

**HACKETTSTOWN REGIONAL MEDICAL CENTER  
ADMINISTRATIVE POLICY MANUAL**

**Hazardous Pharmaceutical Waste Policy and Procedures**

---

<b>Effective Date:</b>	<b>July 2012</b>	<b>Policy No:</b>	<b>AD-063</b>
<b>Cross Referenced:</b>		<b>Origin:</b>	<b>Pharmacy</b>
<b>Reviewed Date:</b>		<b>Authority:</b>	<b>Chief Operating Officer</b>
<b>Revised Date:</b>		<b>Page:</b>	<b>1 of 4</b>

---

**SCOPE**

Hazardous wastes are defined in the EPA's Resource Conservation and Recovery Act regulations, 40 CFR 261-265. Specifically outlined within these regulations are appropriate steps for the generation, handling, collecting and disposal of hazardous wastes. Pharmaceuticals used within the Pharmacy and on patient care floors meet the definition of hazardous waste if not fully administered to the patient and in some cases the empty container is considered to be hazardous waste. This policy does not apply to the disposal or wasting of controlled substances.

**PURPOSE**

A select portion of pharmaceutical drugs and their residues are considered to be hazardous waste per United States Environmental Protection Agency (EPA) and the State of New Jersey Department of Environmental Protection (NJDEP) definitions of hazardous wastes. It is the policy of Hackettstown Regional Medical Center to comply with local, state and federal regulations associated with the proper handling, collecting and disposal of these hazardous wastes.

**DEFINITIONS**

1. Resource Conservation and Recovery Act (RCRA) – EPA's regulations directly applied to the management of hazardous wastes.
  - a. Characteristic Hazardous Wastes – waste classified by the EPA into four groups:
    - i. Ignitability – wastes can create fires under certain conditions, are spontaneously combustible, or have a flash point less than 140°F. Aerosols are also included within this group.
    - ii. Corrosivity – wastes that are a strong acid or base with a pH  $\leq 2$  or  $\geq 12.5$ .
    - iii. Reactivity – wastes are unstable under "normal" conditions. They can cause explosions, toxic fumes, gases or vapors when heated, compressed or mixed with water.
    - iv. Toxicity – wastes that are harmful or fatal when ingested or absorbed.
  - b. P-listed wastes – sub list of wastes that are considered to be acutely hazardous wastes by the EPA and even empty containers of acutely hazardous wastes must be collected i.e. Coumadin blister pack wrappers and nicotine patch and gum wrappers.
  - c. U-listed wastes – sub list of commercial chemical products that are considered to be hazardous waste by the EPA.
2. Empty container – a container is considered to be empty if the following is true:
  - a. Spent nicotine patches and gum are considered to be empty once they have made contact with the patient.
  - b. Lotions, gels and oral liquids are considered empty if  $\leq 3\%$  of the original contents remains.
3. Satellite Accumulation Areas – Collection containers at or near the point of generator of a hazardous waste.
4. Small Quantity Generator – EPA regulations state that small quantity generators may not produce more than 2,200 pound of hazardous waste and 2.2 pounds of acutely hazardous waste in a given month. Hackettstown Regional Medical Center is a small quantity hazardous waste generator.

**HACKETTSTOWN REGIONAL MEDICAL CENTER  
ADMINISTRATIVE POLICY MANUAL**

**Hazardous Pharmaceutical Waste Policy and Procedures**

---

<b>Effective Date:</b>	<b>July 2012</b>	<b>Policy No:</b>	<b>AD-063</b>
<b>Cross Referenced:</b>		<b>Origin:</b>	<b>Pharmacy</b>
<b>Reviewed Date:</b>		<b>Authority:</b>	<b>Chief Operating Officer</b>
<b>Revised Date:</b>		<b>Page:</b>	<b>2 of 4</b>

---

**PROCEDURE**

1. Drugs Classified as a Hazardous Waste
  - a. Those drugs classified as a hazardous waste must be appropriately segregated, collected, shipped and disposed of following EPA disposal recommendations. All pharmaceutical waste generated at Hackettstown Regional Medical Center is sent for high temperature incineration through a certified hazardous waste hauler.
  - b. Hackettstown Regional Medical Center partnered with an environmental consultant to review and characterize the hospitals formulary and non-formulary pharmaceuticals. Pharmaceuticals meeting the definition of a hazardous waste and needing to be segregated and disposed of separately have been listed in Appendix A.
2. Segregation of Hazardous Pharmaceutical Waste and Labeling System – All patient care areas will have either one or two black hazardous waste containers located either adjacent to the Pyxis machine and/or on medication carts in patient care areas. All Pharmacy areas will have five black hazardous waste containers. Black containers are demarcated with different color hazardous waste labels to assist nursing in separating pharmaceuticals. The labels are as follows:
  - a. Yellow Label – This is the main hazardous pharmaceutical waste stream for the hospital. Items collected in this container meet the ignitability and toxicity definitions set forth by the EPA. These containers are located in the pharmacy and in patient care areas.
  - b. Green Label – All acutely hazardous waste is collected in the black container with the green label. Hackettstown Regional Medical Center is a small quantity generator of hazardous waste therefore all acutely hazardous waste per NJDEP regulations, acutely hazardous waste is collected in a separate container. These containers are located in the pharmacy and in patient care areas.
  - c. Red Label – All expired and unused amyl nitrate from the cyanide antidote kit is collected in the black waste container with the red label. Due to amyl nitrates oxidizing properties, this waste is required to be collected in a separate container. This container is only located in the pharmacy.
  - d. Red Label – All expired and unused silver nitrate sticks are returned from the patient care floors to the pharmacy where they are collected in the black waste container with the red label. Due to silver nitrates oxidizing properties, this waste is required to be collected in a separate container. This container is only located in the pharmacy.
  - e. Blue Label – All unused and expired chloral hydrate is collected in the black hazardous waste container with the blue label. Chloral Hydrate is a narcotic and must be kept under double lock and key within the pharmacy. This container is only located in the pharmacy.
3. Additional staff notification systems – Nursing staff will be alerted that a medication is considered hazardous and must be disposed of in a black bucket in one of two ways:
  - a. Electronic Medication Administration Record (eMAR) notification – eMAR ensures easy tracking of medications from the physician's order, to the Pharmacy, to the floor's medication carts, to the patient. Using this system should the medication and/or wrapper be hazardous in its waste form, staff will be alerted by a notation in the comments portion of the program..
  - b. Black dot labeling – For those items that are not dispensed from the Pyxis machine, or for those units that do not have Pyxis machines, items considered hazardous wastes will be marked with a black dot with the letter HW (hazardous waste). Black dot stickers will be placed on these medications by the Pharmacy staff before medications are delivered to the nursing units.

**HACKETTSTOWN REGIONAL MEDICAL CENTER  
ADMINISTRATIVE POLICY MANUAL**

**Hazardous Pharmaceutical Waste Policy and Procedures**

---

<b>Effective Date:</b>	<b>July 2012</b>	<b>Policy No:</b>	<b>AD-063</b>
<b>Cross Referenced:</b>		<b>Origin:</b>	<b>Pharmacy</b>
<b>Reviewed Date:</b>		<b>Authority:</b>	<b>Chief Operating Officer</b>
<b>Revised Date:</b>		<b>Page:</b>	<b>3 of 4</b>

---

**SATELLITE ACCUMULATION AREA – CONTAINER MANAGEMENT**

EPA and NJDEP regulations require all satellite accumulation areas to be managed following hazardous waste container management regulations. All hazardous waste containers at Hackettstown Regional Medical Center must be managed in the following manner:

1. Each container must contain a hazardous waste label that clearly states the words hazardous waste and the hazardous contents contained within the container.
2. Each container must have the hazardous waste label facing out and the container itself must be unobstructed. The container must be able to be visually inspected to assure the container is not cracked, pitted, corroding or leaking.
3. The lid of the container must be tightly closed at all times.
4. Containers must not be opened, handled or stored in a manner which would cause them to rupture or leak.
5. The contents of all containers must be compatible with each other. All incompatibles have been given their own waste stream.
6. When full, the container must be dated and removed within three days of becoming full. The full container is removed to a main storage area where it is allowed to sit on-site full for up to 180 days.
7. In the event a container becomes full – nursing and pharmacy staff have been trained to call housekeeping (X6945) for a container pick-up and switch out.
8. Satellite accumulation areas must be inspected for each of the above steps.

**MAIN STORAGE AREA – INSPECTIONS**

The EPA requires that main storage areas be inspected at least weekly (40 CFR 265) for the below requirements. At Hackettstown Regional Medical Center, the building services supervisor will conduct documented weekly inspections of the main storage area. The main storage area at Hackettstown Regional Medical Center will be inspected for the following:

1. “NO SMOKING” sign must be posted if storing ignitable materials. (40 CFR 265.17)
2. “Danger-Unauthorized Personnel Keep Out” sign must be posted at the storage area. (40.CFR 265.14)
3. The owner/Operator must provide adequate security to prevent unauthorized access. (40.CFR 265.14)
4. Ignitable and Reactive wastes must be stored 50 feet from the facility’s property line. (40 CFR 265.176)
5. The surface underlying all containers must be free of cracks, gaps and sufficiently impervious to contain leaks. (40 CFR 264.175)
6. Each container must be marked with the words “Hazardous Waste”, the chemical names (e.g., acetone, toluene), the date on which accumulation begins. (40 CFR 262.34(a)(2,3))
7. Waste must not be accumulated over 180 days. (40 CFR 262.34(d))
8. Waste on site must not exceed 13,200 lbs. (40 CFR 262.34 (d)(1))
9. Containers must be in good condition. (Free of rust and/or structural damage) (40 CFR 262.171)
10. Containers must be compatible with waste inside. (40 CFR 265.172)
11. Containers must be closed during storage. (40 CFR 265.173)
12. Containers must be spaced so as to provide sufficient aisle space (recommended 18 inches between drum rows) to allow for the unobstructed movement of emergency equipment. (40 CFR 265.35)
13. Inspect the facility for malfunctions, deterioration, etc. which could lead to a release of hazardous waste. (40 CFR 265.15)

**HACKETTSTOWN REGIONAL MEDICAL CENTER  
ADMINISTRATIVE POLICY MANUAL**

**Hazardous Pharmaceutical Waste Policy and Procedures**

---

<b>Effective Date:</b>	<b>July 2012</b>	<b>Policy No:</b>	<b>AD-063</b>
<b>Cross Referenced:</b>		<b>Origin:</b>	<b>Pharmacy</b>
<b>Reviewed Date:</b>		<b>Authority:</b>	<b>Chief Operating Officer</b>
<b>Revised Date:</b>		<b>Page:</b>	<b>4 of 4</b>

---

14. Develop a written inspection schedule of areas and keep inspection logs (Inspected weekly). (40 CFR 265.15)
15. Containers must not be handled in a manner, which may rupture the container or cause it to leak. (40 CFR 265.173)
16. The area must be inspected for leaking and/or deterioration of containers and containment system, at least weekly. (40 CFR 265.174)
17. Incompatible hazardous waste shall not be placed in the same container. (40 CFR 265.177)
18. The area must have the following equipment: (40 CFR 265.32)
  - a) An internal communication or alarm system capable of providing immediate emergency instructions.
  - b) A telephone or other instrument, immediately available at all areas of operations, capable of summoning emergency assistance.
  - c) A portable fire extinguisher, fire control equipment, and spill control equipment and decontamination equipment.
  - d) Water, at an adequate volume and pressure, to supply water hoses or foam producing equipment, or automatic sprinkler system.

**REVERSE DISTRIBUTION**

In the pharmacy, items being collected as part of the hospitals hazardous pharmaceutical waste program are not permitted to be returned for credit through the reverse distribution system. As part of Hackettstown Regional Medical Center's reverse distribution program, pharmaceuticals that have been identified as meeting the definition of hazardous material will be collected, managed and disposed of as hazardous waste.

**TRAINING**

Upon initial inception of this program, Hackettstown Regional Medical Center partnered with a third party to offer numerous in-service training to the building services, pharmacy and nursing staffs. Sign-in sheets are available upon request in the pharmacy, housekeeping and nursing education offices.

New hires shall be trained using a net learning module and practical test. Reinforcement training shall be part of the unit orientation with a new hire.

Annual refresher training will be conducted using a net learning module and practical test. Results will be recorded and monitored by the nursing education department.

**PENALTIES**

It is important that all employees at Hackettstown Regional Medical Center understand the importance of this program. This program is critical to patient, employee and environmental wellbeing. Any violation of this policy could result in the hospital being subject to penalties/fines from regulatory agencies.

For any pharmaceutical waste collection questions, please contact the pharmacy at 908.850.6915.

<b>Appendix D</b>			
<b>Hackettstown Regional Medical Center</b>			
<b>Main Storage Area Weekly Inspection Sheet</b>			
	<b>YES</b>	<b>NO</b>	<b>N/A</b>
1			
2			
3			
4			
5			
6			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
Comments:			
Inspectors Name:	Inspectors Signature:	Date:	Time of Inspection:

## Appendix C - Hackettstown Regional Medical Center SAA Locations

<u>Unit</u>	<u>Floor</u>	<u>Department</u>	<u>Room #</u>	<u>Location</u>	<u>Size</u>	<u>Bracket??</u>	<u>Name of Nurse Manager</u>
4 South	4	Post Partum	Med Room	Left of Computer	2 Gal, 1.5 Qt	Y (1 of each)	Yvetale Jerome
4 North	4	Labor and Delivery	Med Room	Level w/ top of Par Ex Machine	2 Gal, 1.5 Qt	Y (1 of each)	Yvetale Jerome
OB Recovery	4	OB Recovery	Recovery Room	Right of Sharps Container	2 Gal, 1.5 Qt	Y (1 of each)	Yvetale Jerome
ICU	3	ICU	Med Room	Right of Phone under cord strip	2 Gal, 1.5 Qt	Y (1 of each)	Anita Albert
PCU	3	PCU	Med Room	Right of Pyxis / Left of Door	2 Gal, 1.5 Qt	Y (1 of each)	Anita Albert
3 South	3	3 South	Med Room	Wall above Trash	2 Gal, 1.5 Qt	Y (1 of each)	Dawn Garden
3 North	3	3 North	Med Room	Under Par Ex Machine	2 Gal, 1.5 Qt	Y (1 of each)	Dawn Garden
Emergency Room	2	Emergency Room	Center Station	Left of Copier under MSDS station	2 Gal, 1.5 Qt	Y (1 of each)	Fran Schuster
Same Day Surgery	2	Same Day Surgery	Center Station	Next to Pyxis	2 Gal, 1.5 Qt	Y (1 of each)	Fran Schuster
MP1	2	Endoscopy	MP1	Left of Pyxis Machine	2 Gal, 1.5 Qt	Y (1 of each)	Bernie Cardillo
MP2	2	Endoscopy	MP2	Right of Pyxis Machine	2 Gal, 1.5 Qt	Y (1 of each)	Bernie Cardillo
MP	2	Endoscopy	MP	Right of Pyxis Machine	2 Gal, 1.5 Qt	Y (1 of each)	Bernie Cardillo
PACU	2	PACU	New Alcove	Left Wall, New Pyxis Spot	2 Gal, 1.5 Qt	Y (1 of each)	Bernie Cardillo
Employee Health	1	Employee Health	Office	Left of Sharps Container	2 Gal (Yellow)	Y (1 x 2 Gal)	Robin Puma
Catscan	2	Catscan	CT Control Room	Under Printer	2 Gal (Yellow)	Y (1 x 2 Gal)	Chris Aegens
Fluoroscopy X Ray	2	Fluoroscopy X Ray	X Ray Room 1	Left of the Seimens Wall Unit	2 Gal (Yellow)	Y (1 x 2 Gal)	Chris Aegens
Cath lab	2	Cath Lab	Monitoring Room	Right of the Pyxis Machine	2 Gal, 1.5 Qt	Y (1 of each)	Ron Walman
OR 1	2	OR 1	Room # 1	By Pyxis	2 Gal, 1.5 Qt	Y (1 of each)	Ron Walman
OR 2	2	OR 2	Room # 2	By Pyxis	2 Gal, 1.5 Qt	Y (1 of each)	Ron Walman
OR 3	2	OR 3	Room # 3	By Pyxis	2 Gal, 1.5 Qt	Y (1 of each)	Ron Walman
Labor and Delivery OR	2	Labor and Delivery OR	L+D OR Room	Right of Pyxis Machine	2 Gal, 1.5 Qt	Y (1 of each)	Eve
Wound Care	3	Wound Care (West)	Clean Utility	Left Wall Under Cabinet	2 Gal (Yellow)	Y (1 x 2 Gal)	Charlotte
Pharmacy	1	Pharmacy	See Mark Harris	All Waste Streams	8 Gal Yellow		
					2 Gallon Green (P)		
					1.5 Qt Red (Amyl Nitrate)		
					2 Gallon Purple (Chloral Hydrate)		
					1.5 Qt Red (Silver Nitrate)		

Next = Next to each other

Above = Stacked one above the other

## Appendix B – Hackettstown Regional Medical Center Pharmaceutical Waste Collection Breakdown

P Listed Drugs	
Virgin and unused P listed needle/syringe, vial, wrappers, and split pills.	<b>Black Container, Green Label</b>
Nicotine Patch and Gum	
Virgin and unused patches and gum and ALL empty patch and gum wrappers.	<b>Black Container, Green Label</b>
Used patches and gum	<b>Regular Trash</b>
Chemotherapy	
Empty vials, empty IV bags or tubing. All chemotherapy gloves, gowns and wipes.	<b>Yellow Container</b>
Partially used and empty syringe/needle	<b>Sharps Container</b>
Unused syringe/needle, vial, IV bag or tubing	<b>Black Container, Yellow Label</b>
All Other Listed Hazardous Pharmaceutical Wastes	
Unused syringe/needle, vial, IV bag or tubing, split pills	<b>Black Container, Yellow Label</b>
Partially used and empty syringe/needle	<b>Sharps Container</b>
All other listed hazardous pharmaceutical wastes with $\leq 3\%$ of original volume	<b>Regular Trash</b>

Yellow container – trace chemotherapy waste container.

Black container – hazardous waste container.

## Appendix A

### Hackettstown Regional Medical Center Pharmaceutical Waste Management Program Hazardous Pharmaceuticals List

#### Yellow Waste Stream (Pharmacy, Nursing)

Acetic acid irrigation solution	D001	za virus vaccine (inactive)	D009
Alprostadil ampoule		Insulin - ALL	D024
	D001A	Melphalan tab	U150
Ammonia inhalant ampoule	D001		Miconaz
	Bacitrac	zole spray	D001
Amphotericin B neomycin-polymyxin	D009	Mitomycin	U010
Barium sulfate solutions	D005	Neomycin-polymyxin B-gramicidin	D009
Benzocaine topical spray	D001	Neomycin-polymyxin B-hydrocortisone	D009
Benzoin compound, topical	D001	Oxymetazoline spray	D009
Candida albicans extract skin test	U188	Paclitaxel injection solution	D001
Cyclophosphamide	U058	Phenol throat spray	U188
Ethyl chloride spray	D001	Silver dressing	D011
Etoposide injection solution	D001	Silver sulfadiazine cream	D011
Fluocinonide cream/ointment	D001	Sulfacetamide sodium ophthalmic sol.	D009
	Fluores	Sulfacetamide-prednisolone acetate	D009
Fluorescein ophthalmic strip	D009	Tenecteplase	D001
Fluorescein ophthalmic suspension	D009	Tetanus immune globulin injection	D009
Fluorometholone ophthalmic susp.	D009	Tetanus-diphtheria toxoid (adult)	D009
Flurbiprofen ophthalmic suspension	D009	Treprostinil	D024
Glycopyrrolate	D002	Trichloroacetic acid 30%	D002
Hepatitis B immune globulin	D009	Trifluridine	D009
Hexachlorophene topical	U132	Trypan blue intra-ocular solution	U236
	Influen		

**\*\*Please also collect all non-fully administered Chemotherapy in the yellow labeled container\*\***

#### Green Waste Stream (Pharmacy, Nursing)

Physostigmine	P188	Unused Nicotine Patch and Gum	P075
Warfarin/Coumadin	P001		

**\*\*Must collect all empty containers associated with this waste as well as virgin material\*\***

#### Red Waste Stream # 1(Pharmacy Only)

Unused and Expired Silver Nitrate Sticks	D001, D011
--	------------

#### Red Waste Stream #2 (Pharmacy Only)

Amyl Nitrite from the cyanide antidote kit	D001
Amyl Nitrite ampoule	D001

#### Blue / Purple Waste Stream (Pharmacy Only)

Chloral Hydrate	U034, DEA Regulated Material
-----------------	------------------------------



# HAZARDOUS WASTE

Federal Law Prohibits Improper Disposal Of This Container

## Pharmaceutical Waste

contents of this container include:

### ACUTELY HAZARDOUS WASTE

Physostigmine P188  
Warfarin (Coumadin) and empty pill wrapper P001  
Unused nicotine patches and empty wrappers P075

HAZARD: Toxic

Date Full: \_\_\_/\_\_\_/\_\_\_

Please dial X 6945 to arrange for a waste pickup

# HAZARDOUS WASTE

Federal Law Prohibits Improper Disposal Of This Container

## Pharmaceutical Waste

contents of this container include:

UNUSED AND EXPIRED SILVER NITRATE STICKS

HAZARD: Ignitable (Oxidizer), Toxic

Date Full: \_\_\_/\_\_\_/\_\_\_

Please dial X 6945 to arrange for a waste pickup

# HAZARDOUS WASTE

Federal Law Prohibits Improper Disposal Of This Container

## Pharmaceutical Waste

contents of this container include:

Acetic acid irrigation solution	D001	Hexachlorophene topical	U132	Treprostinil	D024
Aprostadil ampoule	D001	Influenza virus vaccine (inactive)	D009	Trichloroacetic acid 30%	D002
Ammonia inhalant ampoule	D001	Insulin - ALL	D024	Trifluridine	D009
Bacitracin-neomycin-polymyxin	D009	Melphalan tab	U150	Trypan blue	U236
Barium sulfate solutions	D005	Miconazole spray	D001		
Benzocaine topical spray	D001	Milomycin	U010		
Benzoin compound, topical	D002	Neomycin-polymyxin B-gramicidin	D009		
Candida albicans extract	U188	Neomycin-polymyxin B-hydrocortisone	D009		
Cyclophosphamide	U058	Oxymetazoline spray	D009		
Etmyl chloride spray	D001	Paclitaxel injection solution	D001		
Etoposide	D001	Phenol throat spray	U188		
Fluocanone	D009	Silver dressing	D011		
Fluorescein	D009	Silver sulfadiazine cream	D009		
Fluorometholone	D009	Sulfacetamide sodium ophthalmic sol	D009		
Furibiprolen	D009	Tetracetylase	D001		
Glycopyrrolate	D002	Telanus immune globulin injection	D009		
Hepatitis B immune globulin	D009	Telanus-diphtheria toxoid (adult)	D009		

\*PLEASE COLLECT ALL NON-FULLY ADMINISTERED CHEMOTHERAPY IN THIS HAZARDOUS CONTAINER\*\*

HAZARD: Ignitable / Toxic / Corrosive

Date Full: \_\_\_/\_\_\_/\_\_\_

Please dial X 6945 to arrange for a waste pickup

# HAZARDOUS WASTE

Federal Law Prohibits Improper Disposal Of This Container

## Pharmaceutical Waste

contents of this container include:

AMYL NITRITE ONLY

HAZARD: Ignitable (Oxidizer)

Date Full: \_\_\_/\_\_\_/\_\_\_

Please dial X 6945 to arrange for a waste pickup

# HAZARDOUS WASTE

Federal Law Prohibits Improper Disposal Of This Container

**Pharmaceutical Waste**  
contents of this container include:

Chloral Hydrate ONLY

**HAZARD: Toxic (DEA)**

**Date Full:** \_\_\_\_/\_\_\_\_/\_\_\_\_

Please dial X 6945 to arrange for a waste pickup