



Management Of Cytotoxic Substance Spills Procedure

Procedure Number
CHC-CYT-003

Version Nos:
4

1. Purpose

This Procedure outlines the process for the management of Cytotoxic substance spills in a manner that is safe to both staff and patients.

2. Application

This Procedure is to be followed by all clinical staff throughout the West Coast District Health Board (WCDHB).

3. Definitions

For the purposes of this Procedure:

Cytotoxic medications is taken to mean toxic compounds known to have carcinogenic, mutagenic and/or teratogenic potential.

Oncology Nurse Specialist is an oncology trained nurse who is available to act as a resource for medical and nursing staff regarding the administration and management of Cytotoxic medications.

4. Responsibilities

For the purposes of this Procedure:

all **Staff Members** are required to abide by the requirements of this Procedure.

- provide cares and treatments as per the requirements of this Procedure
- document all observations and cares and treatments given

5. Resources Required

This Procedure requires:

- i) Cytotoxic medication
- ii) Patient's clinical record
- iii) Cytotoxic spill kit

6. Process

1.00 Introduction

- 1.01 All areas where Cytotoxic substances are being used shall have a Cytotoxic Spill Kit available at all times. Available from Morice Ward or Outpatients Department.
- 1.02 If patients are being transported from one department to another while a Cytotoxic medication is in progress, a Spill Kit should accompany them. The Cytotoxic trained nurse must also accompany the patient.
- 1.03 All staff involved in the handling of Cytotoxic drugs and waste must have training in spill management and decontamination.



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2.00 First Aid Measures

- 2.01 If the eyes are contaminated, immediately irrigate with water or saline eyewash for at least 15-20 minutes. Seek medical advice immediately. **NOTE:** If gloves are worn, these should be removed before irrigating the eyes as they may be contaminated.
- 2.02 Remove contaminated clothing, and place in Cytotoxic waste disposal bag if to be discarded. For clothing not to be discarded, wash separately in hot wash, and repeat wash.
- 2.03 If the drug has come into contact with the skin, shower with copious amounts of water for 10-20 minutes, then with soap and rinse off with running water. The shower must be cleaned thoroughly immediately after use.

3.00 Spill Management

3.01 Large Spills

- i) Contain the chemotherapy involved in the spill by covering with an impermeable plastic backed pad.
- ii) Cordon off the area. If possible, close off the area by closing windows and doors.
- iii) Turn off any fans which may spread the spill/aerosols.
- iv) Obtain the Cytotoxic drug spillage kit.
- v) Move patients away from the area of the spill.
- vi) Open the Cytotoxic spill kit.
- vii) Identify Spill. Any spill should be identified with a warning sign so that other people in the area will not be contaminated.
- viii) Ensure the spill is covered with an impermeable packed pad, before placing on any protective clothing.
- ix) Put on protective clothing in the following order
 - Shoe covers (water-repellent).
 - Disposable water-repellent long-sleeved gown.
 - Mask
 - Non-sterile gloves - two pairs (inner and outer).

3.02 Liquid Spills

- i) Cover the area immediately with thick absorbent pads, paper towels or paper mats.

3.03 Powder Spills

- i) If there is a powder spill, cover with a wet wad of paper towels and manage as liquid spill. Cover gently to avoid spread of powder.

3.04 Carpet Spills

- i) If there is a spill onto a carpeted area wash area with soap and water and disinfect with bleach. contact Christchurch Pharmacy/on call Pharmacist and inform them which drug has been spilt. Pharmacy will advice if bleach is required. If bleach is required, use Precept granules. If bleach is not required, follow normal spill management process.

3.05 Linen Spills

- i) Contaminated linen is to be double bagged in a specially marked linen bag labelled "Cytotoxic" and kept separate from all other linen.



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4.00 Disposal Of Spill

- 4.01 Ensure non-sterile gloves are worn at all times.
- 4.02 Take out plastic waste disposable bags from the spill kit and roll down the edges.
- 4.03 Gather up contaminated material enclosed in the paper towels and place in the first bag. The floor should be dry at this stage.
- 4.04 Ask another nurse to bring some water in a disposable cup. Pour water over spill (same amount of water as the spill).
- 4.05 Dry with paper towels. Dispose of the paper towels in the first bag.
- 4.06 Repeat this process, i.e. pouring water and drying, two more times.
- 4.07 If any broken glass is involved, use plastic scoop available in the spill kit to pick up the glass. Dispose of the broken glass and scoop in a purple sharps container.
- 4.08 Remove protective clothing in the following order:
- Shoe covers
 - Gown – ask another nurse to untie the gown at the back so as not to contaminate your hair and neck.
 - Mask
 - Goggles
- 4.09 Apart from the goggles, all items are placed in the first bag.
- 4.10 The goggles must be washed wearing non-sterile gloves in warm soapy water. Dry with paper towels, discard paper towels into plastic Cytotoxic bag. Place goggles back in the spill kit. Seal the spill kit and arrange for the spill kit to be renewed. Chemotherapy certificated Nurse to make up a new spill kit.
- 4.11 Unroll the edges of the first bag and seal the bag.
- 4.12 Place the first bag into the second bag, unroll the edges of the second bag, remove both sets of gloves and placed into the second bag, seal the bag.
- 4.13 Remove bag to waste removal area and arrange for the bag to be removed from the ward/department as soon as possible by contacting the Orderlies.
- 4.14 Wash hands with copious amounts of soapy water.
- 4.15 As an extra precaution the area must be mopped with warm soapy water. A specific mop with a non-porous disposable mop head and bucket must be used for this Procedure.
- 4.16 The staff who mop the area must wear:
- Long sleeved impermeable gown.
 - Non sterile gloves.
 - Safety glasses



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- 4.17 Mop the area with copious amounts of warm soapy water. Discard warm soapy water into the sluice. Rinse bucket thoroughly.
- 4.18 Double bag the mop head and protective clothing used (exception safety glasses), using purple plastic Cytotoxic waste bags. Remove bag to waste removal area and arrange to have the bag removed from the ward/department as soon as possible by contacting the Orderlies.
- 4.19 Wash hands with copious amounts of warm soapy water.

5.00 Documentation Of Spill

- 5.01 Document spill as per the requirements of the *WCDHB Accident/Incident Reporting Procedure*.

6.00 Management of Spiked Intravenous Fluid Bag Containing Cytotoxic Substance

- 6.01 Put on double non-sterile gloves, splash resistant long sleeved gown and protective goggles.
- 6.02 Use a plastic backed incontinence sheet to provide impervious barrier while working with spiked bag.
- 6.03 Clamp off the bag with the outlet facing upwards and clamp off the outlet just above the hole with artery forceps.
- 6.04 Turn bag upwards and check for leakage.
- 6.05 If bag still leaks seal hole with sterile gauze pad and waterproof tape.
- 6.06 Wrap an incontinence spill sheet around the bag.
- 6.07 Place in purple Cytotoxic sharps box and seal immediately. Dispose of in the usual manner.

7. Precautions And Considerations

- ➔ All areas where Cytotoxic substances are being used shall have a Cytotoxic Spill Kit available at all times.
- ➔ Remove contaminated clothing, and place in Cytotoxic waste disposal bag if to be discarded. For clothing not to be discarded, wash separately in hot wash, and repeat wash.
- ➔ Document spill as per the requirements of the *CHC Accident/Incident Reporting Procedure*.

8. References

The Cytotoxics Handbook, 1997, 3rd Edition, Radcliffe Medical Press.

Canterbury DHB Policy and Procedure Manual, Christchurch Hospital Vol F Fluid and Medication Management Section 15



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9. Related Documents

WCDHB Oncology/Cytotoxic Procedures

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