

## 3.2 Accidental Exposure/Spills

The information provided in the following sections is intended to guide safe practice in the POGO Satellite Clinics. It is not intended to replace your institutional policies and procedures. Please ensure all staff are aware of their own institutional policies and procedures and refer to them as their primary source.

The following actions should be taken for overt contamination of clothing, skin or eyes with hazardous drugs, waste and body fluids that may contain hazardous drugs.

### All Accidental Contacts

#### Everyone

1. Initiate first aid and decontamination as described below for the specific contact type. Managing personal contamination takes precedence over cleanup of the spill. Specific procedures for managing accidental exposures and spills are found in the sections below.
2. Staff requiring emergency treatment related to accidental exposure must proceed to the Emergency Department. After hours, report to the hospital's Emergency Department.
3. Report incident to immediate Supervisor.
4. There are mandatory reporting requirements under the [Occupational Health and Safety Act](#) and reporting requirements to [Workplace and Safety Insurance Board \(WSIB\)](#). Contact the Occupational Health Department for assessment and follow-up.
5. Document appropriately.

#### Supervisor

1. Initiate an investigation to determine the cause of the incident and what corrective action can be taken to minimize the possibility of recurrence.
2. Document appropriately.

| EXPOSURE                     | MANAGEMENT  |
|------------------------------|---|
| <b>ALL TYPES OF EXPOSURE</b> | <ul style="list-style-type: none"> <li>• Remove contaminated items</li> <li>• Disposable items: treat as cytotoxic waste</li> <li>• Contaminated clothing/linen: <ul style="list-style-type: none"> <li>○ Treat as cytotoxic waste if saturated</li> <li>○ Place personal clothing in double bags to be taken home and washed separately (2 wash cycles) in hot water using laundry soap</li> <li>○ Double-bag hospital linens (blue bags) and treat in usual manner</li> </ul> </li> </ul> |
| <b>SKIN</b>                  | <ul style="list-style-type: none"> <li>• Clean the affected skin with soap and water (shower if possible) and rinse for 15 minutes. Avoid vigorous scrubbing</li> <li>• Shower if indicated</li> </ul>  |
| <b>EYES</b>                  | <ul style="list-style-type: none"> <li>• Remove contact lens(es)</li> <li>• Gently irrigate the eye(s) with water for a minimum of 15 minutes</li> </ul>  |

| EXPOSURE           | MANAGEMENT  |
|--------------------|---|
|                    | <ul style="list-style-type: none"> <li>If eyewash station is unavailable, sterile 0.9% sodium chloride connected to an IV tubing can be used for irrigation</li> </ul>  |
| <b>NEEDLESTICK</b> | <ul style="list-style-type: none"> <li>Wash under running water, gently with soap</li> <li>Let wound bleed freely, gently massaging away from the body</li> <li>If needle contaminated with both chemotherapy/hazardous drugs AND prior patient contact, report immediately to joint health and safety department</li> <li>Ensure policy for needlestick or sharps injury are followed</li> </ul> |
| <b>INGESTION</b>   | <ul style="list-style-type: none"> <li>Seek immediate medical attention</li> <li>Do NOT induce vomiting for ingestion</li> </ul>  |
| <b>INHALATION</b>  | <ul style="list-style-type: none"> <li>Move away from the area quickly</li> <li>Seek immediate medical attention</li> </ul>   |

## Spill Procedure

When a spill cannot be contained or easily managed, it is strongly recommended to call a CODE BROWN or equivalent. Notify medical team of the spill and follow your institutional policies and procedures. Document all patient-related exposures and treatments.

Examples of chemotherapy spills include (but are not limited to) the following:

- Leaking intravenous (IV) bags and tubing containing chemotherapy medication
- Incontinence or excreta, primarily urine or diarrhea, from patients who have received chemotherapy in the last 48 hours
- Uncontained vomitus following any chemotherapy dose in the previous 48 hours (please see [Sub-Section 3.1 Safe Handling, Administration and Disposal of Chemotherapy Agents](#))

**Important: A Spill Kit should be readily available in all areas where chemotherapy drugs are stored, prepared, transported and administered, and locations where patients are cared for following chemotherapy administration.**

All personnel handling hazardous drugs should be trained to handle a spill. They must know the location of the nearest spill kit in their area of work, know what it contains and how to use it.

Nursing staff are to do the initial clean-up of the spill, followed by cleaning with detergent by housekeeping.

## Materials

It should be noted that each institution may use different brands of the supplies listed below. It is important that supplies used be approved by their institutional Risk/Employee Health and [Infection Prevention and Control \(IPAC\)](#).

### A. Personal Protective Equipment Supplies (minimum amount)

| Spill Kit Contents   | Purpose/Rationale  |
|--|--|
| <b>Chemotherapy Gloves (4 pairs)</b>   | <ul style="list-style-type: none"> <li>Skin protection</li> </ul>  |
| <b>Chemotherapy Gowns (2)</b>  | <ul style="list-style-type: none"> <li>Skin and clothing protection</li> </ul>   |
| <b>Shoe Covers (2 pairs)</b>   | <ul style="list-style-type: none"> <li>Footwear and clothing protection</li> <li>Prevents tracking contamination from the shoes to other areas</li> </ul>  |
| <b>Eye Protection (goggles x 2)</b>  | <ul style="list-style-type: none"> <li>Protect against vapors irritating eyes or drugs or cleaning solutions splashing into the eye</li> </ul>   |
| <b>P100 Respirator fitted with vapour/gas filter cartridges (1 size small, medium, large)</b> <ul style="list-style-type: none"> <li>Store respirators with filter cartridges attached</li> </ul> <b>Respirator cleaning wipes</b> | <ul style="list-style-type: none"> <li>Respiratory protection</li> <li>A chemical cartridge-type respirator is recommended because it provides the greatest protection in all situations</li> <li>Disposable P100 cartridges should be replaced after they have been used to clean up a spill</li> <li>Respirator cleaning wipes to clean used respirator</li> </ul> |

### B. Supplies (minimum required)

| Spill Kit Contents  | Purpose/Rationale  |
|---|--|
| <b>Chemosorb™ pads (6)</b> <ul style="list-style-type: none"> <li>12 x 12 pads</li> </ul>   | <ul style="list-style-type: none"> <li>To absorb spill</li> <li>Each pad can absorb up to 500ml liquid</li> <li>Instantly solidifies liquid into a semi-gel</li> </ul>   |
| <b>Disposable toweling/cleaning cloths (20)</b>   | <ul style="list-style-type: none"> <li>To clean, rinse and dry spill surface</li> </ul>  |
| <b>Cytotoxic waste bags (2)</b>   | <ul style="list-style-type: none"> <li>For collecting and disposing of contaminated supplies and equipment</li> </ul>  |
| <b>Disposable scoop &amp; broom (1)</b>   | <ul style="list-style-type: none"> <li>For sweeping up glass particles and other solids</li> </ul>   |
| <b>Large resealable plastic bags (4)</b>  | <ul style="list-style-type: none"> <li>Worn inside-out over gloved hand to pick up wipes or absorbent pads that are saturated</li> <li>May be used to collect contaminated wipes prior to depositing them in the larger red cytotoxic waste bag</li> <li>Used to store used respirator(s) until it can be cleaned</li> </ul> |
| <b>Puncture-resistant container (1)</b>   | <ul style="list-style-type: none"> <li>For disposal of glass fragments from broken vials</li> </ul>  |
| <b>Warning signs (2)</b>  | <ul style="list-style-type: none"> <li>To mark off area of spill and limit traffic in the area</li> </ul>  |
| <b>Decontaminating/Deactivating Agent (solution or pre-saturated wipes)</b><br>Examples: <ul style="list-style-type: none"> <li>Clorox HC™ wipes (monitor expiratory date)</li> </ul> | <ul style="list-style-type: none"> <li>For decontaminating surfaces affected by the spill</li> <li>For deactivating chemotherapy/hazardous drugs</li> <li>Note: No single agent can deactivate all chemotherapy/hazardous drugs; therefore, a combination of products is used</li> </ul>                                     |

| Spill Kit Contents  | Purpose/Rationale  |
|---|--|
| <ul style="list-style-type: none"> <li>Hydrogen Peroxide with Peracetic acid solution (ex. Peridox™)</li> </ul> |  |
| <b>Bottles of water – 4 x 500ml</b>   | <ul style="list-style-type: none"> <li>For wetting absorbent pads placed over powder spills to dissolve powder</li> <li>For rinsing the decontaminating/deactivating agents off the spill surface</li> </ul> |
| <b>Zip ties (2)</b>   | <ul style="list-style-type: none"> <li>For sealing waste bags</li> <li>Minimizes risk of generating aerosols or contamination compared to tying the waste bag</li> </ul>                                     |
| <b>Copy of Procedures for Cleaning (if available per institution)</b>   | <ul style="list-style-type: none"> <li>Readily available instructions for managing the spill</li> </ul>  |
| <b>Patient information sheet (6) (if available per institution)</b>   | <ul style="list-style-type: none"> <li>To provide information and instructions for patient to follow at home</li> </ul>  |

This guidance document was developed by Ms. Jennifer Vincelli, The Hospital for Sick Children, Toronto and Ms. Heather Perkins, CHEO, Ottawa. Reviewed in consultation with Ms. Kirsty Morelli, Scarborough Health Network, Centenary Hospital, Ms. Kathy Skelly, Trillium Health Partners, Credit Valley Hospital and Ms. Christina McCauley, POGO/The Hospital for Sick Children, based on the sources below.

## References

1. Chemo Clinic Unit Manual, Policy CC-m-03. Toronto: Rouge Valley Health Systems, June 2010. PDF.
2. Practice Standards Manual, Policy SHN-PRSTAND-040. Toronto: Scarborough Health Network, March 2020. PDF. Revised 2021/03.
3. Practice Standards Manual, Policy SHN-PRSTAND-039. Toronto: Scarborough Health Network, February 2020. PDF. Revised 2021/03.

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### Record of Updates

| Version Number | Date of Effect | Summary of Revisions   |
|----------------|----------------|--|
| 1              | 7/13/2021      | <ul style="list-style-type: none"> <li>Original version posted.</li> </ul> |