Purposes and Objectives

Upon completion of this training, staff will:

- Understand the rationale for changes to pharmaceutical hazardous waste management.
- Identify medications requiring special hazardous waste disposal practices.
The Problem

- The Resource Conservation Recovery Act (RCRA) mandates have changed how we must dispose of unused medications.
- The disposal of waste medications down the drain is the **second most common violation** cited by the U.S. EPA when hospitals are audited.
How will you recognize which drugs are subject to special collection for proper disposal?

Look at the poster for listed drugs!

NEW!
The Duke Blue Bin Drug Disposal List.

**NON-EMPTY CONTAINERS ONLY IN THE BLUE BIN**

<table>
<thead>
<tr>
<th>Prescription</th>
<th>Benzalkonium Chloride</th>
<th>All Insulin</th>
<th>Inhalers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unused Silver Nitrate Applicators</td>
<td>Trichloroacetic Acid</td>
<td>Carbamide Peroxide Oral Solution (GlyOxide)</td>
<td>Ammonia Inhalants (aromatic)</td>
</tr>
<tr>
<td>Aluminum Chloride (Drysol®)</td>
<td>Sitzmark Capsules</td>
<td>Ethyl Chloride</td>
<td>Darbepoetin (Aranesp®)</td>
</tr>
<tr>
<td>Tetanus Diphtheria Toxoid (Decavac®)</td>
<td>Unused Hot/Cold Packs</td>
<td>Alprostadil (Prostin®)</td>
<td>Podophyllum Resin (Podocon®)</td>
</tr>
<tr>
<td>Neomycin Containing Ophthalmic and Otic Suspensions (Colistin®, Cortisporin®, Neosporin®, Poly-Pred)</td>
<td>Meningococcal Polysaccharide Vaccine (Menomune®)</td>
<td>Silver Sulfadiazine Cream (Silvadene®, SSD®, Thermazene®)</td>
<td>Dimethyl Sulfoxide (Rimso-50®)</td>
</tr>
</tbody>
</table>

**ALWAYS PLACE IN BLUE BIN** (unused products, both non-empty and empty containers, packages, wrappers)

- Coumadin (Warfarin®)
- Nicotine products
- Arsenic Trioxide (Trisenox®)

On-Campus: Submit to OESO for disposal (Call 684-2794); Off-sites: Collect in/near Blue Bin

| Alcohols at concentrations >24% | Phenol (sole active ingredient only) | Acetic acid or boric acid in 95% ethanol |

Updated 6/30/2011
Any unused portion of one of the listed drugs should be placed into blue bin containers similar to the one shown.

BLUE BIN DRUGS ONLY

- **No empty** Packages, Syringes, Needles, IVs
- **No** Gloves
- **No** Scissors, Scalpels, Forceps
Blue Bins Collection Containers

- blue bin collection containers have been conveniently placed in medicine rooms:
2 sizes of bins are being used for collection:

5.4 Quart Bin

3 Gallon Bin

Look for the label!

These bins will be secured in place and emptied on a routine basis.
Which medications go into blue bins?
Only those medications that have been designated on the poster as Blue Bin Drugs, such as:

<table>
<thead>
<tr>
<th>Alcohols</th>
<th>Epinephrine (NO Lidocaine with Epinephrine)</th>
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</thead>
<tbody>
<tr>
<td>Aerosol inhalers</td>
<td>Decavac</td>
</tr>
<tr>
<td>Insulin</td>
<td>Ethyl chloride</td>
</tr>
<tr>
<td>Nicotine &amp; nicotine products</td>
<td>Acetic acid or boric acid in 95% ethanol</td>
</tr>
<tr>
<td>Neomycin-Polymixin-HC-Opth &amp; Neomycin-Colistin-HC-Thonzonium solutions</td>
<td>Carbamide peroxide ear drops</td>
</tr>
<tr>
<td>Benzalkonium sulfate</td>
<td>Kenalog spray</td>
</tr>
<tr>
<td>Trichloroacetic acid</td>
<td>Menomune</td>
</tr>
<tr>
<td>Sitzmark Capsules</td>
<td>Drysol</td>
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<tr>
<td>Silvadene Cream</td>
<td>Neosporin</td>
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<tr>
<td>Ammonia inhalants</td>
<td>Phenol</td>
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<tr>
<td></td>
<td>Unused silver nitrate applicators</td>
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</tbody>
</table>
Items that DO NOT go into **blue bins:**

- Scissors
- Sharps
- Empty syringes with needles/glass bottles/blood bags (any container in which the medicine was completely administered to the patient)
- Butterfly needles
- Sodium Chloride
- Needles
- Tweezers

**These items should NOT be placed in blue bins (they should be placed in red bags or sharps boxes).**

- Used gloves/gowns
- Empty syringes without needles/non-glass bottles

**These items should NOT be placed in blue bins (they should be placed in the regular trash)**
What Else is Not Included in the Changing Processes?

- Controlled substances are **NOT** included in this policy (i.e., narcotics and paralytics).

  - You will continue to follow the same practices already established for the disposal of these preparations.
What about Ampules, Vials and Syringes

- If the dose in a syringe is used completely after patient administration, dispose of it in the red bin or sharp’s box.

- If an ampule, vial, or syringe of blue bin waste was NOT fully dispensed, then dispose of it in blue bin waste container.

- **Take Home Message:** If there is a small amount remaining in the tube, and you have not fully administered the drug, put it in blue bin waste, but if you fully administered the drug, put in the red bag or sharp’s box.
What about pills?

- Designated pills that are being disposed of (1/2 pills, dropped pills, etc.) should be first returned to the original package and then inserted into the original zip-closed bags and disposed of in the blue bin.

- If a patient had emesis after taking pills - you do NOT have to retrieve these pills to dispose of in the blue bin.
1. **Waste Manifest**
   - The contractor collecting the waste will complete a waste Manifest based on the contents of the container
   - The “Responsible person” at each location must sign the manifest and retain the top copy
   - A “completed manifest” signed by the disposal facility will be returned to each location
   - Both the signed top copy and the completed manifest should be filed together with a “Certificate of Destruction” that will be sent from the disposal site to your location.
   - Maintain all copies for three years
2. Hazardous Waste Log

- You also must maintain a log of all medications placed into the blue bins. Log and bins will be collected annually.

- Example:

  **Medication Disposal Log Sheet**

<table>
<thead>
<tr>
<th>Date</th>
<th>Number of containers</th>
<th>Container Contents Description</th>
<th>Amount (volume or weight of container)</th>
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</table>
Summary: YES – Place in blue bins

- Ampules, syringes of listed drugs that were not fully administered to the patient
- Pills to be disposed of that are put back into their original packaging
- Nicotine and nicotine products
- Insulin
- Aerosol Inhalers
- Phenols
- Alcohols
Summary: NO - do not place in blue bins

- Gloves
- Sharps
- Narcotics
- Empty syringes/bottles/blood bags
- Butterfly needles
- Scissors
- Ampules, syringes, etc. that have been fully administered to the patient
Questions?

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