



Department of Pharmacy POLICY AND PROCEDURE

POLICY NUMBER: 908
VERSION: 3

SUBJECT: ChemoShield

POLICY:

The ChemoSHIELD unit is a negative pressure isolator and is to be used for the preparation of hazardous pharmaceutical compounds and chemotherapy agents. Airflow within the work and pass-through chambers is pulled through exhaust HEPA filters located under the work surfaces into a common exhaust plenum. The air is then exhausted out of the cabinet through the building exhaust system. The ChemoSHIELD provides better than Class 100 (ISO Class 5) air cleanliness conditions within the enclosure.

PROCEDURE:

1. Check the airflow gauges to ensure that the unit is operating properly.
2. If for some reason the exhaust fan is off, allow the fan to run at least 3 minutes so that the chambers can purge with HEPA filtered air. Wipe down the interior area of the cabinet with a surface disinfectant.
3. Inspect the unit's gloves and sleeves for holes. If any damage observed, change sleeves/gloves immediately.
 - a. Unit sleeves shall be changed every 6 months. See below for steps on how to change the sleeves.
 - b. Unit gloves shall be changed once a week. See below for steps on how to change the sleeves.
4. A chemo gown and double gloves shall be worn when handling any hazardous material
5. Gather all items that will be necessary to prepare your admixture including drug vials, IV bags, syringes, needles, labels, and syringe caps.
6. Remove drug vials from any boxes and IV bags from any protective over-wrap and wipe down all items with 70% IPA alcohol prior to placing them into the pass-thru chamber. To protect sterility, do not remove any sterile items (syringes, needles, syringe caps, etc) from their innermost packaging until working inside of the main chamber.

7. Open the door to the pass-through chamber and place the items into the pass-through chamber. Close the door to the pass-through chamber and allow the air inside to purge for at least one minute to “cleanse” the pass-through chamber and its contents.
8. Using the sleeves and gloves for the main chamber, open the door between the pass-through chamber and the main chamber. Bring the items into the main chamber and close the door between the two chambers. Avoid blocking the front and rear grills. Do not overcrowd the unit.
9. Do not perform admixtures while the pass-through door is open. Make sure to wait 1 minute anytime pass-through door has been opened and closed to allow the chamber and tunnel to purge with HEPA filtered air. Perform all work on or over the solid work surface (avoid working on or over the grills).
10. Prepare your admixture(s) using aseptic technique
11. Handle spills according to department policy.
12. Clean/disinfect the chemoSHIELD including the gloves. Separate bags may be used in the work chamber to compile trash consistent with either the black or yellow bins to be disposed of separately in the appropriate bins, please refer to the hazardous material and pharmaceutical waste management program policy. As a reminder, all gloves and gowns used in these processes are considered contaminated waste (i.e. yellow bin waste).
13. After wiping down items to be sent back through pass chamber, open the door between chambers and move the item(s) back into the pass-through chamber.
14. Using a new pair of gloves, items to be dispensed to patient will be transferred into a Chemo-Block bag. Everything that has been in the main chamber **MUST** be treated as though it is contaminated /hazardous. **NEVER** place or use the Chemo-Block bag inside of the main chamber.
15. ChemoSHIELD shall be certified biannually and the records shall be maintained for at least 3 years.

Replacing gloves in the armports:

1. Double gloving is needed for the below procedures.
2. Ensure the outside of the old sleeves/gloves are decontaminated using the sodium hypochlorite wipes used to decontaminate the hood.
3. Once gloves are decontaminated start by inserting your hand into the sleeve and glove assembly. Then, pull the sleeve and glove inside out. This exposes the silicone O-ring that holds the hand piece to the sleeve.
4. Roll the O-ring out of its groove with your thumbs and discard the old glove.

5. Take a new hand piece and turn it inside out
6. Make sure the thumb is pointing up (for an ambidextrous glove – for a left/right glove, the thumb will point either left or right but should be at or near the top).
7. Stretch the glove over the plastic grooved flange.

Replacing the stainless O-ring:

1. Start with the O-ring at 6 o'clock and place it in the groove. With your left thumb, roll the O-ring into the groove to about the 11 o'clock position while holding your right thumb at the 4 o'clock position.
2. Next, while holding the O-ring at 11 o'clock, roll the O-ring into the groove with your right thumb finally stretching the remainder (from 11 to 1 o'clock) of the O-ring into the groove with both thumbs.
3. This will take some practice but after a few tries it should become much easier.
4. Finally, push the glove into the glovebox isolator. Please remember that this glove needs to be sanitized. Working through the gloves, sanitize the glove using one hand to wash the other.

Approved By: Romina Panoussi (PHARMACY SERVICES CHIEF II)	
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