



Title: **Hazardous Drugs Management**

EH&S – 8-5

Revision: 10/07

Date 10/00

Page: 18

PURPOSE: To establish a safe environment for hospital employees handling hazardous drugs and to protect the environment through proper disposal of wastes.

SCOPE: Hospital Wide.

I. RESPONSIBILITIES

- a) **Departments Administering Hazardous Drugs:** shall assure the safety of individuals (including patients) who may come into contact with hazardous drugs. The department shall assume primary responsibility for properly receiving, transporting, handling, labeling and storing hazardous drugs for collection, transportation, treatment, and disposal as defined in this policy. The department shall assume responsibility to establish standard operating procedures and communicate the same to all persons involved.
- b) **Department of Environmental Health and Safety:** shall assume responsibility for providing technical assistance and support regarding occupational health and safety matters relating to hazardous drugs management. The department shall assume responsibility for collecting and disposing hazardous drug waste in Pharmacy and unused expired bulk hazardous drugs returned to Pharmacy and listed antineoplastic liquid wastes.
- c) **Hospital Custodial Services:** shall assume responsibility for collection and appropriate disposal of trace contaminated sharps and non-sharps inclusive of both regulated medical waste and non-regulated medical waste.
- d) **Hospital Pharmacy:** shall assume responsibility for safe drug preparation, distribution of hazardous drugs, recordkeeping and proper disposal of unwanted drugs.
- e) **Hospital Satellite Facilities (UHSF):** shall assume responsibility for safe hazardous drug management. Any questions regarding hazardous drugs may be directed to the EH&S department at 4-6783.

II. DEFINITIONS

A. Hazardous Drugs (HD): Drugs are classified as hazardous when they possess any one of the following characteristics:

- Genotoxicity – ability to cause a change or mutation in genetic material (mutagen);
- Carcinogenicity – ability to cause cancer in animals, humans, or both (carcinogen);
- Teratogenicity – ability to cause defects in fetal development or fetal malformation (teratogen); and fertility impairment.

B. Classes of Hazards caused by Hazardous Drugs: According to American Society of Health System Pharmacists (ASHP), based on the potential hazard a drug can cause the hazardous drugs are classified into three classes:

- Class I: risk to personnel from occupational exposure
chronic low-level vs. acute/accidental larger level due to aerosols during preparation or administration vs. spills
- Class II: studies inconclusive and controversial
genotoxic potential = damage genetic material - teratogen, mutagen, carcinogen
- Class III: irritant if exposed to skin or mucous membranes
Risk systemic absorption

C. Antineoplastic Agents: Solutions of 1% (v/v) or greater, which either inhibit the maturation and proliferation of malignant cells or an agent having such properties.

Antineoplastic waste: Waste that contains actual measurable volume of a chemotherapy drug or may contain traces of antineoplastic agents.

a) **Gross Contaminated:** Items containing greater than 3% by volume (15 cc or ~ 3 teaspoons of fluid) of antineoplastic agents.

b) **Trace Contaminated:** Material which has come in contact with a prepared antineoplastic agent, such as gloves, gowns, linen or other material soiled by excreta of patients who are being treated with antineoplastic agents (up to 48 hours after treatment), IV bags, vials, syringes tubing, or containers with less than 3% by volume (not exceeding 15 cc or ~ 3 teaspoons of fluid) remaining in them, or chux contaminated with small amounts of drug.

Note: If several trace contaminated items are disposed of in the same disposal container, the disposal container must be handled as gross contaminated when a cumulative total of 15 cc or ~ 3 teaspoons of antineoplastic agents is reached.

D. Listed Hazardous Waste: According to the Environmental Protection Agency's Federal Hazardous Waste Regulations promulgated by RCRA- Resource Conservation and Recovery Act [40 CFR Part 261], some chemotherapeutic drugs are listed as hazardous waste as they are known to cause a genotoxic, carcinogenetic, spermatogenetic and/or infertility effect's in humans. Depending on their toxicity, they are either listed as U or P (acutely toxic). Two commonly used U listed drugs

at the Hospital are Mitomycin C [Mitomycin, Mutamycin] – U010 and Cyclophosphamide [Cytosan, CTX, Neosar, Procytox] – U058.

E. Regulated Medical Waste: Tissue, organs and body parts (except teeth and contiguous areas of bone and gum), body fluids that are removed during surgery, autopsy, or other medical procedures, or specimens of body fluids and their containers, and discarded material saturated with such body fluids other than urine or fecal material. It also includes discarded waste human blood or blood components and containers with free flowing blood or blood components or discarded saturated material containing free flowing blood or blood components and materials saturated to the point of dripping with blood or blood products.

F. Sharps: Includes, but not limited to, discarded unused sharps and sharps used in animal or human patient care, medical research or clinical or pharmaceutical laboratories, including hypodermic, intravenous, or other medical needles, hypodermic or intravenous syringes to which a needle or other sharp is still attached, Pasteur pipettes, scalpel blades, or blood vials, and broken or unbroken glass (including slides and cover slips) in contact with infectious agents.

G. Linen: Includes items such as sheets, pillows, pillow cases, blankets and patient gowns.

III. GUIDELINES FOR HANDLING HAZARDOUS DRUGS (HD)

Hospital areas that prepare or administer hazardous drugs are provided in Appendix A and the list of hazardous drugs used is listed in Appendix B.

A. Drug Preparation

HD shall be prepared in the specifically designated area equipped Class II type B Vertical Laminar Flow Biological Safety Cabinet (BSC) located in the Pharmacy. Preparation of HD anywhere else shall not be permitted.

Warning signs designating area as hazardous drug preparation area shall be clearly posted. Eating, drinking, smoking, chewing gum or tobacco, applying cosmetics, and storing food and smoking materials in or near a preparation area is forbidden. Emergency procedures shall be posted in the immediate area.

i) Biological Safety Cabinets (BSC):

In the Pharmacy, parental hazardous and cytotoxic drugs shall be mixed in the Class II Vertical Laminar Flow Biological Safety Cabinet.

- a. To the extent possible, the vertical flow biological safety cabinet will be used only for the preparation of hazardous and cytotoxic drugs.
- b. A qualified technician, an outside contractor shall certify the BSC semi-annually, and any time the BSC is physically moved.
- c. The BSC shall be operated with the fan blower on 24 hours per day, 7 days per week.
- d. Drug preparation shall be performed with the sash (splash window) at the required access opening.

- e. The inside of the BSC shall be cleaned at the beginning of each work day using isopropyl alcohol. This cleaning will be documented by initialing the sheet on the outside of the BSC.
- f. The BSC surface will be decontaminated on a monthly basis, after any spill, or after the BSC is moved or serviced using the following procedures:
 - 1. Decontamination will consist of removal of contamination from the cabinet to a disposable surface (e.g., gauze, towels) by using a cleaning agent that removes chemicals from stainless steel.
 - 2. During decontamination, staff will wear a disposable closed-front gown, disposable nitrile gloves covered by disposable utility gloves, safety goggles, and hair covering.
 - 3. The blower will be left on.
 - 4. Disposable heavy toweling or gauze will be used.
 - 5. Decontamination will be done from top to bottom by applying the cleaner, scrubbing, and rinsing thoroughly with distilled water.
 - 6. All contaminated disposables will be contained in sealable bags for transfer to larger waste containers.
 - 7. The HEPA filter must not become wet during cleaning of the protective covering.
 - 8. Rinse water, gauze, and personal protective equipment will be disposed of as contaminated waste.
 - 9. The decontamination will be documented on the form affixed to the BSC.

ii) Personal Protective Equipment (PPE)

Authorized personnel compounding cytotoxic/hazardous drugs will wear personal protective equipment.

- a. Authorized personnel will wear nitrile gloves when preparing hazardous drugs. Double gloving is recommended. The outer glove will be changed immediately if contaminated. To limit transfer of contamination from the BSC into the work area, outer gloves will be removed after each batch and will be placed in sealable bags for disposal. Authorized personnel working in the BSC will not touch objects outside of the hood while wearing gloves that have been exposed to cytotoxics.
- b. Authorized personnel will wear a protective disposable gown made of lint-free low-permeability fabric with a solid front, long sleeves, and tight fitting cuffs when preparing hazardous drugs. When double gloving, one glove will be placed under the gown cuff and one over.
- c. Gloves and gowns will not be worn outside the immediate preparation area.
- d. An eyewash station will be available in the area where hazardous drugs are compounded.

- e. Whenever splashes, sprays, or aerosols of HD's may be generated, which can result in eye, nose, or mouth contamination, chemical-barrier face and eye protection must be provided and worn. Eyeglasses with temporary side shields are inadequate protection.

iii) Work Practices

Proper manipulative technique to maintain the sterility of the injectable drugs and to prevent the generation of hazardous-drug contaminants will be used consistently.

- a. All drug and non-drug items required for completing a dose or batch and for containing the waste will be assembled and placed near the BSC. Care will be taken not to overload the BSC work area.
- b. Calculations and any label preparation will be completed prior to beginning work in the BSC.
- c. Appropriate gowning, handwashing and gloving (or glove changing), will be completed before manipulations begin.
- d. The BSC will be cleaned and disinfected daily. The BSC will be disinfected with isopropyl alcohol before any aseptic manipulation is begun. A lint free plastic-backed disposable liner will be used in the BSC to facilitate spill cleanup.
- e. Unnecessary moving in and out of the BSC will be avoided during aseptic manipulations.
- f. Syringes and sets with luer-lock type fittings will be used for preparing and administering hazardous drug solutions. Care will be taken to ensure that all connections are secure. Syringes will be large enough so that they are not full when containing the total drug dose.
- g. The contents of an ampoule will be gently tapped down from the neck and top portion of the ampoule before it is opened. The ampoule will be wiped with alcohol before being opened. An alcohol wipe or sterile gauze pad will be wrapped around the neck of the ampoule when it is opened.
- h. Substantial positive or negative deviations from atmospheric pressure within drug vials and syringes will be avoided.
- i. Authorized personnel reconstituting hazardous drugs will use a venting device with a 0.2-micron hydrophobic filter (i.e., a Chemo Dispensing Pin).
- j. Commercially available drugs already in solution will be used when possible.
- k. Entry ports will be wiped with sterile, alcohol dampened pads after compounding.
- l. Final drug measurement will be performed prior to removing the needle from the stopper of a vial or the filter straw from the neck of an ampoule.
- m. All waste items from hazardous drug preparation will be discarded in the designated chemotherapy waste container located in Pharmacy, including:
- n. Used IV tubing; empty syringes, empty drug vials, gloves and gowns.

- o. Unused or expired hazardous drugs, including gross contaminated items (sharps and non-sharps), returned to Pharmacy.
- p. Final products will be placed in sealable labeled containers (e.g., Ziploc plastic bags) to reduce the risk of exposing ancillary personnel or contaminating the environment.
- q. Hazardous drugs may not be delivered via the pneumatic tubing system. The tube system between Chemotherapy Laboratory in the Pharmacy and Suite 1 (Mod K) is a contained system and may be used to transport chemotherapy drugs.

B. Drug Administration

i) Personal Protective Equipment (PPE)

Personnel administering Class I HD must wear nitrile gloves. Wearing two pair of nitrile gloves offers significantly greater protection, and shall be worn if double gloving does not interfere with techniques. Other protective equipment such as gowns, chemical splash shields, or chemical splash goggles may also be required depending on the drug characteristics and the conditions of drug administration.

ii) Work Practices

- a. Hands shall be washed before putting on gloves, as well as after gloves are removed.
- b. Gloves (and disposable gowns, if worn) that become contaminated shall be changed immediately.
- c. Appropriate PPE must be worn when handling wastes and body secretions from patients subjected to hazardous drugs up to 48 hours after treatment.
- d. Infusion sets and pumps shall be watched for signs of leakage during use. An absorbent pad shall be used during tubing change or IV push administration to catch any leakage.
- e. Disposal of appropriate items shall be handled according to the instructions found in the section on waste disposal.
- f. All unused drugs must be returned to the Pharmacy as described in the Transport Section of this policy.
- g. Patient wastes and body secretions wherever possible should be flushed in the patient room. In cases where excreta can be collected in diapers, it should be disposed of according to the waste disposal guidelines mentioned in the policy.

C. Patient Care Precautions Following Drug Administration

Standard Universal Precautions must be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids should be considered potentially infectious materials and must be managed as dictated in the Infection Control Policy & Procedure manual.

i) Personal Protective Equipment (PPE)

Personnel dealing with excreta, primarily blood, urine, stool or vomitus from patients who have received HD in the last 48 hours should be provided with appropriate PPE mentioned in the Drug Administration Section. The gloves should cover the cuffs of the disposable gown when being worn. These items are to be discarded after each use or whenever contaminated, as detailed under Waste Disposal. The permeability of gloves increases with time, therefore gloves should be changed regularly or immediately if they are torn or punctured. Eye protection should be worn if splashing is possible. Such excreta contaminated with blood, or other potentially infectious materials as well, should be managed according to the Infection Control Policy and Procedures. Hands shall be washed after removal of gloves or after contact with the above substances.

ii) Reusable Items

Any contaminated reusable items such as bedpans or commodes shall be thoroughly washed two times with a hospital approved detergent, followed by a clean water rinse. Double nitrile gloves must be worn.

D. Receipt, Storage, and Transport of Hazardous Drugs

i) Receipt

HD are delivered directly to the Pharmacy storeroom. Only trained personnel familiar with these guidelines shall handle HD packages.

ii) Storage/Handling

Accidental contamination of the health care environment, resulting in exposure of personnel to hazardous substances will be prevented by maintaining the physical integrity and security of packages of hazardous drugs.

- a. Access to areas where hazardous drugs are stored is limited to authorized staff.
- b. "Chemotherapy" labels will be used to label shelves and bins where cytotoxic drugs are stored.
- c. Hazardous drugs dispensed from the Pharmacy will be labeled "Cytotoxic".
- d. Hazardous drugs will be stored on shelves or in bins that will limit contamination in case of leakage.
- e. Hazardous drugs requiring refrigeration will be stored separately from non-hazardous drugs and will be stored in bins designed to contain leakage in Pharmacy.

iii) Damaged Packages

The following procedure will be followed for handling damaged packages of hazardous drugs:

- a. Damaged shipping cartons of hazardous drugs will be received and opened in an isolated area.
- b. When a damaged package is discovered, all contaminated packaging material will be handled with double nitrile gloves and protective gowns. If there is a possibility of exposure to airborne HD, the damaged material shall be packed in a waste disposal container within an approved BSC.

- c. Contaminated materials can be disposed of in the designated chemotherapy waste container located in the Pharmacy.

iv) Transport

Hazardous drugs will be transported to the nursing units by a Pharmacy messenger or Nursing staff in bags clearly labeled "Cytotoxic". HD will not be transported in the pneumatic tube. The drugs will be in securely capped or sealed containers and packaged during transport to further reduce the chance of breakage and spillage in a public area.

Appropriate containers will be provided to patients for transporting discharge and home care medication that require special precautions.

E. Linen Handling

Linen contaminated with HD or excreta from patients who have received HD in the past 48 hours is a potential source of exposure to employees handling linen and other laundry items. Staff should wear disposable leak-proof gowns and gloves. Eye protection is necessary if there is a potential splash hazard.

Additional information on procedures for handling contaminated personal clothing can be found in the Linen Services policy, "Management of Contaminated Personal Clothing" (Manual Code 1021A).

Replacement of Employee Uniforms

Staff shall contact Linen Services Department at 4-1461 for replacement of scrubs. During the weekend or off-duty hours, contact the on-call ADN.

F. Spill Clean-Up, Decontamination, and Reporting Procedures

Spill kits containing absorbent materials and protective gloves will be kept in all areas where hazardous drugs are used. These will be used according to package directions for minor (<20 cc) spills inside or outside a Biological Safety Cabinet (BSC).

Spill inside the Biological Safety Cabinet: Spills occurring in the BSC will be cleaned up immediately; a spill kit will be used. If there is broken glass, utility gloves will be worn to remove it and place it in the puncture resistant container located in the BSC. The BSC, including the drain spillage trough, should be thoroughly cleaned. If the spill is not easily and thoroughly contained, the BSC should be decontaminated after cleanup. If the spill contaminates the HEPA filter, use of the BSC should be suspended until the cabinet has been decontaminated and the HEPA filter replaced.

Spill outside the Biological Safety Cabinet:

i) Minor Spills (<20 cc)

1. Notify fellow workers in vicinity of spill.
2. Secure area, by restricting access and posting signs.
3. Remove any potential ignition sources and unplug nearby electrical equipment.
4. Gather and review safety information on spilled chemical. Review chemical's Material Safety Data Sheet (MSDS) for a hazard assessment and other pertinent information.

5. Locate an appropriate Spill Kit, if available.
6. Don appropriate personal protective equipment (PPE) which usually includes chemical splash goggles, double nitrile gloves, and apron. If high splash potential exists, also wear a face shield and protective clothing.
7. Confine and contain spill. Cover spill with appropriate absorbent material.
8. Clean up spill using a scoop or other suitable item and place material in appropriate disposal container.
9. Decontaminate spill surface with mild detergent and water, as appropriate. Carefully remove PPE, place non-reusable items in disposal container and thoroughly wash hands.
10. Complete a hazardous waste label and affix label to container. Contact EH&S at 4-6783 for to arrange for waste disposal.
11. Investigate cause of spill and review with EH&S. Document spill, response and follow-up with staff.
12. Replenish spill kit.

ii) Major Spills (>20 cc)

1. Notify and evacuate fellow workers to a safe area. Post signs. Do not attempt to clean a major spill.
2. If spill poses a fire hazard, activate nearest fire alarm. Call University Police at 911 (or 631-632-3333 from cell phone) and give details of spill including specific location, chemical, quantity, and if anyone is injured. **Note: At UH Satellites, call local fire dept. or 911.**
3. In case of an injury or chemical contamination:
 - a. Wear PPE and move victim from spill area.
 - b. If first aid trained, administer first aid as appropriate. Assist person to Employee Health or Emergency Department (off hours) for treatment. If possible, bring chemical label or MSDS.
 - c. Locate nearest emergency safety shower or eyewash. Remove contaminated clothing and flush affected areas with copious amounts of water for 15 minutes.
4. University Police will contact EH&S and either EH&S staff or outside personnel will respond to the spill.
5. Staff knowledgeable about the spill should provide responders with all pertinent information and MSDS.
6. The responders or designee will inform staff when it is safe to re-enter spill area.
7. Investigate cause of spill. Document spill, response and follow-up with staff and contact EH&S at 4-6783.

iii) Surface/Equipment Decontamination

After a spill clean up has been completed, all contaminated surfaces shall be thoroughly cleaned with a hospital approved disinfectant three times, followed by a rinse with clean water. Staff familiar with these guidelines and the potential hazards of HD shall do this. Double nitrile gloves shall be worn and all waste disposed of properly.

Any non-cleanable contaminated items shall be disposed of according to the contaminated waste guidelines.

iv) Personnel Decontamination

Gross contamination of gloves, gown, or other clothing, or direct skin or eye contact with HD must be treated as follows:

- a. Immediately remove contaminated gloves, gown, or other clothing. If clothing is contaminated with large quantities of HD, the individual shall proceed as rapidly as possible to the nearest safety shower (or ordinary shower). Contaminated clothing shall not be removed until the individual is standing under the flow of the water.
- b. Any contaminated skin area must be washed with soap and water for not less than 15 minutes. After flushing the affected area, seek medical attention immediately.
- c. For eye exposure, flood the eye(s) with water or isotonic eyewash solution for not less than 15 minutes. Hold the eyelids open to ensure that the entire eye, including under the eyelid, is thoroughly flushed. Seek medical attention immediately.
- d. For inhalation of HD's in powder form, seek medical attention immediately. For needlesticks from syringes containing HD, express some blood from the area, wash the area with soap and water for 10 minutes, and seek medical attention. Employees should report to Employee Health Services during business hours or to the Emergency Department (off hours).

v) Reporting Procedures

- a. Spills or other incidents resulting in personal injury or contamination of employees shall require an Employee Accident and Investigation Report be completed.
- b. For spills or other incidents that do not result in personal injury or contamination, notification must be made to EH&S at 4-6783.

G. Waste Disposal Methods

i) Trace Contaminated Material:

Trace contaminated materials are items considered "empty" by the EPA, and "empty" is defined as a container that contains less than 3% by weight of the original quantity of HD. Trace contaminated waste includes IV tubing, gowns, gloves, gauze pads, empty medication vials, and empty syringes. Trace contaminated Sharps Waste should be disposed in yellow sharps containers. Trace contaminated Non-sharps Regulated Medical Waste should be disposed of in yellow bags.

ii) Gross Contaminated Materials:

Gross contaminated waste (>3% by weight of original quantity of HD), including expired or unused vials, ampoules, syringes, bags and bottles of HD or solutions of any other items, should be returned to Pharmacy for disposal in the designated chemotherapy waste container.\

iii) Partially Used Hazardous Drugs (HD) / Patient Care Areas:

Partially used vials, ampoules, syringes, bags and bottles of HD that are P or U listed must be picked up at or near the point of administration. Call EH&S at 4-6783 for proper pick up and disposal.

iv) Hazardous Drug Preparation Waste:

Waste generated from hazardous drug preparation should be disposed of in the designated chemotherapy waste container located in Pharmacy.

Location/Waste Type	Waste Container	Label	Waste Pick-up
<p>Pharmacy - hazardous drug waste</p> <p>Unused expired bulk hazardous drugs returned to Pharmacy, including gross contaminated items (sharps and non-sharps)²</p>	<p>Puncture proof container lined with yellow leak proof bag located in Pharmacy</p>	<p>Biohazard, Chemotherapy Waste and Hazardous Waste¹</p>	<p>Department of Environmental Health and Safety on request by telephone at 2-6410 or 4-6783.</p> <p>Antineoplastic Agents will be sealed in containers and stored at the Hazardous Materials Management Facility.</p> <p>Licensed Hazardous Waste Contractor will lab pack hazardous waste into D.O.T. approved drums.</p> <p>Waste will be disposed of through high temperature incinerators by the licensed contractor.</p>
<p>Drug Administration Areas - Trace contaminated sharps</p>	<p>Yellow sharps container</p>	<p>Biohazard</p>	<p>Hospital Custodial Services</p>
<p>Drug Administration Areas - Trace contaminated non-sharp waste</p>	<p>Leak proof yellow bags</p>		<p>Hospital Custodial Services</p>
<p>Drug Administration Areas – Partially used P and U listed hazardous waste</p>	<p>Leak proof yellow bags</p>		<p>Environmental Health and Safety</p>

NOTE:

1. *Hazardous Waste labels are obtained from the Department of Environmental Health and Safety.*
2. *All patient care areas shall return unused or expired medication to the Pharmacy.*

H. Medical Surveillance

Medical information regarding the HD exposure will be maintained in the employee's medical record in Employee Health Services.

i) Screening

Employees working with HD will complete a medical and occupational history at the time they are hired at the Hospital. Employee Health Services will administer the medical surveillance program.

ii) Records of Potentially Exposed Employees

Each appropriate department shall maintain a list of staff that prepare or administer HD.

iii) Treatment of Acute Exposures

After an acute exposure to a HD, the procedures in the Personal Decontamination Section shall be followed. Employees will report to Employee Health Services during business hours or to the Emergency Department off hours. The employee should bring a completed Employee Accident and Investigation form and the appropriate MSDS.

iv) Special Exposure Concerns/Reassignment Election Form

Some studies have shown increased risks of miscarriage or of giving birth to malformed infants for persons occupationally exposed to certain HD. The degree of risk for employees who are pregnant, or who are actively trying to conceive a child (female or male personnel) is uncertain at the present time. On the basis of available evidence, it seems reasonable to assume that appropriate measures should be taken to prevent such an exposure.

Staff that prepare or administer hazardous drugs shall complete the Reassignment Election form provided in Appendix C. The signed original shall be placed in the department's employee file and a copy forwarded to UH Human Resources. An employee can complete a new form at any time.

If the personnel so desire, which include a person who is pregnant, breast-feeding, or actively trying to conceive a child may request, in writing, a change to a job assignment that does not involve handling HD. Such request shall be made to the nurse manager, and shall be acted upon on an individual basis.

I. Education, Training, and Information Dissemination

Personnel involved in handling of HD shall participate in all applicable training including the Hazard Communication Right-to-Know class. Each department must also inform employees of the known risks, relevant techniques for use and handling, the proper use of PPE, waste disposal, spill procedures, medical surveillance policies, and any other pertinent information related to the handling, storage, and disposal of the specific HD's that they may encounter during the performance of their duties. This information must be reviewed periodically. Competency shall be evaluated following the initial training and after periodic reviews.

Documentation shall be maintained by each department indicating that all personnel involved with the handling or use of HD's have received this information and training. The

documentation must include the date of attendance, the contents/summary of the training, names of those providing the training, and names and titles of those receiving the training.

J. Material Safety Data Sheets (MSDS)

Pertinent safety and health information on HD can be obtained from MSDSs. MSDS books containing the MSDSs for HD used in Hospital are available in areas that prepare or administer HD. These MSDSs can also be accessed online at www.msds.sunysb.edu.

INQUIRIES/REQUESTS: Environmental Health and Safety
HSC L1, 059
Zip=8017
Main Office: 444-6783
FAX: 444-6845

RELATED FORMS: Reassignment Election Form (Appendix C)
Employee Accident and Investigation Report

RELATED DOCUMENTS: Locations Handling Hazardous Drugs (Appendix A)
List of Hazardous Drugs used in University Hospital (Appendix B)
Safe Handling of Hazardous Drugs, Oncology Nursing Society, 2003
Management of Contaminated Personal Clothing, Linen Policy, Manual Code 1021A

APPENDIX A

Stony Brook University Hospital Locations Handling Hazardous Drugs

University Hospital Departments	Location	Contact Person	Contact Number
Drug Preparation:			
Pharmacy	UH Level 1	Jeannene Strianse	4-2674
ACP Pharmacy	Cancer Center	Scott Weber	8-0801
Drug Administration:			
Pediatrics Hem/Onc	UH Level 11S-1	Patricia Bockino	4-1115
Pediatrics Acute	UH Level 11N	Patricia Bockino	4-1115
Pediatrics PICU	UH Level 11S -2	Jeralyn Sigwart	4-1287
Mod P Pediatrics	UH Level 5	Wendy Lindsey	4-7861
Oncology	UH Level 19S	Kathy Noone	4-8261
Operating Room	UH Level 4	Kathryn Scheriff	4-2444
AICU	UH Level 4	Carole Capp	4-2440
Radiology	UH Level 4	Marilyn Metzger	4-2506
Urology	UH Level 5 Suite 10	Ann Klassert	4-1205
Urology	24 Res. Way Suite 500	Ann Klassert	4-1910
Adult Chemotherapy	Cancer Center	Dorothy Boll	8-0876
Peds Chemotherapy	Cancer Center	Patricia Murray	8-0966

revised 10/5/07

APPENDIX B

List of Hazardous Drugs Used in University Hospital

PRODUCT

5-FU (Fluorouracil, Adrucil IV)
Adrucil Injection (see 5-FU)
Alkeran (Melphalan)
BiCNU IV(see Carmustine)
Blenoxane
Busulfan (Myleran)
Carboplatin (Paraplatin)
Carmustine (BiCNU IV)
CeeNU (see Lomustine)
Cerubidine (see Daunorubicin)
Chlorambucil (Leukeran)
Cisplatin (Platinol) 10, 50mg.
Cytarabine
Cytovene (Ganciclovir)
Cytosan IV
Dacarbazine (DTIC-Dome)
Dactinomycin (Cosmegen)
Daunorubicin (Cerubidine)
Doxorubicin (Rubex for Injection)
Elspar (L-Asparaginase)
Etoposide (VePesid Capsules)
Etoposide IV
Floxuridine (see FUDR)
Fludara for Injection (see Fludarabine)
Fludarabine (Fludara for Injection)
FUDR (Floxuridine)
Ganciclovir (see Cytouene)
Hydrea
Idamycin
Ifex (see Ifosfamide)
Ifosfamide (Ifex)
L-Asparaginase (see Elspar)
LCR(see Oncovin)
Leukeran (see Chlorambucil)
Lomustine (CeeNU)
Lysodren (see Mitotane)
Megace Tablets (see Megestrol)
Megestrol (Megace Tablets)
Melphalan (see Alkeran)

MANUFACTURER

Adria/ Taylor Pharmacal
Adria/Taylor Pharmacal
Burroughs Wellcome Co.
Bristol-Myers Squibb
Bristol-Myers Squibb
Burroughs Wellcome Co.
ER Squibb & Sons
Bristol-Myers Squibb
Bristol-Myers Squibb
Wyeth-Ayerst Laboratories
Glaxo Wellcome Inc.
ER Squibb Medatope Div.
Upjohn Company
Syntex
Bristol-Myers Squibb
Miles Pharmaceuticals
Merck, Sharp & Dohme
Wyeth-Ayerst Laboratories
Bristol-Myers US Pharm/Nutr.
Merck
Bristol-Myers Squibb
Bristol-Myers Squibb
Hoffman-La Roche
Berlex Laboratories
Berlex Laboratories
Hoffman-La Roche
Syntex
ER Squibb & Sons
Adria Laboratories
Bristol-Myers US Pharm/Nutr.
Bristol-Myers US Pharm/Nutr.
Merck, Sharp & Dohme
Eli Lilly & Co.
Glaxo Wellcome Inc.
Bristol-Myers US Pharm/Nutr.
Bristol-Myers US Pharm/Nutr.
Bristol-Myers US Pharm/Nutr.
Bristol-Myers US Pharm/Nutr.
Burroughs Wellcome Co.

APPENDIX B (Continued)
(For Example) List of Hazardous Drugs Used in University Hospital

Mercaptopurine (Purinethol)	Burroughs Wellcome Co.
Mexate (see MTX)	Bristol-Myers
Mithracin (see Mithramycin)	Miles Inc.
Mithramycin (Mithracin)	Miles Inc.
Mitomycin (Mutamycin)	Bristol-Myers US Pharm/Nutr.
Mitotane (Lysodren)	Bristol-Myers US Pharm/Nutr.
Mitoxantrone (Novantrone)	Lederle Laboratories
MTX (Mexate)	Bristol-Myers
Mustargen	Merck, Sharpe & Dohme
Mutamycin (see Mitomycin)	Bristol-Myers UD Pharm.Nutri.
Myleran (see Busulfan)	Burroughs Wellcome Co.
Nolvadex (see Tamoxifen)	ICI Americas Inc.
Novantrone (see Mitoxantrone)	Lederle Laboratories
Oncovin (see Vincristine)	Lilly & Co.
Paclitaxel (see Taxol)	Bristol-Myers Squibb
Paclitaxel (Taxol for Injection, Concentrate)	Bristol-Myers Squibb
Platinol (see Cisplatin) 10, 50mg.	ER Squibb Medatope Div.
Procarbazine	Hoffmann-La Roche
Purinethol (see Mercaptopurine)	Burroughs Wellcome Co.
Ribavirin (Vilona, Viramid, Virazid)	CN Pharma./Shering Plough
Rubex for Injection (see Doxorubicin)	Bristol-Myers US Pharm/Nutr.
Streptozocin	Upjohn Company
Tamoxifen (Nolvadex)	ICI Americas Inc.
Taxol (Paclitaxel)	Bristol-Myers Squibb
TheraCys	Aventis
Thioguanine	Burroughs Wellcome Co.
Thiotepa	Lederle/American Cyanamid
Vep`esid Capsules(see Etoposide)	Bristol-Myers Squibb
Velban(Vinblastine Sulfate)	Eli Lilly & Co.
Vilona, Viramid, Virazid (see Ribavirin)	ICN Pharma/Shering Plough
Vincristine Sulfate (Oncovin)	Eli Lilly & Co.
Vumon	Bristol-Myers Squibb

APPENDIX C

Reassignment Election Form

Instructions: Please complete this form for affected employees in departments where hazardous drugs are prepared or administered. Place original form in department's employee file and forward a copy to UH Human Resources. At any time, an employee has the right to complete a new Reassignment Election Form.

Exposure to hazardous drugs, including antineoplastic agents, may cause health effects in women who are pregnant, suspect pregnancy or are trying to conceive or in men who are planning to start a family.

If you fall into any of the categories mentioned above, you have an option of job reassignment. Please review the Hospital's Hazardous Drugs Management Policy and check one of the choices listed below.

I have read this notice and the Hospital's Hazardous Drugs Management policy. I realize the potential risks involved with working with hazardous drugs and I request reassignment.

I have read this notice and the Hospital's Hazardous Drugs Management policy. I realize the potential risks involved with working with hazardous drugs and I do not request reassignment.

Department: _____

Employee Name: _____

Employee Signature: _____ **Date:** _____

Supervisor Name: _____

Supervisor Signature: _____ **Date:** _____