



INTERIM POLICY FOR THE DISPOSAL OF DEPARTMENTAL CLINICAL AND MEDICAL WASTE

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Environmental Health Program

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1. INTRODUCTION

Clinical and related wastes are defined as wastes arising from medical, nursing, dental, veterinary, pharmaceutical, or similar practices and wastes generated in hospitals and other facilities during the investigation or treatment of patients or in research projects. For the purpose of this Policy, Clinical and related wastes include both medical waste and 'non-hazardous' general waste.

The bulk of Clinical and related wastes come from health care establishments such as hospitals. As some of the waste can be hazardous, special procedures are necessary for its disposal.

The medical waste component of Clinical and related wastes can present handling, storage, transport and/or disposal problems for the following reasons:

- the volume of waste generated;
- some of these wastes can be potentially hazardous to personnel involved in their disposal, and to the public, if not managed safely; and
- the wastes may also cause visual offence and pollute the environment if they are not disposed of properly.

This Policy has been developed to provide standards for the disposal of clinical and related wastes, and particularly the medical waste component, at health care establishments operated by the Department of Health and Community Services.

2. CATEGORIES OF WASTES

For the purposes of this policy the following definitions apply

Medical Waste : Medical waste means waste consisting of :

- sharps;
- human tissue, bone, organ, body part or foetus;
- a vessel, bag or tube containing a liquid body substance;
- an animal carcass discarded in the course of veterinary research or medical practice or research;
- a specimen or culture discarded in the course of medical, dental or veterinary practice or research and any material that has come into contact with such a specimen or culture;
- heavily bloodstained bandages and dressings and those from infectious sources;
- cytotoxic waste;
- pharmaceuticals, and
- any other article or matter that is discarded in the course of medical, dental or veterinary practice or research and that poses a significant risk to the health of a person who comes into contact with it.

Sharps

Sharps are a form of medical waste consisting of objects or devices having acute rigid corners, edges, points or protuberances capable of cutting or penetrating the skin. This includes a needle, syringe with needle, surgical instrument or other article that is discarded in the course of medical, dental or veterinary practice or research and has a sharp edge or point capable of inflicting a penetrating injury on a person coming into contact with it.

Human Tissues

Human tissues are a form of medical waste and consist of body tissues, organs, limbs, blood, and other body fluids that are removed during surgery and autopsy.

Cytotoxic Waste

Cytotoxic waste is a component of medical waste and is considered to be material which is, or may be contaminated with, a cytotoxic drug during the preparation, transport or delivery of a cytotoxic therapy. Cytotoxic waste can be identified using the symbol of a dividing cell.

Pharmaceutical Waste

Pharmaceutical waste is a component of medical waste and may arise from:

- pharmaceuticals that have passed their recommended shelf life;
- discarded pharmaceuticals due to off-specification batches or contaminated packaging;
- pharmaceuticals returned by patients or discarded by the public;
- pharmaceuticals that are no longer required by the establishment;

- waste generated during the manufacture of pharmaceuticals, and
- waste having had contact with pharmaceuticals.

General Waste

General waste is a form of clinical and related wastes but is **not** considered to be medical waste. General waste can consist of:

- paper and plastic;
- kitchen and other food waste;
- Flowers and plant material;
- containers emptied of blood and body fluids;
- incontinence sheets;
- dressings and bandages except for those defined in "Medical Waste" above, and
- nappies and disposable napkins (refer to section 5.6 regarding the disposal of these).

3. STORAGE OF WASTES

Storage facilities for waste shall be adequate, suitably sited, safe, hygienic and appropriately sign-posted. Health care establishments are responsible to provide:

- designated storage areas with adequate lighting
- waste security and restriction of access to authorised persons
- storage area design that facilitates easy cleaning and maintenance to hygienic standards.

All medical wastes to be stored for periods greater than 24 hours shall be stored under refrigeration in a lockable cool-room or secure refrigerator.

4. TRANSPORT OF WASTES

Containers used for the transport of medical waste shall be puncture resistant, leak-proof, shatter-proof and constructed to withstand heavy handling. They must also be clearly and indelibly marked with the words "Medical Waste". The containers should be easy to handle, and in the case of re-usable containers, easy to clean. The holding compartments of vehicles used for the transportation of medical waste must be totally enclosed and of a strong weather-proof construction. These compartments must be securely locked at all times when waste is not being loaded or unloaded. The design of the vehicle should afford the driver, and the general public, protection from the wastes in the event of an accident.

All medical waste that is to be transported for periods in excess of two hours must be stored in a suitably refrigerated compartment, and the vehicle used for transportation must display the symbol for Medical waste.

5. DISPOSAL OF CLINICAL AND RELATED WASTE

A large proportion of clinical and related waste is no more dangerous than domestic waste. Waste segregation at the source allows for disposal to supervised landfill as a viable alternative to incineration for the bulk of clinical and related wastes generated.

For the purposes of this policy the following definitions apply:

Incineration is defined as the process of combustion at a minimum temperature of 1100 degrees Celsius, carried out in a multiple chambered incinerator that has mechanisms for closely monitoring and controlling the combustion processes. This is in contrast to the fire box, or domestic incinerator, in which combustion is usually incomplete and involves uncontrolled temperatures.

Landfill, or sanitary landfill, is defined as a waste disposal facility that has been approved by the Chief Health Officer and where there is no potential for ground water contamination. Where a site is proposed to be used, and a potential exists for contamination of the water table, the landfill site must be adequately sealed so as to eliminate this potential. The siting, design and management of the landfill must be in accordance with the joint Department of Health and Community Services and Department of Natural Resources, Environment and the Arts' publication, Guidelines for the Siting, Design and Management of Solid Waste Disposal Sites.

Disposal methods for wastes differ for different categories and in different geographical areas. Some categories of medical waste require special disposal procedures which are discussed below.

5.1 Medical Waste

All medical waste, other than that from remote Aboriginal communities and Nhulunbuy, shall be disposed of by incineration, at an incinerator approved by the Chief Health Officer of Department of Health and Community Services. Although incineration is still preferred for sharps, pharmaceuticals and wastes from infectious sources in Nhulunbuy and remote Aboriginal communities (see 5.2-5.5 below), all medical waste **except for cytotoxics**, from these areas may be disposed of to landfill.

Medical waste disposed of to landfill in Nhulunbuy or remote Aboriginal communities shall be immediately covered with a minimum of 1000mm (1 metre) of soil or solid non-medical waste. Public access to the point of disposal of medical wastes shall be restricted during the active disposal period. Medical wastes must not be handled by landfill site operators. The owner of the waste or their agent, who is trained to deal with the waste, must deposit the material to the lower edge of the working face of the landfill, and supervise immediate covering of the waste. Where suitable landfill facilities are not available at a remote Aboriginal community, or immediate covering can not be guaranteed, medical waste shall be transported to an approved Incineration facility.

5.2 Medical Waste from an Infectious Source

Where waste from an infected source (such as laboratory specimens and human tissues that are contaminated with pathogenic organisms) is intended to be disposed of to landfill in Nhulunbuy or remote Aboriginal communities, it **must be treated** prior to disposal. This treatment can include autoclaving or microwaving (although it should be noted that human tissue should not be treated by microwaving). Where infected waste can not be treated it shall be disposed of by incineration.

5.3 Cytotoxic Waste

Cytotoxic waste from all sources shall be disposed of by incineration, because of its high toxicity.

5.4 Sharps

Sharps shall be placed in a designated and appropriately labelled sharps container directly after use. The design and construction of the container shall be such so as to reduce the possibility of injury to handlers during collection and transport of sharps for disposal. Whilst sharps may be disposed of to landfill in Nhulunbuy or remote Aboriginal communities, **it is preferable for all sharps to be disposed of by incineration.**

5.5 Pharmaceutical Waste

Pharmaceutical waste shall be placed in a designated, non-reactive and appropriately labelled container directly after use. Whilst pharmaceuticals may be disposed of to landfill in Nhulunbuy or remote Aboriginal communities, **it is preferable for all pharmaceuticals to be disposed of by incineration.** Where practicable, non-flammable liquids such as antibiotic solutions should be absorbed by an absorbent such as sawdust, enclosed in either a wet bag or a plastic bag, and then incinerated.

5.6 General Waste

General waste from clinical sources shall be disposed of to a landfill site approved by the Chief Health Officer in the same manner as household waste.

There is no evidence that, under normal circumstances, the disposal of soiled babies' nappies and sanitary napkins/tampons pose a particular risk of infection. However, large quantities of disposable nappies and napkins may have the potential to cause offence, and for this reason should be treated as for medical waste, and covered immediately.