


Cytotoxic drugs

***KEEPING WORKERS SAFE WHEN
HANDLING CYTOTOXIC DRUGS
AND RELATED WASTE***

November 2020



Guide for persons conducting a business or undertaking to help keep workers safe when handling cytotoxic drugs and related waste.

ACKNOWLEDGEMENTS

WorkSafe would like to acknowledge and thank the organisations and businesses who have contributed to the development of this guidance.

Front cover photo supplied by Thames Hospital, with thanks.

LEGISLATION RELATED TO THIS GUIDE

This guide summarises legal requirements under the following legislation and regulations:

- the Health and Safety at Work Act 2015 (HSWA)
- the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016 (GRWM).

Other acts and regulations such as the Medicines Act 1987 are out of scope and are not addressed by this guide.

Cytotoxic drugs

KEY POINTS

- Under the Health and Safety at Work Act 2015 (HSWA), PCBUs must ensure, so far as is reasonably practicable, the health and safety of workers, and that other people's health and safety is not put at risk by their work.
- Cytotoxic drugs are hazardous to human health. All PCBUs that work with cytotoxic drugs and related waste must implement effective control measures to protect workers and other people (for example, visitors).
- This guide provides general advice. PCBUs should also refer to their own (or their industry association's) health and safety guidance and policies regarding cytotoxic drugs and related waste.

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1.0

Introduction

IN THIS SECTION:

- 1.1** What this guide is about
- 1.2** Cytotoxic drugs and their possible adverse effects on human health
- 1.3** Involving workers in decisions about their health and safety at work
- 1.4** Training workers in health and safety
- 1.5** Use of 'must' and 'should'

1.1 What this guide is about

The purpose of this guide is to help PCBU¹ that work with cytotoxic drugs and related waste identify and control the health and safety risks of their work, and keep workers and other people, such as visitors to the workplace, safe.

Hospitals are the obvious audience for this guide and the health and safety of nurses, pharmacists, orderlies, cleaners, and laundry workers have all been considered in the advice.

This guide will also be useful for the waste management businesses that collect cytotoxic waste, and pharmaceutical businesses that prepare cytotoxic drugs but are not based at a hospital.

1.2 Cytotoxic drugs and their possible adverse effects on human health

Cytotoxic drugs – also known as antineoplastic drugs or chemotherapy drugs² – kill or slow down the growth of living cells. They are used to treat cancer and other medical conditions such as rheumatoid arthritis and multiple sclerosis.

Cytotoxic drugs are hazardous to human health. While little is known of the specific, long-term effects of occupational exposure to cytotoxic drugs and related waste, there is sufficient evidence to indicate they may cause adverse health effects such as those shown in Figure 1 below.

All PCBUs that work with cytotoxic drugs and related waste must implement effective control measures to protect workers and other people.

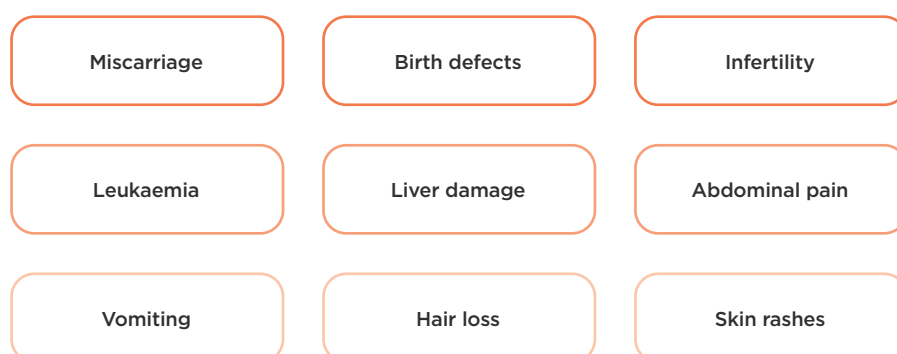


FIGURE 1:
Cytotoxic levels
of severity

1.3 Involving workers in decisions about their health and safety at work

PCBUs must, so far as is reasonably practicable, engage with workers on health and safety matters that directly affect them. This includes when identifying and managing the risks of cytotoxic drugs and related waste.

Involve workers – get their ideas, ask them what they think the risks are of their work and what procedures, equipment and facilities they think are needed to make it safe.

See Appendix 8: [worksafe.govt.nz](https://www.worksafe.govt.nz)

¹ A 'person conducting a business or undertaking'. PCBUs have duties under the Health and Safety at Work Act 2015 (HSWA). See Appendix 5

² The range of cancer treatments includes conjugated monoclonal antibodies (MABs) – antibodies that are joined to a cytotoxic agent. Conjugated MABs are considered hazardous and should be handled according to accepted cytotoxic safe handling procedures.

1.4 Training workers in health and safety

PCBUs must ensure, so far as is reasonably practicable, that every worker who works with a substance that is capable of causing a risk in the workplace:

- has adequate knowledge and experience of the substance **or**
- is adequately supervised by a person with that knowledge and experience.

PCBUs must also ensure workers are adequately trained in the safe use of substances that they use or handle, or that they may be required to use or handle, and all protective personal equipment (PPE) that they are or may be required to wear or use.

PCBUs must, so far as is reasonably practicable, engage with workers when making decisions about the provision of health and safety information and training.

Provide ongoing training as needed, including refresher training so that skills and knowledge are kept up to date. See our website for more information:

worksafe.govt.nz

It's good practice for workers working with cytotoxic drugs and related waste to also be trained in:

- work health and safety legislative requirements
- risk management
- potential health risks of cytotoxic drugs and related waste
- correct storage, treatment, disposal, transport of cytotoxic drugs and related waste
- how to deal with exposure, accident, injury, or spills.

1.5 Use of 'must' and 'should'

This guidance uses 'must' and 'should' to indicate whether an action is required by law or is a recommended practice or approach.

TERM	DEFINITION
Must	Legal requirement that has to be complied with
Should	Recommended practice or approach

TABLE 1:
Use of 'must'
and 'should'

2.0

Risk management process

IN THIS SECTION:

- 2.1 Identify hazards
- 2.2 Assess the risks
- 2.3 Select control measures
- 2.4 Implement effective control measures
- 2.5 Monitor performance of control measures
- 2.6 Take action on lessons learnt

2.1 Identify hazards

When identifying the hazards of cytotoxic drugs and related waste, think about:

- where the drugs are used
- where they are stored
- the hazards of each drug (check the safety data sheet or the Medsafe data sheet)
- who is most at risk of being exposed to the drugs and related waste. For example, workers, visitors, home carers.

PCBUs must seek the views of workers when identifying hazards.



FIGURE 2: The PLAN-DO-CHECK-ACT approach

Think about who may be exposed to cytotoxic drugs and related waste

Some examples of workers who may be at risk of exposure to cytotoxic drugs and related waste are below. This is not a complete list:

- nurses or other people caring for patients being treated with cytotoxic drugs
- veterinary nurses administering cancer treatment
- pharmacy workers preparing, reconstituting or dispensing cytotoxic drugs
- ambulance officers attending to and transporting cancer patients

- laundry workers cleaning cytotoxic-contaminated linen
- workers in hospitals, medical laboratories, or cancer treatment centres who clean equipment or surfaces used to prepare or administer cytotoxic drugs
- workers who clean equipment, such as toilets, used by patients receiving cytotoxic drug treatment
- workers who collect and dispose of cytotoxic drug waste
- workers who transport the drugs, for example, from suppliers to hospitals or from pharmacies to clinics.

Also think about other people who may be exposed, such as hospital visitors and home carers of patients being treated with cytotoxic drugs.

Exposure to cytotoxic drugs can cause miscarriages and birth defects.

Workers who are pregnant, breastfeeding, or planning to become pregnant and who prepare, administer or otherwise handle cytotoxic drugs and/or related waste, are at risk.

Workers should be made aware of the potential risks and offered alternative duties.

Think about how workers and other people could be exposed

Workers could be exposed to cytotoxic drugs and related waste through skin contact, skin absorption, inhalation of aerosols and drug particles, ingestion, and sharps (needle stick) injuries. Also think about other people who may be exposed, such as visitors to patients.

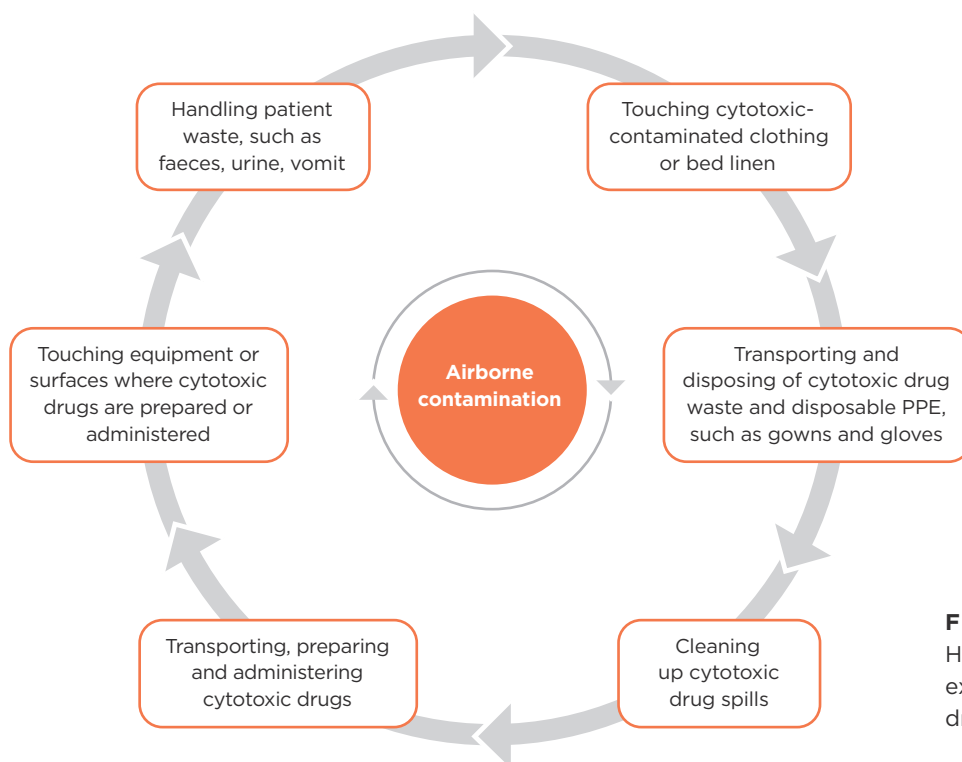


FIGURE 3:
How workers may be exposed to cytotoxic drugs and related waste

2.2 Assess the risks

To assess the risks, think about:

- the potential consequences of exposure
- how likely the consequences are in usual business conditions, for example, very likely, likely or unlikely.

PCBUs must seek the views of workers when assessing work risks.

Eliminate risk

PCBUs must try to eliminate risks at work, so far as is reasonably practicable, by removing the sources of harm. If elimination is not possible, the risks must be minimised, so far as is reasonably practicable.

2.3 Select control measures

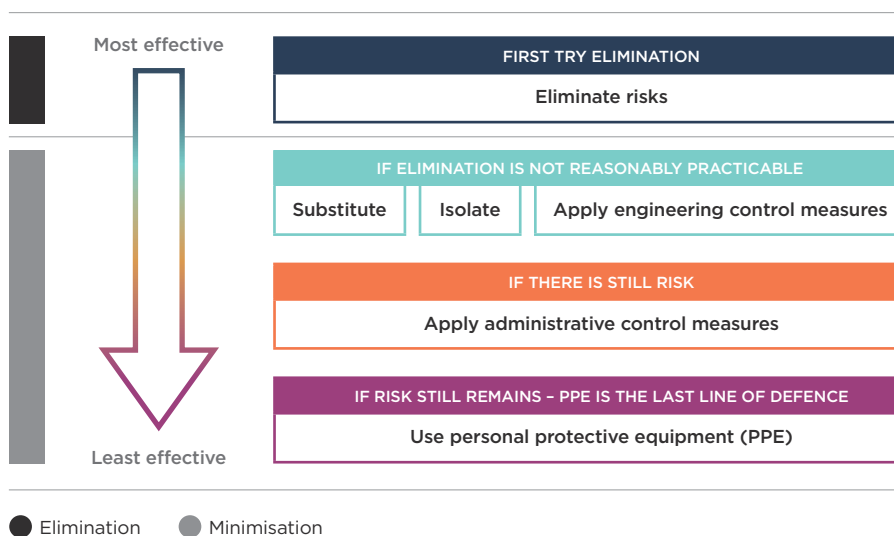


FIGURE 4:
Hierarchy of controls

The hierarchy of controls above outlines the risk minimisation process:

- PCBUs must **minimise** risks to health and safety, so far as is reasonably practicable, by taking one or more of the following actions:
 - **substituting** with a lower-risk activity or substance
 - **isolating** people from the hazard/preventing people being exposed to the risk
 - applying **engineering** control measures.
- If the risk remains, PCBUs must put in place **administrative** controls.
- If the risk still remains, PCBUs must provide workers with suitable **personal protective equipment (PPE)** and ensure they know how to use it or wear it correctly.

ACTION		WHAT IS THIS?
Elimination		Removing the sources of harm (for example, equipment, substances or work processes)
Minimisation	Substitution	Substituting (wholly or partly) the hazard giving rise to the risk with something that gives rise to a lesser risk (for example, using a less hazardous thing, substance or work practice).
	Isolation	Isolating the hazard giving rise to the risk to prevent any person coming into contact with it (for example, by separating people from the hazard/preventing people being exposed to the hazard). Isolation focuses on boxing in the hazard or boxing in people to keep them away from the hazard.
	Impose engineering control measures	Using physical control measures including mechanical devices or processes.
	Impose administrative control measures	Using safe methods of work, processes or procedures designed to minimise risk. It does not include an engineering control; or the wearing or use of personal protective equipment.
	Use personal protective equipment (PPE)	Using safety equipment to protect against harm. PPE acts by reducing exposure to, or contact with the hazard. For information on PPE requirements, see WorkSafe's interpretive guidelines: General Risk and Workplace Management - Part 1

TABLE 2:
Explanation of the different steps in the hierarchy

ACTION	EXAMPLES OF CONTROL MEASURES FOR CYTOTOXIC DRUGS AND RELATED WASTE
Elimination	To eliminate preparation of drugs outside a pharmaceutical isolator, source the drugs from a pharmacy or commercial supplier that has appropriate control measures including isolation, engineering controls and suitably trained workers.



Minimise

If elimination is not possible, PCBUs must minimise the risks, **so far as is reasonably practicable**,³ by implementing control measures in the order below:

Substitution	Use needleless systems instead of needles.
Isolating/preventing exposure to cytotoxic drugs and related waste	Use barriers such as a closed-system drug transfer device or pharmaceutical isolator.
Engineering control measures	Use a cytotoxic drug safety cabinet to minimise exposure to workers, or to limit the possibility of contamination from spills or leaks.
Administrative control measures	Ensure all workers who work with cytotoxic drugs and related waste are appropriately trained.
Personal protective equipment (PPE)	Provide specialised PPE suitable for workers handling cytotoxic drugs and related waste, and ensure they know how to use/wear, store and maintain it correctly.

TABLE 3:
Examples of control measures for cytotoxic drugs and related waste

Control measures may introduce new risks that PCBUs will also need to manage. For example, wearing a full-face splash shield may reduce a worker's peripheral vision.

³ See [Appendix 6](#)

More than one type of control measure can be used at a time and the measures should be proportionate to the risk. Give preference to control measures that protect multiple at-risk workers at the same time.

PCBUs must seek the views of their workers when selecting control measures.

A note about PPE

PPE is the last choice in the hierarchy. PPE should not be the first or only control considered. WorkSafe expects other controls to be used first, preferably those that protect multiple at-risk workers at once.

2.4 Implement effective control measures

If it is not reasonably practicable for PCBUs to eliminate the risks to health and safety of cytotoxic drugs and related waste, they must:

- implement effective control measures (for example, changing work procedures or processes)
- ensure their workers know about the potential risks, what the control measures are and why it is important to use them, and how to apply them.

2.5 Monitor performance of control measures

Monitor the performance of control measures to ensure they continue to be:

- fit for purpose
- suitable for the nature and duration of the work
- installed, set up, and used correctly.

PCBUs need to have procedures in place so that workers:

- can report incidents, near misses, or other health and safety concerns
- are encouraged to report health and safety concerns.

Health and exposure monitoring

Section 36 of HSWA deals with the 'Primary duty of care' of a PCBU to ensure, so far as is reasonably practicable, the health and safety of workers and other people is not put at risk from the work conducted as part of the PCBU's business or undertaking.

WorkSafe's research so far has found that the general consensus is that there is currently no form of health monitoring which is sufficiently specific to adequately measure the effects of exposure to cytotoxic drugs or related waste.

2.6 Take action on lessons learnt

Review control measures regularly.

Outside of these regular checks, PCBUs must review control measures if:

- a control measure fails (for example, if there is an incident or a near miss)
- there is a change in process or equipment
- a new hazard or risk is identified
- workers (or their representatives) raise any control measure failures or new hazards or risks.

Keep a record of reviews, including information such as the date, outcome, actions required (and who is responsible for these and by when).

See our website for more information: [worksafe.govt.nz](https://www.worksafe.govt.nz)

3.0 Control measures

IN THIS SECTION:

- 3.1 Preparing and reconstituting cytotoxic drugs
- 3.2 Administering cytotoxic drugs
- 3.3 Handling cytotoxic-contaminated linen and clothing
- 3.4 Handling cytotoxic waste

3.1 Preparing and reconstituting cytotoxic drugs

Workers preparing and reconstituting cytotoxic drugs are at risk of exposure from:

- handling the drugs or related waste
- splashes of the drugs or related waste to the skin or eyes
- spills of the drugs or related waste
- inhaling airborne contaminants.

Examples of control measures to limit the risk of exposure when preparing and reconstituting cytotoxic drugs include:

- using a cytotoxic drug safety cabinet in accordance with AS 2252.5:2017 Laminar flow cytotoxic drug safety cabinets: installation and use, or a pharmaceutical isolator which complies with AS 4273:1999 Design, installation and use of pharmaceutical isolators
- at least every six months, arranging for performance checks and maintenance of their cytotoxic drug cabinets and keeping a record of these checks
- where possible, using closed system transfer devices and ensuring workers are trained in the correct procedures to use them
- ensuring cytotoxic drugs are clearly labelled and packaged so that they will not spill or leak while being transported
- ensuring all workers who prepare and reconstitute cytotoxic drugs have immediate access to a spill kit and have been trained in how to manage cytotoxic spills.

PCBUs should also refer to their own health and safety policies and guidance regarding preparing and reconstituting cytotoxic drugs.

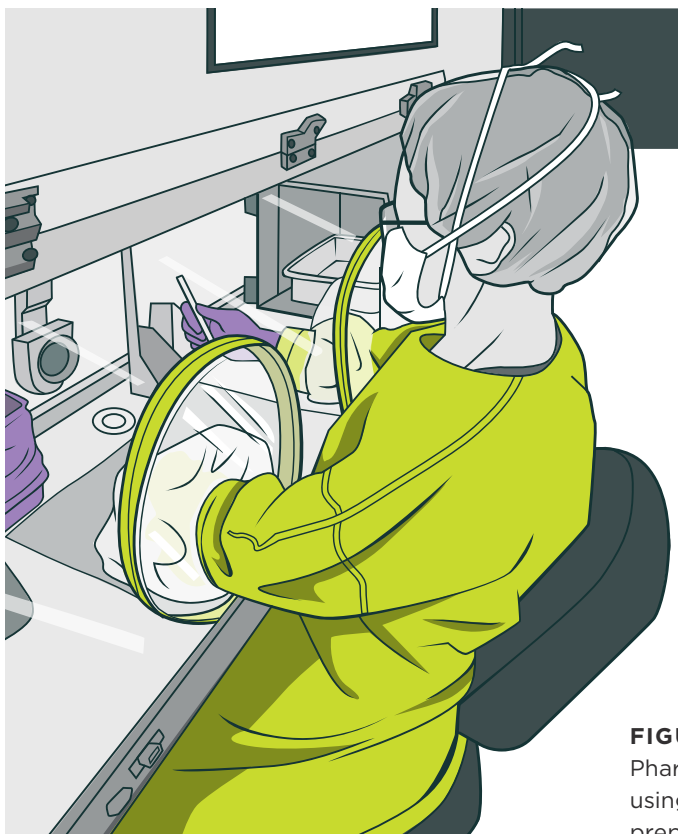


FIGURE 5:
Pharmacy technician
using an isolator to
prepare cytotoxic drugs

PPE for workers preparing and reconstituting cytotoxic drugs


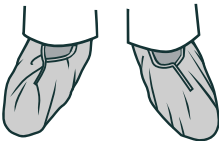
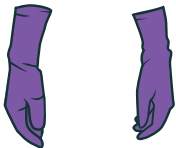
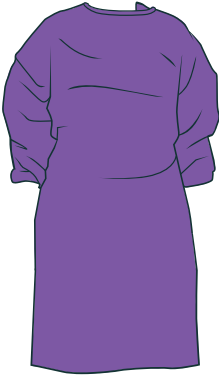


ITEM	INSTRUCTIONS	
Protective eye-wear	<p>This may include:</p> <ul style="list-style-type: none"> - goggles - protective eye-wear with side shields - transparent full-face chemical splash shield - full-face respiratory protective equipment (RPE), (see below). <p>It should be cleaned at the end of each shift or when contaminated, with a pH neutral detergent and left to air dry.</p> <p>Carry out a risk assessment for workers who wear prescription glasses to determine if they need extra protection.</p> <p>See our website: worksafe.govt.nz</p>	
Footwear covers (overshoes)	<p>Should be:</p> <ul style="list-style-type: none"> - disposable impermeable shoe or boot covers - skid-resistant plastic soles. <p>See our website: worksafe.govt.nz</p>	
Gloves	<p>Should be:</p> <ul style="list-style-type: none"> - made of nitrile - disposable - changed every 30 minutes or as recommended by the manufacturer, or when punctured, torn or contaminated. <p>Should cover wrist cuffs of gowns while arm is bent or stretched.</p> <p>Double-gloving is required when cleaning up a cytotoxic drugs spill.</p> <p>Dispose of gloves as cytotoxic waste.</p>	
Gowns	<p>Should be:</p> <ul style="list-style-type: none"> - disposable - made of lint-free fabric impermeable to cytotoxic drugs. <p>Should have:</p> <ul style="list-style-type: none"> - a closed front, long sleeves, and elastic or knit-closed cuffs that can be tucked under gloves - double-stitched seams with no needle holes. <p>Change gowns as often as recommended by the manufacturer.</p> <p>Dispose of as contaminated waste.</p> <p>Do not wear in non-clinical areas, such as offices, tea rooms.</p> <p><u>Take care when removing gowns, to minimise the risk of personal contamination</u></p>	
Headwear	<p>Should fit snugly around the head, fully enclose the hair, and be made of disposable, low-linting material.</p>	
Respiratory protective equipment (RPE)	<ul style="list-style-type: none"> - RPE with a P2 (N95) particulate filter to contain aerosols generated by handling cytotoxic drugs. - Surgical masks do not provide sufficient protection against aerosols. - Workers should be fit-tested according to manufacturer instructions to ensure correct size, especially for those who wear prescription glasses. - Workers should store and maintain RPE according to manufacturer instructions. <p>See our website: worksafe.govt.nz</p>	

TABLE 4: PPE for workers preparing and reconstituting cytotoxic drugs

3.2 Administering cytotoxic drugs

Workers administering cytotoxic drugs are at risk of exposure from:

- handling the drugs or related waste
- splashes of the drugs or related waste to the skin or eyes
- spills of the drugs or related waste
- inhaling airborne contaminants (from air being expelled from a drug-filled syringe)
- sharps injuries
- accidental injection of cytotoxic drugs.

Cytotoxic drugs may be administered by many different routes. Some of these are:

- orally (tablets, capsules or oral suspensions)
- subcutaneous or intramuscular injection
- subcutaneous infusion
- intravenous injection or infusion
- topical administration (eye drops, solutions or creams applied to the skin).

For detailed information about safely administering cytotoxic drugs in each of these ways, see: www.eviq.org.au

Examples of control measures to limit the risk of exposure when administering cytotoxic drugs include:

- using the safest administration techniques available, (for example, needleless systems)
- closed system transfer devices
- pre-diluted cytotoxic drugs
- ensuring all workers who administer cytotoxic drugs have immediate access to a spill kit and have been trained in how to manage cytotoxic spills.

See standard 5 of the [National Nursing Standards for Antineoplastic Drug Administration in New Zealand](#) for information about training.

PCBUs should also refer to their own health and safety policies and guidance about administering cytotoxic drugs.

Closed system transfer devices (CSTDs)

A closed system transfer device is a drug transfer device that prevents the transfer of environmental contaminants into the system and the escape of the hazardous drug or vapour concentrations outside the system.⁴

WorkSafe recommends workers use CSTDs when administering or compounding cytotoxic drugs.⁵ When used correctly, the device can minimise the risk of workers being exposed to the drugs. Workers should be trained to use CSTDs.

CSTDs should not be the only control measure put in place – they should be just one in a range of control measures to minimise the risks of cytotoxic drugs to workers.



FIGURE 6:
Example of a closed system transfer device

⁴ NIOSH

⁵ [National Nursing Standards for Antineoplastic Drug Administration in New Zealand 2016, Cancer Nurses College New Zealand](#)

PPE for nurses administering cytotoxic drugs


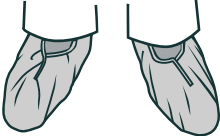
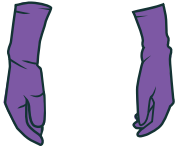
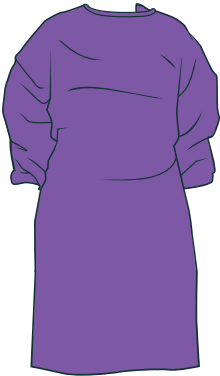

ITEM	INSTRUCTIONS	
Protective eye-wear	<p>Eye protection could be:</p> <ul style="list-style-type: none"> - goggles - protective eye-wear with side shields - transparent full-face chemical splash shield - full-face respiratory protective equipment (RPE), (see below). <p>Should be cleaned at end of shift or when contaminated. Clean with a detergent that is pH neutral and leave to air dry.</p> <p>Carry out a risk assessment for workers who wear prescription glasses to determine if they need extra protection.</p> <p>See our website: worksafe.govt.nz</p>	
Footwear covers (overshoes)	<p>Should be:</p> <ul style="list-style-type: none"> - disposable impermeable shoe or boot covers - skid-resistant plastic soles. <p>See our website: worksafe.govt.nz</p>	
Gloves	<p>Should be:</p> <ul style="list-style-type: none"> - made of nitrile - disposable. <p>Should cover wrist cuffs of gowns while arm is bent or stretched.</p> <p>Gloves should be changed:</p> <ul style="list-style-type: none"> - at the end of a procedure - before contact with another patient - when punctured, torn or contaminated - every 30 minutes or as recommended by the manufacturer. <p>Double-gloving is required when cleaning up a cytotoxic drugs spill.</p> <p>Dispose of gloves as cytotoxic waste.</p>	
Gowns	<p>Should be:</p> <ul style="list-style-type: none"> - disposable - made of lint-free fabric impermeable to cytotoxic drugs. <p>Should have:</p> <ul style="list-style-type: none"> - a closed front, long sleeves, and elastic or knit-closed cuffs that can be tucked under gloves - double-stitched seams with no needle holes. <p>Change gowns as often as recommended by the manufacturer.</p> <p>Dispose of as contaminated waste.</p> <p>Do not wear in non-clinical areas, such as offices, tea rooms.</p> <p><u>Take care when removing gowns, to minimise the risk of personal contamination</u></p>	
Respiratory protective equipment (RPE)	<ul style="list-style-type: none"> - RPE with a P2 (N95) particulate filter to contain aerosols generated by handling cytotoxic drugs. - Surgical masks do not provide sufficient protection against aerosols. - Workers should be fit-tested according to manufacturer instructions to ensure correct size, especially for those who wear prescription glasses. - Workers should store and maintain RPE according to manufacturer instructions. <p>See our website: worksafe.govt.nz</p>	

TABLE 5: PPE for nurses administering cytotoxic drugs

3.3 Handling cytotoxic-contaminated linen and clothing

Workers handling cytotoxic-contaminated linen and clothing are at risk of exposure from:

- handling cytotoxic-contaminated items or related waste
- direct skin contact with the items or related waste
- spills of related waste
- inhalation of airborne contaminants from related waste.

Aim to carry out the laundry process from collection to wash without any contact with the skin.

Examples of control measures to limit the risk of exposure include:

- following the manufacturer's or the supplier's instructions
- preventing cross-contamination by keeping cytotoxic-contaminated linen and clothing separate from non-cytotoxic contaminated laundry
- not pre-sorting cytotoxic-contaminated linen and clothing
- ensuring all workers who handle cytotoxic-contaminated linen and clothing have immediate access to a spill kit and have been trained in how to manage cytotoxic spills.

PCBUs should also refer to their own health and safety policies and guidance about handling cytotoxic-contaminated linen and clothing.

PPE for workers handling cytotoxic-contaminated linen and clothing


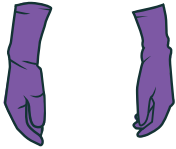
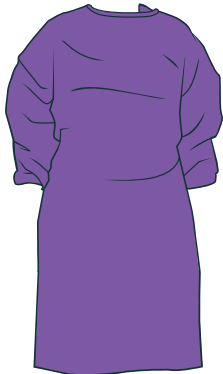


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Gloves	<p>Should be:</p> <ul style="list-style-type: none"> - made of nitrile - disposable. <p>Should cover wrist cuffs of gowns while arm is bent or stretched.</p> <p>Gloves should be changed:</p> <ul style="list-style-type: none"> - at the end of a procedure - before contact with another patient - when punctured, torn or contaminated - every 30 minutes or as recommended by the manufacturer. <p>Double-gloving is required when cleaning up a cytotoxic drugs spill.</p> <p>Dispose of gloves as cytotoxic waste.</p>	
Gowns	<p>Should be:</p> <ul style="list-style-type: none"> - disposable - made of lint-free fabric impermeable to cytotoxic drugs. <p>Should have:</p> <ul style="list-style-type: none"> - a closed front, long sleeves, and elastic or knit-closed cuffs that can be tucked under gloves - double-stitched seams with no needle holes. <p>Change gowns as often as recommended by the manufacturer.</p> <p>Dispose of as contaminated waste.</p> <p>Do not wear in non-clinical areas, such as offices, tea rooms.</p> <p><u>Take care when removing gowns, to minimise the risk of personal contamination</u></p>	
Headwear	<p>Should fit snugly around the head, fully enclose the hair, and be made of disposable, low-linting material.</p>	
Respiratory protective equipment (RPE)	<ul style="list-style-type: none"> - RPE with a P2 (N95) particulate filter to contain aerosols generated by handling cytotoxic drugs. - Surgical masks do not provide sufficient protection against aerosols. - Workers should be fit-tested according to manufacturer instructions to ensure correct size, especially for those who wear prescription glasses. - Workers should store and maintain RPE according to manufacturer instructions. <p>See our website: worksafe.govt.nz</p>	

TABLE 6: PPE for workers handling cytotoxic-contaminated linen and clothing

3.4 Handling cytotoxic waste

What is cytotoxic waste?

Cytotoxic waste includes any residual cytotoxic drug following a patient's treatment and the materials or equipment used to prepare, transport or administer the drugs.

The time it takes for the drugs to be fully eliminated from the body depends on the patient and the particular drug. WorkSafe recommends that workers wear appropriate PPE for the entire elimination period. This is generally seven days but may vary depending on the drug and route of excretion. Check the material safety data sheet or Medsafe data sheet for more information.

It is good practice to have written policies describing requirements for the segregation, packaging, collection, transport, and storage of cytotoxic waste.

Sources of cytotoxic waste include:

- used HEPA or chemical filters and other disposable contaminated equipment
- cytotoxic drugs past their recommended shelf life, unused or remaining drugs in all forms, contaminated stock, and cytotoxic drugs returned from a patient
- items used during the preparation of cytotoxic drug solutions, such as vials, ampoules, syringes, needles
- contaminated patient body fluids, such as vomit, blood, urine, faeces
- contaminated body fluids receptacles, such as disposable vomit bowls
- materials used to clean up cytotoxic spills
- items used during the administration of cytotoxic drug solutions, such as infusion sets, infusion bags, syringes, needles
- swabs, cloths, mats and other materials used to clean cytotoxic-contaminated equipment or contain cytotoxic spills
- contaminated PPE, such as gloves, gowns, shoe covers, respirators
- dressings, bandages, nappies, incontinence aids and ostomy bags
- soiled or contaminated patient bedding/linen or clothing
- contaminated specimens from a laboratory.

Workers who handle cytotoxic waste are at risk of exposure from:

- touching contaminated surfaces and equipment
- inhaling airborne contaminants
- spills
- handling equipment such as bedpans, urinals, vomit bowls used by patients receiving cytotoxic drug treatment
- packaging the waste for collection
- collecting and transporting the waste
- unloading and processing the waste at final destination.

Examples of control measures to limit the risk of exposure include:

- ensuring that sharps (including contaminated glass vials and plastic syringes with needles attached) are placed in cytotoxic waste sharps bins
- ensuring full sharps bins are disposed of in purple cytotoxic waste buckets or larger purple cytotoxic waste containers
- ensuring that all containers for cytotoxic waste are tightly sealed
- storing cytotoxic waste in a dedicated, secure area that can be easily cleaned and maintained
- arranging for cytotoxic waste to be collected regularly so it does not accumulate
- never using waste disposal chutes for cytotoxic waste
- managing cytotoxic waste in accordance with *NZS 4304:2002 Management of healthcare waste*
- identifying cytotoxic waste with designated labels, purple bags and containers. See [Appendix 2](#) for more information about correct labelling and containment of cytotoxic waste.
- ensuring all workers who handle cytotoxic waste have immediate access to a spill kit and have been trained in how to manage cytotoxic spills
- when transporting cytotoxic waste within the hospital or other facility, using a wheel-driven cart clearly labelled as carrying cytotoxic waste. Carts should be regularly cleaned and disinfected
- when preparing waste for collection, ensuring it is correctly labelled and securely packaged. Cytotoxic waste must be incinerated overseas, so robust packaging is essential.

PCBUs should also refer to their own health and safety policies and guidance regarding handling cytotoxic waste.

PPE for workers handling cytotoxic waste

This PPE advice is for workers who:

- clean cytotoxic-contaminated surfaces and equipment
- transport patients undergoing treatment with cytotoxic drugs
- collect and transport cytotoxic waste.


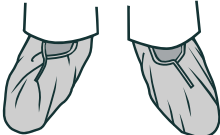
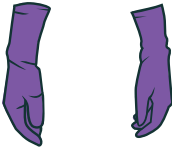
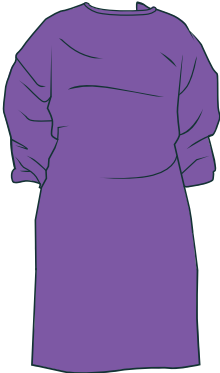

ITEM	INSTRUCTIONS	
Protective eye-wear	<p>Eye protection could be:</p> <ul style="list-style-type: none"> - goggles - protective eye-wear with side shields - transparent full-face chemical splash shield - full-face respiratory protective equipment (RPE), (see below). <p>Should be cleaned at end of shift or when contaminated. Clean with a detergent that is pH neutral and leave to air dry.</p> <p>Carry out a risk assessment for workers who wear prescription glasses to determine if they need extra protection.</p> <p>See our website: worksafe.govt.nz</p>	
Footwear covers (overshoes)	<p>Should be:</p> <ul style="list-style-type: none"> - disposable impermeable shoe or boot covers - skid-resistant plastic soles. <p>See our website: worksafe.govt.nz</p>	
Gloves	<p>Should be:</p> <ul style="list-style-type: none"> - made of nitrile - disposable - changed every 30 minutes or as recommended by the manufacturer, or when punctured, torn or contaminated. <p>Should cover wrist cuffs of gowns while arm is bent or stretched.</p> <p>Double-gloving is required when cleaning up a cytotoxic drugs spill.</p> <p>Dispose of gloves as cytotoxic waste.</p>	
Gowns	<p>Should be:</p> <ul style="list-style-type: none"> - disposable - made of lint-free fabric impermeable to cytotoxic drugs. <p>Should have:</p> <ul style="list-style-type: none"> - a closed front, long sleeves, and elastic or knit-closed cuffs that can be tucked under gloves - double-stitched seams with no needle holes. <p>Change gowns as often as recommended by the manufacturer.</p> <p>Dispose of as contaminated waste.</p> <p>Do not wear in non-clinical areas, such as offices, tea rooms.</p> <p><u>Take care when removing gowns, to minimise the risk of personal contamination</u></p>	
Respiratory protective equipment (RPE)	<ul style="list-style-type: none"> - RPE with a P2 (N95) particulate filter to contain aerosols generated by handling cytotoxic drugs. - Surgical masks do not provide sufficient protection against aerosols. - Workers should be fit-tested according to manufacturer instructions to ensure correct size, especially for those who wear prescription glasses. - Workers should store and maintain RPE according to manufacturer instructions. <p>See our website: worksafe.govt.nz</p>	

TABLE 7: PPE for workers handling cytotoxic waste

4.0 Spills

IN THIS SECTION:

- 4.1 Managing spills
- 4.2 Spill management training
- 4.3 Home and community care settings

Spills of cytotoxic drugs and related waste are a risk to human health and the environment – deal with them immediately.

4.1 Managing spills

Cytotoxic drugs and related waste may be spilt during:

- preparation
- administration
- storage
- transport, and
- when transporting patients with cytotoxic drug therapy in situ.

Keep a spill kit in all areas where there is a risk of cytotoxic drugs and related waste spills. See [Appendix 4](#) for spill kit contents.

4.2 Spill management training

Train all workers who handle cytotoxic drugs and related waste in the correct procedures for:

- containing the spill
- decontaminating people and the environment
- arranging medical treatment for people harmed by the spill
- safely disposing of spill contents, and
- safely handling damaged or leaking packages of cytotoxic drugs.

See eviQ for more information about how to handle a cytotoxic spill:

www.eviq.org.au

4.3 Home and community care settings

Provide a spill kit to patients being treated at home or in a community care setting so they can safely manage spills of cytotoxic drugs and related waste. The kit should include easy-to-read instructions, a list of kit contents, and information about how to safely dispose of used items or how cytotoxic waste will be collected. See eviQ for more information about precautions patients should take at home: www.eviq.org.au

PPE for cleaning up cytotoxic spills


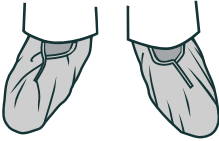
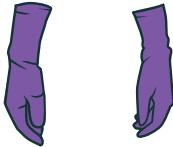
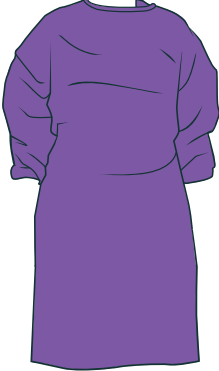

ITEM	INSTRUCTIONS	
Protective eye-wear	Eye protection could be: <ul style="list-style-type: none"> - goggles - protective eye-wear with side shields - transparent full-face chemical splash shield. See our website: worksafe.govt.nz	
Footwear covers (overshoes)	Should be: <ul style="list-style-type: none"> - disposable impermeable shoe or boot covers - skid-resistant plastic soles. See our website: worksafe.govt.nz	
Gloves	Should be: <ul style="list-style-type: none"> - made of nitrile - disposable. Should cover wrist cuffs of gowns while arm is bent or stretched. Double-gloving is required when cleaning up a cytotoxic drugs spill. Gloves should be changed: <ul style="list-style-type: none"> - after cleaning up the spill - before contact with a patient Dispose of gloves as cytotoxic waste.	
Gowns	Should be: <ul style="list-style-type: none"> - disposable - made of lint-free fabric impermeable to cytotoxic drugs. Should have: <ul style="list-style-type: none"> - a closed front, long sleeves, and elastic or knit-closed cuffs that can be tucked under gloves - double-stitched seams with no needle holes. Dispose of as contaminated waste. Do not wear in non-clinical areas, such as offices, tea rooms. <u>Take care when removing gowns, to minimise the risk of personal contamination</u>	
Respiratory protective equipment (RPE)	<ul style="list-style-type: none"> - RPE with a P2 (N95) particulate filter. - Surgical masks do not provide sufficient protection against aerosols. See our website: worksafe.govt.nz	

TABLE 8: PPE for cleaning up cytotoxic spills

5.0

More information

WorkSafe guidance

[Consulting with your workers on health and safety](#)

[Managing work risks](#)

[Overlapping duties](#)

[PPE: protective clothing](#)

[PPE: protecting your workers' eyes](#)

[Primary duty of care](#)

[Respiratory protective equipment](#)

[Training your workers](#)

[Upstream duties](#)

[Work-related health: monitoring](#)

Legislation

[Health and Safety at Work Act \(2015\)](#)

[Health and Safety at Work \(General Risk and Workplace Management\) Regulations 2016](#)

Standards

AS 2252.5:2017 Laminar flow cytotoxic drug safety cabinets: installation and use

AS 4273:1999 Design, installation and use of pharmaceutical isolators

NZS 4304:2002 Management of healthcare waste

International Society of Oncology Pharmacy Practitioners (ISOPP) Standards of Practice

Websites

[worksafe.govt.nz](#)

[Australian and New Zealand Society of Occupational Medicine \(ANZSOM\)](#)

[Cancer Institute NSW](#)

[Health and Safety Association of New Zealand \(HASANZ\)](#)

[International Society of Oncology Pharmacy Practitioners \(ISOPP\)](#)

[National Institute for Occupational Safety and Health \(NIOSH\)](#)

[New Zealand Occupational Health Nurses' Association \(NZOHNA\)](#)

[New Zealand Occupational Hygiene Society \(NZOHS\)](#)

[Safework NSW](#)

Appendices

IN THIS SECTION:

- Appendix 1:** Safely removing and disposing of used PPE
- Appendix 2:** Symbols/waste identification
- Appendix 3:** First aid
- Appendix 4:** Spill kit contents
- Appendix 5:** Health and Safety at Work Act duties
- Appendix 6:** So far as is reasonably practicable section 22 of HSWA
- Appendix 7:** Working with other PCBUs - overlapping duties
section 34 of HSWA
- Appendix 8:** Worker engagement, participation and representation
Part 3 of HSWA
- Appendix 9:** Upstream duties sections 39-43 of HSWA

Appendix 1: Safely removing and disposing of used PPE

Remove PPE in the following order to minimise exposure.* Dispose of used PPE as cytotoxic waste.

IF WEARING ONE PAIR OF GLOVES	IF WEARING TWO PAIRS OF GLOVES
<ol style="list-style-type: none"> 1. Remove gloves 2. Wash hands with soap and water 3. Remove protective eye-wear 4. Remove gown 5. Remove RPE 6. Wash hands (again) with soap and water 	<ol style="list-style-type: none"> 1. Remove outer gloves 2. Remove protective eye-wear 3. Remove gown 4. Remove RPE 5. Remove inner gloves 6. Wash hands with soap and water

* www.eviq.org.au

Appendix 2: Symbols/waste identification



Generally, cytotoxic materials are identified by a purple symbol that depicts a cell in late telophase.



With the implementation of the Globally Harmonised System of Classification and Labelling (GHS), a new GHS hazard pictogram was introduced to communicate health hazards of workplace chemicals. The pictogram below began to appear on labels of cytotoxic drugs supplied to workplaces from 1 January 2017



Waste identification

Contaminated waste identification is essential to minimise the risk of exposure to cytotoxic materials and to ensure the safe and correct disposal of cytotoxic waste.

All cytotoxic waste should be placed into compliant bags or containers that are appropriately identified. NZS 4304:2002 *Management of healthcare waste* specifies the following colours and symbol coding for cytotoxic waste:

- purple containers and bags
- the container have a white label with symbol of a cell in late telophase
- the correct labelling words are CYTOTOXIC WASTE.

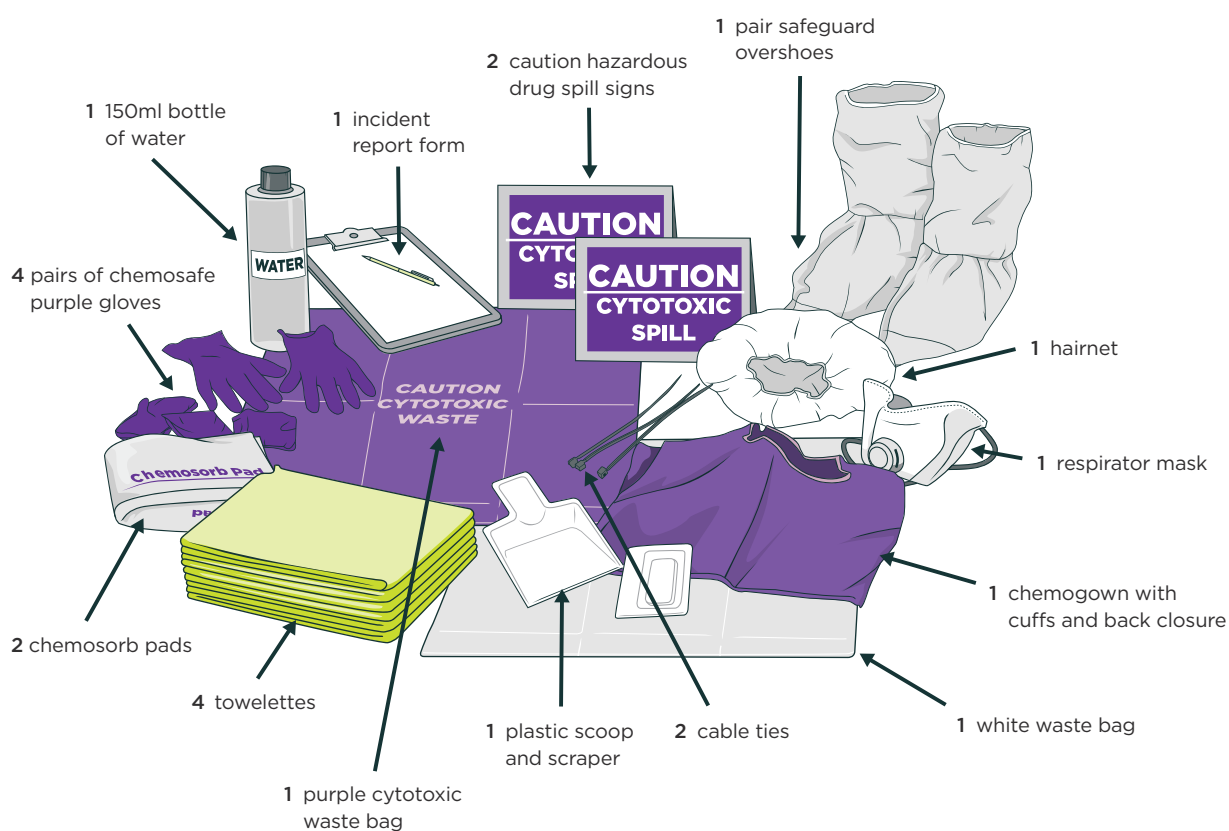
Appendix 3: First aid

A spill may contaminate clothing, PPE, and skin. If this occurs:

- immediately remove the contaminated PPE and clothing
- wash the affected skin with soap and flush thoroughly with lots of water
 - if eyes are contaminated, immediately flood them with a saline solution for at least 15 minutes
- **do not** administer antiseptic or anaesthetic drops or ointments to the contaminated area
- immediately report the incident to a supervisor
- seek medical attention
- ensure the incident is documented
- refer to relevant Safety Data Sheet for drug-specific information on spill clean-up procedures.

Appendix 4: Spill kit contents

QUANTITY	ITEM
1	Chemogown with cuffs and back closure, made of water-impermeable fabric
1 pair	Safeguard Overshoes
4 pairs	Chemosafe purple gloves (medium x 2 pairs; large x 2 pairs)
1	Safety glasses
1	N95 respirator mask
1	Hairnet
2	Chemosorb pads
4	Towelettes
1	Purple cytotoxic waste bag
1	White waste bag
2	Cable ties
1	Plastic scoop and scraper
2	Caution Hazardous Drugs Spill signs
1	Bottle of water (150ml)
1	Incident report form



Appendix 5: Health and Safety at Work Act duties

The [Health and Safety at Work Act 2015](#) (HSWA) is New Zealand’s key work health and safety law.

All work and workplaces are covered by HSWA unless they have been specifically excluded. For example, HSWA does not apply to the armed forces in certain situations.

HSWA sets out the work health and safety duties that duty holders must comply with.

There are four types of duty holder under HSWA:

- a person conducting a business or undertaking (PCBU)
- an officer
- a worker
- an ‘other person’ at the workplace.

Most duties under HSWA relate to **how** work is carried out. However some duties are linked to **where** work is carried out: the workplace.

A **workplace** is a place where work is being carried out or usually carried out for a business or undertaking. It includes any place where a worker goes or is likely to be while at work [section 20 of HSWA](#)

DUTY HOLDER	WHO THEY ARE?	EXAMPLES	WHAT ARE THEIR DUTIES?	FOR MORE INFORMATION
Person Conducting a Business or Undertaking (PCBU)	<p>A person conducting a business or undertaking (PCBU) may be an individual person or an organisation</p> <p>The following are not PCBUs:</p> <ul style="list-style-type: none"> - officers - workers - other persons at a workplace - volunteer associations that do not have employees - home occupiers (such as home owners or tenants) who pay someone to do work around the home section 17 of HSWA 	<ul style="list-style-type: none"> - a business - a self-employed person - partners in a partnership - a government agency - a local council - a school or university. 	<p>A PCBU has many duties. Key duties are summarised below.</p> <p>Primary duty of care section 36 of HSWA</p> <p>A PCBU must ensure, so far as is reasonably practicable, the health and safety of workers, and that other persons are not put at risk by its work.</p> <p>Managing risks section 30 of HSWA</p> <p>Risks to health and safety arise from people being exposed to hazards (anything that can cause harm). A PCBU must manage work health and safety risks.</p> <ul style="list-style-type: none"> - A PCBU must first try to eliminate a risk so far as is reasonably practicable. This can be done by removing the source of harm <ul style="list-style-type: none"> - for example, removing faulty equipment or a trip hazard. - If it is not reasonably practicable to eliminate the risk, it must be minimised so far as is reasonably practicable. <p>Overlapping duties: working with other PCBUs section 34 of HSWA</p> <p>A PCBU with overlapping duties must, so far as is reasonably practicable, consult, cooperate and coordinate activities with other PCBUs they share duties with.</p>	<p>Introduction to the Health and Safety at Work Act 2015</p> <p>Appendix 6 of this guidance for an explanation of ‘so far as is reasonably practicable’</p> <p>Identifying, assessing and managing work risks</p> <p>Section 2.0 of this guidance</p> <p>Appendix 7 of this guidance</p>

DUTY HOLDER	WHO THEY ARE?	EXAMPLES	WHAT ARE THEIR DUTIES?	FOR MORE INFORMATION
			<p>Involving workers: worker engagement, participation and representation Part 3 of HSWA</p> <p>A PCBU must, so far as is reasonably practicable, engage with their workers (or their workers' representatives) about health and safety matters that will directly affect the workers.</p> <p>A PCBU must have worker participation practices that give their workers reasonable opportunities to participate in improving health and safety on an ongoing basis.</p>	<p>Appendix 8 of this guidance</p>
<p>Upstream PCBU</p>	<p>A PCBU in the supply chain</p>	<ul style="list-style-type: none"> - a designer - a manufacturer - a supplier - an importer - an installer, constructor, or commissioner. 	<p>Upstream PCBU sections 39–43 of HSWA</p> <p>An upstream PCBU must ensure, so far as is reasonably practicable, that the work they do or the things they provide to other workplaces do not create health and safety risks.</p>	<p>Appendix 9 of this guidance</p>
<p>Officer</p>	<p>A specified person or a person who exercises significant influence over the management of the business or undertaking section 18 of HSWA</p>	<ul style="list-style-type: none"> - a company director - a partner or general partner - a chief executive. 	<p>Officer section 44 of HSWA</p> <p>An officer must exercise due diligence that includes taking reasonable steps to ensure that the PCBU meets their health and safety duties.</p>	<p>Introduction to the Health and Safety at Work Act 2015</p>
<p>Worker</p>	<p>An individual who carries out work for a PCBU section 19 of HSWA</p>	<ul style="list-style-type: none"> - an employee - a contractor or sub-contractor - an employee of a contractor or sub-contractor - an employee of a labour hire company - an outworker (including homeworker) - an apprentice or trainee - a person gaining work experience or on work trials - a volunteer worker. 	<p>Worker section 45 of HSWA</p> <p>A worker must take reasonable care of their own health and safety, and take reasonable care that they do not harm others at work.</p> <p>A worker must cooperate with reasonable policies and procedures the PCBU has in place that the worker has been told about.</p> <p>A worker must comply, as far as they are reasonably able, with any reasonable instruction given by the PCBU so the PCBU can meet their legal duties.</p>	<p>Introduction to the Health and Safety at Work Act 2015</p>
<p>Other person at the workplace</p>	<p>An individual present at a workplace (not a worker)</p>	<ul style="list-style-type: none"> - a workplace visitor - a casual volunteer (not a volunteer worker) - a customer. 	<p>Other person at the workplace section 46 of HSWA</p> <p>An 'other person' has a duty to take reasonable care of their own health and safety, and not adversely affect the health and safety of anyone else.</p> <p>They must comply with reasonable instructions relating to health and safety at the workplace.</p>	<p>Introduction to the Health and Safety at Work Act 2015</p>

Appendix 6: So far as is reasonably practicable

section 22 of HSWA

Certain PCBU duties (the [section 36–43](#) duties including the primary duty of care) must be carried out ‘so far as is reasonably practicable’.

What to consider when deciding what is ‘reasonably practicable’

Just because something is possible to do, does not mean it is reasonably practicable in the circumstances.

Consider:

- What possible actions can be taken to ensure health and safety?
- Of these possible actions, at a particular time, what is reasonable to do?

Think about the following questions.

WHAT IS KNOWN ABOUT THE RISK?

- How likely is the risk to occur?
- How severe is the illness or injury that might occur if something goes wrong?
- What is known, or should reasonably be known, about the risk?

WHAT IS KNOWN ABOUT POSSIBLE CONTROL MEASURES?

- What is known, or should reasonably be known, about the ways (control measures) to eliminate or minimise the risk?
- What control measures are available?
- How appropriate (suitable) are the control measures to manage the risk?
- What are the costs of these control measures?
- Are the costs grossly disproportionate to the risk? Cost must only be used as a reason to not do something when that cost is grossly out of proportion to the risk.

While PCBUs should check if there are widely used control measures for that risk (such as industry standards), they should always keep their specific circumstances in mind. A common industry practice might not be the most effective or appropriate control measure to use.

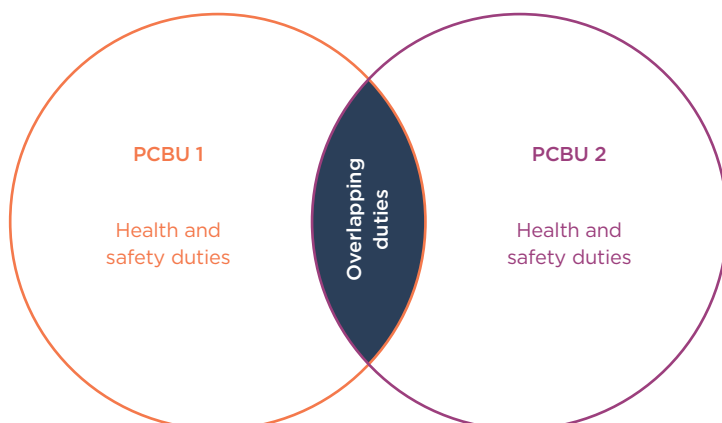
If PCBUs are not sure what control measures are appropriate, WorkSafe recommends getting advice from a suitably qualified and experienced health and safety professional.

For more information, see our guidance: [Reasonably practicable](#)

Appendix 7: Working with other PCBUs – overlapping duties

section 34 of HSWA

More than one PCBU can have a duty in relation to the same matter. These PCBUs have overlapping duties – this means that the duties are shared between them.



Duties regularly overlap:

- in a shared workplace (for example, a building site or a port) where more than one business has control and influence over the work on site.
- in a contracting chain, where contractors and subcontractors provide services to a head contractor or client and do not necessarily share the same workplace.

A PCBU must, so far as is reasonably practicable, consult, cooperate and coordinate activities with all other PCBUs they share duties with so that all PCBUs can meet their joint responsibilities.

A PCBU cannot transfer or contract out of their duties, or pass liability to another person.

However a PCBU can make an agreement with another PCBU to fulfil specific duties. Even if this occurs, all PCBUs are still responsible for meeting their legal duties.

Example

A local hotel contracts out housekeeping services to an agency. The hotel and agency both have a duty to ensure the health and safety of the housekeeping workers, so far as is reasonably practicable. This includes the duty to provide first aid facilities.

The agency reaches an agreement with the hotel – if their workers need first aid while working at the hotel they can use the hotel's first aid facilities.

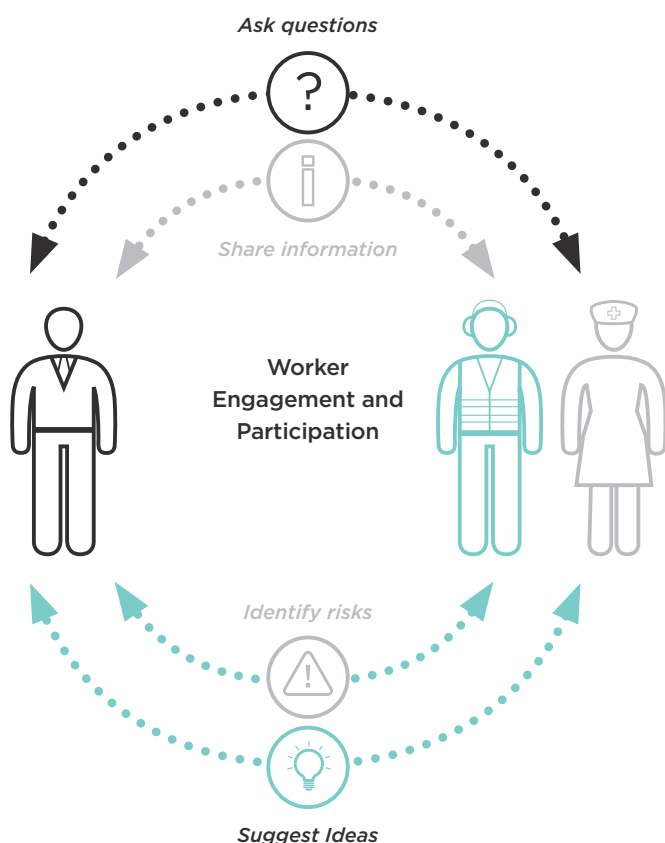
For more information, see our guidance: [Overlapping duties](#)

Appendix 8: Worker engagement, participation and representation Part 3 of HSWA

Engage with workers and enable their participation

A PCBU has two main duties related to worker engagement and participation:

- to engage with workers on health and safety matters that affect or are likely to affect workers, so far as is reasonably practicable, and
- to have practices that give workers reasonable opportunities to participate effectively in the ongoing improvement of work health and safety.



A PCBU can engage with workers by:

- sharing information about health and safety matters so that workers are well-informed, know what is going on and can contribute to decision-making
- giving workers reasonable opportunities to have a say about health and safety matters
- listening to and considering what workers have to say at each step of the risk management process
- considering workers' views when health and safety decisions are being made
- updating workers about what decisions have been made.

A PCBU must engage with workers during specified times, including when identifying hazards and assessing risks.

A PCBU must have clear, effective, and ongoing ways for workers to suggest improvements or raise concerns.

Worker representation

Workers can be represented by a Health and Safety Representative (HSR), a union representing workers, or a person that workers authorise to represent them (for example, a community or church leader, or another trusted member of the community).

HSRs and Health and Safety Committees (HSCs) are two well-established methods of participation and representation. If workers are represented by an HSR, worker engagement must also involve that representative.

For more information

WORKSAFE GUIDANCE

Good practice guidelines

[Worker engagement, participation and representation](#)

Interpretive guidelines

[Worker representation through Health and Safety Representatives and Health and Safety Committees](#)

Pamphlets

[Worker representation](#)

[Health and Safety Committees](#)

[Health and Safety Representatives](#)

Appendix 9: Upstream duties sections 39–43 of HSWA

A PCBU in the supply chain (upstream) also has a duty to ensure, so far as is reasonably practicable, that the work they do or the things they provide to other workplaces do not create health and safety risks.

An upstream PCBU is a business that:

- designs plant, substances, or structures
- manufactures plant, substances, or structures
- imports plant, substances, or structures
- supplies plant, substances, or structures
- installs, constructs or commissions plant or structures.

Upstream businesses are in a strong position to eliminate or minimise risk. They can influence and sometimes eliminate health and safety risks through designing, manufacturing, importing or supplying products that are safe for the end user.

Example

A worker using a badly designed or poorly manufactured saw may be at risk of injury. This risk should have been eliminated or minimised, so far as was reasonably practicable, by the designer or manufacturer.

For more information, see our website: [worksafe.govt.nz](https://www.worksafe.govt.nz)

Upstream duties for designers section 39 of HSWA

A designer creates or modifies a design for plant, substances or structures that are to be used or operated, or could be used or operated, in a workplace.

A designer has a duty, so far as is reasonably practicable:

- to make sure the products they design do not create health and safety risks for the people that use them and those nearby
- to make sure the products they design have been tested so they are safe for use in a workplace
- to give the following information to those who will use the designed products:
 - the design's purpose or intended use
 - the results of any calculations or tests
 - any general and current relevant information about how to safely use, handle, store, construct, inspect, clean, maintain, repair, or otherwise work near the designed products.

These requirements apply across the product's entire lifecycle – from manufacture and construction, through to everyday use, decommissioning and disposal.

For more information, see our guidance: [Health and safety duties for businesses that design products for workplaces](#)

Upstream duties for manufacturers section 40 of HSWA

A manufacturer makes plant, substances or structures that are to be used, or could be used or operated, in a workplace.

A manufacturer has a duty, so far as is reasonably practicable:

- to make sure the products they manufacture do not create health and safety risks for the people that use them and those nearby
- to make sure the products they manufacture have been tested so they are safe for use in a workplace

- to give the following information to those that will use the manufactured products:
 - the purpose or intended use of each product
 - the results of any calculations and tests
 - any general and current relevant information about how to safely use, handle, store, construct, inspect, clean, maintain, repair, or otherwise work near the manufactured products.

These requirements apply across the product's entire lifecycle – from manufacture and construction, through to everyday use, decommissioning and disposal.

For more information, see our guidance: [Health and safety duties for businesses that manufacture products for workplaces](#)

Upstream duties for importers [section 41 of HSWA](#)

An importer imports plant, substances or structures that are to be used, or could be used or operated, in a workplace.

An importer is a business:

- that goods are imported **by**, or
- that goods are imported **for**.

Importation is another word for importing. Importation refers to the **arrival of goods** in New Zealand from a point outside New Zealand. These goods can arrive in any manner.

An importer has a duty, so far as is reasonably practicable:

- to make sure the products they import do not create health and safety risks for the people that use them and those nearby
- to make sure the products they import have been tested so they are safe for use in a workplace
- to give the following information to those who will use the imported products:
 - the purpose or intended use of each product
 - the results of any calculations and tests
 - any general and current relevant information about how to safely use, handle, store, construct, inspect, clean, maintain, repair, or otherwise work near the imported products.

These requirements apply across the product's entire lifecycle – from construction or assembly, through to everyday use, decommissioning and disposal.

Imported products must also meet all New Zealand regulatory requirements relevant to that product.

For more information, see our guidance: [Health and safety duties for businesses that import products for workplaces](#)

Upstream duties for suppliers [section 42 of HSWA](#)

A supplier supplies plant, structures or substances that may be used in a workplace.

A supplier has a duty, so far as is reasonably practicable:

- to make sure the products they supply do not create health and safety risks for the people that use them and those nearby
- to make sure the products they supply have been tested so they are safe for use in a workplace

- to give the following information to those who will use the supplied products:
 - the purpose or intended use of each product
 - the results of any calculations and tests
 - any general and current relevant information about how to safely use, handle, store, construct, inspect, clean, maintain, repair, or otherwise work near the supplied products.

These duties do not extend to the sale of second-hand plant sold 'as is'.

These requirements apply across the product's entire lifecycle – from construction or assembly, through to everyday use, decommissioning and disposal.

For more information, see our guidance: [Health and safety duties for businesses that supply products for workplaces](#)

Upstream duties for installers, constructors or commissioners of plant or structures [section 43 of HSWA](#)

An installer/constructor builds and/or assembles and installs plant and structures that may be used at a workplace. A commissioner performs adjustments, tests and inspections on plant and structures before they are used for the first time in a workplace.

An installer, constructor or commissioner has a duty, so far as is reasonably practicable, to make sure that the way the plant or structure is installed, constructed or commissioned does not create health and safety risks to the people that come into contact with it across the product's entire lifecycle – from construction or assembly, through to everyday use, decommissioning and disposal.

For more information, see our guidance: [An additional health and safety duty for businesses that install, construct or commission plant or structures for workplaces](#)

Disclaimer

This publication provides general guidance. It is not possible for WorkSafe to address every situation that could occur in every workplace. This means that you will need to think about this guidance and how to apply it to your particular circumstances.

WorkSafe regularly reviews and revises guidance to ensure that it is up-to-date. If you are reading a printed copy of this guidance, please check worksafe.govt.nz to confirm that your copy is the current version.

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