables
- Adjustment instruments
- Exercise equipment

# Hydrocollators

- ❖ See manufactory's recommendations
- ❖ Common recommendations include:
  - Regularly clean and drain the tank every two weeks
  - Add water daily
  - Avoid chlorine cleaners
  - Use soft cloth such as Scotch Brite scouring pads
  - Remove water mineral deposits

# Items that cannot be disinfected

- ❖ Items with rust present
  - Metal items with rust cannot be effectively disinfected and should be replaced immediately
- ❖ Cracked vinyl or torn fabric
  - Treatment tables and furniture with cracks or tears cannot be disinfected and should be repaired or replaced
- ❖ Corrugated cardboard
  - Corrugated cardboard should be kept out of clinical areas as much as possible
  - Keep all cardboard boxes off the floor

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# Answers

1. D
2. C
3. D
4. B