



## CYTOTOXIC SPILLAGE AND CONTAMINATION POLICY

<b>Document Reference:</b>	CP76	<b>Version:</b>	V02
<b>Document Owner:</b>	Jackie Wrench, Service Manager, Lead Nurse Chemotherapy	<b>Document Authors:</b>	Lizzie McCulloch, Lead Clinical Skills Trainer, Rachel Rathbone, Chemotherapy Nurse
<b>Accountable Committee:</b>	SACT-DG	<b>Date Approved:</b>	15/12/2014
<b>Ratified by:</b>	Document Ratification Committee	<b>Date Ratified:</b>	5/01/2015
<b>Date issued:</b>	Jan 2015	<b>Review date:</b>	18/12/2017
<b>Target audience:</b>	All staff that prepare, handle or administer cytotoxic drugs.	<b>Equality Impact Assessment:</b>	18/12/2014

### Key points

- Risks associated with handling cytotoxic drugs
- Duties and responsibilities of staff handling cytotoxic drugs
- Local requirements for management of spillage or contamination with cytotoxic drugs

## CONTENTS

<b>1.0 ASSOCIATED DOCUMENTS .....</b>	<b>3</b>
<b>2.0 INTRODUCTION .....</b>	<b>3</b>
2.1 Statement of Intent .....	3
2.2 Equality Analysis .....	3
2.3 Good Corporate Citizen .....	3
2.4 The Christie Commitment .....	3
2.5 Purpose .....	3
2.6 Scope .....	3
<b>3.0 DEFINITIONS .....</b>	<b>3</b>
<b>4.0 DUTIES .....</b>	<b>4</b>
4.1 Chief Executive .....	4
4.2 SMPC .....	4
4.3 SACT-DG .....	4
4.4 Clinical Skills Team .....	4
4.5 Lead Chemotherapy Nurse .....	4
4.6 Department and Ward Managers .....	4
4.7 Staff .....	4
<b>5.0 BACKGROUND .....</b>	<b>5</b>
<b>6.0 RISKS .....</b>	<b>5</b>
6.1 Pregnancy .....	5
<b>7.0 CONTROL MEASURES .....</b>	<b>5</b>
<b>8.0 BODILY FLUIDS .....</b>	<b>6</b>
<b>9.0 MANAGEMENT OF CYTOTOXIC SPILLAGE AND DECONTAMINATION OF PEOPLE .....</b>	<b>6</b>
9.1 Management of suspected contamination/contamination of a person .....	6
9.1.1 Contamination of eyes .....	6
9.1.2 Contamination of skin .....	6
9.1.3 Needlestick with a cytotoxic contaminated needle .....	6
9.1.4 Contamination of clothing .....	6
9.2 Management of cytotoxic spillage (for Aseptic pharmacy please see section 8.3) .....	7
9.2.1 Contamination of bed linen .....	7
9.2.2 Contamination to hard floors and surfaces .....	7
9.2.3 Contamination of carpets .....	7
9.2.4 Contamination of soft furnishings .....	8
9.2.5 Contamination of electronic infusion devices .....	8
9.3 Management of cytotoxic spillage in aseptic pharmacy areas .....	8
9.3.1 Powder spill .....	9
9.3.2 Liquid Spill .....	9
<b>10.0 CONSULTATION, APPROVAL AND RATIFICATION PROCESS .....</b>	<b>9</b>
<b>11.0 DISSEMINATION AND IMPLEMENTATION .....</b>	<b>9</b>
11.1 Dissemination .....	9
11.2 Implementation .....	10
11.3 Training/Awareness .....	10
<b>12.0 PROCESS FOR EFFECTIVE MONITORING AND IMPLEMENTATION .....</b>	<b>10</b>
<b>13.0 REFERENCES .....</b>	<b>10</b>
<b>14.0 VERSION CONTROL .....</b>	<b>11</b>
<b>Appendix 1 .....</b>	<b>12</b>

## 1.0 ASSOCIATED DOCUMENTS

[Policy for Exposure to Blood Following a Sharps Injury or Other Body Fluid Containing Blood](#)

[Policy for the Safe Use and Disposal of Sharps](#)

[Chemotherapy Administration for Nurses](#)

[Decontamination of Hospital Equipment Including Medical Devices](#)

## 2.0 INTRODUCTION

### 2.1 Statement of Intent

The Christie is committed to providing effective management and reducing risks associated with the management of cytotoxic spillage and contamination. It sets down the minimum acceptable standards for all aspects of the management of the afore mentioned occurrence.

### 2.2 Equality Analysis

In line with the Trust Equality and Diversity Principles this document has been screened, using the approved e-tool. No detriment was identified.

### 2.3 Good Corporate Citizen

As part of its development, this policy was reviewed in line with the Trust's Corporate Citizen ideals. As a result, the document is designed to be used electronically in order to reduce any associated printing costs.

### 2.4 The Christie Commitment

We aim to reward our staff who are committed and motivated to do their best for patients every day. The trusts principles and behaviours describe what our patients and their families or carers can expect from us, and what our staff can expect from each other.

The trusts behaviours are;

We always give the best quality care

We treat everybody with compassion, dignity and respect

We listen to our patients and each other

We work together as one Christie team

We share knowledge and learning

We support staff to develop to their full potential

We look for new ideas and better ways of working

We promote a fair culture

We provide a safe, clean and tidy environment

All staff are expected to behave in a way that reflects the trusts principles and behaviours.

### 2.5 Purpose

The purpose of this policy is to set out the standards expected by the organisation in relation to managing the risk associated with chemotherapy spillage or contamination.

### 2.6 Scope

This policy applies to all staff who handle chemotherapy, on any of the Christie NHS Trust sites during their daily working duties.

## 3.0 DEFINITIONS

Term	Meaning
Equality Impact Assessment	An assessment to determine whether a proposed document or activity is likely to have a negative or adverse impact on sections of the community.
C.O.S.H.H	The Control of Substances Hazardous to Health
Cytotoxic	An agent that possesses a specific destructive action on certain cells.
Reconstitution	The mixing of a powdered drug with a solution e.g. normal saline, so that it can be administered.
SACT-DG	Systemic Anti Cancer Therapy-Delivery Group
SMPC	Safe Medicines Practice Committee. The SMPC feeds into the Patient Safety Committee.
Staff	Staff who have undergone training in the preparation, handling or administration of cytotoxic drugs
Trust	The Christie NHS Foundation Trust

## 4.0 DUTIES

### 4.1 Chief Executive

The chief executive has overall responsibility for ensuring that the organization adheres to the standards set out in this policy. This duty may be delegated to an executive/senior manager but accountability to the Board remains with the chief executive.

### 4.2 SMPC

To note the approval of the Policy at the SACT-DG.

### 4.3 SACT-DG

Responsible for the consultation, approval and audit of this policy

### 4.4 Clinical Skills Team

- To update training material in line with the Policy
- To be consulted in the update and review of the Policy.

### 4.5 Lead Chemotherapy Nurse

- To carry out the annual audit and report to the SACT-DG.
- To be responsible for the update and review of the policy.

### 4.6 Department and Ward Managers

- To ensure staff are aware of the procedure required and are competent to manage a cytotoxic spill
- Carry out risk assessments as required e.g. with pregnant and new mothers.

### 4.7 Staff

- All staff handling chemotherapy are accountable and responsible for their own practice and staff must always be aware of their limitations in relation to cytotoxic preparation, handling and administration.

- Only staff that have undergone training in the preparation, handling or administration of cytotoxic drugs are to be involved in the management of a cytotoxic spillage or contamination.
- Staff involved in the administration of cytotoxic drugs must be trained and updated in accordance with the relevant Policy e.g. [Chemotherapy Administration for Nurses](#)
- Staff must follow the appropriate procedures set out below for the management of cytotoxic spillages and contamination of people.
- Staff must report any acts or omissions in care that could be detrimental to the patient, themselves, other individuals or the Trust.
- Staff must understand the importance of working within their own sphere of competence and seek advice when faced with a situation outside this sphere.

## 5.0 BACKGROUND

There has been increased concern about occupational hazards associated with the handling of chemotherapy agents. In 2002 the Health and Safety Commission updated the Code of Practice entitled "The Control of Substances Hazardous to Health" (COSHH). These regulations placed specific duties on employers and employees with regards to information training, safe handling and disposal of substances hazardous to health.

All cytotoxic drugs are classified under C.O.S.H.H. as Class 1 carcinogenic compounds.

Whereas the potential benefits of chemotherapy make the risks more acceptable to patients they are not acceptable for putting at risk the people responsible for handling and administering these drugs.

Much of the safety research has been conducted on staff manipulating and reconstituting cytotoxic drugs as this is the most hazardous part. At The Christie, Baxter's (a private centralised reconstitution service) and Pharmacy are responsible for cytotoxic reconstitution. Only personnel specifically trained in the reconstitution of cytotoxic drugs are permitted to do so.

It is clear that anyone handling chemotherapy or involved in the disposal of it must adopt a cautious approach to reduce any risk.

## 6.0 RISKS

All staff working with patients receiving cytotoxic drugs are at risk of exposure (HSE, 2014) Exposure may be through skin absorption, inhalation of aerosols and drug particles, ingestion and needle stick injuries. Undertaking training and practicing in accordance to policy will reduce the risk of exposure.

### 6.1 Pregnancy

- The data regarding the risks of occupational exposure amongst pregnant women is conflicting and therefore firm conclusions regarding the risk posed to the developing foetus cannot currently be made (Johnson, 2012). However, there should be no significant exposure to cytotoxic drugs if good handling practices are strictly adhered to.
- Pregnant and new mother must discuss risk assessments with their line manager and refer to the [New and Expectant Mothers at Work Policy](#)
- Pregnant or new mothers must not be involved in the cleaning of a cytotoxic spill.
- Pregnant staff must not reconstitute cytotoxic drugs throughout pregnancy.
- ALL cases of drug and/or chemical exposure in pregnancy must be reported to the line manager and Occupational Health and an incident report form must be completed.

## 7.0 CONTROL MEASURES

In order to reduce the risk of spillage or contamination the following precautions must be followed:

Cytotoxic Spillage and contamination policy /Version 02

Doc Ref:CP76

- PPE, including nitrile gloves, must be worn at all times when handling cytotoxic drugs and contaminated waste products.
- Hands must be washed thoroughly following the removal of PPE.
- Patients must remain in the Department/Ward whilst cytotoxic drugs are being infused.
- Cytotoxic drugs must not be transported in any Pneumatic Tube System (POD)
- Food or drink must not be consumed in areas where cytotoxic drugs are stored, reconstituted, administered or disposed of.
- Only staff specifically trained to reconstitute cytotoxic drugs can do so.

## **8.0 BODILY FLUIDS**

Most cytotoxic drugs are excreted in bodily fluids and faeces. The time scale of the presence is drug specific but cytotoxic drugs can be present for up to 7 days post administration.

- A single use disposable apron and nitrile gloves must be worn when handling any bodily waste.
- Spillages of vomit or urine on the floor, within the drug specific timeframe, must be treated as a cytotoxic spill and cleaned accordingly.

## **9.0 MANAGEMENT OF CYTOTOXIC SPILLAGE AND DECONTAMINATION OF PEOPLE**

- In the event of a spill or suspected contamination, staff must act immediately.
- The area involved must be isolated to prevent further spread.
- All spillages and/or contaminations must be reported by via [Datix](#).

### **9.1 Management of suspected contamination/contamination of a person**

- Contamination of a person must be dealt with promptly as a priority over any other
- All contamination of staff must be reported immediately to the senior nurse on duty (if out of hours the Duty Manager for the hospital).
- All contamination of staff must also be reported to Occupational Health.

#### **9.1.1 Contamination of eyes**

- In order to prevent corneal damage eyes must be irrigated immediately
- Both eyes must be irrigated in all cases
- Collect spillage kit (see appendix 1).
- Use 500mls 0.9% sodium chloride via a giving set for 5-10 mins, found in the spillage kit
- Seek medical advice.

#### **9.1.2 Contamination of skin**

- To prevent drug absorption skin must be washed immediately using soap and cold running water for at least 10 mins.
- The use of creams and lotions must be avoided for 24hours.

#### **9.1.3 Needlestick with a cytotoxic contaminated needle**

- Immediately encourage bleeding
- Wash with soap and cold water
- Dry the area and apply a waterproof dressing.

#### **9.1.4 Contamination of clothing**

- If removing clothing from another person put on an apron
- For all cases of contaminated clothing wear 2 pairs of nitrile gloves.
- Remove contaminated clothing
- Place in 1<sup>st</sup> yellow bag and seal. Place 1<sup>st</sup> yellow bag inside the second yellow bag.
- Remove outer gloves and apron and place in the second yellow bag. Seal and place in the large cytotoxic sharps bin. Close and seal the bin and place in the waste cupboard.

- Remove second pair of gloves and dispose of in a yellow clinical waste bin, for clinical/infectious waste only.
- Wash hands thoroughly.
- If cytotoxic drugs have penetrated clothing and contaminated skin see section 8.1.2 Contamination of skin.

## **9.2 Management of cytotoxic spillage (for Aseptic pharmacy please see section 8.3)**

### **9.2.1 Contamination of bed linen**

- Isolate the area and collect the spillage kit.
- Turn off any air conditioning and fans.
- Put on apron and 2 pairs of nitrile gloves and visimask.
- Remove contaminated bedding and place directly in to a yellow bag. Seal bag and place in the second yellow bag.
- Remove outer gloves, apron and visimask and place in the second yellow bag.
- Seal and place in the large cytotoxic sharps bin. Close and seal the bin and place in the waste room.
- Remove second pair of gloves and place in yellow clinical waste bin, for clinical/infectious waste only.
- Wash hands thoroughly.
- N.B. if bed has been contaminated, treat this as Section 8.2.2 Contamination to hard floors and surfaces.

### **9.2.2 Contamination to hard floors and surfaces**

- Isolate the area and collect the spillage kit.
- Turn off any air conditioning and fans.
- Put on apron, 2 pairs of gloves, 2 pairs of overshoes and visimask.
- Use the large absorbent pads to soak up the bulk of the spill.
- Place pads in 1<sup>st</sup> yellow bag.
- Working from the outside in, in a circular movement wet the area with water and use absorbent pads to clean up the spill. Repeat 3 times.
- Place all pads in the yellow bag.
- Use paper towels to dry the area and then place in the yellow bag.
- Seal the 1<sup>st</sup> yellow bag and place inside the second yellow bag.
- Remove outer gloves, apron, visimask and overshoes and place in the second yellow bag. Seal and place in the large cytotoxic sharps bin. Close and seal the bin and place in waste room.
- Remove second pair of gloves and dispose of in yellow clinical waste bin, for clinical/infectious waste.
- Thoroughly wash hands.
- The area must now be given a routine clean with hot soapy water.

### **9.2.3 Contamination of carpets**

- Isolate the area and collect the spillage kit.
- Turn off any air conditioning and fans,
- Put on apron, 2 pairs of gloves, 2 pairs of overshoes and visimask.
- Use the large absorbent pads to soak up the bulk of the spill.
- Place pads in 1st yellow bag.
- Working from the outside in, in a circular movement wet the area with water and use absorbent pads to clean up the spill. Repeat 3 times.
- Place all pads in the yellow bag.
- Use paper towels to dry the area and then place in the yellow bag.
- Seal the 1st yellow bag and place inside the second yellow bag.

- Remove outer gloves, apron, visimask and overshoes and place in the second yellow bag. Seal and place in a large cytotoxic sharps bin. Close and seal the bin and place in the waste room..
- Remove second pair of gloves and dispose of in yellow clinical waste bin, for clinical/infectious waste only.
- Thoroughly wash hands.
- Inform the domestic supervisor the carpet has been contaminated with a cytotoxic drug/contaminated bodily fluids and requires further cleaning.

#### 9.2.4 Contamination of soft furnishings

- Isolate the area and collect the spillage kit.
- Turn off any air conditioning and fans,
- Put on apron, 2 pairs of nitrile gloves and visimask.
- Use the large absorbent pads to soak up the bulk of the spillage.
- Place pads in the 1<sup>st</sup> yellow bag.
- If possible wash with water and soak up with large absorbent pads, at least 3 times.
- Place pads in a yellow bag and seal. Place the 1<sup>st</sup> yellow bag in a 2<sup>nd</sup> yellow bag.
- Remove outer gloves, apron, visimask and overshoes and place in the second yellow bag. Seal and place in a large cytotoxic sharps bin. Close and seal the bin and place in the waste room.
- Remove second pair of gloves and place in yellow clinical waste bin, for clinical/infectious waste.
- Wash hands thoroughly.
- N.B Disposal of soft furnishings may be the only option.

#### 9.2.5 Contamination of electronic infusion devices

- Leave the equipment where it is and isolate the area.
- Turn off any air conditioning and fans.
- Collect the spillage kit.
- Put on apron, 2 pairs of nitrile gloves, 2 pairs of over shoes and visimask.
- Use the large absorbent pads to soak up the bulk of the spill, including any drips to the base of the device and cable.
- Place the pads in to the 1<sup>st</sup> yellow bag.
- Use cold water and absorbent pads to clean the device and use paper towels to dry it. Repeat the process 3 times. Place all waste in the yellow bag.
- Seal the 1<sup>st</sup> yellow bag and place in the second yellow bag.
- Remove outer gloves, apron, overshoes and visimask. Place in the second yellow bag, seal and place in ta large cytotoxic sharps bin. Close and seal the bin and place in the waste room.
- Place the infusion device in a separate yellow bag, seal it and complete and attach an equipment decontamination form found in the [Decontamination of Hospital Equipment including Medical Devices](#) Policy. Contact Medical Physics.
- Remove second pair of gloves and place in yellow clinical waste bin, for clinical/infectious waste.
- Wash hands thoroughly.

**N.B Medical Physics must follow the same procedure for cleaning the internal workings as for the external workings. Any air conditioning must be turned off prior to opening the equipment in case precipitate is present.**

### 9.3 Management of cytotoxic spillage in aseptic pharmacy areas

If a cytotoxic spill occurs air conditioning must be turned off immediately.



### 9.3.1 Powder spill

- Isolate the area.
- Turn off any air conditioning and fans.
- Collect the spillage kit
- Put on 2 pairs of nitrile gloves, apron, 2 pairs of overshoes, armlets, visimask.
- Moisten at least 2 paper towels with water.
- Working from the outside in, pick up all the powder using the moistened paper towels and place them in the first yellow bag. Moisten more paper towels and clean the area three times working from the outside in.
- Repeat the process three times using alcohol spray.
- Place all paper towels in to the first yellow bag.
- Seal the yellow bag and place in a second yellow bag.
- Remove all PPE, apart from the inner pair of gloves, and place in the second yellow bag. Seal and place in a large cytotoxic sharps bin. Close and seal the bin and place in the waste room.
- Remove second pair of gloves and place in yellow clinical waste bin, for clinical/infectious waste.
- Wash hands thoroughly.

### 9.3.2 Liquid Spill

- Isolate the area
- Turn off any air conditioning and fans,
- Collect the spillage kit
- Put on 2 pairs of nitrile gloves, apron, 2 pairs of overshoes, armlets, visimask.
- Using paper towels carefully pick up any glass and place directly into the large cytotoxic sharps bin.
- Working from the outside in, use absorbant padsto soak up the spill. Use paper towels to soak up any remaining liquid. Place the pads and towels directly in to the 1<sup>st</sup> yellow bag.
- Moisten paper towels and clean from the outside in 3 times.
- Place the towels in to the yellow bag.
- Repeat the process 3 times using the alcohol spray.
- Seal the 1<sup>st</sup> yellow bag and place inside a second yellow bag.
- Remove all PPE except for the inner pair of gloves, place in the yellow bag, seal and place in a large cytotoxic sharps bin. Close and seal the bin and place in the waste room.
- Remove inner gloves and place in yellow clinical waste bin, for clinical/infectious waste only.
- Wash hands thoroughly.

## 10.0 CONSULTATION, APPROVAL AND RATIFICATION PROCESS

The policy has been developed in collaboration with the Clinical Skills Team, Chemotherapy Team, Lead Nurses, Matrons, local experts/managers. It has been updated into the standardised policy template. Overall approval of clinical content has been given by SACT-DG and ratified by the Document Ratification Committee.

## 11.0 DISSEMINATION AND IMPLEMENTATION

### 11.1 Dissemination

- Once ratified the procedural document will be sent to the web team who will replace the historical version which will subsequently be archived.
- The governance team will be notified of the policy ratification which will enable update of the procedural document register.
- Awareness will be raised clinically via an email to all clinicians, departmental managers and at on-going essential training sessions

## 11.2 Implementation

This policy will be effective from the date of ratification.

## 11.3 Training/Awareness

All permanent staff trained in the preparation, handling or administration of cytotoxic drugs must be familiar with the Cytotoxic Spillage and Contamination Policy and the guidelines set out within it.

## 12.0 PROCESS FOR EFFECTIVE MONITORING AND IMPLEMENTATION

Standard to be monitored	Process for monitoring e.g. audit, ongoing evaluation etc	Frequency e.g. annually 3 yearly	Person responsible for: undertaking monitoring & developing action plans	Committee accountable for: review of results, monitoring action plan & implementation	Frequency of monitoring e.g. monthly, quarterly
Process of managing a spillage or contamination	Audit	Annually	Lead Chemotherapy Nurse	SACT-DG	Annually

## 13.0 REFERENCES

HSE (2014) Safe handling of cytotoxic drugs in the workplace, Via Web: <http://www.hse.gov.uk/healthservices/safe-use-cytotoxic-drugs.htm> accessed 02/10/2014.



## Appendix 1

### Spillage Kit – Non-aseptic pharmacy areas

Each area involved in the preparation, storage or administration of cytotoxic drugs must have a spillage readily accessible for staff.

If used the spillage kit must be restocked immediately.

Each kit must contain the following (please do not hold additional items in the kit)

Plastic apron  
2 x pairs of nitrile gloves  
2 x pairs of over shoes  
Visimask or mask and goggles  
2x Yellow waste bags  
2 x large absorbent pads  
Paper towels  
500mls 0.9 % sodium chloride  
Giving set

### Spillage Kit – Aseptic pharmacy areas

Each area involved in the preparation, storage or administration of cytotoxic drugs must have a spillage readily accessible for staff.

If used the spillage kit must be restocked immediately.

Each kit must contain the following (please do not hold additional items in the kit)

Plastic apron  
2 x pairs of nitrile gloves  
2 x pairs of over shoes  
Visimask or mask and goggles  
Armllets  
2x Yellow waste bags  
2 x large absorbent pads  
Paper towels  
500mls 0.9 % sodium chloride  
Giving set  
Sharps bin  
Alcohol spray  
Water