

Clinical and related waste guidance

Supplement for healthcare staff

SUSTAINABILITY
IN HEALTHCARE



Victorian Health and Human Services
BUILDING AUTHORITY



To receive this publication in an accessible format email the
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Foreword

How we manage our waste directly affects the environment and the health and wellbeing of Victorians. The Victorian Government is committed to improving waste management in healthcare facilities to deliver positive environmental, social and economic impacts.

In 2017–18 Victorian public hospitals generated 35,000 tonnes of waste. Thirteen per cent of this was clinical and related waste, which accounted for 55 per cent of waste management costs. Audits have shown that in some areas up to 60 per cent of the clinical waste generated could have been safely disposed of in general or recycling streams at a significantly lower cost.

The Environment Protection Authority Victoria (EPA) *Clinical and Related Waste – Operational Guidance* document (IWRG612) outlines the storage, transport, treatment and disposal regulations that apply to all clinical and related waste produced by hospitals, as well as other generators.



Robert Fiske
Chief Executive Officer

Victorian Health and Human
Services Building Authority



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The contents of this Clinical and Related Waste Guidance – Supplement for healthcare staff is the result of extensive consultation and collaboration with a range of stakeholders, including clinical staff, waste processors, government departments, pharmaceutical and infection control networks, as well as Victorian water authorities and independent clinical waste experts. It provides a simple and practical decision-making process for determining how we should best manage clinical waste.

I encourage all health service staff responsible for managing clinical waste to familiarise themselves with its contents so we can continue to deliver the best health and wellbeing for all Victorians, while also protecting the environment and reducing health costs.



Introduction

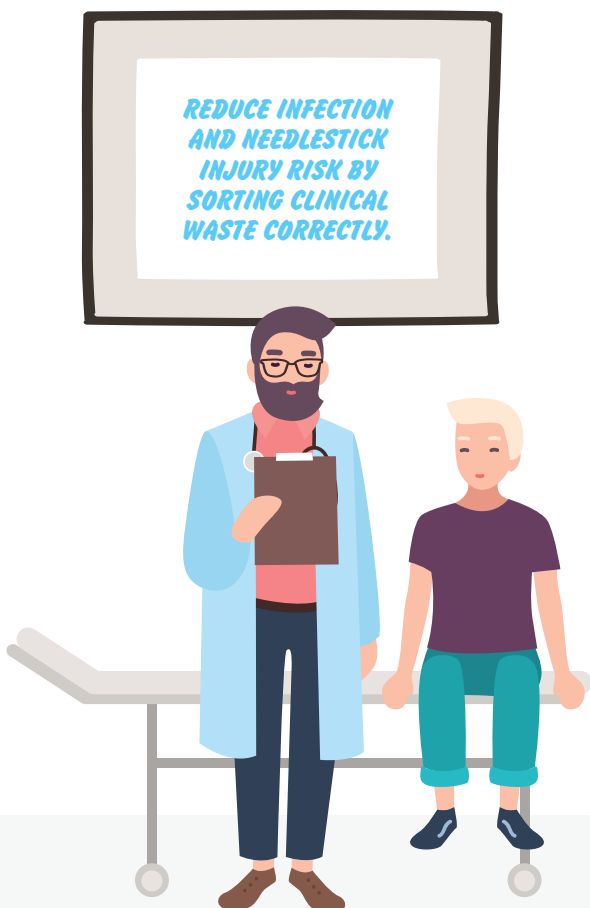
Who should read this booklet?

Healthcare staff within Victoria who handle clinical waste in their day-to-day work.

What is this booklet for?

This booklet is a user-friendly guide to supplement the EPA's *Clinical and Related Waste – Operational Guidance document* (IWRG612).

It provides a simple and practical decision-making process that will help you identify whether items are clinical and related wastes, landfill waste, or can be recycled. It also addresses some common misunderstandings regarding what is and is not clinical and related waste.



Why is clinical waste management important?

Hospitals, and their staff, are responsible for ensuring the safe and correct storage and handling of clinical waste.

Sorting clinical waste correctly can have a wide range of positive consequences including:

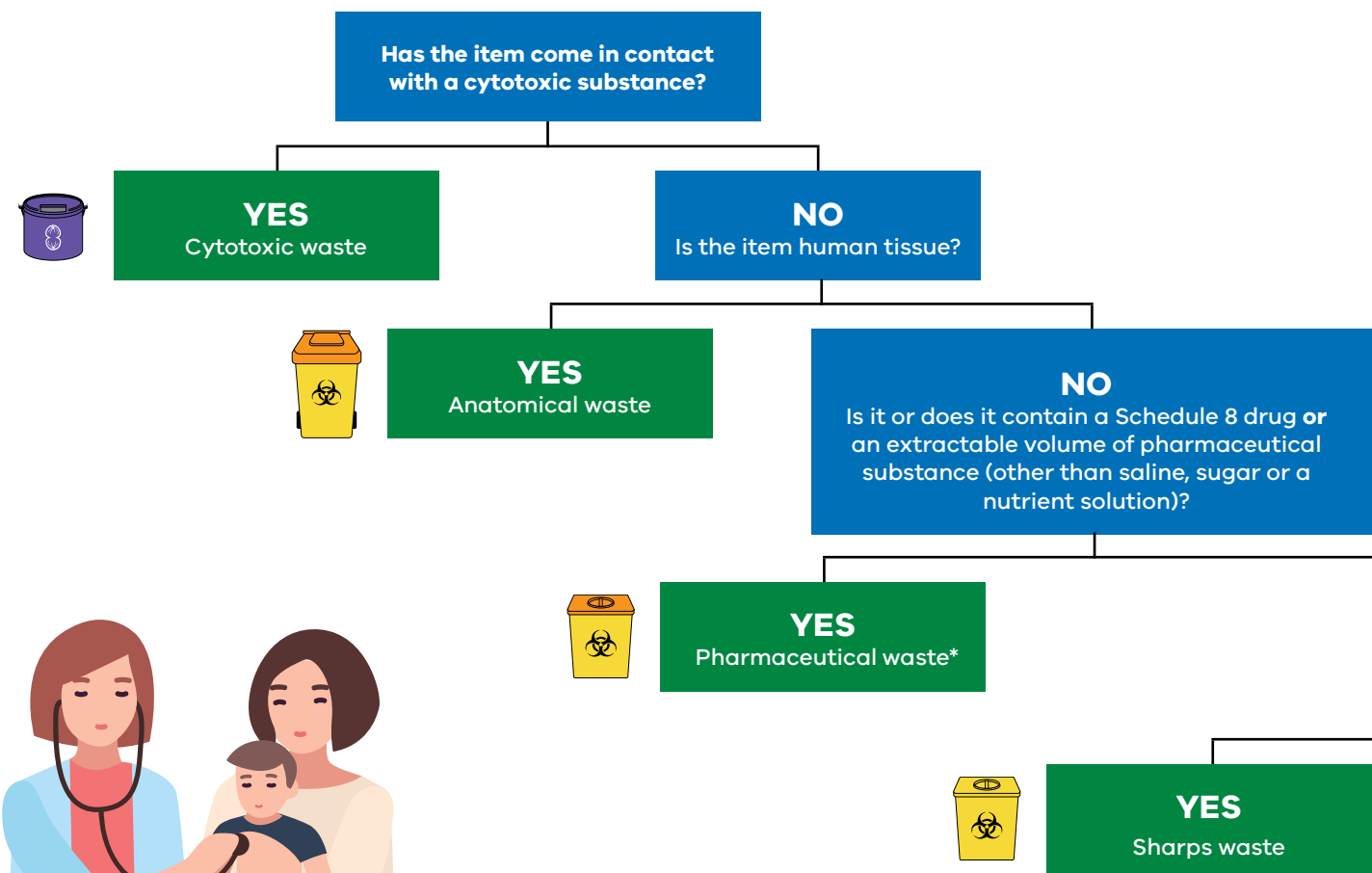
- reduced risk of anti-microbial contamination and reduced risk of introducing of anti-microbial resistance into the environment
- reduced incidence of needlestick injuries
- lower infection risk for staff
- reduced damage to the environment such as reduced water table contamination and carbon emissions
- reduced waste management costs for hospitals
- compliance with EPA and WorkSafe regulations.

This booklet, as well as the guidelines themselves, should be read in conjunction with your health service's healthcare protocols. If specific questions are not answered in this booklet seek clarification with your health service.

Note:

1. The treatment and disposal of radioactive waste is not addressed in this document. For guidance on radioactive waste management refer to the *Victorian Radiation Act 2005* and the Department of Health and Human Services *Disposal of Radioactive Material* guidance (see Australian Guidelines for the Prevention and Control of Infection in Healthcare (2019))
2. Flush refers to the disposal of waste as per standard precautions. Dedicated flush facilities must be used and appropriate personal protective equipment worn (<https://www.nhmrc.gov.au/health-advice/public-health/preventing-infection>)
3. This booklet should not be used by healthcare staff outside of Victoria because the regulations for clinical and related waste differ between states and territories.

Waste decision tree

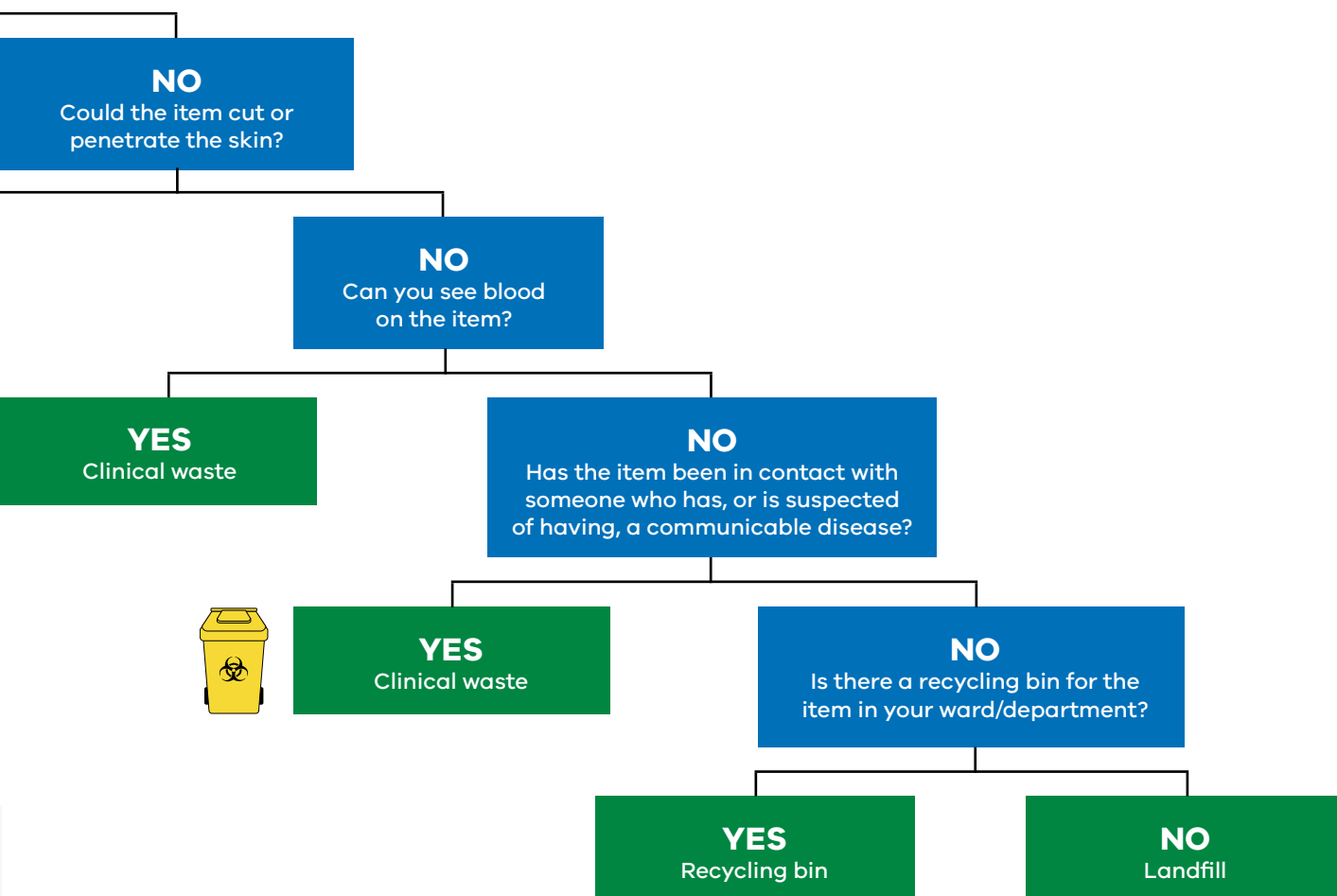
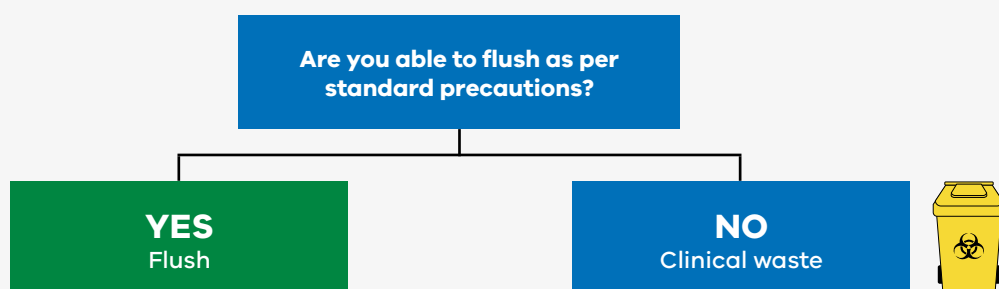


** Schedule 8 drugs must be destroyed in accordance with the Drugs, Poisons and Controlled Substances Regulations 2017*

Do the **CAPS-BBI** check.
If the item is/contains:
Cytotoxic
Anatomical
Pharmaceutical
Sharp
Blood
Body fluid
Infectious
it must go into a cytotoxic, anatomical, pharmaceutical, sharps or clinical waste bin.

Body fluids (including bulk body fluids)

Note: Faeces, urine, vomit, sputum and meconium **are not** body fluids.



Clinical waste streams

Note: All radioactive waste must be disposed of in accordance with the department's *Disposal of radioactive material* guidance.

Treatment: Incineration

Pharmaceutical, anatomical and cytotoxic waste is incinerated between 900 and 1200° C, denaturing pharmaceutical substances and turning the waste into ash and gases.

Cytotoxic waste

Material that is, or may be, contaminated with a cytotoxic drug during the preparation, transport or administration of cytotoxic therapy.

Receptacle

Purple, puncture-resistant, leak-proof container depicting symbol of a cell undergoing telophase



Anatomical waste

Anatomical waste is human tissue and includes:

- pathology and biopsy specimens
- tissue taken during surgery or autopsy
- extracted teeth contaminated with blood
- body organs, limbs or cadavers/bodies
- fetuses not requiring burial or fetuses for burial in an appropriate method
- placentae, including if requested for home retention.

There are religious considerations and personal wishes in relation to items such as placentae and fetuses. Where patients wish to make their own arrangements for these items, the hospital should obtain written advice from the patient accepting responsibility for them.

Receptacle

Yellow bin with orange lid and depicting the biohazard symbol in black



Pharmaceutical waste

Pharmaceutical substances and containers include:

- pharmaceuticals from incomplete infusions
- any Schedule 8 drugs of addiction, including residue or trace
- patients' unused pharmaceuticals
- pharmaceuticals that are unwanted or out of date
- sharps, packages, containers and equipment containing extractable volumes of pharmaceutical substances
- pharmaceutical substances rejected by the manufacturer due to quality control considerations.

This excludes:

- materials where all extractable contents have been removed (other than cytotoxics or Schedule 8 drugs of addiction), such as empty pill bottles
- saline, sugar, nutrient solutions and associated packaging, containers and equipment.

WARNING: Unless it is saline, sugar or a nutrient solution, pharmaceutical substances **must not** be flushed, poured down sinks or disposed of directly to the environment.

Note: Schedule 8 drugs must be destroyed in accordance with the Drugs, Poisons and Controlled Substances Regulations 2017

Receptacle

Yellow container with orange lid and depicting biohazard symbol in black



Treatment: Sterilisation

Clinical and Sharps waste is sterilised using a shredding and chemical disinfection process. It is then sent to landfill.

Sharps waste

Any item that is able to cut or penetrate the skin.

This includes, but is not limited to:

- syringes with attached needles
- lancets
- scalpel blades
- devices with retractable sharps
- IV spikes

The only exceptions to this are:

1. if a health service has an approved single use metal instrument recycling collection in place on the ward
2. if the item is cytotoxic or pharmaceutical waste, which take precedence over sharps waste disposal.

Receptacle

Yellow container and lid depicting the biohazard symbol in black



Clinical waste

Any item:

1. from a patient suspected, or known, to have a communicable disease
2. on which you can see wet or dry blood
3. containing body fluids (unless able to be flushed as per standard precautions).

Receptacle

Yellow bag or container with yellow lid, depicting the biohazard symbol in black



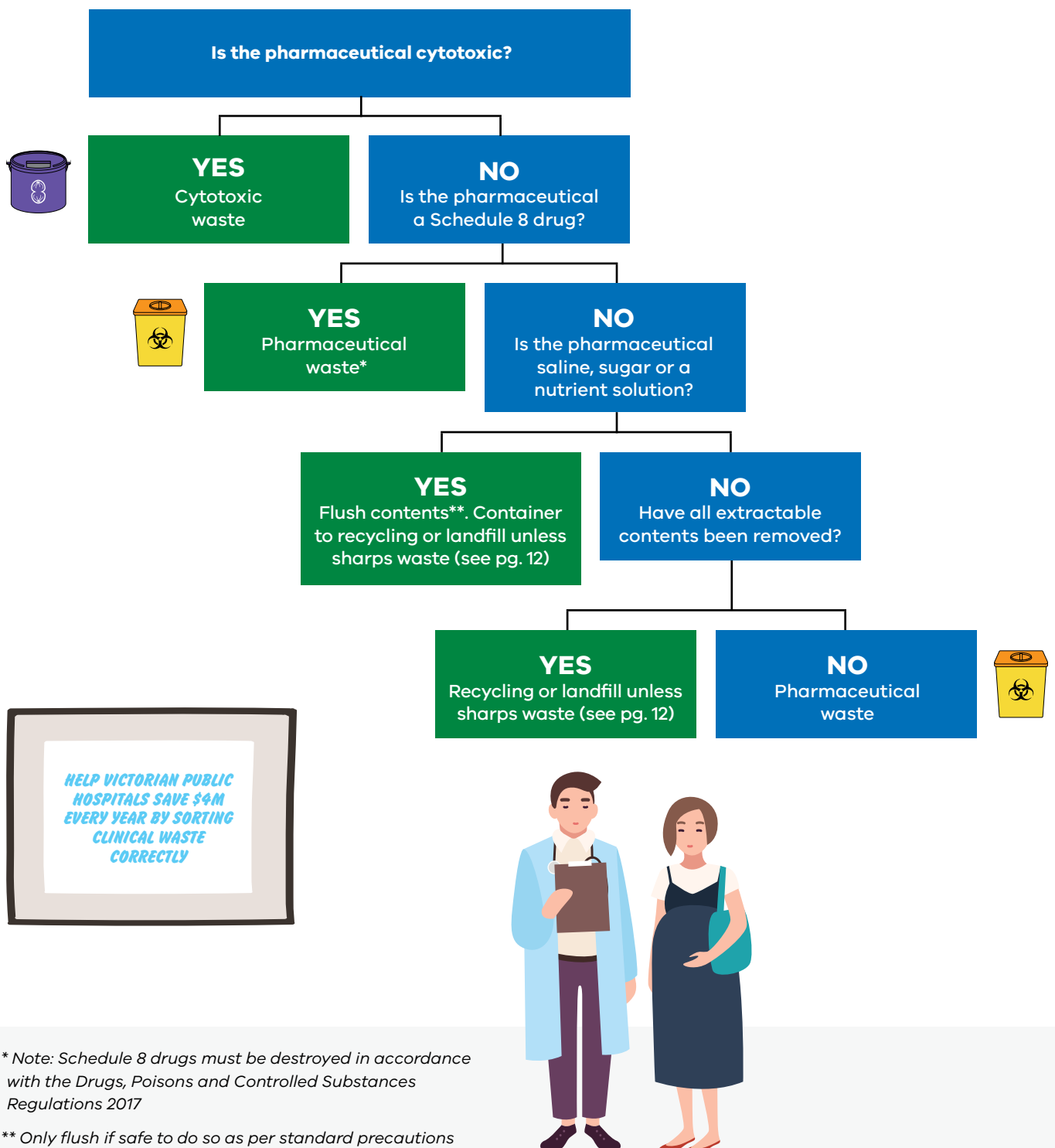
Note: Faeces, urine, vomit, sputum and meconium **are not** body fluids.



Pharmaceutical container

(including medicine bottles, syringes, tubing, vial or ampule)

WARNING: Unless it is saline, sugar or a nutrient solution pharmaceutical substances **must not** be flushed, poured down sinks or disposed of directly to the environment.



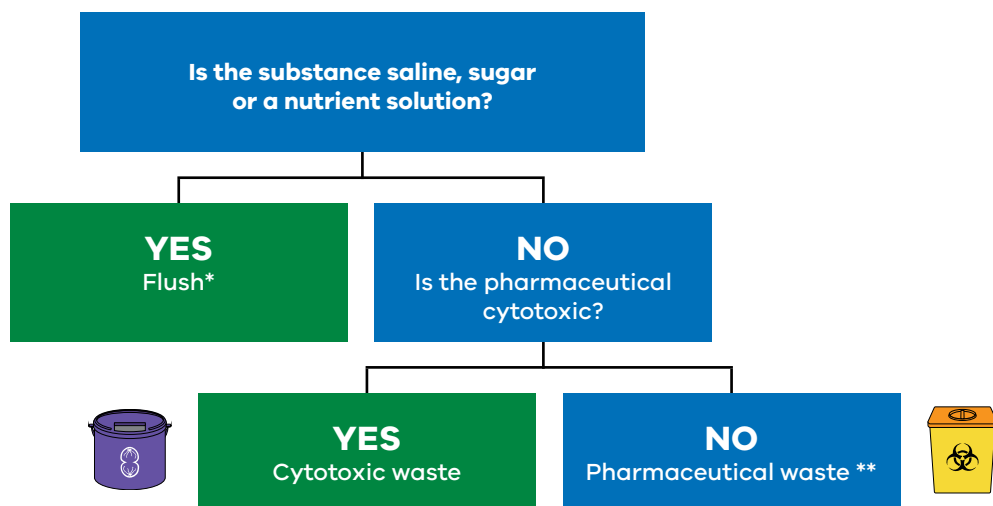
HELP VICTORIAN PUBLIC
HOSPITALS SAVE \$4M
EVERY YEAR BY SORTING
CLINICAL WASTE
CORRECTLY

* Note: Schedule 8 drugs must be destroyed in accordance with the Drugs, Poisons and Controlled Substances Regulations 2017

** Only flush if safe to do so as per standard precautions

Pharmaceutical substance

WARNING: Unless it is saline, sugar or a nutrient solution, pharmaceutical substances **must not** be flushed, poured down sinks or disposed of directly to the environment.



Dave has a pill bottle containing tablets that are no longer needed. He disposes of the tablets in the pharmaceutical bin and the now empty pill bottle in the landfill or recycling bin.



After administering medication to a patient Robin has only used half of the contents of an ampule. As not all of the contents have been extracted Robin places the ampule in the pharmaceutical waste bin.



Jesse extracts all the contents of a glass vial when administering medication to a patient. These are a few droplets of pharmaceutical left in the vial. As the pharmaceutical is not a Schedule 8 drug or cytotoxic, and all extractable contents have been removed, Jesse disposes of the vial in the landfill bin.

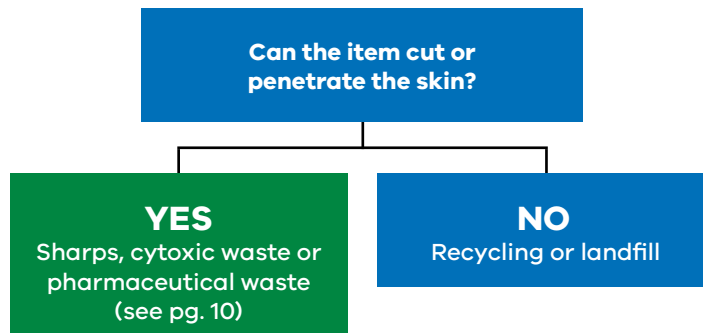
** Only flush if safe to do so as per standard precautions.*

***Schedule 8 drugs must be destroyed in accordance with the Drugs, Poisons and Controlled Substances Regulations 2017.*

Sharps

Note: A syringe without a needle is not classified as a sharp.

A sharp is any item capable of cutting or penetrating the skin.



Jesse has an empty ampule after treating a patient. Due to the sharp edges on the ampule Jesse knows that it could cut or penetrate skin and so he disposes of the ampule in the sharps bin.



Sarah administers medication through an IV line. As the syringe does **not** have a needle on it, and is empty, Sarah disposes of the syringe in the landfill bin.

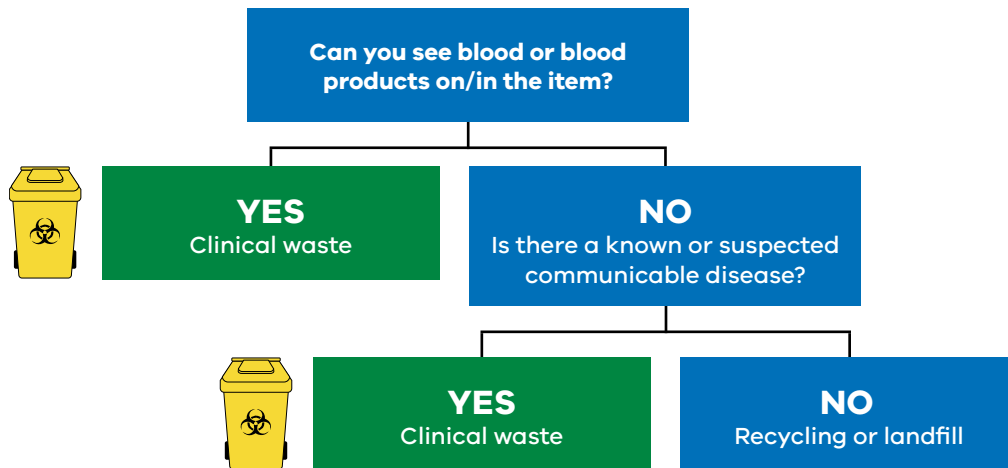


Carrie has two empty glass vials after treating a patient. As the vials are not broken they cannot cut or penetrate the skin. Carrie disposes of the vials in the landfill bin.

Blood and blood products

(including items contaminated with blood and blood products)

Albumin, plasma, serum and so on



Jesse is cleaning up after surgery. A disposable kidney dish was brought into the theatre during set up but was not used during the procedure. Jesse places the kidney dish into the recycling (or landfill) bin because it is not clinical waste.



A few drops of blood fall onto a piece of sterile wrap during a procedure. Dave places the sterile wrap into the clinical waste bin.



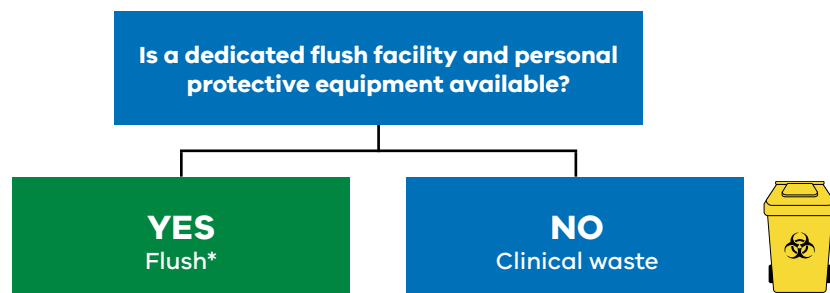
Robin takes blood from a patient. Her gloves do not have any blood on them and so Robin disposes of them in the landfill bin.

Body fluids and bulk body fluids

(including items contaminated with body fluids)

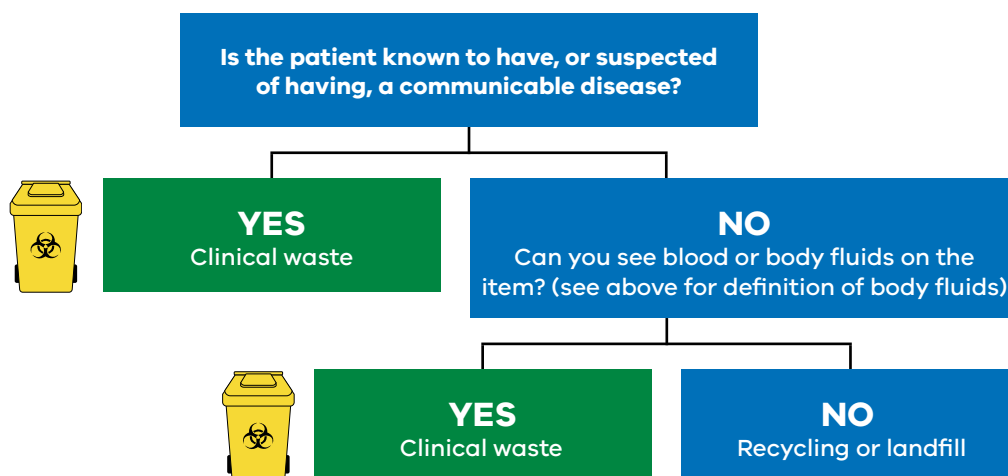
Note: Faeces, urine, vomit, sputum and meconium are **not** body fluids

Including but not limited to: amniotic, cerebrospinal, synovial, pleural, pericardial and peritoneal fluids, as well as breast milk, semen and vaginal secretions.



Items from a patient with a communicable disease

(known or suspected)

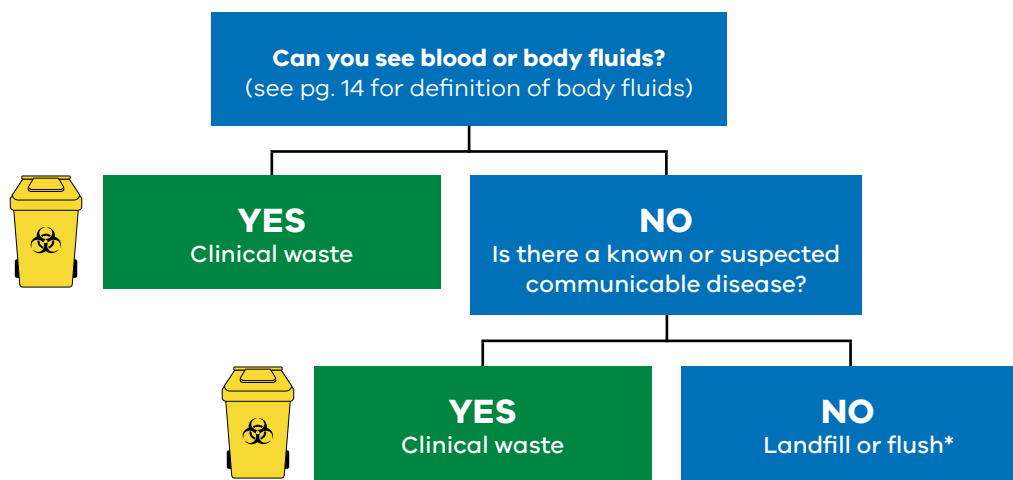


** Body fluids should only be flushed if safe to do so as per standard precautions.*

Faeces, urine, vomit, sputum or meconium

(including items contaminated with faeces, vomit, sputum and meconium)

Note: Faeces, urine, vomit, sputum and meconium **are not** body fluids.



After treating a patient Jessica needs to dispose of a bag of urine. Because there is no blood in the urine, and the patient is not suspected of having a communicable disease, Jessica flushes the urine and disposes of the bag in general waste.



A patient in the emergency department vomits. The patient has a suspected communicable disease and so Sarah disposes of the towels used to clean up the vomit in the clinical waste bin.



Carrie works in an aged care facility. Carrie knows that, if the used continence aids do not have blood on them, they are disposed of in general waste bins.

** Only flush if safe to do so as per standard precautions*

Other ways to minimise contamination

- Always place clinical waste bins next to general waste bins (and recycling bins if available).
- If using clinical waste bags only open them when required, not when setting up for a procedure.
- Use consistent bin colours for each waste stream (see pages 8 and 9).
- Ensure all bins have clear signage.
- Use CAPS-BBI when deciding whether an item is clinical waste (see page 6).

Contacts

For clarification regarding clinical and related waste talk to your nurse unit manager, infection control representative or environmental sustainability officer.

If they are not available, contact the Sustainability Team at the Department of Health and Human Services (sustainability@dhhs.vic.gov.au).



Reference documents

Department of Health and Human Services (2017) Disposal of radioactive material (<https://www2.health.vic.gov.au/public-health/radiation/licensing/management-licenses-businesses/general-conditions/acquisition-disposal-relocation>)

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Standards Australia (2018) DR AS 3816:2018, Management of clinical and related wastes

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Notes

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