XU Partners
Standard Operating Procedure

Clean, Sanitize and Disinfect Protocols

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Cleaning, Sanitization and Disinfection Stages

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1. Introduction

Purpose and Scope

The purpose of the protocol is to define minimum standard cleaning protocols for different levels of activation of a pandemic plan for Xavier University.

Viruses can vary in spread and sustainability levels. Viruses that are highly contagious or easily spread can pose sustainability levels that facilitate proliferation across populations. In order to effectively reduce the risk of spread across campus, Xavier University and its partners, SBM and Apex will perform a staged level of cleaning protocols.

Respiratory viruses spread mainly from person to person via close contact or through respiratory droplets produced when an infected person coughs or sneezes. These droplets in turn make contact with a well person's eye, nose, or mouth and cause possible infection. The viruses contained in these droplets can also live on hard surfaces. This can further cause the spread of the viruses by spreading the virus through the use of shared object and surfaces.

Routinely cleaning all frequently touched surfaces in the workplace such as countertops, doorknobs, and workstations can prevent spread of viruses and is encouraged. In addition, the need for staged response level cleaning protocols is critical. In this protocol, you will see that as there is an increase in sustainability and proximity of the virus, an increase the level and frequency of disinfection will follow. While adhering to cleaning protocols is necessary to limit spread, individual employees and students must also ensure that they follow good hygiene practices and precautions related to respiratory virus transmission.

Cleaning and Disinfection Cycle:

Cleaning activity prior to and during and post pandemic is cyclical. This indicates an escalation of Cleaning, Sanitization and Disinfection activity as the pandemic progresses, followed by a gradual reduction through post pandemic activity.

2. Definitions

CLEANING: Removes germs, dirt, and impurities from surfaces or objects.

SANITIZATION: Lowers the number of germs on surfaces or objects to a safe level as judged by public health standards or requirements.

DISINFECTING: Kills germs on surfaces or objects. Disinfecting works by using chemicals to kill germs or surfaces or objects.

SUSPECTED CASE: If the patient satisfies epidemiological and clinical criteria, they are classified as a suspect case. Epidemiological criteria: Travel to (including transit through) a country considered to pose a risk of transmission* in the 14 days before the onset of illness. or Close or casual contact in the 14 days before illness onset with a confirmed case of COVID-19 and clinical criteria of fever or acute respiratory infection (e.g. shortness of breath or cough) without fever.

CONFIRMED CASE: A person with laboratory confirmation of SARS-CoV-2 virus (COVID-19 infection), irrespective of clinical signs and symptoms

3. Preparedness

ENVIRONMENTAL:

The Environmental Protection Agency (EPA) has developed a list of approved chemicals approved as antimicrobial products for use against Novel Coronaviruses. Xavier and its partners will be using multiple disinfectants based on availability. A comprehensive list and SDS sheets can be reviewed at Physical Plant. Empty containers for all disinfectants are required to be triple rinsed and double bagged and then disposed of in with regular trash.

PRODUCTS:

For sanitizing and disinfecting of communicable diseases (e.g. Flu and Coronaviruses) any of the following chemicals can be used:

- Oxivir
- Virex
- TB-Cide Quat
- BNC-15
- Chlorine tablets *with Electrostatic sprayer*
- Bleach; See Appendix A

SAFETY PRECAUTIONS / PERSONAL PROTECTIVE EQUIPMENT (PPE) AND HAND HYGIENE:

The risk of exposure to our Cleaning Technician or XU Partners is inherently low. Technicians should wear disposable gloves and appropriate attire (closed toed slip resistant shoes) in the cleaning process, including handling trash.

  - Gloves (4 Mil Nitrile gloves), Safety Glasses with side shields, and gowns should be compatible with the disinfectant products being used.
  - Additional PPE might be required based on the cleaning/sanitization/ disinfectant products being used and whether there is a risk of splash.
  - Gloves and gowns should be removed carefully to avoid contamination of the wearer and the surrounding area. Hand washing for 20 seconds should be done immediately after the removal of gloves.
  - If gowns are not available, coveralls, aprons or work uniforms can be worn during cleaning and disinfecting.
- Gloves should be removed after cleaning a room or area occupied suspected/confirmed case. Followed by hand washing for 20 seconds should be done immediately after the removal of gloves
- Cleaning staff should immediately report breaches in PPE such as a tear in gloves or any other potential exposures to their site manager.

Cleaning staff and others should clean hands often, including immediately after removing gloves and after contact with suspected or confirmed case, by washing hands with soap and water for 20 seconds. If soap and water are not available and hands are not visibly dirty, an alcohol-based hand sanitizer that contains at least 60% alcohol may be used. However, if hands are visibly dirty, always wash hands with soap and water.

- Follow normal preventive actions avoiding touching eyes, nose, or mouth with unwashed hands.
    - Additional key times to clean hands include:
        - After blowing one's nose, coughing, or sneezing
        - After using the restroom
        - Before eating or preparing food
        - After contact with animals or pets
        - Before and after providing routine care for another person who needs assistance such as a child

4. Standard Cleaning Schedule Activities

4.1. Initiation

Prior to activation of pandemic plans, standard cleaning practices are in place. Refer to scope of work per building across campus for details.

5. Level One: Increased Cleaning

5.1. Initiation

- Shall be initiated when cases of communicable diseases are active.
- Building Coordinators have been provided an electrostatic handheld sprayer to use in the event that there is an isolated area of concern that needs to be addressed before XU Partners can provide support.

5.2. Preparation

- Prior to entering the building or area the technician will sanitize their hands prior to the start of their shift.
- Prior to cleaning. Obtain appropriate PPE and SDS for all cleaning activities. Review SDS and ensure PPE is in good condition. Obtain appropriate waste containers and supplies to allow for immediate safe disposal of wastes after disinfection.
- The minimum PPE required to be worn for disinfecting an area where a possible or

confirmed case has been includes safety glasses and /or safety goggles, disposable 4-Mil Nitrile chemical gloves, appropriate clothing and a disposable gown.

5.3. Disinfection

All surfaces that are high contact areas shall be cleaned three times per day. These high contact areas include:

- Bathrooms, Kitchens, touchscreens, door handles, telephones, grab/hand-rails in corridors and stairwells, light switches, remotes, projectors, printers, walls, counters, microwave handles, refrigerator doors, food drink dispensers, desks, dispensers, faucets, sinks, trash cans, water fountains, elevator buttons, shared work spaces and window sills.
- Electrostatically disinfect high traffic areas periodically throughout the day were applicable i.e. stairwells, hallways.
- Electrostatically disinfect all classrooms, project rooms, laboratories, restrooms etc. nightly.

After spraying use paper towels to wipe chemical residue from all hard surfaces, or floors, or chairs, or door handles and sanitary fittings in the room. For sanitizing and disinfecting of communicable diseases (e.g. Flu and Coronaviruses) any of the following chemicals can be used:

- Oxivir
- Virex
- TB-Cide Quat
- BNC-15
- Chlorine tablets *with Electrostatic sprayer*
- Bleach; See Appendix A

Cleaning Stations are in all common areas across campus so that commonly used surfaces and work areas can be wiped down, sanitized by employees and students.

5.4. Post Disinfection Clean-up

- After disinfection, any waste (including paper towels, disposable wipes-towels, mop heads, and PPE) should be put in a plastic waste bag and tied when full.
- After placing waste in appropriate receptacles, PPE should be removed and discarded in appropriate waste receptacle.
- Immediately wash hands with soap and water for at least 20 seconds

6. Level Two: Focused Cleaning

6.1. Initiation

Initiated when a suspected case occurs on campus.

6.2. Preparation

- Prior to entering the building or area the technician will sanitize their hands prior to the start of their shift.
- Prior to cleaning. Obtain appropriate PPE and SDS for all cleaning activities. Review SDS and ensure PPE is in good condition. Obtain appropriate waste containers and supplies to allow for immediate safe disposal of wastes after disinfection.
- The minimum PPE required to be worn for disinfecting an area where a possible or confirmed case has been includes safety glasses and /or safety goggles, disposable 4-Mil Nitrile chemical gloves, appropriate clothing and a disposable gown.

6.3. Disinfection

For sanitizing and disinfecting of communicable diseases (e.g. Flu and Coronaviruses) any of the following chemicals can be used:

- Oxivir
- Virex
- TB-Cide Quat
- BNC-15
- Chlorine tablets *with Electrostatic sprayer*
- Bleach; See Appendix A

Disinfect the room or space up to a six-foot radius for work-area/workstations. Avoid creating splashes and spray when cleaning.

All surfaces that any confirmed case has come into contact with must be cleaned and disinfected, including:

- Objects which are visibly contaminated with body fluids
- All potentially contaminated high-contact areas such as bathrooms, door handles, telephones, grab/hand-rails in corridors and stairwells, light switches, projectors, printers,

remotes, walls, counters, desks, dispensers, faucets, sinks, handles, knobs, buttons, trash cans, shared work spaces, and window sills.

- **For Hard (Non-porous) Surfaces** - If surfaces are dirty, they should be cleaned using a detergent or soap and water prior to disinfection.
- **Soft (Porous) Surfaces** - For soft (porous) surfaces such as carpeted floor, rugs, and drapes,
    - Remove visible contamination if present
    - If necessary, clean with appropriate cleaners indicated for use on these surfaces.
    - Electrostatic disinfect the area or items after cleaning.
- Electronics - For electronics such as tablets, touch screens, keyboards, remote controls, and ATM machines, remove visible contamination if present.
    - Use disinfecting wipes for electronics.
    - If no manufacturer guidance is available, consider the use of alcohol-based wipes or sprays containing at least 70% alcohol to disinfect touch screens. Dry surfaces thoroughly to avoid pooling of liquids.
- Linens, Clothing, and Other Items That Go in the Laundry
    - In order to minimize the possibility of dispersing virus through the air, do not shake dirty laundry.
    - Gather laundry and place in a sealed plastic bag to transport to laundry area.
    - Wash items as appropriate in accordance with the manufacturer's instructions. If possible, launder items using the warmest appropriate water setting for the items and dry items completely. Dirty laundry that has been in contact with an ill person can be washed with other individuals' clothing/items.
    - Dispose of plastic bag used to transport laundry.

6.4. Post Disinfection Clean-up

- After disinfection, any waste from suspected/confirmed cases (including disposable cloths, mop heads tissues) should be put in a plastic waste bag and tied, then re-bagged and disposed of with regular waste.
- After placing waste in appropriate receptacles, PPE should be removed and discarded in a plastic waste bag and tied, then re-bagged and disposed of with regular waste. Ensure proper removal of gloves to eliminate possible exposure on exposed skin.

- Immediately wash hands with soap and water for at least 20 seconds.
- Record the names and contact details of those carrying out cleaning of an area that a suspected case was present. Comply with Xavier's contact tracing process.

7. Level Three: Post Pandemic

7.1. Initiation

Upon deactivation of the pandemic plan, the following post pandemic peak status cleaning protocol will be instituted. The purpose of the Level Three post pandemic cleaning, sanitization and disinfection is to gradually demobilize cleaning, sanitization and disinfection from Level One to Standard Cleaning protocol.

LEVEL 1:

Increased Cleaning Protocols shall be followed from Day 1-29 of post pandemic and deactivation or leveling down of pandemic plan.

STANDARD FACILITY CLEANING PROTOCOL

The Standard Facility Cleaning Protocol shall resume at day 30 of post pandemic and deactivation or leveling down of the pandemic plan.

7.2. Performance Review

Post pandemic the efficacy of the cleaning protocols will be reviewed in partnership with XU partners. Subsequently the Cleaning Protocols will be updated, and preparations initiated for the next cleaning protocol activation, as well as the building specifications across campus.

APPENDIX A: Sodium hypochlorite: Procedures for preparing and using diluted bleach

PREPARING DILUTED BLEACH

- Don the following PPE: Mask, rubber gloves, waterproof apron, and goggles.
- Ensure the area that you are working in is well-ventilated
- Mix bleach with cold water (hot water decomposes the sodium hypochlorite and renders it ineffective);
- If using bleach containing 5% sodium hypochlorite, dilute it to 0.05%, as shown in Table A.1 below.

PRECAUTIONS FOR USING BLEACH

- Bleach can corrode metals and damage painted surfaces.
- Avoid touching the eyes. If bleach gets into the eyes, immediately rinse with water for at least 15 minutes, and consult a physician.
- Do not use bleach together with other household detergents, because this reduces its effectiveness and can cause dangerous chemical reactions. For example, a toxic gas is produced when bleach is mixed with acidic detergents, such as those used for toilet cleaning, Pandemic Cleaning and Disinfection Protocol and this gas can cause death or injury. If necessary, use detergents first, and rinse thoroughly with water before using bleach for disinfection.
- Undiluted bleach emits a toxic gas when exposed to sunlight; thus, store bleach in a cool, shaded place, out of the reach of children.
- Sodium hypochlorite decomposes with time. To ensure its effectiveness, purchase recently produced bleach, and avoid over-stocking.
- If using diluted bleach, management will prepare the diluted solution fresh daily. Label and date it, and discard unused mixtures 24 hours after preparation.
- Organic materials inactivate bleach; clean surfaces so that they are clear of organic materials before disinfection with bleach.
- Keep diluted bleach covered and protected from sunlight, and if possible, in a dark container.
- Avoid using bleach in areas where urine would be present or has the possibility of being present, as it will create a strong odor.
- Bleach must be diluted or stored within 10 second walking distance of a plumbed eyewash

station. Temporary eyewash bottles are not acceptable.

Table A Sodium Hypochlorite: Concentration and Use

Starting solution

Most household bleach solutions contain 5% sodium hypochlorite (50 000-ppm available chlorine).

Recommended Dilution

1:100 dilution of 5% sodium hypochlorite is the usual recommendation. Use 1 part bleach to 99 parts cold tap water(1:100 dilution) for disinfection of surfaces

Adjust ratio of bleach to water as needed to achieve appropriate concentration of sodium hypochlorite. For example, for bleach preparations containing 2.5% sodium hypochlorite, use twice as much bleach (i.e. 2 parts bleach to 98 parts water).

Available Chlorine after Dilution

For bleach preparations containing 5% sodium hypochlorite, a 1:100 dilution will yield 0.05% or 500 ppm available chlorine.

Bleach solutions containing other concentrations of sodium hypochlorite will contain different amounts of available chlorine when diluted.

Contact Times for Different Uses

Disinfection by wiping of nonporous surfaces: a contact time of 3 minutes is recommended.

Disinfection by immersion of items: a contact time of 30 minutes is recommended.

N.B. Surfaces must be cleaned of organic materials, such as secretions, mucus, vomit, feces, blood or other body fluids before disinfection or immersion.

Source: WHO 2014 - https://www.ncbi.nlm.nih.gov/books/NBK214356/