

Guidelines for the Management of Spillage of Cytotoxic Drugs

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Date for Review	May 2015
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Changes Between Versions 3.0 and 4.0

No changes have been made as evidence base remains current.

1. Scope of the guideline

- 1.1 This guidance has been produced to make recommendations for the management of spillage of cytotoxic drugs outside of a pharmacy department.

2. Guideline background

- 2.1 The potentially harmful effects of exposure to cytotoxic chemotherapy are well documented; exposure can result from ingestion, inhalation and absorption through the skin or direct splashing.
- 2.2 All personnel involved in the handling of cytotoxic drugs must be aware of the policies that are in place (in their area) for dealing with spillages and the decontamination of surfaces and individuals. This includes the disposal of cytotoxic contaminated materials, equipment and waste products.

3. Guideline objectives

- 3.1 This policy provides detailed instructions on how to deal with the accidental spillage of cytotoxic chemotherapy in a ward, clinic area of a hospital and accidental spillage in other areas of a hospital while transporting chemotherapy.
- 3.2 It is also intended to provide guidance for spillages in patients' homes. It must be read in conjunction with the Pan Birmingham Cancer Network Patient Information leaflet entitled "Disposal of Chemotherapy Waste and Management of Chemotherapy Spillages in the home" (see Pan Birmingham Cancer Network website:
<http://www.birminghamcancer.nhs.uk/patients/leaflets/chemotherapy>)
- 3.3 The management of spillages that occur within a pharmacy department is covered by guidelines set out by each pharmacy department at individual hospitals.

4. Guideline statements

- 4.1 All injectable chemotherapy should be supplied by pharmacy to the clinical setting in syringes or bags for IV infusion. The final product should be heat sealed in a polythene bag and then over-wrapped in a light protective bag. This packaging should not be opened until the chemotherapy is ready to be administered.
- 4.2 All staff that come in to contact with cytotoxic drugs must be aware of this policy.

- 4.3 All wards or clinic areas where cytotoxic chemotherapy is administered should have:
- a) A copy of this policy available for all staff to read.
 - b) A cytotoxic spillage kit (content list in Appendix 1) at a prominent location near the administration areas, with the “quick guide to dealing with spillages” clearly displayed.
 - c) Nitrile gloves available in all areas where chemotherapy is administered (double gloving is recommended in the event of a spill).
- 4.4 All cytotoxic spillages must be dealt with immediately by the member of staff responsible with the assistance of another colleague or a senior member of staff. (i.e. member of staff responsible will be the staff member who is trained to deal with cytotoxic decontamination).
- 4.5 Pregnant staff should not be involved in cleaning up a spillage.
- 4.6 Only the contents of the cytotoxic spill kit should be used to deal with cytotoxic spillages in conjunction with the attached instructions.
- 4.7 Domestic staff should **not** be asked to mop up cytotoxic spillages.
- 4.8 All non-essential staff, patients, carers, relatives and visitors must be asked to leave the affected area whilst the spillage is dealt with.
- 4.9 All incidents involving a cytotoxic spillage must be documented on a Trust incident form.
- 4.10 The following details must be included on the form:
- a) Nature and location of the spillage.
 - b) Staff involved in the spillage and mopping up procedure.
 - c) Drug involved and extent of contamination.
 - d) Actions taken.
 - e) Any direct skin or eye contact.

5. Transporting chemotherapy within the hospital

- 5.1 All staff involved in transporting chemotherapy (including porters) should be trained and informed about this policy. The Trust local policy should ensure proper training of porters to deal with spillage.

6. Procedure for dealing with a cytotoxic spillage (in ward/clinic areas)

6.1 Procedure for dealing with a cytotoxic spillage (in ward/clinic areas)

- a) Alert staff in the immediate area that a spillage has occurred.
- b) **Do not** leave the spillage unattended.
- c) Collect Cytotoxic Spillage Kit (CSK) and a large cytotoxic sharps bin.
- d) Evacuate area of all non essential personnel e.g. patients (if appropriate), all visitors and all other staff who are not involved in dealing with the spillage.
- e) Put “DANGER – CYTOTOXIC SPILLAGE” sign at entrance areas and alert everyone not to enter the clinic area.
- f) Identify 2 staff members to clean up spillage, designating one as the primary cleaner and the second as the helper.
- g) All spillages must be cleaned up **immediately** using the packs in the CSK.
- h) Both staff must put on the items of Personal Protective Equipment (PPE) from the CSK in the following order: mask, goggles, coat, oversleeves, 2 pairs of gloves and overshoes and then do the following tasks:
 - i) The member of staff with lead responsibility should:
 - Open the clean up pack and place the protective mat on the floor **with the white side facing you**, so that you can mop up the spillage without contaminating your clothes.
 - Mark the spillage area with a non permanent pen.
 - Place all used clean up equipment directly in to the clinical waste disposal bags after use.
 - Open the sterile water ampoules and pour into the spray bottle or fill the bottle with tap water.
 - Use the slippa pad (blue and white) to absorb the bulk of the liquid and wet the area with water using the spray bottle. Dry the area using grey and then white wipes in an inward spiral motion starting from the outside edge and working inwards. (If powder spill, clean up using moist grey absorbent pads and follow procedure as liquid thereafter.)

- If contamination of walls, chairs occurs use a top down approach.
 - Use moistened lint free wipes to clean area following main decontamination.
 - Clean the area 3 times using an inwardly spiral motion starting from the nearest outside edge and working inwards using appropriate solution.
- j. Helper (second member of staff) should observe for any further contamination and mark area with pen for cleaning and assist as required.
- k. Once the spillage cleanup is complete remove PPE in the following order: outer gloves, goggles, mask, over sleeves and coat. At this point seal the clinical waste bag with the tie provided and label with one of the stickers provided then remove outer gloves placing them in the cytotoxic sharps bin and seal.
- l. If there has been any skin or eye contamination in the process of dealing with the spillage it must be dealt with as detailed in the following pages of this policy.
- m. The incident should be reported to the nurse in charge the required documentation completed including a trust incident form. Information that must be recorded includes:
- Nature and location of the spillage.
 - Staff involved in the spillage and mopping up procedure.
 - Drug involved and extent of contamination.
 - Actions taken.
 - Any direct skin or eye contact.

6.2 Procedure for dealing with skin and/or eye contamination

- a) If any part of the skin has been contaminated with cytotoxic drugs, the clothing should be removed and the affected area should be washed immediately with large amounts of soapy water. Seek review by medical team for patients or Occupational Health/ A&E review for staff – as Trust policy.
- b) If the eyes have been splashed with cytotoxic drugs, the affected eye(s) should be rinsed immediately with cool running water or Sodium Chloride

0.9% for irrigation. The person involved should be referred to the nearest specialist eye centre for further assessment. (Birmingham and Midland Eye Centre, City Hospital, Dudley Road, Birmingham, B18 7QH, tel: 0121 554 3801).

6.3. Clothing contamination

- a. Remove yourself from the source of contamination.
- b. All items of contaminated clothing must be removed as soon as possible.
- c. Sponging the affected items is not sufficient for decontamination.
- d. Clothing that has only minimal contamination should be washed as per contaminated linen. (Place in dissolvable infected linen bag and advise the patient/ relative/ staff member to wash 3 times at the maximum temperature for that clothing – if unknown, wash at 40°C).
- e. Clothing with a large amount of contamination must be disposed of as contaminated/ cytotoxic waste in a cytotoxic sharps bin.

6.4 Spillage in the home

6.4.1 All patients taking chemotherapy medication outside of hospital or clinical environments should be given the patient information leaflet “Disposal of Chemotherapy Waste and Management of Chemotherapy Spillages in the home”. (See Pan Birmingham Cancer Network website <http://www.birminghamcancer.nhs.uk/staff/clinical-guidelines/chemotherapy>).

6.4.2 In the event of a spillage in the home the instructions contained within the patient information leaflet should be followed.

6.4.3 Where there is a risk of a large volume of chemotherapy drug being spilt (for example with infuser devices) the patient should be provided with a spillage kit and instructions for its use.

Monitoring of the guideline

Adherence to the Network guidelines may from time to time be formally monitored.

References

1. Allwood M, Stanley A, and Wright P. The Cytotoxic Handbook 4th ed. 2002
2. COSHH and Material Safety Data Sheets – Assorted suppliers. Folder maintained at Medicines Information Centre Good Hope Hospital
www.cairntechnology.com

3. "Disposal of Chemotherapy Waste and Management of Chemotherapy Spillages in the home" – Pan Birmingham Cancer Network Patient Information leaflet (<http://www.birminghamcancer.nhs.uk/patients/leaflets/chemotherapy>)

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Contents Of The Cytotoxic Drug Spill Kit

Each 'One Shot' kit will contain sufficient equipment for two members of staff to deal with a spillage of up to 1 litre. The kit contains:

- **Copy of trust cytotoxic spillage instructions**
- **Personal Protective Equipment (2 X PPE Set per bag)**



- 1 Microguard 2500 laboratory coat (white)
- 1 pair Microguard 2500 overshoes (white)
- 1 pair eye shields - with side shields to protect against splashes and aerosols
- 2 pairs (double gloves) - specialist cytotoxic gloves
- 1 Moldex 2435 face piece - To protect against splashes and aerosols (not to be used as a fume or vapour filter).

- **Equipment to absorb the drug safely:**

- 1 SLIPPA (blue/white) - super-absorbing polymer, which gels up to 1 litre of liquid



- 1 protective floor/kneeling pad
- 3 sterile water twist cap bottles (20ml)
- 12 lint free wipes
- 3 absorbent pads (grey)

Waste disposal equipment:



- 1 Wastebag and tie
- 1 Set of disposable labels
- 1 Set of laminated warning signs