Germ Warriors: Do you have the right tools?

Daniel Chan and Tess Juliano
February 24, 2021
Acknowledgement

Uceded Territory-Vancouver

sḵwx̱wú7mesh úxwumíxw (Squamish)
χʷməθkw̓y̓əm (Musqueam)
selílwitulh (Tsleil-Waututh)

Map by Deborah Reade
Meet FNHA’s IPC Team

FNHA’s IPC team members include Daniel Chan and Tess Juliano. Daniel and Tess have a combined 20+ years of knowledge and experience in IPC, public health communicable diseases, occupational health, and Communicable Disease Emergency which they endeavor to utilize to support and empower communities with their IPC best practices.
Supplementary information

The information provided in this material is to supplement the training EVS Technicians have received for their EVS occupation and from their employer.
Learning and discussion topics

- What is EVS?
- Importance of EVS
- Cleaning and disinfection
- Frequency of cleaning and disinfection
- Routine versus additional precautions cleaning
- How to clean
- How to protect yourself
- Resources available
A different world

Images from Google
Burden of Preventable Communicable Diseases

Every year, approximately over 200,000 Canadians are infected with a Healthcare-Associated Infection from their visit to a Healthcare Facility.

Of the 200,000, 8000-12000 Die from complications Related to these infections

HAI's is Canada’s 4th leading Cause of death (behind Cancer, heart disease, and Stroke)

HAI infections costs approx. $52 million a year
Why is EVS Important?

- Healthcare facilities are exposed to many pathogenic or disease-causing microorganisms: bacteria, viruses, fungi, mold

- Without regular cleaning and disinfection, these microorganisms in the environment can be passed onto visiting clients many who are already ill and therefore, may have compromised immune systems

- Microorganisms acquired in the healthcare facility may also be passed onto those in the community

- Clients seeking care should be cared for and not infected with other disease causing microorganisms
What is Environmental Services (EVS)?

- Abbreviated EVS is a term associated with the Cleaning and Disinfection of healthcare settings.

- EVS is a critical part of infection prevention and control measures in healthcare settings.
EVS Technicians

- Custodial staff in healthcare settings are typically referred to as EVS Technicians.

- They are specialists in the environmental cleaning of highly sensitive and vulnerable settings.

- Have technical knowledge and awareness of Infection Prevention and Control measures.

- EVS Technicians play an important role in healthcare through the cleaning and disinfection of the healthcare environment.
Cleaning and Disinfection

**Cleaning:**

Physical removal of visible soiling (i.e. dust, soil, blood, mucus). Cleaning removes rather than kills by using water, detergents, and steady friction from cleaning materials. Cleaning occurs before disinfection.

**Disinfection:**

The killing of the viruses and bacteria by using disinfectants on objects but never on the human body. Occurs after cleaning.
Cleaning

**CLEAN AND DISINFECT AT LEAST**
- TWICE DAILY and
- After each client encounter
- When needed

**CLEANING REQUIRES FRICTION**
- Friction physically removes soiling and biofilm

**Cleaning allows for effective disinfection**
- Disinfectants cannot penetrate through organic matter
- Organic matter may neutralize disinfectants used

**BIOFILM FORMATION**

<table>
<thead>
<tr>
<th>Adhesion to surface</th>
<th>Biofilm formation</th>
<th>Growth – other organisms attach and bacteria multiply</th>
<th>Release – planktonic bacteria released</th>
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Friction and biofilm

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- **Bacteria**
- **EPS**
- ** SURFACE **

Images from Google
Disinfection

Know your disinfectants

- Ensure disinfectant product has a Drug Identification Number (DIN)

- Ensure disinfectant is approved for use for specific microbes and healthcare settings

- Follow product instructions for use (dilution, contact time, compatibility with materials, safe use)

- Surfaces should be cleaned prior to disinfecting

Remember:
Not all disinfectants are made equal
Knowing your Disinfectant Products

**DIN**

**Contact Time**
Time that the solution needs to be in contact with surface to be effective

**Compatibility**
Determine what materials and equipment the disinfectant product can be used on
How often to clean and disinfect

- Clean and disinfect public areas at least 2x a day (i.e. high touch surfaces) and full cleaning at the end of day and as needed.

- Clean and disinfect client care/treatment/examination areas after each client encounter (i.e. between client use) if client is on additional precautions (e.g. Contact, droplet, airborne).

- Clean and disinfect equipment and surfaces in direct contact with clients (For medical equipment please check with healthcare practitioner as these may normally be cleaned and disinfected by the user after each client interaction).
What are high-touch surfaces?

12. Appendix F: Examples of High-Touch Items and Surfaces in the Healthcare Environment

- Door Handle
- Call Bell
- Light Switch
- ECG Cart
- Computer on Wheels
- Patient Room
- Patient Bathroom
- Transport Items
- Hallway on Patient/Resident Floor
- Wheelchair
- Bedpan
- Commode

Figure 1: Examples of High-touch Items and Surfaces in the Healthcare Environment

(Note: Dots indicate areas of highest contamination and touch)
Can you identify the high touch areas?
Can you identify the high touch areas?
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Can you identify the high touch areas?
Routine VS Additional Precautions Cleaning

Routine Cleaning:
- Routine daily cleans are performed in all environments where client care is provided and the client is not on additional precautions.

Additional Precautions Cleaning:
- Requires stringent protocols for the daily cleaning and disinfection of rooms/cubicles/spaces where clients are on additional precautions.
- Client exam/treatment room will have a sign indicating additional precautions or the nurse may inform of these precautions.
- Consult with a nurse regarding what personal protective equipment (PPE) is required.
How to clean?

Before Cleaning can occur:
- Surfaces need to be clear of clutter
  - EVS Technicians need access to countertops and other surfaces to be able to effectively clean and disinfect
  - Clinic staff should keep only what is needed for the activities in the room
  - Keep supplies in enclosed storage

- Determine what equipment EVS are able to clean
  - This needs to be predetermined by the healthcare team
  - Some medical equipment EVS may not be trained in cleaning and therefore, will require trained staff to clean and disinfect.
Who cleans which surfaces and equipment?

- Well established Service Level Agreement
- Delineates roles and responsibilities for clarity adding to efficiency and safety
- Recommend transparency with the healthcare team
How do you make this space more cleanable and disinfectable?
How to clean

- Correct Cleaning Order
  1. Clean from the cleanest area to the most contaminated area
  2. Clean from high surfaces to low surfaces and outside surfaces to inside surfaces

Images from Google
## Considerations for Equipment Cleaning and Disinfection

<table>
<thead>
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<th>Equipment Cleaning</th>
<th>Key Considerations</th>
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<tbody>
<tr>
<td><strong>Items that cannot be cleaned easily</strong></td>
<td>• Should be removed (toys, magazines, etc.)</td>
</tr>
<tr>
<td><strong>Items that cannot be appropriately cleaned</strong></td>
<td>• Should be discarded after use or should not be used or should be made cleanable (i.e. laminate paper signs)</td>
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| **Equipment coverings** | • Remove and discard between clients  
• If underlying equipment may be contaminated clean and disinfect before replacing the covering |
| **Reusable equipment** | • Clean and disinfect between each client use and after blood and bodily fluid contamination |
| **Single use equipment** | • Discard into a waste bin not requiring touching with the hands |
| **Dishes, cutlery, and food waste** | • Use gloves to remove these items from a client care area. |
## Considerations for Equipment Cleaning and Disinfection

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<td>Linen</td>
<td>Laundry should be placed in a laundry basket with a plastic liner. Don’t shake soiled items. Wear gloves and a mask when handling. Wash with regular laundry soap and hot water (60-90°C). Clean your hands with soap and water immediately after removing your gloves.</td>
</tr>
<tr>
<td>Regular Waste</td>
<td>All waste can go into regular garbage bins. Line the wastebasket with a plastic bag. This makes waste easier and safer to dispose. When emptying wastebaskets, take care to not touch used tissues with your hands. Clean your hands with soap and water after emptying the wastebasket.</td>
</tr>
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Protect Yourself

1. Frequent hand washing
2. Wear the right equipment for the job
3. If possible, avoid cleaning when clients are being assessed or treated, especially if the client is coughing

Contact your occupational health and safety representative or employer regarding safe work procedures and safety equipment
Hand Hygiene

Washing with Soap and Water

1. Wet your hands.
2. Apply enough liquid soap to cover your hands.
3. Lather and scrub your whole hand, including the front, back and fingers - 20 seconds.
4. Rinse - 10 seconds.
5. Dry your hands with a paper towel.
6. Turn off tap with the paper towel.

Using alcohol-based hand sanitizer

1. Remove hand and arm jewelry
2. Remove visible contaminants with a wet wipe
3. Apply alcohol based hand sanitizer and rub hands together until dry

Handwashing is one of the most important and effective infection control measure to stop the spread of health care associated infections.
When to use PPE

- Based on job specific hazards and requirements

  i.e. chemical exposures, biological hazards, physical hazards, environmental hazards, etc.

- Risk Assessment and Point of Care Risk Assessment (PCRA)
Risk Assessment

It is an employer’s duty to conduct risk assessments.

Risk Assessment: Processes and procedures that all workplaces should have to assess a situation to determine what hazards their staff will be exposed to and what preventative measures can be implemented
Point of Care Risk Assessment (PCRA)

It is an employee’s responsibility to conduct a PCRA.

Point of Care Risk Assessment (PCRA):

- The activity that identifies the actions needed to prevent the spread of infectious agents and protect the healthcare provider (HCP) while delivering safe care to clients.

- HCPs have a responsibility to assess the risk of exposure for themselves and other clients prior to every client interaction. It is important to continually monitor the client and conduct a PCRA before any new interaction because the client’s condition and situation can change at any time.
PPE Considerations

Coronavirus COVID-19
BC Centre for Disease Control

Appropriate Personal Protective Equipment (PPE) for COVID-19 in Healthcare Settings.

More pieces and layers of PPE doesn’t mean more protection

Wearing extra PPE may affect the fit and complicates the doffing process which may increase the risk of self-contamination.

Evidence-based guidance from international experts does NOT recommend double gloving, using double or combinations of masks/respirators, head, neck or shoe covers for COVID-19 protection.

If you wear items such as ear savers, barrettes, hooks, etc. make sure you know how to remove them without contaminating yourself.
General Considerations

- If we don’t know what infectious disease a client may have how should I proceed?
Resources:
FNHA Housekeeping Manual

FNHA step-by-step housekeeping manual can be found at:
Additional Documents

COVID-19 Recommendations for Cleaning In Community Health Care Settings
For COVID-19 information, please see:

HealthLinkBC (811) Webpage
https://www.healthlinkbc.ca/health-feature/coronavirus-covid-19

Public Health Agency of Canada Webpage

BC Centre for Disease Control Webpage
http://www.bccdc.ca/health-info/diseases-conditions/coronavirus-(novel)

FNHA Webpage
https://www.fnha.ca/what-we-do/communicable-disease-control/coronavirus
References


