



## **Anti-Neoplastic Agent Administration, Handling & Disposal**

(SOP Modified from UWMC SOP)

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### **INTRODUCTION:**

Cancer chemotherapy drugs can cause mutagenesis, teratogenesis, carcinogenesis, and sterility when administered to humans. The risk varies with the specific drug and its concentration, and with the frequency and duration of exposure.

Concern has therefore been raised regarding potential hazards to personnel handling chemotherapy. Studies indicate that observing certain precautions while handling chemotherapy reduces personnel exposure and presumably risk.

All personnel working with chemotherapeutic agents must read the agent's Material Safety Data Sheet (MSDS) to address the requirement for hazard awareness training.

### **PRECAUTIONS FOR AGENT PREPARATION (reconstitution and dilution):**

1. All agent preparation must be performed in a ducted biosafety cabinet.
2. Wear chemotherapy gloves or double gloves of either surgical quality latex gloves or nitrile. Chemotherapy gloves provide the greatest protection.
3. Wear a protective gown that is lint-free, non-permeable with a solid front, long sleeves, and tight-fitting elastic or knit cuffs (gowns specifically designed for chemotherapeutic agents).
4. When double gloving, one glove should be placed under the gown cuff and one over.
5. The outer glove should be changed immediately if contaminated. Both gloves should be changed if the outer gloves is torn, punctured, or overtly contaminated with the drug (as in a spill) and every hour during preparation.
6. All potentially contaminated disposable items (gloves used in prep) must be placed in a plastic bag (while in the biosafety cabinet) and then in the chemotherapy waste container. Sharps should be disposed of in a sharps container specific for chemotherapy. This sharp container must be labeled as holding chemotherapy items.
7. Preparations should be performed over plastic backed absorbent pads. Dispose of as noted above, immediately upon contamination.
8. External surfaces of syringes should be wiped with a clean alcohol pad to remove any potential contamination.
9. Chemotherapeutic agents must be stored in an area labeled chemotherapeutic agents.
10. Chemotherapeutic agents must be transported in ziplock bags with chemo labels.
11. Leurlock syringes are recommended.
12. A Chemotherapeutic agent spill kit must be available. These can be purchased from University Stores (3-1980) or Drug Services (598-6058). 70% isopropyl alcohol is an acceptable decontaminant for these agents.
13. The ducted biosafety cabinet should be cleaned (70% isopropyl alcohol) upon completion of tasks.



14. Hands must be washed upon completion of tasks.
15. Excess chemotherapeutic agent, not used, must be disposed of in chemotherapy waste container.
16. Chemotherapy gloves, gowns and stickers can be purchased at Drug Services (598-6058).
17. Consult with EH&S Environmental Programs at 616-5836 (or 685-2848) for disposal needs.

#### **PRECAUTION FOR AGENT ADMINISTRATION:**

1. Wear double gloves (latex or nitrile) for all procedures involving chemotherapy administration.
2. Change gloves after each use, tear, puncture, medication spill, or after 30 minutes of wear for latex, 60 minutes for nitrile.
3. Wear protective gown with solid front at all time.
4. For situations where potential eye contact with chemotherapeutic agent exists, safety goggles or face shield should be used.
5. Use leurolock needles, if possible.
6. Dispose all waste material in the appropriate chemical waste container.

#### **CHEMOTHERAPY WASTE COLLECTION AND DISPOSAL:**

1. For guidance on disposal (i.e. bedding, waste, supplies) and to obtain chemotherapy waste containers, contact the EH&S Environmental Programs Office at 206-685-2848.
2. For mixed waste (i.e. biohazard waste with anti-neoplastic waste) disposal determination, contact Sheila Lockwood at the EH&S Environmental Programs Office at 206-616-5835.
3. Dispose all waste in a plastic bag and discarded in the chemical waste container.
4. Seal filled chemical waste containers with the enclosed screw top.
5. For pick-up: Complete a [Chemical Collection Request Form](#) and mail to Box 354400 or FAX to 206-685-2915

#### **CLEANING CHEMOTHERAPY SPILLS**

1. Spills must be cleaned up immediately by properly protected trained personnel. Spills should be cleaned using contents in the spill kits. All other persons should leave the area.
2. Small spills (less than 5 ml) outside the BSC should be cleaned immediately by personnel wearing a gown, two pairs of gloves (latex or nitrile) and mask. For spills greater than 5ml, a respirator mask (requires enrollment in UW's respirator program) and eye protection should also be worn (found in the spill kits).
3. Liquids should be wiped with absorbent pads. The spill area should then be cleaned thoroughly with a detergent solution followed by clean water. Place waste in plastic bag and then in the chemotherapy waste container.
4. Spill kits for chemotherapeutic agents can be purchased through Drug Services (598-6058).



**ACUTE EXPOSURE OF SPILLS**

1. In case of skin contact with an antineoplastic drug product, wash the affected area as soon as possible. Report incident to supervisor, complete Accident/Injury Report.
2. For eye exposure, flush with water for ~15 minutes. Then go to the UWMC Emergency Department.