

# Proper Disposal of Medications and Supplies

**TXCH Global HOPE**



Texas Children's  
Hospital®

CANCER AND  
HEMATOLOGY CENTERS

# Objectives

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*By the end of this presentation, the participant should be able to:*

- Define the term, pharmaceutical waste
- Identify best practices for pharmaceutical waste
- Formulate a plan for disposing pharmaceutical waste in your pharmacy

# Defining Pharmaceutical Waste

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- Pharmaceutical waste is any medication which is leftover or unused and must be discarded
  - Whole, part, or residual amounts of medications
- Pharmaceutical waste does NOT include
  - Regular trash
  - Bio-hazardous waste (blood, body fluids, contaminated materials)
  - Controlled substances
  - Sharps
  - IV solutions with no medication added

# Managing Waste

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- All disposable items (e.g. syringes, gloves, gowns, needles, excess drug) must be disposed in specifically designated containers
- These containers should meet local/country-specific regulations for hazardous and non-hazardous medical waste
- Disposal of hazardous waste containers will be managed by a waste vendor

# Hazardous Pharmaceutical Waste

## Environmentally hazardous medications

- Chemotherapy
- Syringes, needles, CSTDs used to prepare chemo
- Other drugs: warfarin, nicotine, physostigmine
- Black containers



## Hazardous PPE

Yellow containers

Excludes PPE from arsenic preparation or saturated contaminated PPE (which is black)



# Hazardous Pharmaceutical Waste

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## Aerosols and Inhalers

- Green list items

## Corrosives

- Red list items

## Oxidizers

- Yellow list items

# Non-Hazardous Pharmaceutical Waste

## Needles, broken glass, empty or broken ampoules

- Including those used for hazardous medication preparation

## Base IV solutions

- NS, D5W, LR

## Non-hazardous medications

- Pharmaceuticals (vials and syringes with residual medication) without a waste code

## Empty IV bags, tubing, most medication wrappers

- Excludes black bin products (warfarin, etc.)



# Example Waste Poster



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## ENVIRONMENTALLY HAZARDOUS PHARMACEUTICAL WASTE STREAMS\*



**Black: Hazardous**

- Code: DIB, PDIB, DIB-LP, PDIB-A, Chemo
- Environmentally Hazardous Medications
- Medication in a sharp should be placed in sharps grade container
- No Sharps in 8g lined containers
- Empty direct contact packaging of warfarin, physostigmine, nicotine
  - Place in clear bag prior to placement in BLACK
- Chemotherapy precautions
  - Trace & Bulk Chemo
  - Syringes and PhaSeal® used for preparation of chemotherapy




**Yellow: Hazardous PPE**

- PPE used in preparation of chemotherapy (except arsenic which is disposed in black)



**Black (Green Label): Aerosols/Inhalers**

- Code: PRTP
- Green list item i.e. HFAs / MDIs, Aerosols (No DPIs or plastic)



**Black (Red Label): Corrosives**

- Code: PRTP-C
- Red list item i.e. Itraconazole (liquid only), Zinc Sulfate (liquid only)



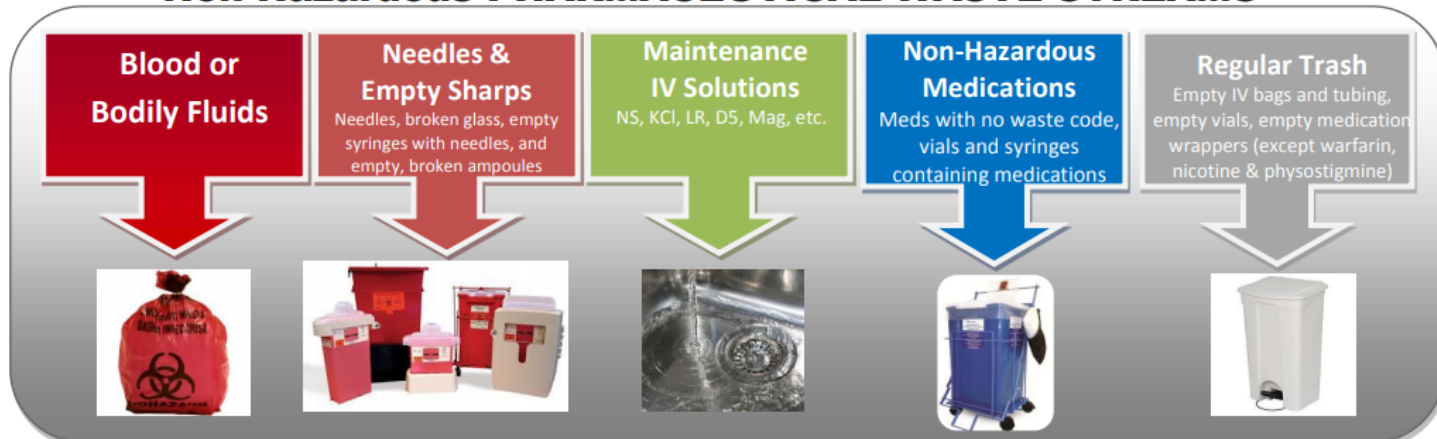
**Black (Yellow Label): Oxidizers**

- Code: PRTP-O
- Yellow list items i.e. Unused Silver Nitrate



DIB = Dispose in Black | PDIB = Package & Dispose in Black | DIB-LP = Dispose in Separate Black with other DIB-LP (only undiluted medication) | PDIB-A = Dispose Medication & Supplies in Black Separate from all other medication  
 PRTP = Package & Return to Pharmacy for Disposal in separate black containers with colored labels (PRTP=Aerosol [Green], PRTP-C=Corrosive [Red], PRTP-O=Oxidizer [Yellow])

## Non-Hazardous PHARMACEUTICAL WASTE STREAMS\*



\*For Non-Narcotic Waste

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# General Overview for PHO Pharmacies

Yellow or black

- Chemotherapy
- PPE

Red/sharps  
(non-hazardous)

- Needles (or needles with attached syringes) used to prepared non-chemo drugs
- Non-chemo ampoules (e.g., promethazine, gentamicin)

Sink

- NS, D5W, LR that needs to be disposed of/drained (empty bag goes in the trash)

Trash

- Paper boxes which contain vials, unit-dose tablets

# What's Next?

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- Review the supplemental materials on the Moodle site
  - Drugs by disposal code/color
- Prepare for discussion:
  - What rules and regulations exist in your setting?
  - What challenges or issues do you need to address to improve waste management in your pharmacy?
- Complete the practice questions

# Global HOPE Pharmacy Education

