



## Medical Waste

For the safety of staff, patients, waste contractors and the community at large we need to appropriately segregate, store and remove all waste for processing by appropriate methods to minimise the risk of harm.

To this end we need to be mindful of

1. Regulatory requirements and standards
2. Practical solutions, safety, training and common practice

Regulatory requirements. There are a number of standards and regulations, including local authority, and these can be interpreted somewhat differently by different people.

Practical solutions should include the former to implement appropriate segregation and packaging of waste, storage, removal, disinfection and sterilisation processes.

**The New Zealand Standard Management of Healthcare Waste (NZS 4304:2002) can be used as a key document.**

This categorises **Healthcare Waste** as follows:

### 1. Hazardous Waste

#### a. Sharps

- i. Infectious (yellow specific sharps container)
- ii. Cytotoxic
- iii. Radioactive



#### b. Non Sharps

- i. Infectious (yellow bag)
- ii. Body parts
- iii. Radioactive
- iv. Cytotoxic
- v. Other hazardous waste



### 2. Controlled Waste

potentially infectious body fluids which

**'shall not contain any expressible liquid under compaction'**

i.e. this waste (bag) category must never be able to leak in use or during further processing.

e.g. Place sufficient absorbent material, paper towels, in plastic bag with potential leaking item to absorb any potential leakage, before placing in **controlled waste** receptacle/bin

### 3. Non Hazardous Waste

- a. Recyclable waste
- b. General waste



Comments on the above starting at the bottom of the list:

### #3 Non Hazardous Waste, straight forward

- 3 a. **recyclable** - cardboard, paper, aluminium cans, (unbroken) glass drink bottles, aluminium cans, non human organics, etc which can be limited or expanded according to what any local authority is set up for
- 3 b. **general waste** - other non infectious, non recyclable material

### #2 "Controlled Waste"

**This is likely a key one for medical practices, and will likely include the bulk of the (non sharp) medical biological contaminated waste (but not able to leak).**

Controlled waste is recognised as coming from a healthcare facility and which may be contaminated or soiled with potentially infectious human or animal body fluids which:

**shall not contain any expressible liquid under compaction**

**i.e. it must not drip or leak if it were to be squeezed before placing in the controlled waste container. And if expressible liquid is present, it either has to go into Hazardous Waste or another solution would be to package it with enough absorbent material around it so it could not leak on later compaction.**

For safety reasons, these containers should never be able to leak either in the surgery or after later compaction (e.g. in waste removal truck) by an accredited waste collection system.

**Items can include for instance: emptied urine bags, IV tubing (no needle) and bags, catheter tubing, syringes (without needles), emptied drainage collectors (e.g. colostomy, minivacs), disposable sheeting, used dressings, gauze, etc, used and emptied specimen containers, used PPE equipment, etc**

All Hazardous and Controlled Waste categories are recommended to be collected and processed only by those specifically accredited to do so. Controlled Waste is substantially cheaper to dispose of than Hazardous Waste including infectious waste (but more expensive than Non Hazardous Waste).

### #1 Hazardous Waste

#### a. Handling and disposal of Sharps

Sharps include disposable permanently fixed needle-syringe combinations, needles, scalpel blades, single-use razors and other sharp items e.g. glass vials with tops broken (but **not** glass vials with an intact rubber membrane – no sharp parts)

- **needles should not be recapped**, but they may be removed, if not one piece device, by use of the safety removal device on the top of the sharps container, or other specific safety removal device
- sharps to be disposed of **immediately** following use and **at the point of use** in a clearly-labeled, puncture-resistant sharps container
- ensure sharps containers are out of reach of wandering inquisitive children
- documented standard operating procedures for practice team members should be available
- **Do not overfill containers or use for non sharps materials**
- **Assemble properly, ensuring lid/top is securely locked in place**

Sharps go through a considerable process (and cost) after removal by the accredited waste collector. The container has to be autoclaved, then all the contents have to be ground with special grinders to a powder. All non sharp material in a sharps container (whole vials, tubing, packaging, syringes without needles, etc) has to go through this process also!

#### **General comments re medical waste disposal**

- Standard Precautions should apply when handling medical/ infectious waste
- gloves and protective clothing should be worn as appropriate
- personnel must be properly trained
- manual handling should be avoided
- waste must be placed in appropriate containers (not overfilled) for storage and disposal by an appropriate waste contractor
- Infectious Medical Waste i.e. any biological material, not sharp, that has "expressible liquid" (and so able to leak) present should be removed via a specific Infectious Waste non sharps process