PROCEDURE: Hazardous Drugs (HD): Handling Spills

- Trace Spills or Contamination (≤ 5 mL)
- Larger Spills (>5 mL)
- Mattress Spills

Approved:

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PROCEDURE: Hazardous Drugs (HD): Handling Spills (Non-Radioactive)

A. Essential Information

1. Competency: Care of the patient receiving hazardous drugs or drugs requiring special handling is required

2. Nursing staff are responsible for packaging of items contaminated with small amounts of HD (≤ 5 mL), including clothing, linen, and drips on environmental surfaces (ex: beds or tables) for disposal by the NIH Waste Services (301) 496-4710.

3. Any spill of HD that exceeds 5 mL or any spill on carpet is managed by the NIH fire department (301-496-2372 or 911). Report the following: location, name of HD drug, approximate volume of spill and interventions.

4. The standard CC mattress has a factory produced cover that is vapor permeable and impervious to fluid penetration. Unless a mattress has been punctured, the fluid will pool on the surface of the cover where it can be blotted dry, washed and rinsed.

5. Intraperitoneal (IP) therapy has the potential for spills of HD mixed with body fluids due to: the connections of the system, patient wound condition (e.g., wound dehiscence), and position changes of the patient from the recumbent position to sitting or standing.

6. Preventative measures for spills during IP should help prevent or lessen the extent of any potential spill of HD and body fluids.

7. A timely report must be filed through the Occurrence Reporting System (ORS) regardless of the size of the spill.

8. Information on chemical safety of hazardous drug waste can be found at http://intranet.cc.nih.gov/chemsafety/index.shtml

B. Equipment-supplies for Safe Handling of HD Spills

1. Commercially available HD spill kit (e.g., Chemotherapy Drug Spill Kit)
   a. 2 pairs of disposable utility chemical-protective gloves
   b. Protective gown
   c. Safety goggles
   d. NIOSH-approved respirator mask
   e. Spill towels
   f. Absorbent pads
   g. Hazardous drug waste bags and ties
   h. Shoe coverings
   i. Scooper device with scraper (use if glass is involved)
   j. Sign stating HD spill has occurred

2. Laundry Detergent from CHS (e.g., Tide® laundry detergent)

3. Disposable absorbent plastic-backed pads (e.g., Chux®)

4. Yellow puncture-resistant “sharps” container for packaging HD wastes

5. Covered double-lined Medical Pathological Waste (MPW) box

6. Plastic lined isolation linen bag

**Additional HD spill kits may be obtained and opened if additional supplies are needed**

| PROCEDURE: Hazardous Drugs (HD): Handling Spills [Small Spills or Contamination (≤ 5 mL)] |
|---------------------------------------------------------------|---|
| **STEPS** | **KEY POINTS** |
| 1. Immediately contain the spill by placing a disposable | 1. Do not touch spill at this point. |
absorbent plastic-backed pad (e.g., Chux®) absorbent side down over the spill.

2. Restrict access to the area until the clean-up is completed and remove non-essential person(s) from the area.

3. Don personal protective equipment (PPE), e.g., 2 pairs of disposable utility chemical-protective gloves, protective gown, safety goggles, NIOSH-approved respirator mask and if needed, shoe coverings. 1,2,3,4

4. Remove absorbent plastic-backed pad, wipe up any remaining liquid with additional absorbent pads and place all contaminated materials in yellow puncture-resistant container. 1,4

5. Remove glass particles, if present, using a scoop device and scraper. Place glass fragments in yellow puncture-resistant container. 1,4

6. Clean the spill area thoroughly, from least to most contaminated areas, using absorbent gauze and a mild detergent solution (e.g., Tide® Laundry detergent). Rinse with fresh, clean water. Repeat three times. 3

7. Use fresh detergent solution to wash any items located in the spill area (i.e. Bedrails). Rinse with fresh clean water. Repeat the washing and rinsing three times. 3,4

8. Discard contaminated materials and PPE into HD waste bags provided in the HD Spill Kit and use ties to close and secure the bags. Dispose of “sharps” in yellow puncture-resistant container HD waste container is three-fourths full, close and secure the lid. Place waste bags and yellow puncture resistant container in a covered double-lined MPW box.

9. Notify Housekeeping to come clean the area and remove MPW Box.

10. Notify the Nurse Manager or Administrative Coordinator.

**PROCEDURE:** **Hazardous Drugs (HD): Handling Spills** [Larger Spills (> 5 mL)]

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<thead>
<tr>
<th>STEPS</th>
<th>KEY POINTS</th>
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<tbody>
<tr>
<td>1. Immediately contain the spill by placing a disposable absorbent plastic-backed pad (e.g., Chux®), absorbent side down over the spill.</td>
<td>1. Do not touch spill at this point.</td>
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<tr>
<td>2. Restrict access to the area until the clean-up is completed and remove non-essential person(s) from the room.</td>
<td>2. Display sign to alert others of the presence of a HD spill. This will prevent others from being exposed. 1,4</td>
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<td>3. Isolate contaminated persons to minimize the spread of contamination (example: use a bathroom to isolate the person).</td>
<td>3. Remove any contaminated clothing &amp; follow the recommended procedures following an acute accidental HD exposure located in SOP: Safe Handling of Hazardous Drugs. 6</td>
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<td>4. Close doors and notify the NIH Fire Department (301-</td>
<td>4. The Fire Department will respond and clean the</td>
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<tr>
<td>1. Prepare the environment to contain any potential spills.</td>
<td>1. Liberally use protective barriers such as draw sheets, plastic-lined draw sheets, and absorbent plastic-lined pads on the bed prior to the IP administration of hazardous drugs.</td>
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<td>2. Check and tighten connections on patient drains, collection containers.</td>
<td>2. Equipment connections are a potential source of disconnection and subsequent leakage of HD.</td>
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<td>3. Assess incision lines and wound site for integrity and risk for dehiscence.</td>
<td>3. Incision lines that are not well approximated or dehisced wounds may allow body fluids along with trace amounts of HD to leak onto patient gowns, bed linens, and mattress covers.</td>
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<td>4. Instruct patient and family to call the nurse at the first sign of any leakage of fluids associated with the IP chemotherapy.</td>
<td>4. The earlier the spill is recognized the greater the potential for containment of the fluids and the opportunity to minimize adverse effects of the spill on the patient, environment, and others.</td>
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<td>5. Once a spill associated with IP Chemotherapy has occurred:</td>
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<td>a. Don personal protective equipment such as 2 pairs of disposable utility chemical-protective gloves, protective gown, NIOSH-approved respirator mask, shoe coverings and safety goggles (^1,2,3,4)</td>
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<td>b. Determine the source of the spill and attempt to stop the flow of liquids (e.g., clamp any disconnected tubing)</td>
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<td>c. Assist the patient in immediate care, including placing absorbent pads such as sterile gauze or a protective barrier over any wet skin areas.</td>
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<td>d. Remove any wet linens or clothing and place in plastic-lined isolation linen bag.</td>
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<td>e. Follow the instructions in this procedure for the safe handling of spills.</td>
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6. Wearing protective personal equipment and with the patient out of bed, inspect mattress cover for any obvious perforations.  

7. For mattress covers without any obvious perforations, blot any wet areas on the mattress with absorbent plastic-lined pad (e.g., Chux®). 
   a. In the event of a spill of HD/body fluids to a perforated mattress cover, complete steps 4-9 of PRO: Hazardous Drugs (HD): Handling Spills (Small Spills or Contamination [≤ 5 mL]). Once the mattress cover has dried, notify housekeeping to remove bed for inner mattress inspection.

8. Clean the spill area thoroughly, from least to most contaminated areas, using absorbent gauze and a mild detergent solution (e.g., Tide® laundry detergent available from Central Hospital Supply).  

9. Rinse using spill towel with fresh, clean water. Repeat three times.  

10. Discard contaminated materials and PPE into HD waste bags provided in the HD Spill Kit and use ties to close and secure the bags. Dispose of “sharps” in yellow puncture-resistant container. When the HD waste container is three-fourths full, close and secure the lid. Place waste bags and yellow puncture resistant container in a covered double-lined MPW box.  

11. Notify Housekeeping to come clean the area, remove MPW Box and linen bag.  

12. Notify the Nurse Manager or Administrative Coordinator.  

13. After the mattress cover has dried the patient may be returned to the bed.  

References:  