Queensland Health

Disposal and destruction of diversion-risk medicine waste

Medicines and Poisons Act 2019 – Factsheet July 2022

This factsheet provides important information regarding destruction and disposal of medicine waste under the *Medicines and Poisons Act 2019* (**MPA**). The procedure for disposal of expired/unwanted Schedule 8 (S8) medicines has changed. You must no longer send these medicines to Queensland Health's Forensic and Scientific Services (FSS) for destruction.

Overview

What are diversion-risk medicines?

The *Medicines and Poisons Act 2019* (**MPA**) introduces new categories of medicines to allow specific controls to be placed on these categories of substances. *Diversion-risk medicines* are those that present a higher risk for diversion. They are listed in Schedule 2, Part 3 of the *Medicines and Poisons (Medicines) Regulation 2021* (**MPMR**) and include all S8 medicines, as well as medicines such as barbiturates, benzodiazepines, codeine, pseudoephedrine and ephedrine, anabolic and androgenic steroidal agents, growth hormone releasing hormones and peptides, and selective androgen receptor modulators (SARMs).

What is disposal?

Under section 28 of the MPA, to *dispose*, of waste from a regulated substance, means to discard, destroy or abandon the waste at a place.

Is destruction different from disposal?

Yes. Destruction is one form of disposal and can only be carried out by certain persons. Not all persons who are authorised to dispose are permitted to destroy.

Who may *dispose* of diversion-risk medicine waste?

Pharmacists, medical practitioners, nurses, veterinary surgeons and most approved persons that are authorised to administer a diversion-risk medicine are authorised to dispose of those medicines (refer to the relevant approved person Schedule in the MPMR). Persons authorised under a substance authority (licence or approval) may also be authorised to dispose of waste (specific provision for this is made in a relevant substance authority).

To allow other persons to legally dispose of a diversion-risk medicine, section 42(2)(a) of the MPA provides that **any person may discard diversion-risk medicine waste by placing it**

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under the control of a person authorised to dispose of the waste, such as a pharmacist or an approved waste management company.

Disposal

Environmental requirements

The *Environmental Protection Regulation 2019* (Qld) classifies medicines and pharmaceutical waste as regulated waste. To prevent environmental contamination, medicines must not be disposed of as general waste. They must not be poured down a sink, flushed down a toilet, or sent to landfill as they persist for a long time in the environment and in water supplies. The Environmental Protection Regulation requires that **all medicine waste must undergo high temperature incineration** (as the final step of disposal).

Requirements under the MPA

The requirements for disposing of diversion-risk medicine waste are contained in Chapter 4, Part 11 of the MPMR.

Waste awaiting disposal

All S8 medicine waste waiting to be destroyed must be kept secure in an S8 safe, separated from other medicines in the safe, clearly marked for destruction and may only be removed immediately before destruction or being transferred for destruction.

S4 and S3 diversion-risk medicine waste must not be left unattended in a location unless the disposer reasonably believes a member of the public could not access the waste without being seen and the waste is likely to be taken for destruction as soon as practicable.

Pathways for disposal

Diversion-risk medicine waste must be either:

- destroyed and then sent for high temperature incineration, or
- given to a person who may destroy the waste (such as a pharmacist or an approved medicine waste management company), destroyed and/or be sent for high temperature incineration.

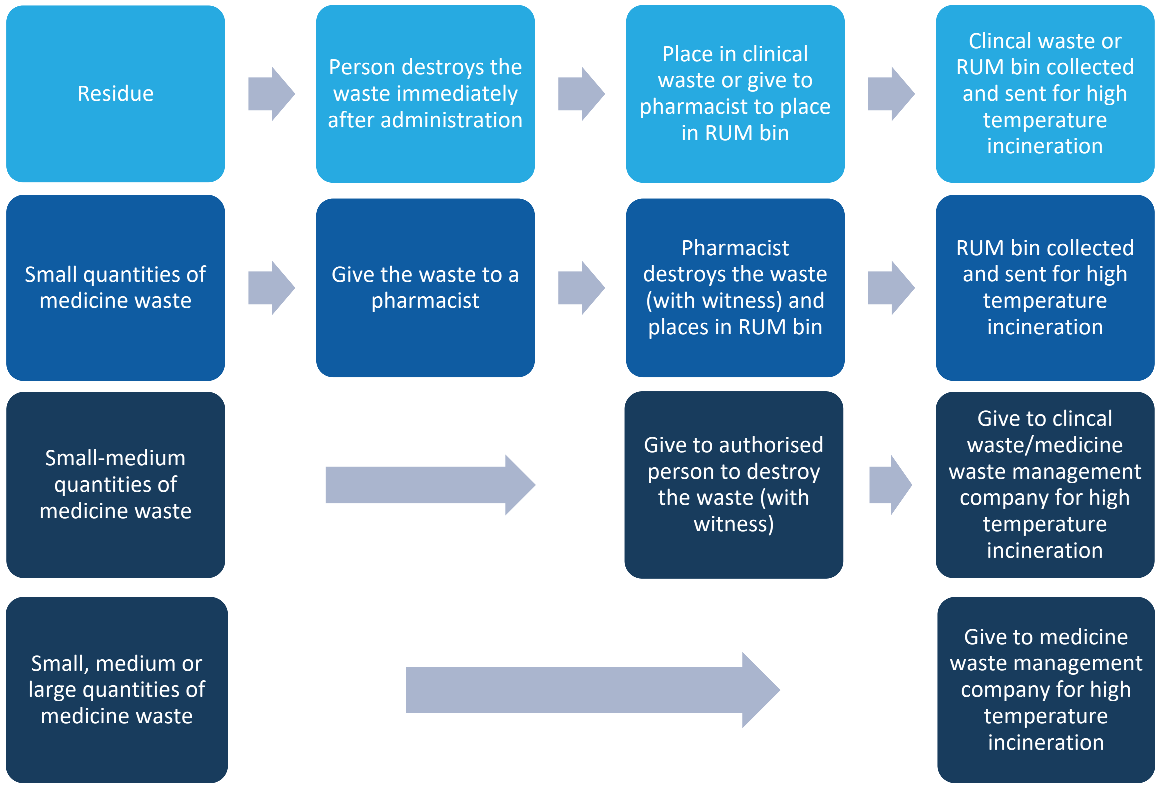
Essentially, small quantities of waste may be given to pharmacists under the Commonwealth funded Return Unwanted Medicines (**RUM**) Project[1]. A pharmacist will destroy and dispose of the waste in a RUM bin which is then collected and sent for high temperature incineration.

Large or commercial quantities, including waste from aged care, hospitals and other health facilities are not appropriate for inclusion in a RUM bin and should be given to an authorised medicine waste management company for high temperature incineration.

Figure 1 below provides some examples of pathways for disposal.

[1] Return Unwanted Medicines is a national not-for-profit company funded by the Commonwealth Government through the Department of Health to address the Quality Use of Medicines (QUM) in Australia. The returned medicines are disposed of by high-temperature incineration, which is in accordance with regulatory and EPA requirements (returnmed.com.au/about-us/).

Figure 1: Pathways for disposal



Pathway	Most suitable for
	Persons authorised to administer a diversion-risk medicine only
	Consumers, persons who may administer or give a treatment dose of a medicine, small veterinary, medical or health services/clinics/practices, small pharmacies, schools, childcare
	Medium and large clinics/practices, hospitals, private health facilities, aged care, prisons, pharmacies, wholesalers and manufacturers

Records that must be kept

In accordance with Chapter 8, Part 2, Division 3 of the MPMR, records must be kept for all regulated activities carried out with any S8 medicine. While the MPMR does not require a record to be made about the destruction of residues that are not required for administration, local policies (which may include a substance management plan (**SMP**)) may require a record to be made. It is an offence under section 94 of the MPA if a person does not comply with requirements of an applicable SMP.

In all other circumstances, each time waste of an S8 medicine is disposed of (which includes destroyed), it must be recorded in the medicine register. Sections 212 and 213 of the MPMR require that the record must include:

- date of disposal;
- medicine name and strength;

- quantity of waste disposed;
- a description of the disposal (e.g. whether the medicine waste was destroyed or disposed by transfer to a person/entity authorised to destroy the waste);
- name and signature of the person who disposed (destroyed) the medicine waste;
- for disposal of waste from a diversion-risk medicine by transfer—the name and signature of the person to whom the waste was transferred;
- for disposal of waste from a diversion-risk medicine by destruction—
  - the name and signature of the person who witnessed the destruction of the medicine; and
  - information stating the person's authority to witness the destruction;
- for disposal under a general approval—the name of the person who authorised the disposal (which may or may not be the person who disposed of the waste).

Transfer of S8 waste

Where S8 medicine waste is transferred to a person authorised to destroy the waste, the person ***receiving*** the S8 waste must acknowledge receipt of the waste by either:

(a) signing an entry for the transfer of the waste in the medicine register for the S8 safe in which the waste was kept before the transfer; or

(b) signing a separate notice for the person transferring the waste.

The person transferring the waste must keep the notice.

Destruction

Who may *destroy* diversion-risk medicine waste and when?

In accordance with section 42 of the MPA and sections 143, 147 and 148 of the MPMR, waste from a diversion-risk medicine may only be destroyed by certain persons or in certain situations, as follows:

1. A person who discards or destroys the waste under another law, e.g. the holder of an environmental authority under the *Environmental Protection Act 1994* who destroys the waste in accordance with the authority (s42(2)(b) MPA) – see 'waste management companies' below.
2. Any person who may administer a diversion-risk medicine may destroy any residue (waste) from a diversion-risk medicine in the form of—

   (i) an unused portion of a tablet; or

   (ii) the unused partial contents of a previously sterile ampoule or container; or

   (iii) a used transdermal patch;

   provided that **the waste is destroyed immediately after the medicine is no longer required** for administration (s143(2) MPMR).
3. Waste from a diversion-risk medicine from an RFDS medicine chest kept by the Royal Flying Doctor Service of Australia may be destroyed in accordance with the general approval for the RFDS (s143(3) MPMR).

4. A person authorised to dispose of waste (most approved persons who may administer or supply a diversion-risk medicine) may destroy S3 or S4 diversion-risk medicine waste (s148 MPMR).
5. In all other circumstances, only a person in charge of disposal at a place listed in the following table may destroy waste from an S8 diversion-risk medicine. The destruction of S8 medicine waste must be independently witnessed by another person who is a member of a class of persons listed in **Table 1**, an inspector appointed under the MPA or a police officer. The witness may not be related or married to, or in a de facto relationship with the person destroying the medicine (s147 MPMR).

Table 1: Persons approved to destroy S8 medicine waste (section 147 MPMR)

Persons approved
ambulance officer
dentist
medical practitioner
midwife
registered nurse
enrolled nurse
podiatrist or podiatric surgeon
pharmacist
veterinary surgeon
person authorised to supervise the destruction of the S8 medicine waste under a substance authority

Waste management companies

Any company that holds an environmental authority granted under the *Environmental Protection Act 1994* to transport and destroy (incinerate) pharmaceutical waste (a form of regulated waste), may collect medicine waste under the MPA. To find one in your area, try conducting an internet search for ‘pharmaceutical waste disposal in [your city name]’. You do not need to witness waste being destroyed by an environmental authority holder.

How can diversion-risk medicine waste be destroyed?

A **medicine is destroyed when it has been rendered unusable and unidentifiable**. Typically, this requires two steps. This could be achieved by, for example, crushing tablets, emptying liquids from ampoules or bottles, or cutting up patches **AND** dispersing that waste in a manner that prevents subsequent retrieval. Suitable mediums for dispersion include kitty litter, sawdust, concrete or another absorbent material.

Table 2: Preparing dosage forms for dispersion

Dose form	Suggested method
Tablets/ Capsules	Remove from packaging and empty contents of capsules or crush tablets until they form a powder. Obliterate tamper resistant products such as OxyContin® SR in a grinding/blending machine (not used for food preparation).
Patches	Cut into roughly 1cm strips.
Ampoules	If there are a few ampoules, break the top and empty contents. If there is a large number (e.g. > 20 ampoules) of glass ampoules, place ampoules on several sheets paper, cover with a similar number of sheets and crush with a heavy object such as a brick or hammer. Discard crushed ampoules with paper.
Lozenges/ sublingual wafers	In a container, cover lozenges/wafers with a small amount of hot water, dissolve by stirring.

Information sourced and adapted from: Northern Territory Department of Health, 2016

Do I need to destroy the waste? What are the benefits?

In most cases, no, you do not need to destroy the waste. Although any person listed in **Table 1** above is authorised to destroy the medicine waste (with a witness), there is no requirement under the MPMR to destroy the waste prior to sending the waste for high temperature incineration.

It is, however, a requirement under the RUM Project – **pharmacists must destroy the waste prior to placing the waste in a RUM bin**.

Even where not required, it is considered best practice to destroy the waste if possible, to reduce the opportunity for diversion.

The key benefits to destroying waste are that, the destroyed waste:

- does not need to be stored in the S8 safe;
- may be discarded with clinical or other waste that is being sent for high temperature incineration.

Further information

For further information, contact the Healthcare Approvals and Regulation Unit (HARU): HARU@health.qld.gov.au