Handling hazardous drugs and related waste safely for hospital services staff
Introduction

This workbook aims to help non-clinical staff to recognise and protect themselves, the patients and the public from exposure to hazardous drugs.

By the end of this workbook you will be able to:

• find policies relating to hazardous drugs and hazardous waste
• recognise areas which might have hazardous drugs and related waste
• protect yourself and others from potential exposure to hazardous drugs and hazardous waste
• recognise and report incidents of spills and exposure to a hazardous drug or hazardous waste.

If your work involves patient contact, waste management and cleaning spills:

1) Describe exposure risks from:
   • sources of waste from patients who have had hazardous drugs
   • management of hazardous drug spills
   • disposal of risks of hazardous waste.

2) Work safely to minimise the risk of:
   • occupational exposure to hazardous drugs or related waste for staff / patients / carers
   • contamination of the environment with hazardous drugs or related waste.

If you find the words difficult to understand please review it with your manager or a member of the education team.
Topics

1. Recognising hazardous drugs and Related waste
2. Safe handling of hazardous waste
3. Hazardous drug spills
4. Accidental contamination and health surveillance
Topic 1: Recognising hazardous drugs and related waste

**Hazardous drugs** are drugs that have the potential to harm the health or safety of persons in the workplace.

When working around areas with hazardous drugs, safe work practice is **IMPORTANT**.

Some patients may have been given medicines or drugs that are considered hazardous. For example, chemotherapy drugs and medicines used for cancer. They are called “cytotoxic” or antineoplastic drugs by nurses and doctors who give them to patients.

Hazardous drugs come in many forms:
- tablets
- cream
- liquid
- needles.

You can be accidentally exposed to them by:
- touching a surface where it’s been spilt
- breathing in small particles or vapours
- handling bodily waste of patients who have received these drugs
- needle injuries
- splashing in your face.

You can recognise areas where these drugs are by this:

Exposure can affect your health. Health effects of people who prepare and work with hazardous drugs include:
- difficulty falling pregnant or harm to the baby if you are pregnant
- changes in your blood cells
- stomach pain
- hair loss
- sores in your nose
- nausea and vomiting
- liver damage
- skin rashes and maybe blisters if contact with the skin.
Responsibilities regarding hazardous drugs

Everyone has a responsibility to minimise the risk of exposure to hazardous drugs.

Policies and laws state that:
• the workplace must make sure that policies and safety information are easy to get.
• it is your responsibility to know where policies and procedures are kept in your workplace.

Minimising the risk of occupational exposure

All staff may be at risk of exposure to hazardous drugs and related waste.

To avoid the risk of occupational exposure, staff must work safely.

Occupational exposure to hazardous drugs or related waste can occur in different ways, for example:
• handling soiled linen from patients who have had hazardous drugs
• handling patient waste from patients who have had hazardous drugs
• cleaning up spills.

Steps to minimise the risk of occupational exposure:
• being able to recognise what is a hazardous substance or drug
• protect yourself and others by knowing what personal safety equipment to use and what to do if there is an accident.

Workplace focus

Do you know where safe work policies and procedures are kept in your workplace?

If you are unsure of the risks of occupational exposure in your workplace ask your manager or a member of the nursing or medical staff.

Cytotoxic drugs and antineoplastic drugs are also called hazardous drugs or substances.
Personal Protective Equipment (PPE)

To minimise the risk of occupational exposure it is important to wear PPE when handling, disposing or cleaning up spills of hazardous drugs or related waste.

PPE covers you and your clothes to protect you from exposure.

<table>
<thead>
<tr>
<th>Personal Protective Equipment (PPE)</th>
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<tbody>
<tr>
<td><strong>Protective eye wear</strong></td>
</tr>
<tr>
<td>• goggles that cover your eyes – NOT GLASSES</td>
</tr>
<tr>
<td><strong>Mask</strong></td>
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<tr>
<td>• to cover your nose and mouth</td>
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<tr>
<td><strong>Gown</strong></td>
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<td>• leak proof gown with a closed front and long sleeves with elastic cuff</td>
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<td><strong>Overshoes</strong></td>
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<td>• for spills – shoe covers</td>
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</tbody>
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Learning activity

Which of the following pose a risk of exposure to hazardous drugs or related waste?

Circle the correct answers.

- Hazardous drug spill
- Cytotoxic drug transport
- Cytotoxic bin
- Vomit bag

- Cytotoxic drug spill
- Cytotoxic bin
- Vomit bag
Workplace focus

Do you know where the PPE is located in your workplace?

Do you know how to dispose of used PPE?

Do you know what PPE you might need to wear to complete your routine tasks if there is the risk of occupational exposure?

If you answered ‘NO’ to any of these questions speak with your manager or a member of the education team.
Key points

1. Hazardous drugs may be used in your health facility.
2. Cytotoxic drugs are classified as hazardous drugs.
3. There are many ways you can be exposed to hazardous drugs and related waste.
4. If you are not sure if something in your workplace is contaminated, ask your manager. If they are not around ask a nursing or medical staff member.
5. Your health facility will have information to assist you to safely minimise and manage occupational exposure to hazardous drugs or related waste.
6. Appropriate personal protective equipment (PPE) must be worn when handling hazardous drugs and related waste.
7. Personal protective equipment consists of:
   - leak proof gown with a closed front and long sleeves with elastic cuff
   - leak proof gloves for example “nitrile” gloves
   - mask to cover your nose and mouth
   - goggles that cover your eyes – NOT GLASSES
   - for spills – shoe covers.
8. The type of PPE to be worn will depend on the task.
Topic 2: Safe handling of hazardous waste

Do you handle patient waste or do you manage hospital general waste?

If yes, you should know:
Purple waste bins are not the same as general hospital waste bins. Purple waste bins contain waste called “cytotoxic waste”.

Cytotoxic waste is hazardous waste and is generated by preparing and giving cytotoxic drugs to patients.

Contaminated patient waste or hazardous waste is packaged in purple cytotoxic waste bags or cytotoxic sharps containers for disposal.

Cytotoxic waste is kept separate from all other waste. Waste in purple bins is handled by special companies when they collect it.

Used PPE must be disposed of in hazardous waste bins if it becomes contaminated with hazardous drugs or waste.

Do you have direct patient contact?
For example: change soiled linen, assist nurses by moving patients in bed or handle urinals and bedpans.

If yes, you should know:

Excretion of hazardous drugs
Patients who have had cytotoxic drugs may excrete them in their body fluids. For example in vomit, faeces and urine.

Patient body fluids may continue to be contaminated for 2 - 10 days after they have received drugs. This is called the ‘excretion period’.

PPE must be worn by staff in direct contact with patient body fluids during the excretion period to reduce the risk of occupational exposure.

It is important you know local policies on excretion periods to be able to work safely.

Always ask your manager, nursing or medical staff if you are unsure.
Learning activity

Tick all patient related activities which may place you at risk of occupational exposure to hazardous drug or related waste if safe handling precautions are not followed?

1. Handling bed linen soiled with patient waste
2. Handling used bedpans or urine bottles
3. Handling fluid drained from body cavities
4. Handling and cleaning vomit from patients
5. Cleaning a patient’s bathroom with urine on the floor or toilet seat
6. Hazardous drugs that have spilled on the floor during their transportation

Tick true or false for the statement below.

Bed linen which has been soiled with urine from a patient having a cytotoxic drug infusion is not an occupational exposure risk.

True or False

You have been asked to replace the large purple cytotoxic waste bins from a clinical area. You notice that the bin is full and overflowing. What actions will you take? Tick the correct answers.

1. Refuse to replace the bins until excessive waste has been removed.
2. Report the overflowing bin to the nursing staff who will organise the overflowing waste into a replacement bin wearing PPE.
3. Replace the bin with a yellow clinical waste bin.
4. Ignore overflowing waste and replace as usual.
5. Replace the bin with a purple cytotoxic waste bin once the excess waste has been removed.
Workplace focus

A patient receiving hazardous drugs has soiled the bed and the bed needs changing. Do you know how will you protect yourself while changing the bedding?

How does your workplace identify patients who are receiving or have received hazardous drugs? For example coloured arm bands, alert stickers or documentation.

Key points

1. Hazardous waste is not the same as general hospital waste.
2. It is important to know if patients have received hazardous drugs to ensure safe handling during the excretion period.
3. You need to be aware of how to correctly dispose of cytotoxic waste.
Topic 3: Hazardous drug spills

Spills of hazardous drugs or related waste need to be dealt with immediately as they present a high risk of exposure to workers, patients, carers and the public.

Hazardous drug spills can happen when:
- drugs are spilt or leaking during transport and during administration
- tablets are broken.

All hazardous spills need to be reported.

You need to know where hazardous drug spill kits are located and how to use them.

Minimum contents of a spill kit include:
- instructions
- scoop
- PPE and a Sign
- absorbent pads
- waste bag.

Learning activity

You notice a puddle of liquid outside the oncology outpatient department. You are not sure if this is a hazardous drug spill.

What do you do next? Tick the correct answer.

1. Ask the nursing staff in the outpatient department if it is a hazardous drug spill
2. Clean it up as it's unlikely to be a hazardous drug spill
3. Get a wet floor sign and place it near the spill to alert everyone to the liquid spill
4. Ignore it as someone else will take care of it

Tick true or false for the statement below.

If this spill is identified to be a hazardous drug spill, I would ask the nursing staff for help in managing the hazardous drug spill using a spill kit.

True or False
Workplace focus

Do you know where spill kits are located in your workplace?

How would you arrange for a spill kit to be replaced?

What would you do if you required a spill kit and there wasn’t one available?

Key points

1. It is important to know how to recognise a hazardous drug spill and to follow the instructions inside the spill kit.
2. You need to be aware of your health facility’s policy and procedures in relation to hazardous drug spills.
3. You should know where the spill kits are located in your workplace.
Accidental contamination is when you are exposed to a hazardous drug, waste or spill. Exposure may happen by touching, breathing in or ingesting (swallowing) the substance.

All contamination, near miss or accidental exposure must be reported. This is done through the local incident report system, through your manager or through your educator.

What to do if you may have been contaminated:
1. Immediately remove PPE and clothes which have been contaminated.
2. Wash the area on skin with soap and water and rinse with plenty of water.
3. Call for medical help.
4. If eyes splashed - rinse for 15 mins at least with sterile saline.
5. Report the event to your supervisor and ensure the incident is reported.

Health surveillance

Health surveillance means the assessment of staff to identify changes in their health due to occupational exposure to a hazardous substance.
Learning activity

Identify the following statements as TRUE or FALSE.

Following skin contamination with hazardous drugs or related waste, the appropriate actions include: wash the affected skin with soap and clean thoroughly with copious amounts of water.

True or False

It is recommended that staff working with hazardous drugs are offered regular health surveillance assessments by their employers.

True or False

Following contamination with hazardous drug or related waste you do not need to complete an incident notification form.

True or False

Key points

1. It is important to know how to respond to accidental contamination of hazardous drugs.
2. It is important to follow legislation and local policy in regards to employee health surveillance and reporting procedures.
Reflection

Take a few minutes to reflect on what you have learned, do you know how to:

1. Find guidelines and local organisation policies for hazardous drugs?
2. Identify areas which may have hazardous drugs and related waste?
3. How to work safely and minimise exposure to hazardous drugs?
4. Describe what PPE is for?
5. Report accidental contamination of hazardous drugs and related waste?

⚠️ If you feel you have not met these learning outcomes revisit the learning resources or clinical learning activities of this workbook.