



Provincial Health Services Authority

# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## Summary of Changes

	NEW	Previous
BC Cancer	NEW	

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## 1. Introduction

### 1.1. Focus

BC Cancer regional pharmacies must be decontaminated, cleaned, disinfected and maintained in a manner that ensures the environment is suitable for compounding and is in accordance with relevant legislation and standards.

### 1.2. Health Organization Site Applicability

BC Cancer Regional Cancer Centre Pharmacies

### 1.3. Practice Level

#### Pharmacy Professional Practice Leaders

- Provide necessary decontaminating, cleaning and disinfecting agents
- Provide training on when and how to use the various agents available
- Ensure that decontaminating, cleaning and disinfection of the pharmacy is performed by personnel who have been adequately orientated to this policy and accompanying procedure

#### Facility Environmental Services Manager

- Provide necessary decontaminating, cleaning and disinfecting agents as applicable
- Provide general training on when and how to use the various agents available
- Ensure that decontaminating, cleaning and disinfection of the pharmacy is performed by personnel who have been adequately orientated to this policy and accompanying procedure

#### Pharmacy Personnel

- Prior to decontaminating, cleaning or disinfecting any area in the pharmacy, including the controlled area, pharmacy personnel shall participate in a training and assessment program that has the following components:
  - Theoretical training and assessment covering the issues and particularities of cleaning and disinfecting the premises and equipment used for compounding hazardous sterile preparations
  - Practical training and assessment in the areas reserved for the compounding of hazardous sterile preparations
- Participate in the training and assessment program annually
- Follow decontaminating, cleaning and disinfection procedures

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## Facility Environmental Services Personnel

- Prior to decontaminating, cleaning or disinfecting any area in the pharmacy, including the controlled area, housekeeping personnel shall participate in a training and assessment program that has the following components:
  - Theoretical training and assessment covering the issues and particularities of cleaning and disinfecting the premises and equipment used for compounding hazardous sterile preparations
  - Practical training and assessment in the areas reserved for the compounding of hazardous sterile preparations
- Successfully complete a practical training and assessment program for hand hygiene and garbing prior to working in the controlled area
- Participate in the training and assessment programs annually
- Follow decontaminating, cleaning and disinfection procedures

## 1.4. Definitions

**Anteroom:** The anteroom acts as a transition space between clean rooms and other areas in the pharmacy. They help to maintain the ISO Class 7 classification and pressure differential in the clean rooms. The anteroom is divided into a 'clean' side (closest to the cleanroom) and 'dirty' side (closest to the other areas in the pharmacy) and is marked with a visible demarcation line on the floor. Personnel hand hygiene and garbing procedures, and other high-particulate-generating activities are performed in this area.

**Biological Safety Cabinet (BSC):** A type of containment primary engineering control (C-PEC). A ventilated cabinet or enclosure that uses unidirectional airflow and HEPA filters to provide personnel, environmental and varying degrees of product protection.

**Cleaning:** Removal of dirt, dust and other substances that may host microorganisms.

**Clean Room:** A compounding environment in which atmospheric conditions (e.g., temperature, humidity, particle and microorganism content, pressure, airflow) are controlled to meet and maintain specified parameters. The room is designed to minimize the introduction, generation, and retention of particles. For hazardous compounding, the clean room has negative pressure relative to adjacent areas. Access to the clean room is limited to personnel trained and authorized to perform sterile compounding, facility maintenance, and cleaning.

**Cleaning Agent:** An agent that removes dirt, impurities, or other substances that may host microorganisms.

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**Compounded Sterile Preparation (CSP):** A preparation intended to be sterile that is created by combining, diluting, or otherwise altering a drug product or bulk drug substance.

**Containment Primary Engineering Control:** A device that provides an ISO Class 5 environment for the exposure of critical sites during aseptic compounding and that is designed to minimize airborne contamination of hazardous products, to protect workers and the environment from exposure to hazardous drugs. The airflow is unidirectional (laminar flow), and the first air (air exiting the high-efficiency particulate air filter) is free from airborne particulates.

**Controlled Environment:** ISO classified compounding facilities that are physically and environmentally designed to minimize airborne contamination from contacting critical sites and used in a manner that minimizes the introduction, generation and retention of particles. Other relevant parameters such as temperature, humidity and pressure are controlled as necessary.

**Controlled Area:** The activities taking place in the controlled area are directly related to the preparation of parenteral drugs. The controlled area is designed to minimize the introduction, generation, and retention of particulate and microbial contamination. For BC Cancer Abbotsford pharmacy the controlled area includes the gown room, corridor 3, IV set up, HD storage, anteroom, biohazardous clean room, and HD clean room.

**Deactivation:** Treatment of a hazardous drug contaminant on surfaces with a chemical, heat, ultraviolet light, or another agent to transform the hazardous drug into a less hazardous agent.

**Decontamination:** The transfer of a hazardous drug from a fixed surface (e.g., counter, bag of solution) to a disposable surface (e.g., wipe, cloth). The wipe is then contained and discarded as hazardous waste.

**Disinfectant:** A disinfecting agent, typically of a chemical nature, that can destroy microorganisms or other pathogens, but not necessarily bacterial spores or fungal spores. Refers to substances applied to inanimate objects. Germicidals, sporicidals and antiviral agents are considered disinfectants.

**Detergent:** A product that eliminates accumulated dirt from a solid medium by resuspension or dissolution.

**Dwell Time:** The amount of time that a sanitizer or disinfectant must be in contact with the surface, and remain wet, in order to achieve the product's advertised kill rate.

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**Germicidal:** A substance that has the ability to kill microorganisms.

**Germicidal Disinfectant Detergent:** An agent that helps to remove dirt and oil but also contains compounds which kill microorganisms.

**Green zone:** For the purposes of this housekeeping procedure, the pharmacy department is divided into three zones, each with different risk levels based on the potential for hazardous drug exposure. The green zone encompasses the areas where there is no handling of hazardous drugs and/or low risk of hazardous drug contamination.

**Hazardous Drug:** A drug that meet one or more of the NIOSH criteria for a hazardous drug and exhibit at least one of the following characteristics in animals or humans:

- a) Carcinogenicity
- b) Teratogenicity or other developmental toxicity
- c) Reproductive toxicity
- d) Organ toxicity at low doses
- e) Genotoxicity

**OR** the drug:

- a) has a structure and toxicity profile that mimics an existing drug previously determined hazardous by the above criteria
- b) is or contains a living organism with the potential to cause infections in humans
- c) has insufficient information to properly evaluate the characteristics of the drug but the drug is primarily used to treat cancer

**Hazardous Drug Contamination:** The presence or anticipated presence of hazardous drug residue on surfaces.

**International Organization for Standard (ISO) Class:** ISO standard 14644-1 includes a classification of air cleanliness requirements for facilities and clean rooms specifying the allowable concentration of airborne particles for each class (see Table 1 obtained from NAPRA). To achieve and maintain a particular ISO class for a clean room, all particle-generating sources must be controlled.

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**Table 1.** Classes of air cleanliness for airborne particulates

ISO Class	Maximum concentration of non-viable particles $\geq 0.5 \mu\text{m}$ diameter, measured under dynamic operating conditions (particles per $\text{m}^3$ of air)
3	35.2
4	352
5	3 520
6	35 200
7	352 000
8	3 520 000

ISO = International Organization for Standardization;  $\mu\text{m}$  = micrometre;  $\text{m}^3$  = cubic metre.

**Isopropyl or Isopropanol alcohol (IPA):** A general purpose disinfectant, antiviral agent that works by causing cell lysis and protein denaturation. IPA does not have activity against spores from bacteria or microbes, so the product itself may be contaminated with spores during manufacturing. 70% IPA is used for disinfecting.

**Laminar Airflow Workbench (LAFW):** A type of primary engineering control (PEC). A ventilated cabinet or enclosure that uses unidirectional airflow and HEPA filters to provide product protection.

**Personal Protective Equipment (PPE):** All garb and accessories, such as mask, gloves, gown and safety goggles, that protect both the sterile preparation and the personnel. It enables compliance with the expected specifications of a controlled environment and protects personnel from exposure to physical or chemical risks.

**Primary Engineering Control:** A device that provides an ISO Class 5 environment for the exposure of critical sites when sterile preparations are being compounded. The air flows horizontally toward the worker or vertically towards the work surface. PEC options for non-hazardous compounding include laminar airflow workbenches and compounding aseptic isolators.

**Red zone:** For the purposes of this housekeeping procedure, the pharmacy department is divided into three zones, each with different risk levels based on the potential for hazardous drug exposure. The red zone encompasses the areas where hazardous drugs are handled and/or areas with highest risk of hazardous drug contamination.

**Sporicidal:** An agent that destroys bacterial and fungal spores when used in sufficient concentration for a specified dwell time. It is expected to kill all vegetative microorganisms.

**Sterile Isopropyl alcohol (sterile IPA, sIPA):** IPA that is sterilized from spores using gamma-irradiation; hence sterile IPA is used in controlled areas.

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**Triple clean:** An enhanced cleaning procedure performed per the following steps:

- I. All cleaning activities outlined in the monthly cleaning procedure performed in 3 separate and distinct applications:
  - a. Step 1: Clean and disinfect using a germicidal disinfectant detergent, ensuring the manufacturer’s dwell time is achieved.
  - b. Step 2: Clean and disinfect using a sporicidal and ensure the manufacturer’s dwell time is achieved.
  - c. Step 3: Clean and disinfect AGAIN using a sporicidal agent.

**Yellow zone:** For the purposes of this housekeeping procedure, the pharmacy department is divided into three zones, each with different risk levels based on the potential for hazardous drug exposure. The yellow zone encompasses the areas where there is some handling of hazardous drugs and/or risk of hazardous drug contamination.

## 1.5. Acronyms

ABHR: Alcohol-Based Hand Rub

BH: Biohazardous

C-PEC: Containment Primary Engineering Control (e.g. biological safety cabinet)

CSP: Compounded Sterile Preparation

EVS: Environmental Services

HD: Hazardous Drug

IPA: Isopropyl Alcohol

ISO: International Organization for Standardization

LAFW: Laminar Airflow Workbench

PEC: Primary Engineering Control (e.g., horizontal laminar airflow workbench)

PPE: Personal Protective Equipment

sIPA: Sterile Isopropyl Alcohol

## 1.6. Need to Know

BC Cancer specializes in the compounding and delivery of oncology drug therapies including oral medications and sterile compounded parenteral products. Proper cleaning and disinfection of the pharmacy is required to minimize contamination of sterile products, staff harm from hazardous drug exposure, and patient harm.

Prior to decontaminating, cleaning or disinfecting any area in the pharmacy, including the controlled area, all personnel shall receive orientation to and successfully complete a cleaning and disinfection competency assessment. The cleaning and disinfection competency assessment shall be completed annually thereafter.

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## 1.7. Equipment and Supplies

- BC Cancer Pharmacy designated decontaminating agent or decontaminating agent-impregnated wipes
- BC Cancer Pharmacy designated germicidal disinfectant detergent or germicidal disinfectant detergent-impregnated wipes
- BC Cancer Pharmacy designated sporicidal agent or sporicidal-impregnated wipes
- Sterile 70% isopropyl alcohol (sIPA) or 70% sIPA-impregnated wipes
- Cleaning equipment and supplies including but not limited to:
  - Plastic or stainless steel containers or mop buckets
  - Plastic or stainless steel cleaning tools or mop handles for dry and damp mopping
  - Low shedding disposable (preferred) or reusable mop heads
  - Low-shedding disposable (preferred) or reusable wipes
  - Solution bottles
  - Pre-moistened wipe containers
  - Easy reach cleaning tool

## 2. Procedure

### 2.1. Steps and Rationale

#### Supplies and Equipment

1. Cleaning equipment used for areas with potential for hazardous drug contamination shall be dedicated to that work and stored in a designated area to ensure segregation from other general pharmacy cleaning equipment.
2. Cleaning equipment and supplies (e.g. mop handle and outside of bottles) must be disinfected using a germicidal disinfectant detergent before each entry into a controlled area. Cleaning equipment and supplies must be disinfected again using sterile 70% isopropyl alcohol before each entry into the clean side of the anteroom / clean room.
3. Materials used in the controlled area (e.g. wipes, sponges, and mops) shall be low-shedding and if possible, single-use.
4. Disposable cleaning tools or components shall be discarded after one use.
5. If reusable cleaning tools or components are used, manufacturer's recommendations for cleaning and maintenance shall be followed. Tools and components shall be clean and dry prior to use.

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6. If reusable cleaning tools or components are used, one set shall be dedicated to cleaning ISO Class 5 areas, one set dedicated to cleaning ISO Class 7 areas, one set dedicated to cleaning ISO Class 8 areas, and one set dedicated to cleaning non-classified areas of the pharmacy.
7. If the decontaminating agent chosen contains a germicidal disinfectant detergent, then surfaces may be decontaminated and then disinfected without the additional cleaning step.
8. All disinfecting agents must be allowed to dwell on the target surface for the amount of time specified on the manufacturer's instructions to allow for appropriate disinfection. If sterile 70% IPA is used, there is no dwell time. Surfaces must be allowed to dry unaided.
9. Safety Data Sheets (SDS) for all cleaning and disinfecting agents must be readily available for reference by personnel involved in cleaning and disinfection.

## Scheduling and Documentation

1. Full cleaning and disinfection of the controlled areas should preferentially occur at the end of the compounding day to reduce bacterial growth overnight. It shall not be performed while compounding is taking place.
2. Cleaning and disinfecting activities shall be documented on a cleaning log. See Appendix 5: Sample Daily/Weekly/Monthly Cleaning Logs for Controlled Environments.

## Decontaminating, Cleaning and Disinfecting the Controlled Area

1. Prior to cleaning and disinfecting the controlled area, proper hand hygiene and garbing procedures shall be followed, including the use of low lint scrubs and all recommended personal protective equipment (PPE).
2. PPE worn during cleaning and disinfection activities shall not be re-worn for sterile compounding.
  - a. Exception: After daily cleaning of the C-PEC, only both pairs of gloves must be changed. Other PPE does not need to be changed if not contaminated by touch and not leaving the 'clean' areas specified by the line of demarcation in the anteroom.
3. Decontaminating, cleaning and disinfection shall occur at the following frequency and with the following decontaminating, cleaning or disinfecting agent(s): Note that the areas to be cleaned are listed in the sequence that cleaning is recommended. Refer to Table 2.

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<b>Table 2</b>	<b>Decontaminating/cleaning step(s) followed by disinfecting step(s)</b>	
<b>Frequency</b>	<b>Controlled Area Surfaces</b>	<b>Agent</b>
Twice a day (start and end of day)	Biological Safety Cabinet, interior	Decontaminating agent, germicidal disinfectant detergent and 70% sIPA
Daily	High touch surfaces (e.g. door handles/knobs, telephones/intercoms, light switches, computers/keyboards, calculators, wipe and bottle containers, pens, gown hooks) Work surfaces (e.g. counter tops, all interior pass-through surfaces, set-up trays) All cart surfaces (e.g. transfer carts, carts beside the C-PEC used by compounding staff) that are not used for storage of bulk supplies and drugs Chairs including armrest, back and seat Sinks, interior and exterior (if exposed) Waste receptacles, (e.g., interior and exterior of the non-hazardous waste bin; exterior of the hazardous waste bin)	Decontaminating agent, germicidal disinfectant detergent and if needed, 70% sIPA to remove residue
	Floors	Decontaminating agent, germicidal disinfectant detergent and if needed sterile water to remove residue
Weekly	<b>All items in the 'Daily' section plus:</b>	
	Biological Safety Cabinet, interior (including below the work surface)	Decontaminating agent, germicidal disinfectant detergent, sporicidal, 70% sIPA
	Set – up trays	In the dishwasher
Monthly (approx. every 4 weeks)	<b>All items in the 'Daily' and 'Weekly' sections plus:</b>	
	Windows Biological Safety Cabinet, exterior Supply carts, all surfaces Chairs, all surfaces Refrigerators, interior and exterior Freezers, interior and exterior Storage bins, all surfaces Storage shelves, all surfaces Emergency shower and eyewash equipment, exterior Metal door frames and kick plates on doors	Decontaminating agent, sporicidal, and if needed, 70% sIPA to remove residue
	Ceilings Walls, including attachments (e.g. exit signs, mirrors) Floors	Decontaminating agent, sporicidal and if needed sterile water to remove residue

- Equipment used to compound sterile preparations that is removed from the cleanroom shall be cleaned and disinfected prior to being placed back into service within that environment.

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- Cleaning shall occur from the cleanest to the dirtiest areas. ISO Class 7 rooms (i.e., clean rooms and anterooms) shall be cleaned first followed by the ISO Class 8 rooms (e.g., IV set up room, HD storage room) and then the gowning room.

## Cleaning and Disinfecting the Non-Controlled Area

- Cleaning and disinfection shall occur at the following frequency and with the following cleaning or disinfecting agent(s): Refer to Table 3.

<b>Table 3</b>		
<b>Frequency</b>	<b>Non-Controlled Area Surfaces</b>	<b>Agent</b>
Daily	High touch surfaces (e.g. door handles/knobs, front of drawers, telephones/receivers, light switches, computers/keyboards) Green Zone Work surfaces (e.g. counter tops, furniture) Chairs, including armrest, back and seat Sinks, interior and exterior (if exposed) Waste receptacles, (e.g., interior and exterior of the non-hazardous waste bin; exterior of the hazardous waste bin)	Germicidal disinfectant detergent and if needed water to remove residue
	Yellow and Red Zone work surfaces	Decontaminating agent, germicidal disinfectant detergent and if needed water to remove residue
	Floors (dust mop then damp mop)	Germicidal disinfectant detergent and if needed water to remove residue
Weekly	<b>All items in the 'Daily' section plus:</b> Fridges, exterior Low level ledges, furniture, wall fixtures) Baseboards	Germicidal disinfectant detergent and if needed water to remove residue
	<b>All items in the 'Daily' and 'Weekly' sections plus:</b> Windows, interior spot wash High level ledges Light fixtures Acoustic tiles Exterior vents Doors, metal frames and kick plates	Germicidal disinfectant detergent and if needed water to remove residue
Annual	<b>All items in the 'Daily', 'Weekly' and 'Monthly' sections plus:</b> Walls Ceiling Floors, buff Windows, exterior	Germicidal disinfectant detergent and if needed water to remove residue

# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## Decontaminating, Cleaning and Disinfecting the Containment Primary Engineering Controls (C-PECs)

1. Only pharmacy personnel shall decontaminate, clean and disinfect the interior of the C-PECs.
2. All interior surfaces of the C-PEC above the work surface shall be decontaminated, cleaned and disinfected on a regular basis, at minimum at the following intervals:
  - a. All interior surfaces: at the start and end of each workday the C-PEC is used, prior to compounding latex-free preparations, prior to compounding sterile preparations once it has been used to compound non-sterile preparations, or after maintenance.
  - b. Work surface: after each batch or CSP preparation session, before leaving and upon returning to the C-PEC after an extended period of time (e.g., break), and at least every 30 minutes when compounding activities are occurring.
  - c. Work surface and any surface that has potential for contamination: after a small spill or when surface contamination is suspected.
3. All interior surfaces of the C-PEC including below the work surface shall be decontaminated, cleaned and disinfected:
  - a. Once weekly, at the end of the workday.
  - b. After a hazardous drug spill in the C-PEC.
  - c. Prior to maintenance, certification, or servicing if shutdown of the C-PEC is required.
4. Exterior surfaces of the C-PEC shall be cleaned and disinfected monthly (approximately every 4 weeks).
5. Compounding equipment placed in the C-PEC and supply trays shall be subject to the same cleaning and disinfecting requirements as the C-PEC itself.
6. PharmacyKeeper equipment shall be decontaminated, cleaned and disinfected per the supplier/manufacturer's instructions.
7. Pharmacy personnel shall follow the procedures outlined in the BC Cancer Pharmacy Practice Standards for Hazardous Drugs Manual to decontaminate, clean and disinfect the C-PECs.
8. Pharmacy personnel shall document the decontamination, cleaning and disinfection of the interior of the C-PECs in PharmacyKeeper.

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## Transferring Supplies into the Controlled Area

1. Limit supplies brought into the controlled area to those essential for cleaning the controlled area and equipment.
2. Disinfect cleaning equipment and supplies using a germicidal disinfectant detergent before bringing into the controlled area.
3. Before bringing cleaning equipment and supplies into the clean side of the anteroom, disinfect the entire surface of the equipment and supplies using sterile 70% isopropyl alcohol.
4. Before introducing cleaning equipment and supplies into the C-PEC, disinfect the entire surface with sterile 70% IPA.
5. Do not bring high particle shedding materials in the controlled area (e.g. cardboard). Essential paper documents stored in the clean room must be laminated or placed in a protective plastic sleeve whenever possible. Protective sleeves are subject to the same disinfecting requirements as other items entering the cleanroom.

## Waste Collection

Regular Waste: Consists of waste contained in black plastic garbage bags. Housekeeping will manage regular waste collection and disposal according to the following process:

1. Empty all regular waste containers daily.
2. Wipe out waste container with a germicidal disinfectant detergent and replace bag liner.
3. Remove waste from the pharmacy department per site procedures.

Hazardous Drug Waste: Consists of waste contained in designated chemotherapy/ biomedical waste containers with a yellow liner and/or red buckets. Pharmacy personnel will manage hazardous waste collection and place in a designated secure room until removed by housekeeping. Housekeeping will remove hazardous waste containers that have been sealed and decontaminated by pharmacy staff. While awaiting removal from the facility for disposal, hazardous waste containers will be stored in a secure area.

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## ENVIRONMENTAL SERVICES (EVS)

### General Procedures

The pharmacy is divided into Controlled and Non-Controlled Areas:

Controlled Area: The controlled area includes the gown room, IV set up/staging room, HD storage room, anteroom, biohazardous clean room, and hazardous clean room.

Non-Controlled Area: All other areas of the pharmacy.

The Pharmacy is also divided into three color zones indicating the potential risk of hazardous drug contamination (see Appendix 1).

In the controlled area, cleaning shall occur from the cleanest to the dirtiest area.

In the non-controlled area, cleaning shall occur from the areas with the lowest risk of hazardous drug contamination to the areas with the highest risk (i.e. green to yellow to red zone).

### EVS Procedures for the Controlled Areas:

#### Daily Cleaning of the Controlled Area

1. Perform hand hygiene and garbing in accordance with Appendix 2.
2. Decontaminate, clean and disinfect all counter tops; high-touch surfaces including door handles, light switches, and gown hooks; chairs and personnel contact surfaces; sinks, interior and exterior if exposed; and waste containers (e.g., interior and exterior of non-hazardous waste containers; and exterior of hazardous waste containers) in the cleanroom first, followed by those on the clean side of the anteroom, followed by those on the dirty side of the anteroom, the set-up room, HD storage room, and then the gown room. Work surfaces shall be decontaminated using a decontaminating agent, then cleaned using a germicidal disinfectant detergent (use lightly saturated wipes on surfaces of light switches and electronics) and then disinfected using a germicidal disinfectant detergent or sterile 70% IPA.
  - a. NOTE: If the decontaminating agent chosen contains a germicidal disinfectant detergent, then surfaces may be decontaminated without the additional cleaning step.
3. When cleaning floors with a decontaminating agent, a cleaning agent and then a disinfecting agent:
  - a. Clean floors last (after cleaning all other controlled area surfaces).

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- b. Begin at the location farthest from HD and BH clean room entrance, then work toward the anteroom (clean to dirty side); use a modified figure of eight pattern to avoid walking over cleaned areas.
  - c. Move any carts, moveable furnishings and chairs as needed to wash all accessible areas of the floor.
  - d. Use different cleaning equipment and supplies (including mop heads) in the clean rooms than is used on surfaces outside of the clean room. Use different cleaning equipment and supplies on the clean side of the anteroom than is used on the dirty side of the anteroom and other rooms in the controlled area.
    - i. EXCEPTION: The same mop handle and bucket may be used throughout the controlled area.
  - e. Allow floors to dry before re-entering the controlled area to perform the next cleaning / disinfecting step(s).
4. Daily cleaning and disinfecting activities shall be documented on the appropriate EVS Daily Cleaning Log.

## Monthly Cleaning of the Controlled Area

1. Perform hand hygiene and garbing in accordance with Appendix 2.
2. Monthly (approximately every 4 weeks) decontaminating, cleaning and disinfecting of the controlled areas includes all daily cleaning locations, and the following additions:
  - a. Ceilings (including light fixtures and air diffusers).
  - b. Windows and doors.
  - c. Walls including any affixed equipment (e.g. exit signs, mirrors).
  - d. Permanent shelving (top and bottom).
  - e. Carts (underside, legs and feet/wheels, vertical surfaces).
  - f. Outside surface of all BSCs.
  - g. Exterior surfaces of refrigerators and freezers.
  - h. Exterior of emergency shower and eyewash equipment.
3. After decontaminating the surfaces, a sporicidal shall be used as the disinfectant. If needed, sterile 70% IPA can be used to remove residue (with the exception of ceilings, walls, and floors where sterile water may be used to remove residue). Use lightly saturated wipes on surfaces of light switches and electronics.
4. Monthly cleaning and disinfecting activities shall be documented on the appropriate EVS Monthly Cleaning Log.

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## **Additional Cleaning of the Controlled Area**

1. Additional cleaning of the controlled area shall be performed per the following:
  - a. Daily cleaning activities per Table 2:
    - i. After a power outage of 1 hour or less affecting the C-PEC or HVAC
    - ii. After any maintenance work performed in the clean room that would compromise environmental integrity
    - iii. After certification of the rooms and equipment
  - b. Triple clean of the affected room(s):
    - i. Before the first use and testing of a new facility.
    - ii. After action levels for environmental monitoring are exceeded.
    - iii. After a power outage of greater than 1 hour affecting the C-PEC or HVAC.
2. All new furniture or equipment must be disinfected with sporicidal before being introduced into the controlled work area.

## **EVS Procedures for Cleaning the Non-Controlled Areas:**

### **Daily Cleaning of the Non-Controlled Areas**

1. Cleaning shall occur from the areas with the lowest risk of hazardous drug contamination to the areas with the highest risk of contamination (i.e. green to yellow to red zone).
2. Wipe high touch surfaces (e.g. counters, door handles and hardware, furniture, tops of cabinets, telephones and receivers, computer keyboards etc.) in green zone with germicidal disinfectant detergent.
3. Wipe high touch surfaces (e.g. counters, door handles and hardware, furniture, tops of cabinets, telephones and receivers, computer keyboards etc.) in yellow and red zone with a decontaminating agent followed by a germicidal disinfectant detergent.
4. Clean sinks and fixtures with a hospital approved germicidal disinfectant detergent.
5. Wipe spots on the walls, doors, and partitions as needed with a germicidal disinfectant detergent.
6. Dust mop the floors.
7. Damp mop the floors using a germicidal disinfectant detergent.
8. Remove regular waste, clean the interior and exterior of the waste container with germicidal disinfectant detergent and replace the bag. Do not store extra bags at the bottom of the waste container.

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## **Weekly Cleaning of the Non-Controlled Area (in addition to daily procedures)**

1. Remove recyclables twice weekly.
2. Wipe down exterior surfaces of the refrigerator and computers.
3. Dust all low-level ledges, horizontal surfaces, furniture, and wall fixtures.
4. Damp wipe baseboards as required.

## **Monthly Cleaning of the Non-Controlled Areas**

1. Spot wash interior of windows.
2. Dust high ledges, light fixtures, acoustic ceiling tiles and exterior vents.
3. Clean metal doorframes and kick plates on doors.

## **Annual Cleaning of the Non-Controlled Work Area**

1. Wash walls and ceilings using appropriate tools and solution annually or as required.
2. Wipe both sides of window coverings and window frames annually or as required.
3. Wash exterior of windows annually or as required.
4. Scrub or buff all hard floors and surfaces annually or as required.

## **PHARMACY PERSONNEL**

### **General Procedures**

Pharmacy personnel are solely responsible for:

1. Managing hazardous drug waste collection and disposal throughout the department, including designated chemotherapy/biomedical containers with yellow liners and/or red buckets.
2. Cleaning, disinfecting and decontaminating the interior of the BSCs according to the BC Cancer Pharmacy Practice Standards for Hazardous Drugs Manual.
3. Cleaning and disinfecting the interior of the LAFW.

### **Pharmacy Procedures for the Controlled Areas:**

Pharmacy personnel shall perform hand hygiene and garbing according to the procedures outlined in the BC Cancer Pharmacy Practice Standards for Hazardous Drugs Manual to enter the controlled areas.

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## Daily Cleaning of the Controlled Area by Pharmacy

In addition to daily required C-PEC decontaminating, cleaning and disinfecting:

1. Decontaminate, clean and disinfect high-touch surfaces including telephones/intercoms, computers/keyboards, calculators, wipe and bottle containers, pens; work surfaces including counter tops and all surfaces of the carts beside the C-PECs, all pass through surfaces (including windows/walls/shelves) and set up trays; exterior surfaces of non-disposable, transient sharps/garbage containers for use inside the BSCs. Work surfaces should be decontaminated and cleaned using a decontaminating agent, a germicidal disinfectant detergent (use lightly saturated wipes on surfaces of light switches and electronics) and then sterile 70% IPA.
2. Remove HD waste including all waste contained in designated biomedical containers with yellow liner or red buckets. Don appropriate PPE. Visually inspect container for any damage or leaks. Do not compress contents as it may generate airborne HD particles. Ensure waste is properly packaged, sealed, decontaminated and placed in the designated holding area. Remove PPE and place in hazardous waste container. Wash hands thoroughly after removing PPE.
3. Daily cleaning and disinfecting activities shall be documented in PharmacyKeeper.

## Weekly Cleaning of Controlled Area by Pharmacy

In addition to weekly decontamination of the C-PECs:

1. Clean set-up trays using the dishwasher.

## Monthly Cleaning of Controlled Area by Pharmacy

1. Monthly (approximately every 4 weeks) decontaminating, cleaning and disinfecting of the controlled area includes all daily and weekly activities, and the following additions:
  - a. All storage bins with contents removed; bins shall be decontaminated, cleaned and disinfected inside and out, allowed to dry and then the contents replaced.
  - b. Interior of refrigerators and freezers.
2. A sporicidal shall be used as the disinfectant; ensure the manufacturer's dwell time is achieved.
3. Monthly cleaning and disinfecting activities shall be documented in PharmacyKeeper.

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## Cleaning of Equipment used for Certification of the Controlled Areas and C-PECs

1. All equipment must be disinfected with sporicidal by the certifier before being introduced into the ISO Class 8 rooms and then wiped with sterile 70% IPA before introducing into the ISO Class 7 rooms.
2. Before introducing certification equipment (e.g. particle counter) into the C-PEC, wipe the entire surface with sterile 70% IPA.
3. Certifiers must perform hand hygiene and garbing in accordance with Appendix 2, when entering the controlled area.

## 2.2. Steps and Rationale – Non-hazardous Clean Room and Anteroom

*(This section is intended for the Vancouver Centre- non-hazardous clean room & anteroom; other centres may delete this section)*

### Cleaning and Disinfecting the Controlled Area

1. Prior to cleaning and disinfecting the controlled area, proper hand hygiene and garbing procedures shall be followed, including the use of low lint scrubs and all recommended personal protective equipment (PPE).
2. PPE worn during cleaning and disinfection activities shall not be re-worn for sterile compounding.
  - a. Exception: After daily cleaning of the PEC, only the gloves must be changed. Other PPE does not need to be changed if not contaminated by touch and not leaving the 'clean' areas specified by the line of demarcation in the anteroom.
3. Cleaning and disinfection shall occur at the following frequency and with the following cleaning or disinfecting agent(s): Note that the areas to be cleaned are listed in the sequence that cleaning is recommended. Refer to Table 4.

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

<b>Table 4</b>		
<b>Cleaning step(s) followed by disinfecting step(s)</b>		
<b>Frequency</b>	<b>Area</b>	<b>Agent</b>
Twice a day (start and end of day)	Laminar Airflow Workbench	Germicidal disinfectant detergent and 70% sIPA
Daily	High touch surfaces (e.g. door handles/knobs, telephones/intercoms, light switches, computers/keyboards, calculators, wipe and bottle containers, pens, gown hooks) Work surfaces (e.g. counter tops, all interior pass-through surfaces, set-up trays) All cart surfaces (e.g. transfer carts, carts beside the PEC used by compounding staff) that are not used for storage of bulk supplies and drugs Chairs including armrest, back and seat Sinks, interior and exterior (if exposed) Waste receptacles, (e.g., interior and exterior)	Germicidal disinfectant detergent and 70% sIPA
	Floors	Germicidal disinfectant detergent (twice); and if needed sterile water to remove residue
Weekly	<b>All items in the 'Daily' section plus:</b>	
	Laminar Airflow Workbench	Germicidal disinfectant detergent, sporicidal, 70% sIPA
Monthly (approx. every 4 weeks)	<b>All items in the 'Daily' and 'Weekly' sections plus:</b>	
	Windows Laminar airflow workbench exterior Supply carts, all surfaces Chairs, all surfaces Storage bins, all surfaces Storage shelves, all surfaces Metal door frames and kick plates on doors	Germicidal disinfectant detergent, sporicidal; and if needed, 70% sIPA to remove residue
	Ceilings Walls, including attachments (e.g. exit signs, mirrors) Floors	Germicidal disinfectant detergent, sporicidal; and if needed, 70% sIPA to remove residue

4. Equipment used to compound sterile preparations that is removed from the cleanroom shall be cleaned and disinfected prior to being placed back into service within that environment.
5. Cleaning shall occur from the cleanest to the dirtiest areas. ISO Class 7 rooms (i.e., clean room and anteroom) shall be cleaned first followed by the ISO Class 8 rooms (e.g., IV set up room, HD storage room) and then the gowning room.

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## Cleaning and Disinfecting the Primary Engineering Control (PEC)

1. Only pharmacy personnel shall clean and disinfect the interior of the PECs.
2. All interior surfaces of the PEC shall be cleaned and disinfected on a regular basis, at minimum at the following intervals:
  - d. All interior surfaces: at the start and end of each workday the PEC is used, prior to compounding latex-free preparations, or after maintenance.
  - e. Work surface: after each batch or CSP preparation session, before leaving and upon returning to the PEC after an extended period of time (e.g., break), and at least every 30 minutes when compounding activities are occurring.
  - f. Work surface and any surface that has potential for contamination: after a small spill or when surface contamination is suspected.
3. All interior surfaces of the PEC shall be cleaned and disinfected using a germicidal disinfectant detergent followed by a sporicidal:
  - d. Once weekly, at the end of the workday.
4. Exterior surfaces of the PEC shall be cleaned and disinfected monthly (approximately every 4 weeks).
5. Compounding equipment placed in the PEC and supply trays shall be subject to the same cleaning and disinfecting requirements as the PEC itself.
6. PharmacyKeeper equipment shall be cleaned and disinfected per the supplier/manufacturer's instructions.
7. Pharmacy personnel shall document the cleaning and disinfection of the PECs in PharmacyKeeper.

## Transferring Supplies into the Non-Hazardous Anteroom and Clean Room

1. Before bringing cleaning equipment and supplies into the clean side of the anteroom, disinfect the entire surface of the equipment and supplies using sterile 70% isopropyl alcohol.
2. Before introducing cleaning equipment and supplies into the PEC, disinfect the entire surface with sterile 70% IPA.
3. Essential paper documents stored in the clean room must be laminated or placed in a protective plastic sleeve whenever possible. Protective sleeves are subject to the same disinfecting requirements as other items entering the cleanroom.

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## Waste Collection

Regular Waste: Consists of waste contained in black plastic garbage bags. Housekeeping will manage regular waste collection and disposal according to the following process:

1. Empty all regular waste containers daily.
2. Clean the interior and exterior of the waste containers using a germicidal disinfectant detergent and replace bag liner.
3. Remove waste from the pharmacy department per site procedures.

## EVS PROCEDURES FOR THE NON-HAZARDOUS CLEAN ROOM AND ANTEROOM

### Daily Cleaning of the Non-Hazardous Clean Room and Anteroom

1. Clean and disinfect all counter tops; high-touch surfaces including door handles, light switches, and gown hooks; chairs and personnel contact surfaces; sinks, interior and exterior if exposed; and waste containers (e.g., interior and exterior) in the cleanroom first, followed by those on the clean side of the anteroom, followed by those on the dirty side of the anteroom. Work surfaces shall be cleaned using a germicidal disinfectant detergent (use lightly saturated wipes on surfaces of light switches and electronics) and then disinfected using a germicidal disinfectant detergent or sterile 70% IPA.
2. When cleaning floors with a cleaning agent and then a disinfecting agent:
  - a. Clean floors last (after cleaning all other surfaces).
  - b. Begin at the location farthest from clean room entrance, then work toward the anteroom (clean to dirty side); use a modified figure of eight pattern to avoid walking over cleaned areas.
  - c. Move any carts, moveable furnishings and chairs as needed to wash all accessible areas of the floor.
  - d. Use different cleaning equipment and supplies (including mop heads) in the clean room and anteroom than is used on surfaces in the rest of the controlled area.
  - e. After cleaning the floors, allow them to dry before re-entering to perform the disinfecting step(s).
3. Daily cleaning and disinfecting activities shall be documented on the appropriate EVS Daily Cleaning Log.

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## Monthly Cleaning of the Non-hazardous Clean Room and Anteroom

1. Perform hand hygiene and garbing in accordance with Appendix 2.
2. Monthly (approximately every 4 weeks) cleaning and disinfecting of the non-hazardous clean room and anteroom includes all daily cleaning locations, and the following additions:
  - a. Ceilings (including light fixtures and air diffusers).
  - b. Windows and doors.
  - c. Walls including any affixed equipment (e.g. exit signs, mirrors).
  - d. Permanent shelving (top and bottom).
  - e. Carts (underside, legs and feet/wheels, vertical surfaces).
  - f. Outside surface of all laminar airflow workbenches.
3. After cleaning the surfaces, a sporicidal shall be used as the disinfectant. If needed, sterile 70% IPA can be used to remove residue (with the exception of ceilings, walls, and floors where sterile water may be used to remove residue). Use lightly saturated wipes on surfaces of light switches and electronics.
4. Monthly cleaning and disinfecting activities shall be documented on the appropriate EVS Monthly Cleaning Log.

## Additional Cleaning of the Non-Hazardous Clean Room and Anteroom

1. Additional cleaning of the non-hazardous clean room and anteroom shall be performed per the following:
  - a. Daily cleaning activities per Table 4:
    - i. After a power outage of 1 hour or less affecting the PEC or HVAC
    - ii. After any maintenance work performed in the clean room that would compromise environmental integrity
    - iii. After certification of the rooms and equipment
  - b. Triple clean of the affected room(s):
    - i. Before the first use and testing of a new facility.
    - ii. After action levels for environmental monitoring are exceeded.
    - iii. After a power outage of greater than 1 hour affecting the PEC or HVAC.

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## PHARMACY PERSONNEL

### General Procedures

Pharmacy personnel are solely responsible for:

1. Cleaning and disinfecting the interior of the laminar airflow workbench.

### **Pharmacy Procedures for the Non-Hazardous Clean Room and Anteroom:**

Pharmacy personnel shall perform hand hygiene and garbing according to the procedures outlined in the BC Cancer Pharmacy Practice Standards for Hazardous Drugs Manual to enter the controlled areas.

### **Daily Cleaning of the Non-Hazardous Clean Room and Anteroom by Pharmacy**

In addition to daily required cleaning and disinfecting of the laminar airflow workbench:

1. Clean and disinfect high-touch surfaces including telephones/ intercoms, computers/keyboards, calculators, wipe and bottle containers, pens; work surfaces including counter tops and all surfaces of the carts beside the PECs, all pass through surfaces (including windows/walls/shelves) and set up trays; exterior surfaces of non-disposable, transient sharps/garbage containers for use inside the laminar airflow workbench. Work surfaces should be cleaned and disinfected using a germicidal disinfectant detergent (use lightly saturated wipes on surfaces of light switches and electronics) followed by sterile 70% IPA.
2. Daily cleaning and disinfecting activities shall be documented in PharmacyKeeper.

### **Weekly Cleaning of the Non-Hazardous Clean Room and Anteroom by Pharmacy**

In addition to weekly cleaning and disinfecting of the laminar airflow workbench:

1. Clean set-up trays using the dishwasher.

### **Monthly Cleaning of the Non-Hazardous Clean Room and Anteroom by Pharmacy**

1. Monthly (approximately every 4 weeks) cleaning and disinfecting of the non-hazardous clean room and anteroom includes all daily and weekly activities, and the following additions:
  - a. All storage bins with contents removed; bins shall be cleaned and disinfected inside and out, allowed to dry and then the contents replaced.

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

- b. Interior of refrigerators and freezers.
- 2. A sporicidal shall be used as the disinfectant; ensure the manufacturer’s dwell time is achieved.
- 3. Monthly cleaning and disinfecting activities shall be documented in PharmacyKeeper.

## **Cleaning of Equipment used for Certification of the Clean Room, Anteroom, and PEC**

- 1. All equipment must be disinfected with sporicidal by the certifier before being introduced into the ISO Class 8 rooms and then wiped with sterile 70% IPA before introducing into the ISO Class 7 rooms.
- 2. Before introducing certification equipment (e.g. particle counter) into the PEC, wipe the entire surface with sterile 70% IPA.
- 3. Certifiers must perform hand hygiene and garbing in accordance with Appendix 2, when entering the controlled area.

## **2.3. Documentation**

All daily, weekly, monthly, and annual decontaminating, cleaning and disinfecting activities must be documented by pharmacy and housekeeping personnel performing the activities.

Housekeeping personnel shall document the activities on a log sheet. Pharmacy personnel shall document the activities in PharmacyKeeper.

## **3. Related Documents and References**

### **3.1. Related Documents**

[BC Cancer Pharmacy Practice Standards for Hazardous Drugs Manual](#)

Cleaning and Disinfection of BC Cancer Regional Pharmacies Policy

Movement of Supplies and Equipment Into and Through the Pharmacy Controlled Area Policy

Movement of Supplies and Equipment Into and Through the Pharmacy Controlled Area Procedure

[Pharmacy Sterile Compounding – Module 2: Hand Hygiene and Garbing](#)

[Pharmacy Sterile Compounding – Module 4: Cleaning and Disinfection](#)

[Pharmacy Sterile Compounding – Environmental Services](#)

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## 3.2. References

Canadian Society of Hospital Pharmacists (CSHP). (2014) Compounding: Guidelines for Pharmacies. Ottawa, ON: CSHP. Retrieved from [www.cshp.ca](http://www.cshp.ca)

Cockcroft et al. (2001). Validation of Liquid Transfer Disinfection Techniques for Transfer of Components into Hospital Pharmacy Cleanrooms. Hospital Pharmacist. Retrieved from [Validation of liquid disinfection techniques for transfer of components into hospital pharmacy clean room \(researchgate.net\)](http://www.researchgate.net/publication/231111111)

CriticalPoint Peer Network: Wiping Paper-backed Supplies; accessed 11 May 2022

Koberinski, M., Fabbro, J. (2021). BC Cancer Pharmacy Practice Standards for Hazardous Drugs. Vancouver, BC: BC Cancer. Retrieved from <http://www.bccancer.bc.ca/health-professionals/professional-resources/pharmacy/safe-handling-manual>

Lower Mainland Pharmacy Services (LMPS) Quality Team. (2018). Sterile Compounding – Cleaning and Disinfection of the Controlled Work Areas: Vancouver, BC. LMPS.

Lower Mainland Pharmacy Services (LMPS) Quality Team. (2016). Sterile Compounding – Hand Hygiene and Garbing: Vancouver, BC. LMPS.

National Association of Pharmacy Regulatory Authorities. (2016). NAPRA Model Standards for Pharmacy Compounding of Hazardous Sterile Preparations. NAPRA: Ottawa, ON. Retrieved from [Mdl Stnds Pharmacy Compounding Hazardous Sterile Preparations Nov2016 Revised b.pdf \(napra.ca\)](http://www.napra.ca/mdl_stnds_pharmacy_compounding_hazardous_sterile_preparations_nov2016_revised_b.pdf)

Rutala, W.A., et al. (2019). Guideline for Disinfection and Sterilization in Healthcare Facilities. Centers for Disease Control and Prevention: Atlanta, GA. Retrieved from <https://www.cdc.gov/infectioncontrol/pdf/guidelines/disinfection-guidelines-H.pdf>

United States Environmental Protection Agency. (2017). Glossary of Definitions: Washington, DC. Retrieved from <https://www.epa.gov/>

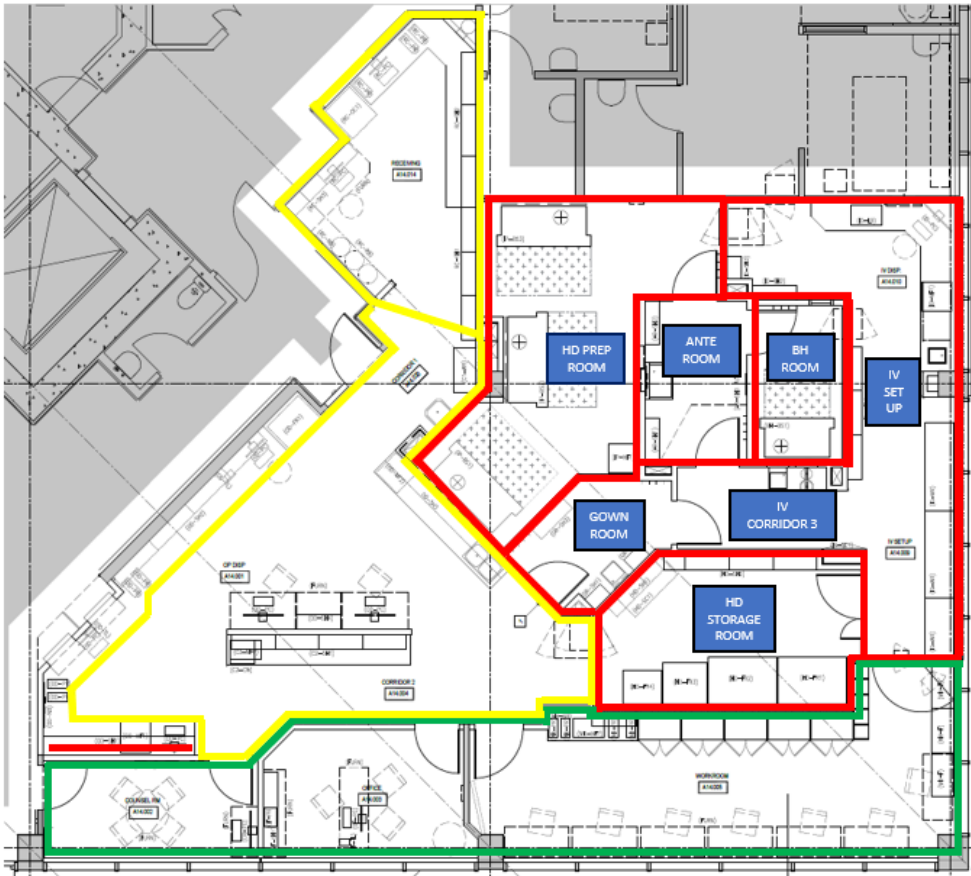
United States Pharmacopeia. (2022). <797> Pharmaceutical Compounding - Sterile Preparations. Rockville, MD: USP Convention. Retrieved from [www.usp.org](http://www.usp.org)

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## 4. Appendices

### Appendix 1: Pharmacy Diagram (insert site-specific diagram and add color-coding as below)



**Legend**

- Green Zone – low risk of HD contamination
- Yellow Zone – some risk of HD contamination
- Red Zone – high risk of HD contamination
- Indicates Controlled Area(s)

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## Appendix 2: Hand Hygiene and Garbing for Working in the Controlled Areas

### General

1. While working in the controlled area, personnel shall not be permitted to wear the following:
  - Personal outer garments (e.g. bandanas, coats, hats, jackets, scarves, sweaters, vests)
  - All leave-in hair products (e.g. hairspray, mousse, gel) and facial cosmetics as they shed flakes and particles (exception: non-tinted skin and lip moisturizers)
  - All hand, wrist, neck and head jewelry
  - Nail polish and artificial nails or nail tips
  - Eyelash enhancements
2. While working in the controlled area, personnel are permitted to wear the following:
  - Eyeglasses
  - Hearing aids
  - Medical information, secured under the neckline of garb
  - Short sleeved low-particle generating undershirt, worn under garb
3. Personal electronic devices, including cell phones, music players and ear buds shall not be permitted inside controlled areas, even when contained within a pocket.
4. No food or drink, including chewing gum, candy or lozenges, shall be brought into, stored or consumed in the controlled areas.
5. Personnel requiring access to the controlled area shall report to the supervisor any illnesses or conditions that may adversely affect the safety or integrity of compounded sterile preparations as a result of excessive skin shedding or infectiousness. The supervisor shall exclude affected personnel from work in the controlled area until the illness or condition has been remedied or resolved. Such illnesses or conditions include but are not limited to:
  - fever
  - moderate to severe sunburn with skin sloughing
  - visible or exposed eczema or other severe skin rash
  - cough, runny nose or active respiratory infection
  - conjunctivitis
  - open wounds or weeping sores including recent tattoo

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## Procedure

### Prior to Entering the Gowning Room

1. Remove outer garments, jewellery, cosmetics (no artificial nails, eyelashes or nail polish is permitted).
2. Don clean, low-lint hospital provided scrubs.
3. Clean glasses (if worn).

### In the Gowning Room

1. Don 1 pair of shoe covers.
2. Don hair cover/beard cover, covering hair completely.
3. Replace medical mask – ensuring full coverage of mouth and nose (if applicable).
4. Select 2 pairs of appropriately sized chemotherapy gloves.
5. Wash hands and wrists thoroughly using soap and water for at least 30 seconds
6. Dry hands and arms with a low-lint towel.
7. Don first (inner) pair of non-sterile chemotherapy gloves and examine for holes, tears or other defects.
8. Don isolation gown and examine for any holes, tears or other defects. Place cuffs of gown over the cuffs of the first pair of chemotherapy gloves.
9. Ensure full closure of the gown (tie around waist).
10. Don second (outer) pair of non-sterile chemotherapy gloves, fitted over cuffs of gown to completely cover wrists and examine for holes, tears or other defects.
11. Enter the set-up/staging room.

### In the HD Anteroom

On the dirty side of the demarcation line:

1. Hang up isolation gown for use when leaving the anteroom.
2. Don a surgical mask or elastomeric half face piece respirator with appropriate filter cartridges (depending on the cleaning activities that will be performed).
3. Don one (outer) shoe cover (over the inner shoe cover that was donned in the gowning room,) and step that foot over the demarcation line (onto the clean side of the anteroom).
  - Do not step down on the clean side of the demarcation line without two pairs of shoe covers on your shoes.
  - Do not step down on the dirty side of the demarcation line with two pairs of shoe covers on your shoes.

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

On the clean side of the demarcation line:

1. Select and open two new pairs of appropriately sized chemotherapy approved gloves. (Inner glove may be sterile or non-sterile; outer glove must be sterile).
2. Select and prepare a chemotherapy gown.
3. Remove gloves that were donned in the gowning room and discard into the hazardous waste container.
4. Perform hand hygiene (see procedure in Hand Hygiene table below).
5. Don first (inner) pair of chemotherapy gloves and examine for holes, tears or other defects.
6. Don chemotherapy gown and examine for any holes, tears or other defects. Place cuffs of gown over the cuffs of the first pair of chemotherapy gloves.
7. Ensure full closure of the gown (tie around the waist).
8. Don second (outer) pair gloves, fitted over the cuffs of gown to completely cover wrists.
9. Enter the clean room.

## In the Non-HD Anteroom

On the dirty side of the demarcation line:

1. Hang up isolation gown for use when leaving the anteroom.
2. Don a surgical mask or elastomeric half face piece respirator with appropriate filter cartridges (depending on the cleaning activities that will be performed).
3. Step over the demarcation line (onto the clean side of the anteroom).

On the clean side of the demarcation line:

1. Select and open one new pair of appropriately sized sterile gloves.
2. Select and prepare an isolation gown.
3. Remove gloves that were donned in the gowning room and discard into the waste container.
4. Perform hand hygiene (see procedure in Hand Hygiene table below).
5. Don isolation gown and examine for any holes, tears or other defects.
6. Ensure full closure of the gown (tie around the waist).
7. Dispense a minimum of 2 full pumps of alcohol-based hand rub onto one palm.
8. Immerse fingertips of the opposite hand into the ABHR for several seconds.
9. Cover the hand and wrist (still of the opposite hand,) with the ABHR and continue rubbing until it fully evaporates (at least 15 seconds).
10. Repeat with the other hand and wrist allowing the ABHR to fully evaporate.
11. Once hands are completely dry begin the donning of PPE (see above).
12. Don a pair of sterile gloves, fitted over the cuffs of gown to completely cover wrists.
13. Enter the clean room.

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## Hand Hygiene

Under running water:

- 1) Use a disposable nail pick to remove debris from underneath fingernails.
- 2) Wash hands and arms to elbows using plain or antimicrobial liquid soap for 30-60 seconds.
- 3) Rinse soap from hands and arms with the water flowing away from hands towards elbows.
- 4) Dry hands and arms using a clean low-lint towel allowing hands and arms to dry completely.
- 5) Discard the towel.
- 6) Dispense a minimum of 2 full pumps of alcohol-based hand rub onto one palm.
- 7) Immerse fingertips of the opposite hand into the ABHR for several seconds.
- 8) Cover the hand and forearm (still of the opposite hand,) with the ABHR and continue rubbing until it fully evaporates (at least 15 seconds).
- 9) Repeat with the other hand and forearm allowing the ABHR to fully evaporate.
- 10) Once hands are completely dry begin the donning of PPE (see above).

## Exiting the HD Clean Room to enter the BH Clean Room

To step out of the HD clean room into the anteroom:

- 1) Remove one outer shoe cover just inside the HD Clean Room and step out into the anteroom.
- 2) Repeat with other shoe cover.
- 3) Discard shoe covers into a hazardous waste container INSIDE the HD clean room.
- 4) Do NOT remove chemotherapy gown, hair cover/beard cover or medical mask.
- 5) Remove outer chemotherapy gloves and discard into a hazardous waste container inside the anteroom.
- 6) Don second (outer) shoe covers.
- 7) Examine inner pair of chemotherapy gloves for any holes, tears or other defects.
- 8) Don second (outer) pair of chemotherapy gloves, fitted over cuffs of gown to completely cover wrists.
- 9) Enter BH clean room.

## Exiting the BH Clean Room to enter the Anteroom and then to enter IV Set up Room

To step out of the BH Clean Room into the Anteroom:

- 1) Remove one outer shoe cover just inside the BH clean room and step out into the anteroom.
- 2) Repeat with other outer shoe cover.
- 3) Discard shoe covers into a hazardous waste container INSIDE the BH clean room.
- 4) Do NOT remove hair cover, beard cover or medical mask.
- 5) Remove outer chemotherapy gloves and discard into a hazardous waste container in the anteroom.
- 6) Examine inner pair of chemotherapy gloves for any holes, tears or other defects.

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

- 7) Don second (outer) pair of NON-STERILE chemotherapy gloves, fitted over cuffs of gown to completely cover wrists.
- 8) Step over the demarcation line to the dirty side of the anteroom and THEN remove medical mask. Discard medical mask in a hazardous waste container.
- 9) Don a new medical mask if required.
- 10) Don the isolation gown that was worn earlier when entering the anteroom.
- 11) Do NOT remove hair cover or beard cover at this time.
- 12) Exit the anteroom into IV set up room.

## Exiting the Non-HD Clean Room to enter the Anteroom and then to enter IV Set-up Room

To step out of the Non-HD Clean Room into the Anteroom:

- 1) Step out into the anteroom.
- 2) Do NOT remove hair cover, beard cover or medical mask.
- 3) Remove isolation gown and hang for later use or dispose of it into a waste container.
- 4) Remove gloves and discard into a waste container in the anteroom.
- 5) Cleanse hands with soap and water OR ABHR.
- 6) Don a pair of NON-STERILE chemotherapy gloves, fitted over cuffs of gown to completely cover wrists.
- 7) Step over the demarcation line to the dirty side of the anteroom and THEN remove medical mask. Discard medical mask in a waste container.
- 8) Don a new medical mask if required.
- 9) Don the isolation gown that was worn earlier when entering the anteroom.
- 10) Do NOT remove hair cover or beard cover at this time.
- 11) Exit the anteroom into IV set up room.

## Exiting the Controlled Area

- 1) Enter the gowning room.
- 2) Remove outer pair of chemotherapy gloves.
- 3) Remove isolation gown and discard in hazardous waste container (if disposable) or place in laundry (if reusable).
- 4) Remove hair cover(s) / beard cover discard in hazardous waste container.
- 5) Remove medical mask and discard in hazardous waste container .
- 6) Remove inner pair of shoe covers discard in hazardous waste container.
- 7) Remove inner pair of gloves discard in hazardous waste container.
- 8) Wash hands using soap and water immediately after removal of inner gloves and dry using a low-lint towel.
- 9) Don a tied isolation gown or buttoned lab coat over scrubs.
- 10) Enter general pharmacy area.

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## Appendix 3: Cleaning and Disinfection Orientation Checklist (Environmental Services)

<b>ORIENTING the EVS Employee to the BC Cancer XXX Centre Pharmacy For cleaning and disinfecting the Controlled Areas</b>	<b>Education Provided</b>
Following this orientation, the EVS employee knows:	
The general pharmacy areas	
The difference between the three zones of risk in the Pharmacy: Green - low likelihood of HD contamination Yellow - medium likelihood of HD contamination Red - high likelihood of HD contamination	
The controlled area and all its individual rooms	
Emergency measures to be applied in case of accidental HD exposure or HD spills	
That the cleaning equipment used in the controlled area is dedicated appropriately and stored in a designated area to ensure segregation from other general pharmacy cleaning equipment	
That the cleaning equipment and supplies (e.g. mop handle, bucket and outside of bottles) must be disinfected with a germicidal disinfectant detergent or sterile 70% IPA before each entry into a controlled area	
That the cleaning is not to be performed while compounding is taking place	
That the cleaning and disinfecting activities shall be documented on a cleaning log	
That proper hand hygiene and garbing procedures shall be followed, including the use of hospital provided low lint scrubs and all recommended personal protective equipment (PPE) prior to cleaning and disinfecting the controlled areas	

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## Appendix 4: Cleaning and Disinfection Competency Assessment (Environmental Services)

<b>PREPARATION of the EVS Employee</b>	<b>Standards Met</b>
<b>Entering the GOWNING ROOM</b>	
<b>Scrubs / low-lint hospital provided clothing</b>	
<b>No makeup</b>	
<b>No jewelry</b>	
<b>No artificial nails / eyelashes or nail polish</b>	
<b>Cleans glasses (if worn)</b>	
<b>1 Pair of shoe covers</b>	
<b>Hair cover / beard cover (covering hair completely)</b>	
<b>Replace medical mask- ensure full coverage of mouth and nose (if wearing a mask upon entering the gowning room)</b>	
<b>Select 2 pairs appropriately sized chemotherapy approved gloves</b>	
<b>Wash hands and wrists thoroughly using soap and water for at least 30 seconds</b>	
<b>Dry hands and arms with low-lint towel</b>	
<b>Don first (inner) pair of non-sterile chemotherapy gloves and examine for holes, tears or other defects</b>	
<b>Don isolation gown and examine for any holes, tears or other defects. Place cuffs of gown over the cuffs of the first pair of chemotherapy gloves</b>	
<b>Ensure full closure of the gown (tie around the waist)</b>	
<b>Don second (outer) non-sterile chemotherapy gloves, fitted over cuffs of gown to completely cover wrists and examine for holes, tears or other defects</b>	
<b>Enter the IV set-up room</b>	

# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

<b>PREPARATION of the EVS Employee</b>	<b>Standards Met</b>
<b>Entering the HD ANTEROOM</b>	
<b>On the dirty side of the demarcation line in the anteroom:</b>	
<b>Hang up isolation gown for use when leaving the anteroom</b>	
<b>Don a medical mask (if not already wearing one)</b>	
<b>Don one (outer) shoe cover (over the inner shoe cover that was donned in the gowning room) and step that foot over the demarcation line (onto the clean side of the anteroom). Repeat with the other foot.</b> <ul style="list-style-type: none"> <li>• <i>Do not step down on the clean side of the demarcation line without two pairs of shoe covers on your shoes</i></li> <li>• <i>Do not step down on the dirty side of the demarcation line with two pairs of shoe covers on your shoe</i></li> </ul>	
<b>On the clean side of the demarcation line in the anteroom:</b>	
<b>Select and open two new pairs of appropriately sized chemotherapy-approved gloves (inner chemotherapy glove may be sterile or non-sterile; outer chemotherapy glove must be sterile)</b>	
<b>Select a chemotherapy gown</b>	
<b>Remove gloves that were donned in the gowning room and discard into a hazardous waste container</b>	
<b>Perform hand hygiene (see procedure in Hand Hygiene below)</b>	
<b>Don first (inner) pair of chemotherapy gloves and examine for holes, tears or other defects</b>	
<b>Don chemotherapy gown and examine for any holes, tears or other defects. Place cuffs of gown over the cuffs of the first pair of chemotherapy gloves</b>	
<b>Ensure full closure of the gown (tie around the waist)</b>	
<b>Don second (outer) pair of sterile chemotherapy gloves, fitted over cuffs of gown to completely cover wrists</b>	
<b>Enter the HD or BH clean room</b>	

# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

<b>PREPARATION of the EVS Employee</b>	<b>Standards Met</b>
<b>Entering the Non-HD ANTEROOM</b>	
<b>On the dirty side of the demarcation line in the anteroom:</b>	
Hang up isolation gown for use when leaving the anteroom	
Don a medical mask (if not already wearing one)	
Step over the demarcation line (onto the clean side of the anteroom)	
<b>On the clean side of the demarcation line in the anteroom:</b>	
Select and open one new pair of appropriately sized sterile gloves	
Select an isolation gown	
Remove gloves that were donned in the gowning room and discard into a waste container	
Perform hand hygiene (see procedure in Hand Hygiene below)	
Don isolation gown and examine for any holes, tears or other defects	
Ensure full closure of the gown (tie around the waist)	
Push gown sleeves up to the elbows, repeat use of the alcohol-based hand rub	
Dispense a minimum of 2 full pumps of ABHR onto one palm	
Immerse fingertips of the opposite hand into the ABHR for several seconds	
Cover the hand and forearm (still of the opposite hand) with the ABHR and continue rubbing until it fully evaporates (at least 15 seconds)	
Repeat with the other hand and forearm allowing the ABHR to fully evaporate	
Carefully lower the gown sleeves	
Don a pair of sterile gloves, fitted over cuffs of gown to completely cover wrists	
Enter the non-HD clean room	

# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

<b>PREPARATION of the EVS Employee</b>	<b>Standards Met</b>
<b>Hand Hygiene</b>	
Select a disposable nail pick	
Under running water, use the disposable nail pick to remove debris from underneath fingernails	
Wash hands and arms to elbows using plain or antimicrobial liquid soap for 30-60 seconds	
Rinse soap from hands and arms with the water flowing away from hands towards elbows	
Dry hands and arms using a clean low-lint towel allowing hands and arms to dry completely	
Discard the towel	
Dispense a minimum of 2 full pumps of alcohol-based hand rub onto one palm	
Immerse fingertips of the opposite hand into the ABHR for several seconds	
Cover the hand and forearm (still of the opposite hand) with the ABHR and continue rubbing until it fully evaporates (at least 15 seconds)	
Repeat with the other hand and forearm allowing the ABHR to fully evaporate	

<b>PREPARATION of the EVS Employee</b>	<b>Standards Met</b>
<b>Exiting the HD Clean Room to enter the BH Clean Room</b>	
To step out of the HD clean room into the anteroom:	
Remove one outer shoe cover just inside the HD clean room and step out into the anteroom	
Repeat with the other outer shoe cover	
Discard shoe covers into a hazardous waste container INSIDE the HD clean room	
Do NOT remove chemotherapy gown, hair cover, beard cover or medical mask	
Remove outer chemotherapy gloves and discard into a hazardous waste container in the anteroom	
Select and don a second (outer) pair of shoe covers	
Examine inner pair of chemotherapy gloves for any holes, tears or other defects	
Select and don second (outer) pair of sterile chemotherapy gloves, fitted over cuffs of gown to completely cover wrists	
Enter BH clean room	

# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

<b>PREPARATION of the EVS Employee</b>	<b>Standards Met</b>
<b>Exiting the BH Clean Room to enter the IV Set-Up Room via the Anteroom</b>	
<b>To step out of the BH clean room into the anteroom:</b>	
<b>Remove one outer shoe cover just inside the BH clean room and step out into the anteroom</b>	
<b>Repeat with the other outer shoe cover</b>	
<b>Discard shoe covers into a hazardous waste container in the BH clean room</b>	
<b>Remove the chemotherapy gown and discard into a hazardous waste container in the anteroom</b>	
<b>Do NOT remove hair cover, beard cover or medical mask</b>	
<b>Remove outer chemotherapy gloves and discard into a hazardous waste container in the anteroom</b>	
<b>Examine inner pair of chemotherapy gloves for any holes, tears or other defects</b>	
<b>Select and don a second (outer) pair of non-sterile chemotherapy gloves, fitted over cuffs of gown to completely cover wrists</b>	
<b>Step over the demarcation line to the dirty side of the anteroom and THEN remove medical mask; discard mask into a hazardous waste container</b>	
<b>Don a new medical mask if required</b>	
<b>Don the isolation gown that was worn earlier when entering the anteroom</b>	
<b>Do NOT remove hair cover or beard cover at this time</b>	
<b>Exit the anteroom into the IV set-up room</b>	

# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

<b>PREPARATION of the EVS Employee</b>	<b>Standards Met</b>
<b>Exiting the Non-HD Clean Room to enter the IV Set-Up Room via the Anteroom</b>	
<b>To step out of the Non-HD clean room into the anteroom:</b>	
<b>Step out of the clean room into the anteroom</b>	
<b>Remove the isolation gown and discard into a waste container in the anteroom</b>	
<b>Do NOT remove hair cover, beard cover or medical mask</b>	
<b>Remove gloves and discard into a waste container in the anteroom</b>	
<b>Cleanse hands with soap and water or ABHR</b>	
<b>Select and don a pair of non-sterile chemotherapy gloves, fitted over cuffs of gown to completely cover wrists</b>	
<b>Step over the demarcation line to the dirty side of the anteroom and THEN remove medical mask; discard mask into a waste container</b>	
<b>Don a new medical mask if required</b>	
<b>Don the isolation gown that was worn earlier when entering the anteroom</b>	
<b>Do NOT remove hair cover or beard cover at this time</b>	
<b>Exit the anteroom into the IV set-up room</b>	

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

<b>PREPARATION of the EVS Employee</b>	<b>Standards Met</b>
<b>Exiting the Controlled Area</b>	
<b>Enter the gowning room</b>	
<b>Remove outer pair of chemotherapy gloves</b>	
<b>Remove the isolation gown and discard in hazardous waste container</b>	
<b>Remove hair cover(s) / beard cover and discard in hazardous waste container; remove medical mask and discard in hazardous waste container (if applicable)</b>	
<b>Remove inner pair of shoe covers and discard in hazardous waste container</b>	
<b>Remove inner pair of gloves and discard in hazardous waste container</b>	
<b>Wash hands using soap and water immediately after removal of inner gloves and dry using a low-lint towel</b>	
<b>Don a new isolation gown (tied) over scrubs before leaving the gowning room</b>	
<b>Enter general pharmacy area – complete cleaning duties</b>	
<b>Remove isolation gown and discard into a hazardous waste container (if disposable) or place into laundry (if reusable) when leaving the pharmacy</b>	
<b>Remove hospital provided scrubs and place in laundry bin when finished cleaning the pharmacy</b>	



# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

## Appendix 5: Sample Daily/Weekly/Monthly Cleaning Log for Controlled Environments

<b>For Environmental Services Use</b>	<b>Daily Cleaning Log: Hazardous Clean Room for Pharmacy Sterile Compounding in Controlled Work Areas within Pharmacy</b>	Note: This record must be retained for 3 years.	Site: _____ Date (Year-Month): _____																														
Note: On the day when monthly cleaning is performed, daily clean is not needed. Use "M" when applicable to denote the day monthly clean was done instead.																																	
<b>Routine Cleaning*</b>	<b>Day of month:</b>																																
Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
<b>DAILY clean</b>																																	
High touch surfaces: Use GD, and if needed, use sIPA to remove residue.																																	
Door handles & knobs																																	
light switches																																	
gown hooks																																	
Work Surfaces: Use GD, and if needed, use sIPA to remove residue.																																	
stationary counter tops																																	
Furniture & Equipment: Use GD, and if needed, use sIPA to remove residue.																																	
Chairs, the personnel contact surfaces																																	
Sinks, interior																																	
Sinks, exterior if exposed																																	
Waste Receptacles: Use GD, and if needed, use sIPA to remove residue.																																	
sharps bin on the floor in room, exterior																																	
garbage bin on the floor in room, exterior																																	
hazardous bin on the floor in room, exterior																																	
Floors: Use GD, and if needed, use sterile water to remove residue.																																	
Flooring																																	
Anti-fatigue mats, top																																	
Anti-fatigue mats, bottom																																	
<b>Non-Routine Cleaning</b> Document Rationale & Date below:																																	

\* Initial in the corresponding box after the activity has been completed.

Abbreviations | BSC: Biological Safety Cabinet; GD: germicidal detergent; sIPA: sterile Isopropyl Alcohol

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

<b>For Environmental Services Use</b>	<b>Monthly Cleaning Log: Hazardous Clean Room</b> for Pharmacy Sterile Compounding in Controlled Work Areas within Pharmacy	Note: This record must be retained for 3 years.
---------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------

Selected week: To be done the \_\_\_\_\_ week of the month.  
 Note: On the day that monthly clean is performed, daily clean is not needed.

Routine Cleaning <sup>2</sup> Activity	Jan		Feb		Mar		Apr		May		Jun		Jul		Aug		Sept		Oct		Nov		Dec	
	Day	Initial	Day	Initial	Day	Initial	Day	Initial	Day	Initial	Day	Initial	Day	Initial	Day	Initial	Day	Initial	Day	Initial	Day	Initial	Day	Initial
<b>MONTHLY clean:</b>																								
High touch surfaces: Use sporicidal and if needed, use sIPA to remove residue from sporicidal.																								
Door handles & knobs																								
light switches																								
gown hooks																								
Work Surfaces: Use sporicidal and if needed, use sIPA to remove residue from sporicidal.																								
stationary counter tops																								
Furniture & Equipment: Use sporicidal and if needed, use sIPA to remove residue from sporicidal.																								
hood (LAFW) exterior																								
Carts, underside & vertical surfaces																								
Chairs, all surfaces																								
Emergency Shower (if applicable)																								
Eye wash equipment (if applicable)																								
Sinks, interior																								
Sinks, exterior if exposed																								
Storage Spaces: Use sporicidal and if needed, use sIPA to remove residue from sporicidal.																								
refrigerators, exterior																								
freezer, exterior																								
Waste Receptacles: Use sporicidal and if needed, use sIPA to remove residue from sporicidal.																								
sharps bin on the floor in room, exterior																								
garbage bin on the floor in room, exterior																								
hazardous bin on the floor in room, exterior																								
Room surfaces: Use sporicidal, and if needed, use sterile water to remove residue.																								
ceilings																								
walls																								
doors																								
windows																								
attachment on walls, ie, Exit Signs & mirrors																								
shelves (top & bottom)																								
Flooring																								
Anti-fatigue mats, top																								
Anti-fatigue mats, bottom																								
<b>Non-Routine Cleaning</b> Document Rationale & Date below:																								

<sup>2</sup> Initial in the corresponding box after the activity has been completed.

Abbreviations | BSC: Biological Safety Cabinet; sIPA: sterile Isopropyl Alcohol

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# CLEANING AND DISINFECTION OF BC CANCER REGIONAL PHARMACIES PROCEDURE

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<b>Final Sign Off:</b>	<b>Name</b>	<b>Title</b>	<b>Date Signed</b>
	Lynne Nakashima	BC Cancer Senior Director, Provincial Pharmacy	10-AUG-2022
<b>Developed By:</b>	<b>Name</b>	<b>Dept.</b>	<b>HO</b>
	BC Cancer Pharmacy Oncology Certification Program	Provincial Pharmacy	BC Cancer
<b>Owner(s):</b>	BC Cancer Pharmacy Oncology Certification Program	Provincial Pharmacy	BC Cancer
<b>Posted Date:</b>	DD-MMM-YYYY		
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