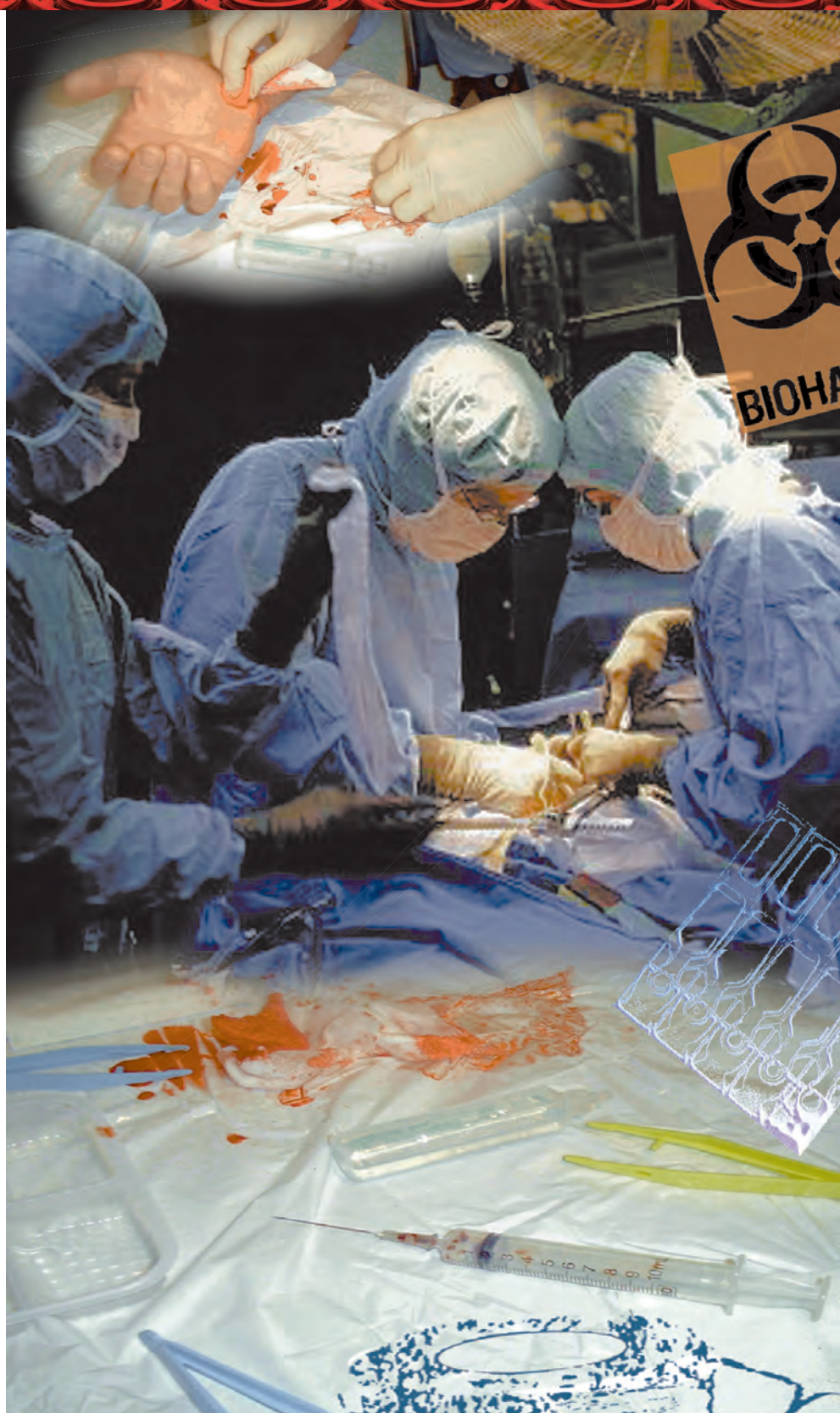
NZS 4304:2002

New Zealand Standard

Management of Healthcare Waste

Superseding NZS 4304:1990 and AS/NZS 3886:1998

NZS 4304:2002



NZ Chemical Industry Council Inc.

Single User PDF Terms & Conditions

You have material which is subject to strict conditions of use. Copyright in this material is owned by the New Zealand Standards Executive. Please read these terms and conditions carefully, as in addition to the usual range of civil remedies available to Standards New Zealand on behalf of the New Zealand Standards Executive for infringement of copyright, under New Zealand law every person who infringes copyright may be liable to a fine of up to $10,000 for every infringing copy or imprisonment of up to 5 years, or a fine of up to $150,000 or imprisonment not exceeding 5 years.

You have access to a single-user licence to read this non-revisable Adobe Acrobat PDF file and print out and retain ONE printed copy only.

We retain title and ownership of the copyright in this PDF file and the corresponding permitted printed copy at all times.

Under this license use of both the PDF file and the single permitted printed copy of this PDF file you may make are restricted to you. Under no circumstances are you permitted to save, sell, transfer, or copy this PDF file, the one permitted printed copy of this PDF file, or any part of either of them.

You undertake that you will not modify, adapt, translate, reverse engineer, decompile, disassemble or create derivative works based on any of the downloaded PDF file, nor will you merge it with any other software or document, even for internal use within your organization.

Under no circumstances may this PDF file be placed on a network of any sort without our express permission.

You are solely responsible for the selection of this PDF file and any advice or recommendation given by us about any aspect of this PDF file is intended for guidance only and is followed or acted upon entirely at your own risk.

We are not aware of any inherent risk of viruses in this PDF file at the time that it is accessed. We have exercised due diligence to ensure, so far as practicable, that this file does not contain such viruses.

No warranty of any form is given by us or by any party associated with us with regard to this PDF file, and you accept and acknowledge that we will not be liable in any way to you or any to other person in respect of any loss or damage however caused which may be suffered or incurred or which may arise directly or indirectly through any use of this PDF file.

Regardless of where you were when you received this PDF file you accept and acknowledge that to the fullest extent possible you submit to New Zealand law with regard to this licence and to your use of this PDF file.

COMMITTEE REPRESENTATION

This Standard was prepared under the supervision of the Committee (P4304) for the Standards Council established under the Standards Act 1988.

The following interests are represented on the committee responsible for this New Zealand Standard:

Capital and Coast District Health Board
Hutt City Council
Hutt Valley District Health Board
Institute of Environmental Science and Research
Medical Waste Limited
Ministry of Health
New Zealand Chemical Industry Council
New Zealand Fire Service
New Zealand Nurses Organisation
Occupational Safety & Health Service
Waste Management New Zealand Limited

ACKNOWLEDGEMENT

Standards New Zealand acknowledges the assistance provided by the New Zealand Chemical Industry Council, as a designated Standards agency, in the preparation of this Standard.

Published by Standards New Zealand, the trading arm of the Standards Council, Private Bag 2439, Wellington 6020.
Telephone: (04) 498 5990, Fax: (04) 498 5994.
Website: www.standards.co.nz

AMENDMENTS

No	*Date of issue*	*Description*	*Entered by, and date*

NZS 4304:2002

Management of Healthcare Waste

CONTENTS

RELATED DOCUMENTS

New Zealand Standards

NZS 5433:1999 Transport of dangerous goods on land

NZS 7603:1979 Specification for refuse bags for local authority collection (low density polyethylene)

Joint Australian/New Zealand Standards

AS/NZS 4261:1994 Reusable containers for the collection of sharp items used in human and animal medical applications

AS/NZS 4478:1997 Guide to the reprocessing of reusable containers for the collection of sharp items used in human and animal clinical/medical applications

Australian Standards

AS 4031:1992 Non-reusable containers for the collection of sharp medical items used in healthcare areas

Other Publications

CDC Guideline for Isolation Precautions in Hospitals 1996

Code of Health and Disability Services Consumers' Rights 1996

Hauora o te tinana me ōna tikanga–Service Providers (A guide for the removal, retention and disposal of Māori body parts, organ donation and post mortem). Te Puni Kokiri, Ministry of Māori Development 1999

International Air Transport Association (IATA) Dangerous Goods Regulations

International Maritime Dangerous Goods (IMDG) Code

National Radiation Laboratory (NRL) Code of safe practice for the use of unsealed radioactive materials in medical diagnosis, therapy, and research, NRL C3 1994

United Nations Recommendations on the Transport of Dangerous Goods

World Health Organization (WHO) Laboratory Biosafety Manual 2nd edition 1993

New Zealand Legislation

Fire Safety and Evacuation of Buildings Regulations 1992
Hazardous Substances and New Organisms Act (HSNO) 1996
Health and Safety in Employment Act 1992
Human Tissue Act 1964
Land Transport Rule: Dangerous Goods 1999
Resource Management Act 1991
The Health and Disability Commissioner (Code of Health and Disability Services Consumers' Rights) Regulations 1996

The users of this Standard should ensure that their copies of the listed New Zealand Standards or of the overseas Standards endorsed as suitable for use in New Zealand are the latest revisions or include the latest amendments. Such amendments are set out in the annual *SNZ Catalogue* which is supplemented by lists contained in the monthly magazine *Standards Update* issued free of charge to committee and subscribing members of SNZ.

REVIEW OF STANDARDS

Suggestions for improvement of this Standard will be welcomed. They should be sent to the Chief Executive, Standards New Zealand, Private Bag 2439, Wellington 6020.

FOREWORD

General

This Standard provides guidelines for the disposal of human and animal healthcare waste, including generators, waste transporters and waste disposal facilities. The layout is designed to enable ease of reference to the particular industry, such as "Waste Generator Responsibilities" or "Transporters' Responsibilities".

Healthcare waste in this Standard refers to all waste generated by any healthcare facility and classified as either 'Non-Hazardous', 'Controlled' or 'Hazardous' waste. Non-hazardous waste constitutes the bulk of waste generated by healthcare organizations, and is no more of a public health risk or concern than domestic or household waste. Hazardous and controlled waste refer to healthcare waste which may present a public health or environmental risk or may be considered to be offensive. The safe management of healthcare waste will ensure community and environmental health are protected, irrespective of the technologies used for treatment and disposal.

The Standard outlines procedures for the classification, segregation, packaging/containment, labelling, storage, transport and disposal of healthcare waste.

The Standard also provides guidance on best practice in the management of healthcare waste, over and above legislative requirements, in order to minimize potentially acute, long-term, or accumulative environmental and human health impacts.

Treaty of Waitangi

This Standard recognizes the commitment made by the New Zealand Government to consult with Māori under the Treaty of Waitangi (Te Tiriti o Waitangi) principles of active protection and partnership. These principles are reflected in the Resource Management Act in s6(e), which recognizes and provides for, as a matter of national importance, the relationship of Māori, their culture and traditions with their lands, water, ancestral sites, wāhi tapu, and other taonga; s7(a) which requires those exercising powers under the Act to have regard to kaitiakitanga; and, s8, requiring the principles of the Treaty of Waitangi to be taken into account in managing the use, development and protection of natural and physical resources.

Risk Management

Hazardous waste can present handling, storage, transport, and/or disposal problems for the following reasons:

(a) Risk to personnel;

(b) Risk to the public;

(c) Risk to the environment; or

(d) Risk of cultural and aesthetic offence.

The key to minimizing public health or environmental risk from healthcare waste management is the development and implementation of waste management policies and plans. The organization or individual generating healthcare waste (particularly hazardous components) is responsible for ensuring the safe management of such

waste through to final disposal. Each generating organization should therefore have a waste management policy that encompasses the objectives in this Standard. The policy should be discussed with the local authority, who has responsibility to liaise with local communities regarding waste disposal processes.

Waste Minimization

A fundamental principle of any waste management strategy is minimizing waste generation. This has important long-term benefits both to public health and the environment.

The appropriate classification and segregation of waste at the point of generation will enable healthcare organizations to minimize costs, volumes/quantity of waste, and the environmental impacts of certain waste. For instance, segregating materials for recycling (where recycling facilities are available) will reduce the volume of waste to landfill, reduce waste disposal costs and reduce environmental impacts.

Longer-term strategies for waste minimization will require a review of healthcare practices and purchasing policies. This will include life cycle analysis of products used in clinical practice, such as switching to more environmentally friendly technologies/products, consideration/implementation of reuse/reusables, recycling and other waste minimization techniques.

Audit Checklist

To assist organizations implement the requirements of this Standard, the framework of a checklist is available from the Standards New Zealand website:

http://spex.standards.co.nz/project.jsp?id=101824.

The checklist is provided for guidance only and does not constitute a comprehensive internal or external audit tool or a method of verifying compliance. Compliance can only be ascertained through assessment against the requirements of the Standard itself. In all cases checklists should be modified to suit the particular nature of the organization involved.

This Standard supersedes NZS 4304:1990 and AS/NZS 3816:1998 which will revert to being an Australian only Standard at its next revision.

NOTE - On the cover of this Standard we have inadvertently referred to AS/NZS 3886:1998. This should read AS/NZS 3816:1998.

NOTES

NEW ZEALAND STANDARD

MANAGEMENT OF HEALTHCARE WASTE

1 SCOPE AND OBJECTIVES

1.1 Scope

This Standard covers waste management generated in the provision of healthcare services.

1.2 Objectives

The objectives of this Standard are to protect people, property and the environment by:

(a) Identifying and correctly categorizing waste generated from human and animal healthcare services to ensure safe and proper waste segregation from source to disposal;

(b) Facilitating compliance with regulatory requirements and best practice in the management of healthcare waste; and

(c) Minimizing waste generation and the environmental impact of healthcare waste generation, treatment and disposal; while

(d) Ensuring appropriate consultation with Māori under Treaty of Waitangi commitments.

1.3 Interpretation

The terms "Normative" and "Informative" have been used in this Standard to define the application of the Appendix to which they apply. A "Normative" Appendix is an integral part of a Standard whereas an "Informative" Appendix is only for information and guidance. Informative provisions do not form part of the mandatory requirements of the Standard.

The word "shall" identifies a mandatory requirement for compliance with the Standard. The word "should" refers to practices which are advised or recommended.

2 DEFINITIONS

For the purposes of this Standard the following definitions shall apply:

BODY PARTS. Human or animal body parts, tissue and/or organs.

NOTE – For the purposes of this Standard foetuses and placentae are treated as body parts.

BUND. Containment by a secure wall, ridge or depression of sufficient integrity to completely contain liquid within, or run-off from waste stored within its confines.

COLLECTION. The aggregation of waste from primary sources or storage areas for movement to a waste holding area or from waste holding areas for movement to pre-disposal storage.

CONTAINER. A receptacle for the storage of waste. It may be a bag or a hard shell vessel.

CONTROLLED WASTE. Healthcare waste that is recognizable as coming from a healthcare facility (see Appendix A for examples), which:

(a) May be contaminated or soiled with potentially infectious human or animal body fluids which shall not be expressible under compaction; or

(b) Is not infectious but may be considered culturally or aesthetically offensive.

CYTOTOXIC WASTE. Waste cytotoxic drugs or material that is – or may be – contaminated with a cytotoxic drug. Cytotoxic drugs are toxic compounds known to have carcinogenic, mutagenic and/or teratogenic (causing foetal and/or neonatal abnormalities) potential.

DANGEROUS GOODS. Substances having the properties described in Table A of the Land Transport Rule: Dangerous Goods and include packaging and empty containers that have not been cleaned after containing dangerous goods (see Appendix B).

DIAGNOSTIC SPECIMEN. Any human or animal material including – but not limited to – excreta, secreta, blood and its components, tissue and tissue fluids for diagnostic or investigative purposes but excludes live infected animals.

GENERAL WASTE. Any waste deemed disposable without controls, either at landfill or to the sewer.

HAPŪ. Māori family groups, communities.

HARD SHELL CONTAINER. A reusable or disposable vessel complying with the appropriate standard.

HAZARDOUS WASTE. A component of the waste stream exhibiting characteristics posing a threat or risk to public health, safety or the environment.

HEALTHCARE SERVICES. Includes hospitals, long-term care facilities, surgical and medical centres. It also covers, but is not restricted to: facilities providing dental or animal treatment and research; blood bank, health emergency, home healthcare, laboratory, mortuary, pharmaceutical, podiatry, tattooing, body piercing or sex services; pet shops; boarding kennels; other similar practices or premises.

NOTE – Waste from pet shops and boarding kennels is included because of the greater volume of waste than that generated in a domestic situation, and the greater risk of animals carrying infectious organisms (e.g. cryptosporidia, camplyobacter and giardia).

HEALTHCARE WASTE. Waste generated by healthcare services.

HOME HEALTHCARE WASTE. Healthcare waste generated in the home.

INFECTIOUS WASTE. Substances known to contain, or reasonably expected to contain, pathogens. Infectious waste includes, but is not limited to, the following:

(a) Discarded laboratory specimens, cultures and materials that have been in contact with them;

(b) Sharps other than those categorized as radioactive or cytotoxic;

(c) Receptacles containing body fluids;

(d) Waste containing expressible body fluids;

(e) Waste from isolation rooms.

IWI. Māori tribal groups.

KAITIAKITANGA. Guardianship; the duty of tangata whenua to take care of the resources and taonga in their area for present and future generations.

MAURI. Essential life force, the spiritual power and distinctiveness which enables each thing to exist as itself.

NON-HAZARDOUS WASTE. Any waste not classified within any of the categories of HAZARDOUS WASTE or CONTROLLED WASTE.

OTHER HAZARDOUS WASTE. Hazardous waste not categorized as infectious, cytotoxic or radioactive.

PATHOGENS. Micro-organisms (including bacteria, viruses, rickettsiae, parasites, fungi) or recombinant micro-organisms (hybrid or mutant) capable of causing disease.

PRE-DISPOSAL STORAGE. Storage of waste collected from waste holding areas for final disposal.

PRIMARY STORAGE. Storage of waste near the source.

RADIOACTIVE WASTE. Material, whatever its physical form, arising from the medical or research use of radionuclides and for which no further use is foreseen that contains radioactive substances and has an activity (or activity concentration) higher than the clearance level from regulatory requirements, and exposure to this material is not excluded by the regulatory authority.

RECYCLABLES. Any product, package or element thereof that can be diverted from the waste stream and, through existing processes, be collected, processed and returned to use in the form of raw materials or products.

REUSABLE. A product that can be used more than once in its existing form, without further manufacture.

SANITARY LANDFILL. A landfill that provides for an engineered method of disposing of solid waste on land in a manner that protects the environment, e.g. by spreading the waste in thin layers, compacting it to the smallest practical volume, and covering it with soil by the end of each working day, constructing barriers to infiltration and evacuating the gases produced.

SEGREGATION. The process of separating wastes by waste category at their generation point (also known as separation at source), while keeping the different categories apart during handling, interim storage and transportation, prior to disposal.

SHARPS. Objects or devices having sharp points, protuberances or cutting edges, capable of causing a penetrating injury to humans, or puncturing containers.

NOTE – Sharp objects (e.g. broken glass, broken crockery) uncontaminated by body fluids or hazardous substances may be wrapped and disposed of as general waste.

STERILIZATION. The destruction of all micro-organisms.

STORAGE. The accumulation of waste, after segregation, in a specified container in a specific location.

TANGATA WHENUA. Māori people (iwi or hapū) holding customary authority in an identified area.

TAONGA. Valued resources, assets, prized possessions both material and non-material.

WĀHI TAPU. Sites and places sacred to Māori.

WASTE ANALYSIS. The identification and quantification of all waste types generated by an organization.

WASTE AUDIT. A systematic investigation of waste management activities throughout the life cycle of the waste to determine if management practices comply with any waste management policy in place.

WASTE DISPOSAL OPERATOR. The person or organization responsible for the processing and/or disposal of healthcare waste.

WASTE GENERATOR. The person or organization responsible for producing healthcare waste.

WASTE STREAM. A single or multiple selection of waste managed as a single entity rather than by components. A waste stream may comprise waste from a subset of one category, waste from a single category, or waste from two or more categories. Where waste from two or more categories is managed as a single stream, the management controls shall be the most stringent requirements for all the categories present.

WASTE TRANSPORTER. The person or organization involved in transporting healthcare waste.

3 CATEGORIZATION OF HEALTHCARE WASTE

3.1 Healthcare waste

3.1.1 *Specific category classification*

Healthcare waste shall be categorized as hazardous, controlled or non-hazardous waste in accordance with 3.2 to 3.5 and figure 1.

NOTE – Healthcare waste is categorized by its properties and characteristics rather than the source of the waste, e.g. laboratory, home healthcare, etc.

3.1.2 *Multiple category classification*

Waste which falls into one or more category shall be classified according to the highest risk category present and shall meet the most stringent requirements of all categories present.

3.1.3 *Non-segregated waste*

Waste that has neither been segregated, or mixed with other waste categories after segregation, shall be categorized as that portion of the waste representing the highest risk.

3.2 Hazardous waste

3.2.1 *Classification responsibility*

The classification of hazardous waste, other than that classified under other legislation, shall be the responsibility of the healthcare facility generating the waste. Suitable documentation should be held, to assist with categorization and management of waste (e.g. material safety data sheets).

NOTE –

(1) Hazardous waste may have a wider definition under the Resource Management Act.

(2) For transport, infectious substances are required to be classified in Division 6.2 of the United Nations dangerous goods classification system (refer to NZS 5433:1999) and assigned to UN 2814 INFECTIOUS SUBSTANCE, AFFECTING HUMANS; UN 2900 INFECTIOUS SUBSTANCE, AFFECTING ANIMALS ONLY; UN 3291 CLINICAL WASTE, UNSPECIFIED, N.O.S. (or (BIO) MEDICAL WASTE N.O.S. or REGULATED MEDICAL WASTE, N.O.S.); or UN 3373 DIAGNOSTIC SPECIMENS, as appropriate, on the basis of their allocation to one of three risk groups based on criteria developed by the World Health Organization (WHO). The criteria for the risk groups are detailed in Appendix C. The WHO criteria are based on four risk groups – but for the purposes of this Standard, substances in risk group 1 are not considered infectious.

3.2.2 *Initial categorization*

Hazardous waste shall be initially categorized as either sharps or non-sharps waste. Sharps shall be categorized as radioactive, cytotoxic or infectious waste and shall be subject to controls for both sharps and the appropriate hazardous waste. Non-sharps hazardous waste shall be categorized in accordance with 3.3.

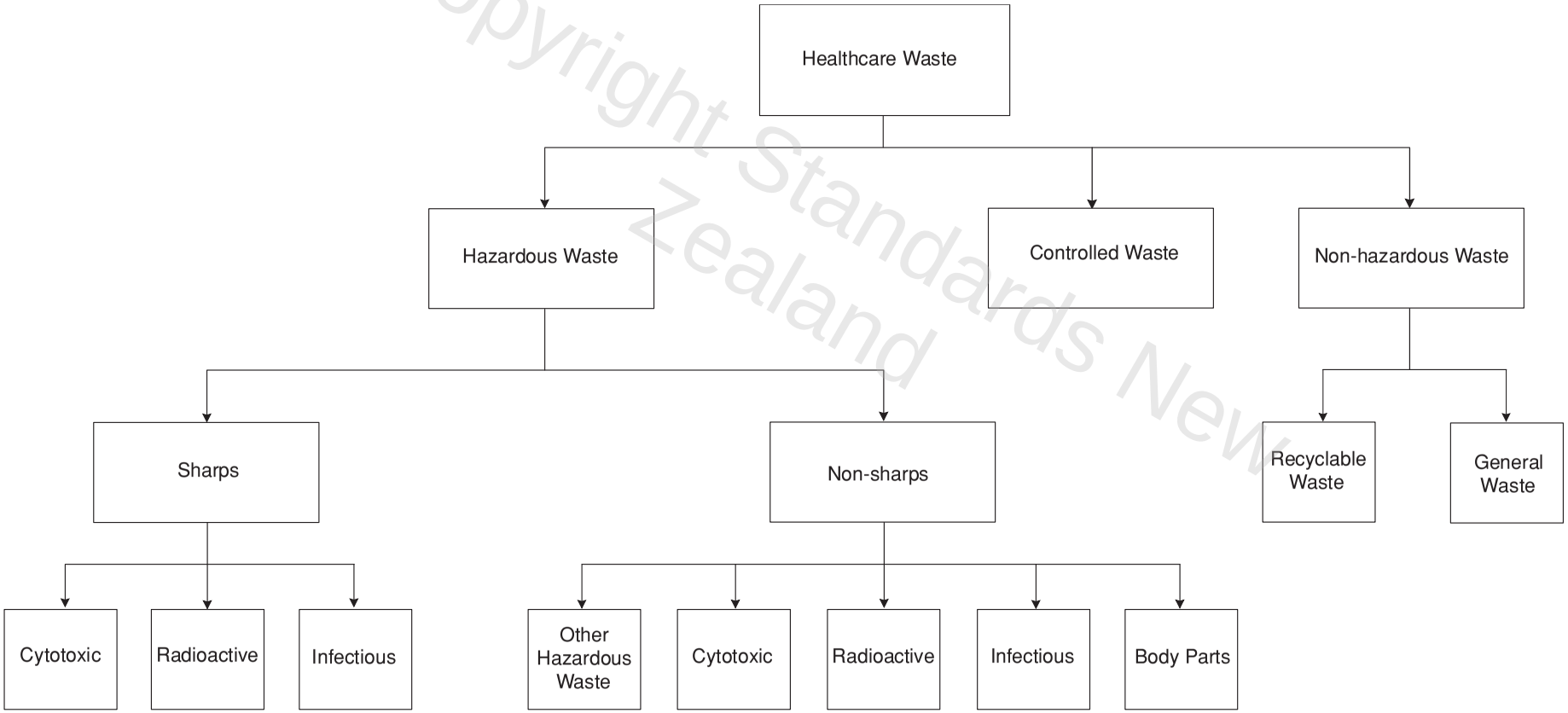


Figure 1 – Healthcare waste categorization

3.3 Non-sharps hazardous waste

3.3.1 *Specific category classification*

Non-sharps waste shall be categorized in accordance with the definitions in section 2 as:

(a) Infectious;

(b) Radioactive;

(c) Cytotoxic;

(d) Other hazardous waste (see 3.3.2); or

(e) Body parts (see 3.3.3).

3.3.2 *Other hazardous waste*

Hazardous waste not categorized as infectious, cytotoxic or radioactive shall be categorized as other hazardous waste. Such wastes may be sub-categorized (e.g. solvents, chemicals, medicines/pharmaceuticals) based on the specific controls required during handling, recycling, storage, transport and disposal.

NOTE – Other hazardous waste includes waste defined as hazardous by the HSNO Act.

3.3.3 *Body parts*

Human body parts should only be categorized as waste if they have not been claimed by the owner or family/whānau. If they have not been claimed, they should be categorized as an infectious waste.

3.4 Controlled waste

Waste meeting the definition for controlled waste given in section 2 shall be categorized as controlled waste.

3.5 Non-hazardous waste

3.5.1 *Categorization*

Non-hazardous waste shall be categorized as:

(a) Recyclable (see 3.5.2), or;

(b) General waste (see 3.5.3).

3.5.2 *Recyclables*

Identification of recyclables shall be made in consultation with the recycling receiving agent or local authority as appropriate. Recyclables include:

(a) Paper;

(b) Cardboard;

(c) Glass;

(d) Plastics;

(e) Metal; or

(f) Composting waste.

3.5.3 *General waste*

General waste may be further classified according to its nature or method of disposal (e.g. solid waste for landfill, or liquid waste for sewer disposal).

4 WASTE GENERATORS' RESPONSIBILITIES

4.1 General

The waste generator shall be responsible for ensuring the safe management of healthcare waste from generation to disposal. This responsibility shall be on-going.

NOTE – Where a waste generator also transports or disposes of waste, the responsibilities outlined in sections 5 and 6 also apply.

4.2 Generators' responsibilities

To meet the objectives of this Standard the generators shall:

(a) Develop, implement and review a waste management policy (see 4.3);

(b) Develop and implement a body parts policy (see 4.4);

(c) Correctly segregate, package, label and store all healthcare waste (see section 3 and 4.5 to 4.8 and section 5);

(d) Where applicable, pre-treat waste (see section 7 and table 2);

(e) Verify that transport and disposal contractors comply with contractual responsibilities, relevant legislation and/or Standards (see section 6);

(f) Establish a waste tracking system (see 4.9);

(g) Maintain an emergency waste management plan (see section 9);

(h) Meet the requirements of section 7.4 if waste is compacted;

(i) Establish procedures for the correct handling of waste (see section 8); and

(j) Develop and implement waste management training programmes for staff (see section 10).

4.3 Waste management policy

4.3.1 *General*

The policy should reflect each organization's size and complexity, and should be developed in consultation with the local authority, waste transporter and landfill operator.

4.3.2 *Policy development process*

Figure 2 provides guidance on the processes involved in the development of a waste management policy.

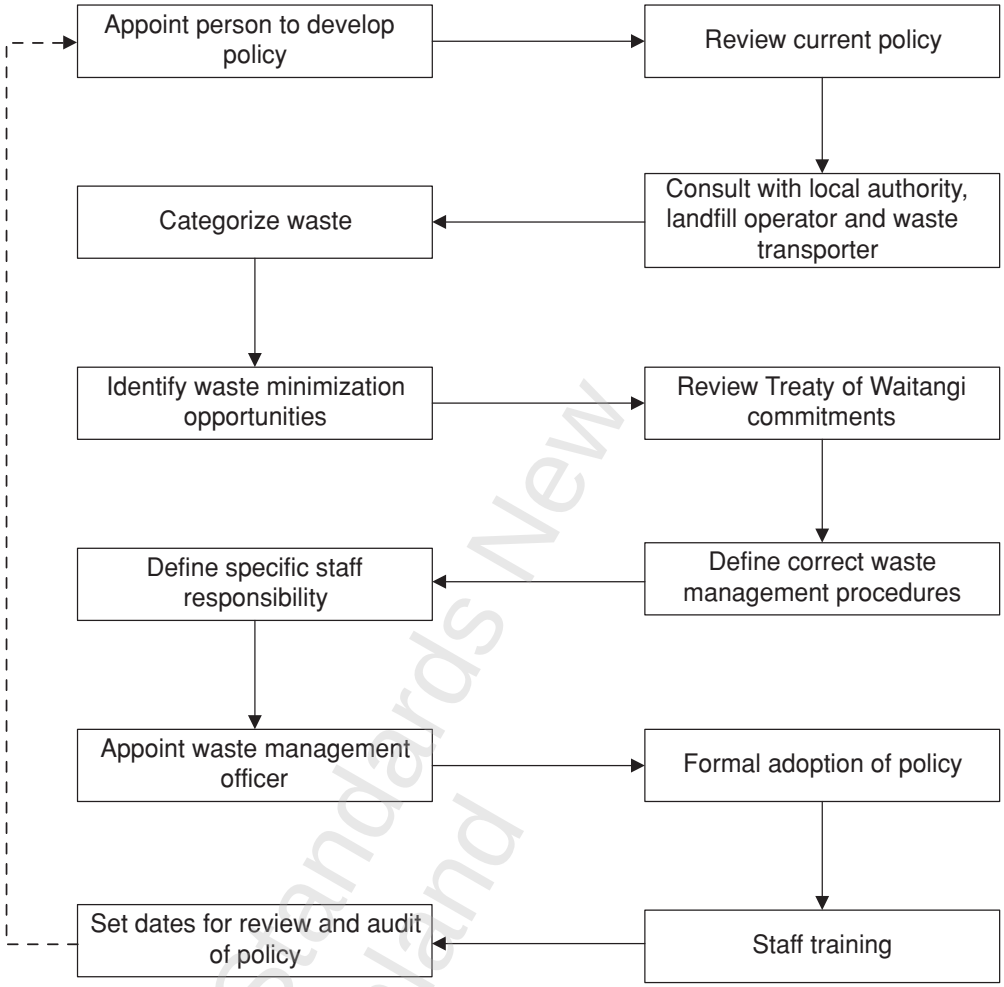


Figure 2 – Development of a waste management programme

4.3.3 *Appointment of person to develop policy*

The person appointed to develop waste management policy should:

(a) Have knowledge of waste management processes and procedures, risk assessment and management and standard precautions. See Appendix D for a typical list of standard precautions;

(b) Be empowered with the necessary authority;

(c) Have access to adequate resources, and both internal and external assistance.

4.3.4 *Review of current waste management*

The purpose of reviewing current waste management is to accurately describe existing waste management practices and procedures for the organization. This should include:

(a) Waste analysis to identify and quantify all waste currently generated including that generated off site (e.g. home care – refer section 4.10);

(b) Determining current practices and procedures;

(c) Identifying current waste minimization procedures.

4.3.5 *Consultation*

Consult with local authority, transporter and waste landfill operator to ensure all relevant requirements are considered.

4.3.6 *Waste categorization*

Identify the categories of waste generated according to the categories outlined in section 3.

4.3.7 *Waste minimization*

4.3.7.1 *Review of waste stream*

Opportunities to safely reduce the volume of waste or the hazardous nature of waste should be identified. Preference should be given to reducing the amount of waste produced, choosing reusable materials and recycling where practicable.

4.3.7.2 *Life cycle analysis*

A life cycle analysis should be undertaken to identify where product substitutions, product changes, procedural changes and reuse/recycle strategies are more environmentally acceptable.

4.3.7.3 *Purchasing*

When purchasing products, waste generators should assess:

(a) Cost;

(b) Appropriateness for the intended purpose; and

(c) The product's overall contribution to the waste stream through packaging, use or disposal.

4.3.8 *Treaty of Waitangi commitments*

The waste management policy shall take into account that some iwi and hapū resource management plans include statements of concern regarding the pollution of water, water bodies and other taonga, and policies for their protection from contamination. Hazardous waste issues are fundamental to the kaitiakitanga responsibility to protect and nurture the physical well being and mauri of resources and places.

4.3.9 *Waste management procedures*

The generator shall ensure waste management procedures are defined for the organization from the point of waste generation through to disposal. This shall include:

(a) Specific requirements for each waste category in respect of:

  (i) Segregation

  (ii) Packaging

  (iii) Labelling

  (iv) Storage

  (v) Documentation

  (vi) Transport, and

  (vii) Disposal;

(b) The protection of waste handlers (see section 8);

(c) Emergency preparedness (see section 9);

(d) Staff training (see section 10);

(e) Compliance with relevant legislation and Standards.

4.3.10 *Staff responsibilities*

All staff have responsibilities for waste management. Some staff will have additional specific requirements. The waste management procedures shall clearly define the general and specific responsibilities.

4.3.11 *Appointment of waste management officer*

A waste managment officer shall be appointed, and shall be responsible for the minimization of waste within the organization. That person shall also be responsible for organizing and supervising the handling and disposal of waste, ensuring the requirements of this Standard are met. In large organizations the establishment of a waste management committee may be appropriate. In smaller organizations, an existing staff member or manager may have these responsiblities added to their existing responsibilities.

4.3.12 *Formal adoption of waste management policy*

The waste management policy shall be approved and adopted by the appropriate senior manager. Copies of the policy shall be available to all staff.

4.3.13 *Staff training*

The waste management policy should specify how the training requirements of section 10 shall be met.

4.3.14 *Policy and procedure reviews*

The waste management policy shall be reviewed and updated at least every two years to ensure compliance with this Standard and relevant legislation, and continued applicability to the healthcare organization.

In addition, parts of the policy should be reviewed on an ongoing basis, e.g. in response to:

(a) Significant change in the nature or quantity of waste generated;

(b) Incidents or accidents involving waste;

(c) Identification of policy deficiencies;

(d) Significant changes in contractors or staff;

(e) Amendments to relevant Standards or legislation.

4.3.15 *Audit of compliance with the policy*

4.3.15.1

Compliance with the waste management policy shall be audited to determine if waste management practices comply with the policy.

Audit frequency for different waste management practices shall be determined on the basis of those practices assessed as representing the greatest risk.

NOTE – Audit frequency of high risk wastes' management (e.g. sharps) should be regular during the year, whereas aspects of non-hazardous waste management may only require audits once every two years.

In addition, the nature and frequency of auditing different waste management practices should be based on, but not limited to:

(a) Significant change in the nature or quantity of waste generated;

(b) Areas, practices or staff involved in incidents, accidents or complaints involving waste;

(c) Significant change to the waste management policy; and

(d) Significant change in contractors or staff.

In any event, all waste management practices shall be assessed for compliance with the waste management policy at least once every two years.

Records shall be retained of all audits and resulting actions taken.

4.3.15.2
Waste audits should include activities such as:

(a) Carrying out waste analysis (refer section 4.10);

(b) Reviewing waste records and documentation to ensure they are complete and accurate;

(c) Reviewing records of incidents, accidents and complaints related to waste management;

(d) Comparing waste records with transporters and disposal operators;

(e) Assessing transport operators and disposal facilities;

(f) Monitoring temperature and time records where these are required for certain waste types;

(g) Observing waste management practices (e.g. waste segregation at generation points);

(h) Use of questionnaires/surveys; and

(i) Interviewing staff/transport operators/disposal agents.

It is also recommended that healthcare organizations consider having periodic audits of waste management practice by independent accredited auditors.

4.3.15.3
Results from waste audits should be used for (but not limited to):

(a) Addressing poor waste management practices;

(b) Identifying and correcting instances where the waste management policy does not comply with this Standard;

(c) Identifying opportunities for improvements; and

(d) Identifying training needs.

4.4 Body parts policy

4.4.1 *General*
A body parts policy shall be developed to ensure that body parts are handled and released or disposed of in a safe and culturally acceptable manner and in accordance with relevant legislation (see figure 3).

NOTE –
(1) The Human Tissue Act 1964 specifies requirements regarding the disposal of human tissues.
(2) The Code of Health and Disability Services Consumers' Rights and Hauora o te tinana me ōna tikanga (Te Puni Kokiri, Ministry of Māori Development) provide guidance on disposal of body parts.

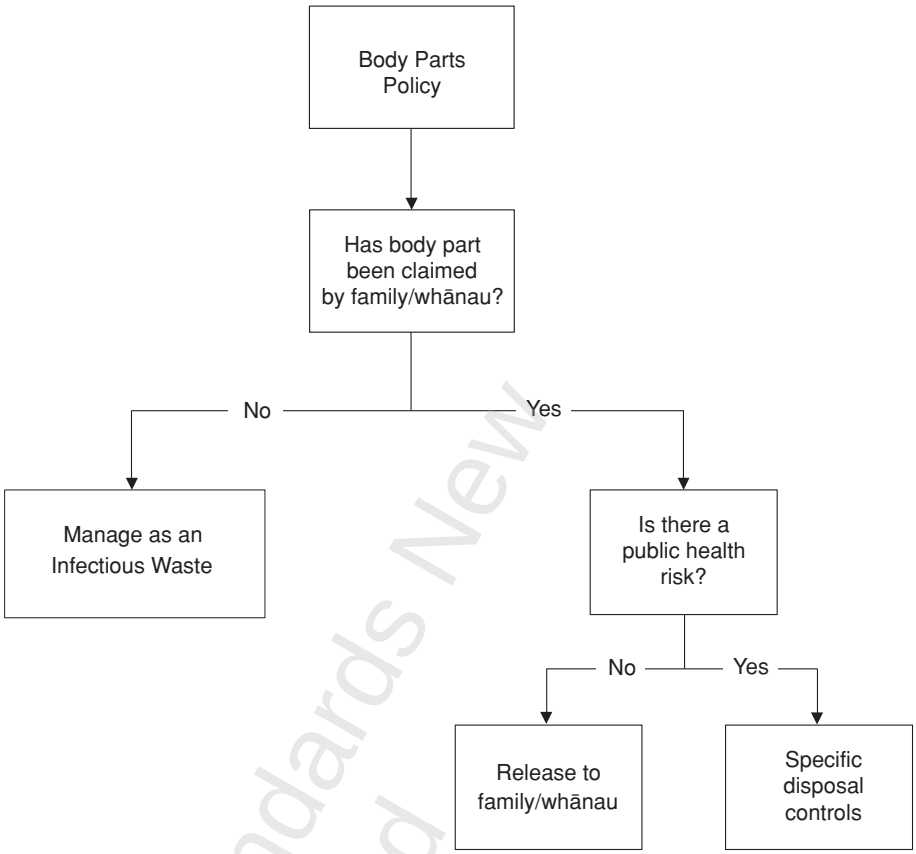


Figure 3 – Management of body parts

4.4.2 *Body parts claimed by family/whānau*

Where a body part is claimed by the owner or family/whānau the healthcare facility shall determine if the part represents risks to the public or the environment and whether it should be released or not. If the body part is acceptable for release the organization shall determine what controls should be put in place and what advice should be given to those taking possession of the part.

In cases where the organization is concerned that release of the body part represents an unacceptable risk and there is dispute with those wishing to take possession of the part, the guidance of the Medical Officer of Health should be sought.

4.5 Waste segregation

4.5.1 *Segregation*

The purpose of waste segregation is to ensure that wastes representing different risks are separated so they can be managed subject to different controls.

Waste shall be effectively segregated according to its category (see section 3) at the time and source of generation. It shall then be bagged, packaged or containerized, as appropriate. Segregation shall be maintained throughout the life cycle of the waste (see figure 4).

4.5.2 *Sharps*

Sharps shall only be placed in sharps containers.

4.5.3 *Refrigeration*
Hazardous waste requiring refrigeration shall be stored in a dedicated refrigerator.

4.5.4 *Radioactive waste*
Radioactive waste shall be segregated and stored in accordance with the National Radiation Laboratory Code of Safe Practice for the use of Unsealed Radioactive Materials in Medical Diagnosis, Therapy, and Research.

4.6 Containers and packaging

4.6.1 *General*
Waste shall be packaged in appropriate containers as specified in this clause and figure 4.

NOTE – Where a waste requires special handling or storage not identified in this Standard (e.g. refrigeration), the use of appropriate labels should be considered.

4.6.2 *Bags*
Bags for the collection and storage of healthcare waste, other than sharps, shall:

(a) Have sufficient strength to safely contain the waste category it is designed to hold;

(b) Comply with NZS 7603 (for plastic bags);

(c) Conform to the colour coding and marking system specified in table 1;

(d) Be filled to not more than two-thirds of their capacity;

(e) Allow for the secure final closure when the bag is filled to a maximum of two-thirds full; and

(f) Not be secured with closure devices having sharp protuberances (e.g. staples).

Bags used for standard autoclaves shall be suitable for the purpose and shall be labelled “autoclavable”.

Paper bags shall not be used for hazardous waste. Paper bags need not be colour-coded but any printing on them should be black.

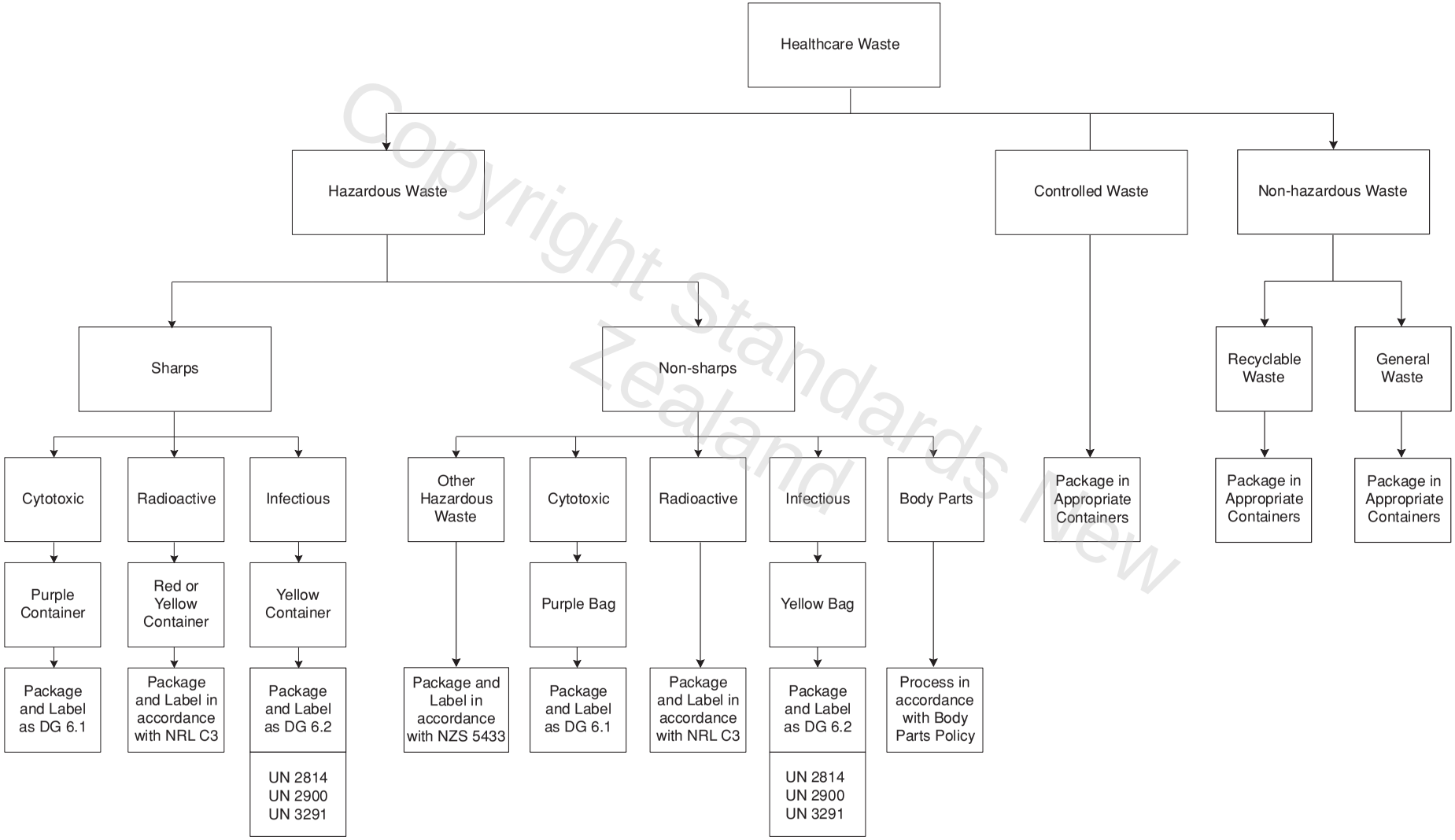


Figure 4 – Segregation and packaging process

Table 1 – Identification of waste

Waste category/type	Colour code for container	Marking for internal facility use	Transport label
Infectious	Yellow		
Cytotoxic	Purple		
Radioactive	Red or yellow		
All other waste	Not specified	As specified by relevant regulations	As specified in NZS 5433

4.6.3 *Rigid-walled containers*

4.6.3.1 *Sharps containers*

Sharps containers shall meet the requirements specified in AS/NZS 4261 and AS 4031, as appropriate. The emptying, cleaning and disinfection of reusable sharps containers shall be in accordance with AS/NZS 4478.

4.6.3.2 *Other rigid-walled containers*

Reusable rigid-walled containers (e.g. mobile garbage bins) should be resistant to leakage, impact rupture and corrosion. These containers should be inspected after each use to ascertain they are clean, intact and without damage or perforation. Any containers found to be defective shall be repaired before use or taken out of service. Rigid-walled containers shall have interiors of smooth, impervious construction to contain any spillage and to be able to be readily inspected, cleaned and sanitized. Rigid-walled containers shall be colour coded as specified in table 1. Containers for other hazardous and controlled waste shall be compatible with the contents and labelled to identify the contents and source.

4.7 Packaging and labelling for transport

All hazardous and controlled waste shall be packaged, labelled and documented for transport in accordance with NZS 5433.

Infectious substances shall be classified in Division 6.2 of the United Nations dangerous goods classification system (refer to NZS 5433) and assigned to UN 2814, UN 2900, UN 3291 or UN 3373, as appropriate.

4.8 Movement of waste at healthcare premises

4.8.1 *Movement of waste within the premises*

For the movement of healthcare waste within healthcare premises:

(a) Waste in bags shall be moved only when the bags have been securely closed;

(b) Segregation of hazardous, controlled and non-hazardous waste shall be maintained during the movement and handling of waste. If waste is mixed or loses identification during movement, it shall be uniformly treated at the highest level of risk category for that load.

(c) Rigid-walled containers used for the movement of hazardous and controlled waste should be securely closed during movement;

(d) Trolleys used to move hazardous and controlled waste should be capable of containing accidental leakage from the respective bags or containers;

(e) Movement of waste through patient treatment areas should be avoided or restricted to times when there are less people about;

(f) Waste movement routes should be well lit, easy to traverse, and (where possible) kept separate from supply routes; and

(g) Hazardous and controlled waste in transit shall not be left unattended in public areas.

4.8.2 *Cleansing containers, trolleys and vehicles*

Reusable rigid-walled containers, trolleys and vehicles shall be kept clean (see 5.4).

4.9 Waste tracking programme

The purpose of a waste tracking programme is to ensure appropriate documentation is readily available, detailing waste volumes generated, and confirming the transport and disposal details of those wastes.

The waste generator shall develop procedures for recording the movements of hazardous and controlled waste. Any such procedures shall include, but not be limited to:

(a) Completion of a dangerous goods declaration or other documentation required for all waste leaving the premises;

(b) The receipt of documentation confirming disposal details of the waste;

(c) Requirements for the storage of documentation; and

(d) Storage of records for a period of at least ten years.

4.10 Waste analysis

A number of information sources should be used in conducting waste analysis. These include, but are not limited to:

(a) Viewing waste segregation at points of generation;

(b) Opening a proportion of waste containers to inspect contents;

NOTE – This can be an extremely high-risk activity and shall only be undertaken by trained staff fully aware of the risks. It is recommended that hazardous waste containers are not opened.

(c) Weighing or counting waste containers;

(d) Reviewing records and documentation of waste generated; and

(e) Surveys or diaries by waste generators.

A waste analysis is recommended prior to developing or updating a waste management plan. Information acquired on waste types and quantities will assist in implementing successful waste minimization practices. The waste analysis should be used as the basis for reviewing purchasing policies, examining procedures and recommending product substitution. This minimizes waste streams and implements safe and environmentally sound waste management practices.

The analysis will help identify appropriate waste for effective and efficient reuse, recycling or disposal and can also be used to promote waste minimization practices when it is clinically, environmentally and economically appropriate to do so.

Waste analysis should also be conducted periodically as part of a waste audit to ensure waste is being managed in accordance with this Standard.

4.11 Spillages

Generators, transport vehicles and treatment/disposal premises shall have readily available – for all waste types they handle – sufficient materials in the form of a spill kit to contain and clean up waste spillage, and to decontaminate affected areas. Specific spill kits should be developed for particularly hazardous waste (e.g. mercury, cytotoxics and radioactive substances). Personnel shall be trained in the use of spill kits.

NOTE – Typical spill-kit contents should include absorbents, disinfectants, buckets, a shovel, gloves, disposable overalls, facemask/shield, disposable containers and plastic waste bags with appropriate labelling.

5 HEALTHCARE WASTE STORAGE

5.1 General

All waste shall be stored and supervised in accordance with any relevant legislation and licensing arrangements, especially those relating to radioactive and hazardous substances.

5.2 Storage of hazardous and controlled waste

Hazardous and controlled waste shall be stored in designated areas on the premises or by special arrangement with the waste transporter. Hazardous and controlled waste shall not be left unattended or unsupervised at the road-side or any other areas where the public may have unsupervised access.

5.3 Design of waste holding and storage areas

There shall be sufficient dedicated storage areas to maintain segregation of waste and separation from other stored materials. Measures, including refrigeration (where appropriate), should be taken to prevent obnoxious odours or nuisance.

The following are the minimum requirements for the storage of wastes:

(a) Security – waste holding areas and pre-disposal storage areas shall be suitably sited, remote from supply rooms and food preparation areas, easy to secure and have restricted access;

(b) Design – the area shall be constructed so as to be vermin proof and have easily cleaned walls and floors. Walls and floors shall be of impervious material and floors bunded or graded to a valved sewer outlet (see 5.4);

(c) Access – the area shall be designed to provide adequate access and space for movement;

(d) Lighting – adequate lighting shall be provided so cleaning can be effectively achieved and information on containers and documentation can be easily read;

(e) Ventilation – adequate ventilation shall be provided to remove odours from storage areas. Exhaust vents shall be sited to prevent exhaust entering buildings or areas to which the public have access;

(f) Signage – the storage area shall be identified with signs appropriate to the categories of waste stored in the area (e.g. infectious substances, cytotoxic – refer table 1, column 3);

(g) Cleaning – the storage area shall have ready access to materials for managing any spills, suitable protective clothing and hand-washing facilities. The storage areas shall be kept clean and free of vermin.

In addition to the above it is recommended that stores are designed so that there is direct access for vehicles removing waste from the storage area.

5.4 Disposal of cleaning water

All waste water from any cleaning process shall be discharged into a sump where it shall be treated to the satisfaction of the relevant control authority before being discharged into a sewer.

Cleaning water shall not be discharged into a storm water drain.

6 TRANSPORTERS' RESPONSIBILITIES

6.1 Transporters' responsibilities

To meet the objectives of this Standard the transporter shall:

(a) Ensure the transport of healthcare waste is undertaken in accordance with the Land Transport Rule: Dangerous Goods and NZS 5433, and any other relevant legislation and/or Standards;

(b) Establish a healthcare waste tracking system (see 4.9);

(c) Maintain an emergency waste management plan (see section 8);

(d) Store waste in accordance with section 5;

(e) Ensure vehicles are fit for the purpose (see 6.2);

(f) Meet the requirements of 7.4 if waste is compacted;

(g) Ensure waste is handled in accordance with section 8; and

(h) Ensure appropriate staff training is implemented (see section 10).

6.2 Vehicle requirements

6.2.1 *General*

Vehicles should be dedicated specifically for the transportation of waste. They should also be constructed in such a manner to physically separate the driver's compartment from the waste compartment by a permanent and sealed barrier.

The Dangerous Goods Rule has provisions allowing for the transport of small volumes of dangerous goods.

NOTE –This would allow for the transport, by healthcare professionals, of small volumes of home healthcare waste requiring special disposal.

6.2.2 *Communication equipment*

The driver's cab should be equipped with either an operational mobile phone or an operational two-way radio system.

6.2.3 *Vehicle design*

The vehicle design shall be such that in the event of an accident it will afford the best practicable means of avoiding danger to the general public and to the driver from the waste being transported. The vehicle should be equipped with:

(a) Automatic reversing lights;

(b) A reversing warning sound device; and

(c) Lifting equipment (for either mobile bins or any other container used to collect waste) to adequately lift mobile bins from the ground to the load area.

6.2.4 *Load compartment design*

Load compartments include freight containers. The load compartment of a vehicle used for the transport of healthcare waste should have:

(a) A sealed body with lockable doors which should be locked at all times when left unattended (where time and temperature control is required, refrigeration may be necessary);

(b) The ceiling, walls and floor constructed of a rigid, smooth faced material with sealed seams capable of being easily cleaned;

(c) The floor of the compartment should be bunded to 50 mm and configured to contain spillages;

(d) A solid partition separating it from the driver's cabin; and

(e) The capability for easy loading and discharging without manual handling.

A mechanism should be in place to ensure containers are secured and, where appropriate, remain upright during transportation.

6.2.5 *Cleaning programme*

An effective cleaning/disinfecting programme should be established and performed regularly (at least once daily). Any effluent from the cleaning process shall be disposed of in accordance with regulatory requirements.

6.3 Waste Tracking

The waste transporter shall put in place a means of tracking hazardous and controlled waste complying with (but not limited to):

(a) Treatment/disposal facilities shall return signed copies of the dangerous goods declaration or other approved documentation to the generator to acknowledge receipt of the waste;

(b) Intermediate handlers shall sign the dangerous goods declaration or other approved documentation to acknowledge receipt of the waste and delivery of the waste to the disposal facility; and

(c) Copies of the dangerous goods declaration or other approved documentation shall be kept for incoming waste and for shipments of waste from any source. An example of a dangerous goods declaration is attached at Appendix E.

7 WASTE TREATMENT AND DISPOSAL

7.1 General

The purpose of waste treatment is to reduce the risk of the waste and to enable it to be disposed of as general or lower-risk category waste.

7.2 Responsibilities

To meet the objectives of this Standard, agencies/organizations responsible for waste treatment and disposal shall:

(a) Comply with regional and local authority requirements including regional and district plans;

(b) Comply with the conditions of any consent they hold under the Resource Management Act;

(c) Implement controls to protect workers and the public from hazardous emissions from pre-treatment, treatment and disposal facilities;

(d) Establish a healthcare waste tracking system (see 4.9);

(e) Maintain an emergency waste management plan (see section 9);

(f) Store waste in accordance with section 5;

(g) Ensure waste is handled in accordance with section 8; and

(h) Ensure appropriate staff training is implemented (see section 10).

Each regional and local authority has plans specific to their area for controlling the treatment and disposal of waste – including healthcare waste.

The treatment and disposal of hazardous and controlled waste shall meet the requirements of the relevant legislation.

7.3 Pre-treatment of hazardous waste

In some cases, it may be practicable to pre-treat hazardous or controlled wastes to allow re-categorization as a lower risk or non-hazardous waste category.

Pre-treatment may result in the emissions of odours, volatile gases, volatile heavy metals, and contaminated condensates. It may be necessary to consult the relevant regulatory authority on these aspects.

7.4 Waste compaction

Non-hazardous waste may be compacted to reduce the volume of waste requiring transport and disposal.

Controlled waste may be compacted providing any liquid expressed is fully contained or collected for disposal as a hazardous liquid – and compression is safely accomplished, minimizing risk to the operator from liquids or airborne release.

NOTE – By definition controlled waste should not contain any expressible liquid. However, if waste containing expressible liquid is disposed of with controlled waste (e.g. soft drinks or fruit), any expressed liquid may be contaminated by the controlled waste – thereby requiring treatment as hazardous waste.

Compactors at the generator's facilities should be located at the final storage area before removal for disposal, and any leakage shall be contained.

Hazardous waste shall not be compacted prior to disposal. This may break open containers and release aerosols or liquids from the waste.

Hazardous waste and controlled waste acceptable to landfill may be compacted after burial at the landfill.

7.5 Sterilization

The sterilization of waste through the application of heat shall result in a consistent reduction of the waste bioburden, as measured by regular tests using *B. stearothermophilis*, of 6 Log_{10} or greater (this corresponds to minimum reduction of 99.9999%). Such tests should be conducted on a weekly basis.

7.6 Acceptable methods of waste treatment/disposal

Table 2 outlines acceptable disposal methods following specified pre-treatment methods.

Table 2 – Healthcare waste pre-treatment and disposal methods

Waste category		Waste sub-category	Pre-treatment	Acceptable disposal methods
Non-hazardous	General	Solid	C	I, Lf, SLf
		Liquid		S (see 7.9)
	Recyclable		C	R, Cm
Hazardous	Sharps		Nil	I
			St and G	Lf, SLf
	Infectious	Body part – Solid[1]	Nil	I, Cr
			M, G	S, I, Cr[1]
			St and G, M	I, SLf, Cr, S
		Body part – Liquid[1, 2]	Dilute	S
			St	S
		Solid	Nil	I, Cr
			M	I, S, Cr
			St	I, SLf, Cr
		Liquid	Dilute	I, S
			St	S
	Cytotoxic		Nil	I, S[3]
	Radioactive	In accordance with NRL code.		
	Other hazardous			I, S[3], R[4], SLf [3]
Controlled			C[5], St, G, M	I, SLf

NOTE –

(1) Only minor, minute and non-recognizable body parts may be disposed of to the sewer. Body parts may be released to family/whānau. Refer to body parts policy.

(2) Diluted embalming and body fluids may be disposed of to sewer.

(3) As approved by local authority.

(4) Recycling may only be suitable for a limited range of other hazardous waste.

(5) May be compacted only if any liquid expressed is fully contained.

Pre-treatment:

C = Compaction
M = Maceration
St = Sterilization (various methods)
G = Grinding

Acceptable disposal methods:

I = Incineration
Lf = Landfill
SLf = Sanitary Landfill
S = Sewer
R = Recycling
Cm = Composting
Cr = Cremation

7.7 Incineration

The incinerator shall be housed in an area enabling easy and efficient waste delivery, incinerator loading, and residue removal.

7.8 Disposal to landfill

7.8.1 *Sanitary landfill sites*

Sanitary landfill sites that accept hazardous waste and/or controlled waste should have specific disposal arrangements to meet the objectives of this Standard. The landfill operator shall keep a record of the location of all such disposals.

7.8.2 *Sanitary landfill site operation*

Hazardous waste and controlled healthcare wastes deemed acceptable for disposal at sanitary landfill shall be immediately covered with suitable material to ensure complete burial.

When non-hazardous waste recognizable as healthcare waste is disposed of to landfill, it should be either shredded prior to disposal or immediately buried.

7.9 Disposal to sewer

Before liquid residues are classified as suitable for disposal to sewer, the requirements of the relevant local authority shall be met (e.g. trade-waste bylaws).

8 WASTE HANDLING

8.1 Waste handler protection

Injury and disease are the two major occupational health and safety concerns associated with healthcare waste management.

To prevent injury and disease to staff involved in waste handling, any person or organization involved in the handling of healthcare waste shall comply with the requirements of the Health and Safety in Employment Act and shall:

(a) Ensure all staff practise Standard Precautions in the handling of waste (refer Appendix D);

(b) Ensure the physical handling of waste is minimized (e.g. avoid double handling);

(c) Ensure there is no manual handling of the contents of hazardous waste containers;

(d) Ensure staff are offered an appropriate immunization programme;

(e) Ensure personal protective equipment:

  (i) Is appropriate to the task

  (ii) Is always available and used wherever required

  (iii) Complies with the appropriate Standard

  (iv) Is in good working order and checked regularly; and

(f) Ensure procedures are implemented for dealing with any incidents or injuries involving waste – including a blood and body fluid exposure policy – encompassing:

  (i) Initial first aid treatment

  (ii) Medical follow up

  (iii) Confidential counselling, and

  (iv) Record-keeping of all such incidents.

9 EMERGENCY PREPAREDNESS

9.1 General

The objective of planning for healthcare waste emergencies is to anticipate and identify potentially necessary actions for emergencies – and prepare for them while leaving as many resources as possible available for emergency response. Waste generators, transporters and disposers shall develop an emergency waste-management plan, and should review this plan no less than two-yearly.

The emergency waste management plan may form part of the waste management policy or part of other documentation such as an organizational emergency management plan. In any event, the emergency waste-management plan shall be consistent with other emergency plans and should be referred to in all relevant emergency management and waste management policies and plans.

NOTE – Many issues will be more appropriately recorded in the organization's broader emergency plan (e.g. defined lines and methods of communication during emergencies, command hierarchies – including first and second back ups for key positions – and evacuation procedures). The organization should ensure such issues are adequately provided for, while simultaneously avoiding unnecessary duplication between plans.

9.2 Development of an emergency waste management plan

9.2.1 *Emergency waste management plan*

The preparation of any emergency waste management plan should:

(a) Assess all aspects of waste management and identify the reasonably predictable disruptions that may occur. This should include, but not be limited to:

(i) Spills involving each different waste category

(ii) Road accidents involving waste from the organization

(iii) Disruptions in transport and disposal arrangements (e.g. industrial action by transport or disposal company staff)

(iv) Disruption of waste handling services within the organization (e.g. through industrial action)

(v) Failure of refrigerated or other special storage arrangements

(vi) Discontinuance of supply of waste containers

(vii) Contamination of a lower-risk waste by a higher-risk waste

(viii) Emergencies that may significantly increase the volume of waste produced, particularly of more hazardous waste, and

(ix) Civil emergency causing wide-spread disruption of services.

(b) For each situation specified:

(i) Identify the hazards each situation represents

(ii) Prepare a contingency plan outlining how the organization will control the hazards and continue to meet the objectives of this Standard and their responsibilities defined in this Standard

(iii) Specify the persons (or positions) responsible for implementing all parts of the plan

(iv) Ensure sufficient equipment is maintained by (or is readily available to) the organization to implement the contingency procedures (including spill kits, see 4.11) and

(v) Establish list of contacts (e.g. police, fire service, hazardous chemical response unit, local authorities and transporter).

NOTE – Reference should be made to the Fire Safety and Evacuation of Buildings Regulations.

9.2.2 *Staff affected*

Any person required to handle waste during emergencies or as a result of an emergency shall have received appropriate training (see section 10).

9.3 Testing emergency preparedness

Waste generators, transporters and disposal organizations should ensure that waste management scenarios are included in any emergency management exercises undertaken by the organization enabling the emergency waste-management plan to be tested.

10 TRAINING

10.1 General

All new and relieving staff shall be trained in waste management, as soon as possible. In facilities with a large number of temporary or relieving staff, a training strategy should be developed with these people in mind. Consideration should also be given to providing appropriate training to contractors on site.

10.2 Training Objectives

Training should be designed enabling attendees to carry out their roles efficiently, with clear understanding of:

(a) The risks represented by waste;

(b) The procedures to follow to minimize risks associated with waste;

(c) Their role in waste management within the organization; and

(d) Their role in any healthcare waste emergency.

10.3 Training programme

10.3.1 *General*

The amount of detail and extent of training required will depend on the nature of the risk associated with the type/s of healthcare waste generated, and the complexity of the work procedures and control measures required to minimize the risk of exposure. Refresher training should be provided on a regular basis.

10.3.2 *Content of training programme*

The training of staff and waste handlers shall include:

(a) Recognizing the hazards of healthcare waste;

(b) Methods of preventing injury and the transmission of disease from handling waste;

(c) First aid training;

(d) Safety procedures for dealing with the healthcare waste potentially generated, handled, transported or disposed of by the organization;

(e) Correctly segregating, handling, moving, transporting and disposing of the different categories of waste;

(f) Correct use of personal protective equipment (e.g. safety boots, safety helmet, safety glasses, safety gloves, and safety aprons);

(g) Procedures for action and notification in the event of an accident or incident;

(h) Spill containment and clean-up procedures; and

(i) Education on standard precautions (see Appendix D).

10.4 Record keeping

Complete records of attendance at training shall be maintained for all staff and contractors.

Appendix A
EXAMPLES OF CONTROLLED WASTE (SUITABLE FOR DISPOSAL AT A SANITARY LANDFILL)

(Informative)

A1

The following are examples of materials that may be classified as controlled waste provided they contain no expressible liquid:

Intravenous tubing and bags, oxygen masks and tubing

Metrisets, buotrols, three-way taps, rubber top vials

All intravenous plastic cannulas, epidural catheters

Unused test tubes, syringes empty (no needles) from the needleless system

Drainage collectors emptied of contents (i.e. haemovacs, colostomy equipment, minivacs)

Empty urinary bags

Catheters (i.e. urinary, suction rectal, naso-gastric)

Disposable sheeting (e.g. burns sheeting, plastic sheeting, tripads, incontinence pads)

Disposable scopes (e.g. sigmoidoscope, specula)

Used dressings, swabs, gauze etc., material from dressing packs

Specimen containers, used and emptied

Used tissues, emptied sputum mugs, emptied vomit bowls

Disposable gloves, masks, gowns, plastic aprons

Disposable airways, bacterial viral filters, oral/pharyngeal suction catheters, endotrachael tubes

Underwater seal drainage tubing, IV tubing with spike cut off

Sanitary pads and disposable napkins.

NOTE – The acceptability of these controlled wastes for disposal at the sanitary landfill should be verified by the operator of the facility prior to disposal.

Appendix B
CLASSIFICATION OF DANGEROUS GOODS

(Normative)

B1

Table A from Land Transport Rule: Dangerous Goods 1999, The Properties and Classification of Dangerous Goods for Land Transport in New Zealand, is reproduced below.

PROPERTIES AND CLASSIFICATION OF DANGEROUS GOODS FOR LAND TRANSPORT

Class	Brief description*
CLASS 1 **Explosives**	An explosive is any substance which when triggered by a small amount of energy, reacts by combustion, using its own source of oxygen to produce gas at such temperature, pressure and speed that it is capable of damaging the surroundings. Pyrotechnic substances which produce an effect by heat, light, sound, gas, smoke or a combination of these are included as explosives.
1.1	Substances and articles which have a mass explosion hazard.
1.2	Substances and articles which have a projection hazard but, not a mass explosion hazard.
1.3	Substances and articles which have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard.
1.4	Substances and articles which present no significant hazard.
1.5	Very insensitive substances which have a mass explosion hazard.
1.6	Extremely insensitive articles which do not have a mass explosion hazard.
CLASS 2 **Gases**	A gas is a substance that: (a) at 50 °C has a vapour pressure greater than 300 kpa (absolute); or (b) is completely gaseous at 20 °C at a pressure of 101.3 kpa (absolute).
2.1	Flammable gases.
2.2	Non-flammable, non toxic gases.
2.3	Toxic gases.
CLASS 3 **Flammable liquids**	These are liquids or liquids containing solids in solution which give off flammable vapour at a temperature (referred to as the flash point) of 60.5 °C or less, closed-cup test, or 65.6 °C or less, open- cup test. Liquids transported at temperatures equal to or above their flash point are included as Class 3. Liquids with a flash point greater than 35 °C which do not sustain combustion, are not dangerous goods for land transport. Class 3 is divided into packing groups according to the flash point and initial boiling point as follows: Packing Group I (high danger) Initial boiling point is less than or equal to 35 °C. Packing Group II (medium danger) Flash point (closed-cup) is less than 23 °C. Initial boiling point is greater than 35 °C. Packing Group III (low danger) Flash point (closed-cup) is greater than or equal to 23 °C and less than or equal to 60.5 °C. Initial boiling point is greater than 35 °C.

Class		Brief description*
CLASS 4 Flammable solids, substances liable to spontaneous combustion, substances which, in contact with water, emit flammable gases	4.1	Flammable solids. These are solids that: (a) under normal conditions of transport are readily combustible or may cause or contribute to fire through friction; or (b) are self-reactive and related substances (including liquids) which are liable to undergo a strong exothermic reaction; or (c) are desensitised explosives which may explode if not diluted sufficiently.
	4.2	Substances liable to spontaneous combustion. Liquids or solids which are liable to self heating under normal conditions of transport, or to heating when in contact with air and then being liable to catch fire.
	4.3	Substances which in contact with water emit flammable gases (dangerous when wet). Substances which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.
CLASS 5 Oxidising substances and organic peroxides	5.1	Oxidising substances. Substances which are not necessarily combustible, but which cause or contribute to the combustion of other material, usually by yielding oxygen.
	5.2	Organic peroxides. Organic substances which contain the bivalent -O-O- structure and are considered to be derivatives of hydrogen peroxide, in which one or both of the hydrogen atoms have been replaced by organic radicals. Organic peroxides are thermally unstable substances which may undergo exothermic self-accelerating decomposition and may also have one or more of the following properties: (a) be liable to explosive decomposition; (b) burn rapidly; (c) be sensitive to impact or friction; (d) react dangerously with other substances; (e) cause damage to the eyes.
CLASS 6 Toxic (poisonous) and infectious substances	6.1	Toxic (poisonous) substances. These are substances liable to cause death, serious injury or harm to human health if swallowed, inhaled or by skin contact.
	6.2	Infectious substances. Substances known, or reasonably expected, to contain pathogens, including bacteria, viruses, rickettsia, parasites, fungi or recombinant micro-organisms (hybrid or mutant) that are known, or reasonably expected, to be capable of spreading infectious disease to humans or animals that are exposed to them. Classification of infectious substances may be determined according to guidelines issued by the relevant regulatory authority.
CLASS 7 Radioactive material		Radioactive material is any material which spontaneously emits significant radiation and is classified in the International Atomic Energy Agency Regulations for the Safe Transport of Radioactive Materials, or as determined by the relevant regulatory authority.
CLASS 8 Corrosive substances		These are substances which, by chemical action, will cause severe damage when in contact with living tissue, or will damage or destroy other goods or the vehicle in which they are transported if they leak from their packaging.
CLASS 9 Miscellaneous dangerous substances and articles		Any substance or article which presents a danger for transport that is not covered by other classes. This includes substances transported at temperatures of 100 °C or higher in a liquid state or 240 °C or higher in a solid state.

*** Detailed descriptions of the properties and classification of dangerous goods for transport on land are contained in the following documents:**

(a) NZS 5433:1999 Transport of Dangerous Goods on Land;
(b) The United Nations Recommendations on the Transport of Dangerous Goods;
(c) The International Maritime Dangerous Goods Code;
(d) The International Civil Aviation Organization's Technical Instructions for the Safe Transport of Dangerous Goods by Air;
(e) The International Air Transport Association Dangerous Goods Regulations.

Appendix C
INFECTIOUS SUBSTANCES RISK GROUPS

(Informative)

C1

The World Health Organization (WHO) criteria for classification of infectious substances characterize the pathogenicity of the organism, the mode and relative ease of transmission, the degree of risk to both an individual and a community, and the reversibility of the disease through the availability of known and effective preventive agents and treatment. Substances are classified in one of four risk groups.

C2

The criteria for each risk group according to the level of risk are as follows:

(a) Risk Group 4: A pathogen that usually causes serious human or animal disease and that can be readily transmitted from one individual to another, directly or indirectly, and for which effective treatment and preventative measures are not usually available (i.e., high individual and community risk). This classification should be allocated UN 2814 or UN 2900;

(b) Risk Group 3: A pathogen that usually causes serious human or animal disease but does not ordinarily spread from one infected individual to another, and for which effective treatment and preventative measures are available (i.e., high individual risk and low community risk). This classification may be allocated UN 2814, UN 2900 or UN 3291 based on the professional assessment of the facility concerned;

(c) Risk Group 2: A pathogen that can cause human or animal disease but is unlikely to be a serious risk, and while capable of causing serious infection on exposure, for which there are effective treatment and preventative measures available and the risk of spread of infection is limited (i.e., moderate individual risk and low community risk). This classification may be allocated UN 2814, UN 2900 or UN 3291 based on the professional assessment of the facility concerned;

(d) Risk Group 1: Includes micro-organisms that are unlikely to cause human or animal disease (i.e., no, or very low, individual or community risk). Substances containing only such micro-organisms are not considered infectious substances for the purposes of this Standard.

NOTE – For further information on Risk Group criteria refer to the WHO Laboratory Biosafety Manual (second edition) 1993.

Appendix D
STANDARD PRECAUTIONS

(Informative)

D1 Standard Precautions

D1.1

Standard Precautions are used to protect patients and staff from organisms transmitted by exposure of mucous membranes and non-intact skin surfaces to blood or body substances (e.g. blood borne viruses such as Hepatitis B and C, HIV, and other organisms that may be found in blood, body substances or body tissues).

D1.2

Assume all blood and body substances are potentially infectious (whether from patients, visitors or staff and whether or not the infectious disease status of the individual is known).

D2 Requirements for Standard Precautions

Typical requirements for Standard Precautions, based on the CDC Guideline for Isolation Precautions in Hospitals 1996, are listed below.

Handwashing

After touching blood, body fluids, secretions, excretions, contaminated items.

Immediately after removing gloves.

Between patient contacts.

Mask/Eye protection/Face shield

To protect mucous membranes of the eyes, nose and mouth during procedures and patient care activities likely to generate splashes or sprays of blood, body fluids, secretions or excretions.

Gown/Plastic Apron/Coverall

To protect skin and prevent soiling of clothing during procedures and patient care activities likely to generate splashed or sprays of blood, body fluids, secretions or excretions.

Patient Equipment and Environment

Handle used patient-care equipment soiled with blood, body fluids, secretions and excretions in a manner that prevents skin and mucous membrane exposures, contamination of the clothing and transfer of microorganisms to other patients and environments.

Ensure reusable equipment is not used for the care of another patient until it has been cleaned and reprocessed appropriately.

Ensure single use items are discarded properly.

Gloves

For touching blood, body fluids, secretions, excretions and contaminated items.

Assessment of Patient Placement

Patients who are incontinent or who cannot maintain an adequate standard of personal hygiene should be placed in a single room ideally with ensuite facilities.

Patient Resuscitation

Use mouthpieces, resuscitation bags or other ventilation devices to avoid mouth-to-mouth resuscitation.

Sharps

Needles shall not be recapped. New needles shall not be removed from disposable syringes by hand.

Needles shall not be bent, broken or manipulated by hand.

Sharps shall be placed in an approved container.

Linen

Soiled linen should be handled in a manner to prevent skin and mucous membrane exposures, contamination of clothing and transfer of micro-organisms to other patients and the environment.

Environmental Control

Develop procedures for waste management, routine care, cleaning and disinfection of patient furniture and the environment.

Appendix E
EXAMPLE OF A DANGEROUS GOODS DECLARATION

(Informative)

DANGEROUS GOODS DECLARATION AND PACKING DECLARATION

Proper shipping name	(a) **CLINICAL WASTE, UNSPECIFIED, N.O.S.**		Class	(a) **6.2**		UN Number	(a) **3291**	
	(b)			(b)			(b)	
	(c)			(c)			(c)	
Technical name	(a) **Clinical and Related Waste**		Packing group	(a) **II**		Flash point	(a)	°C
	(b)			(b)			(b)	°C
	(c)			(c)			(c)	°C
Number & kind of packages	(a) **3 Bins**		Subsidiary risk	(a) **2XE**		Hazchem code (optional)	(a)	
	(b)			(b)			(b)	
	(c)			(c)			(c)	

Gross weight	(a)	**50** kg	Volume	(a)	**4.5** m^3	**Marine pollutant** *(Optional for land transport)* If declared under an NOS or generic entry the recognized chemical of the Marine Pollutant is required.	(a)	Yes	No
	(b)	kg		(b)	m^3		(b)	Yes	No
	(c)	kg		(c)	m^3		(c)	Yes	No

Additional information **Medical waste from Hospitals, Medical Centres, Doctors, Dentists, Vets, Rest Homes and other Healthcare facilities**

Shipper/Consignor Name & address **Sunshine Hospital Group Ltd, Mercy Highway, Auckland**

Phone **(09) 123 4567** Fax **(09) 123 4568**

Receiver/Consignee Name & Address **Waste Disposals Ltd, 25 Refuse Parade, Auckland**

Phone **(09) 987 6543** Fax **(09) 987 6542**

24 hour EMERGENCY Telephone No. **(09) 272 8926**

Carrier **Waste Disposals Ltd**

Dangerous Goods Declaration

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked and labelled, and are in all respects in proper condition for transport according to the applicable international and national rules, regulations and legislation.

Title **Operations Manager**

Company/Location **Waste Disposals Ltd**

Name **Joe Bloggs**

Signature *J Bloggs*

Date **1** / **May** / **02**

The section below is to be completed by the person packing the transport unit and/or the carrier

☐ Rail ☐ Road ☐ Sea

Container/ Tank No. _____

Wagon No. _____ If rail

Sailing If sea

Date

Time

Cargo Transport Unit Type of containment

☐ Container ☐ Tank ☐ IBC

☐ Open ☐ Closed

Position of dangerous goods in unit Mark with X

Railway wagon/container

Pantech / Artic / Truck and trailer

Cab

Packing Declaration

I hereby declare that the goods have been loaded into the vehicle/container ID No. _____ in accordance with the provisions of:

* Section 5 of Land Transport Rule:Dangerous Goods 1999; or
* Section 12.3.7 or 17.7.7 of chapter 5.4 of the IMDG Code.

The segregation of dangerous goods complies with land*/sea*/land and sea*.

[**Delete whichever is not applicable*]

Name

Title

Company/Location

Signature

Date / /

In an emergency dial 111 – Fire or Police

Bibliography

AS 2243.4:1998 Safety in laboratories: Part 4: Ionizing radiations

AS 2243.10:1993 Safety in laboratories: Part 10: Storage of chemicals

AS 3780:1994 The storage and handling of corrosive substances

AS 4187:1998 Cleaning, disinfecting and sterilizing reusable medical and surgical instruments and equipment, and maintenance of associated environments in healthcare facilities

AS/NZS 2243.1:1997 Safety in laboratories Part 1: General

AS/NZS 2243.2:1997 Safety in laboratories Part 2: Chemical aspects

AS/NZS 2243.3:2002 Safety in laboratories Part 3: Microbiology

AS/NZS 3816:1998 Management of clinical and related wastes

AS/NZS 4452:1997 The storage and handling of toxic substances

Cleaner Production Guide for Hospitals. 1997. Cleaner Production in Hospitals Project. Published by Opus International Consultants Ltd.

Code of Practice for the Disposal of Radioactive Wastes by the User. 1985. New Zealand National Health and Medical Research Council.

Embalming infectious bodies. 1994. Ministry of Health, Wellington.

Emergency Preparedness. Code of Practice. 1992. New Zealand Chemical Industry Council.

Guidelines for Laboratory Personnel working with Carcinogenic or Highly Toxic Chemicals. 1990. New Zealand National Health and Medical Research Council.

Guidelines for the Safe Handling of Cytotoxic Drugs and Related Waste. 1997. Department of Labour.

Hutt City Council Landfills Waste Disposal Guide. 1999. Published by Hutt City Council.

Industry Code of Practice for the Management of Clinical and Related Wastes. Published by Australia and New Zealand Clinical Waste Management Industry Group.

Management of Hazardous Waste – Towards Sustainable Waste Management in New Zealand. 2000. Centre for Advanced Engineering, University of Canterbury, Christchurch.

National guidelines for waste management in the health industry. March 1999. National Health and Medical Research Council Australia.

NHMR Infection Control in the Healthcare Setting. 1996. Australian Government Publishing Services.

NZS 8134:2001 Health and Disability Sector Standards

NZS 8142:2000 Infection Control

NZS 9201:- Model General Bylaws. Part 23:1999 Trade Waste.

NZS/AS 1319:1994 Safety signs for the occupational environment

Responsibilities for the Management of United Nations (UN) Class 6.2 Infectious Substances. 1999. Ministry of Health, Wellington.

Responsible Care Management System. Manager's Handbook . 1998. NZ Chemical Industry Council.

Safe Management of Wastes from Health-Care Activities.1999. World Health Organization.

SAA/SNZ HB 228:2001 Guidelines for Managing Risk in Healthcare

SNZ HB 8134.1:2001 Health and Disability Sector Standards – (Residential) Audit Workbook

SNZ HB 8134.2:2001 Health and Disability Sector Standards – (Hospital) Audit Workbook

SNZ HB 8142:2001 Infection Control Audit Workbook

If you're involved in healthcare in New Zealand, you'll need these key standards to provide the fundamentals of quality care ...

STANDARDS NEW ZEALAND
Paerewa Aotearoa

The base document for all:

NZS 8134:2001 *Health and Disability Sector Standards*

These standards are designed to establish consistently safe and reasonable levels of care for consumers of health and disability services. They also provide a framework for the continuous development of quality improvement systems.

The standards enable consumers to be clear about their rights and providers to be clear about their responsibilities for safe outcomes. This reflects a major and significant initiative in the delivery of health and disability services.

The key areas covered include:

- **Consumer Rights**
- **Organizational Management**
- **Pre-entry and Entry to Services**
- **Service Delivery**
- **Managing Service Delivery**
- **Safe and Appropriate Environment**

NZS 8134:2001 *Health and Disability Sector Standards* will be a legislative requirement for all facilities licensed by the Ministry of Health. Under the Health and Disability Services (Safety) Act 2001 which comes into effect on 1 July 2002, those providers previously licensed by the Ministry of Health will be required to demonstrate compliance with these standards.

Audit Workbooks to complement NZS 8134:2001

- **SNZ HB 8134.1:2001 *Health and Disability Sector Standards Audit Workbook (Residential)***
- **SNZ HB 8134.2:2001 *Health and Disability Sector Standards Audit Workbook (Hospital)***

There are two workbooks in this series; one for hospital services and one for residential services. The workbooks will assist organizations in identifying where they have complied with NZS 8134:2001, and also those areas requiring additional improvement. To ensure consistent interpretation, the workbooks identify common sector solutions (systems, processes, methods etc.) as examples for each criterion.

An additional key component is the risk assessment matrix, which is applied in situations of partial attainment or where the criterion is unattained. This matrix identifies the level of risk, based on the likelihood and consequence of harm occurring. The matrix also identifies the appropriate time frame for corrective action to be put in place. This process prioritizes the corrective actions, reducing the potential risk of harm to consumers.

Infection Control:

NZS 8142:2000 *Infection Control*

This Standard addresses infection control issues faced by the New Zealand Health and Disability Sector. The Standard has a very broad focus and is applicable to public and private hospitals, rest home facilities and disability services. The Standard provides the foundations of current best practice and provides flexibility for different institutions to develop an infection control programme which best reflects their resources and work environment. The new Standard will not only encourage a nationally consistent approach to infection control, it will also help provide a safer environment for those receiving health or disability services.

NZS 8142:2000 *Infection Control* will be a legislative requirement for all facilities licensed by the Ministry of Health. Under the Health and Disability Services (Safety) Act 2001 which comes into effect on 1 July 2002, those providers previously licensed by the Ministry of Health will be required to demonstrate compliance with this Standard.

Audit Workbook to complement NZS 8142:2000

SNZ HB 8142:2001 *Infection Control Audit Workbook*

The Infection Control Audit Workbook is written to assist in auditing NZS 8142:2000 Infection Control Standard. The workbook is generic in nature and is applicable to a wide range of specialities and service settings within the health and disability sector including: public and private hospitals, hospice services and residential-based services and facilities. It is for the use of both auditors and organizations completing self-audits.

Continued ...

Minimizing Restraint:

NZS 8141:2001 *Restraint Minimization and Safe Practice*

This Standard provides people working in healthcare facilities with guidelines on restraint minimization and safe practice. The intent of this Standard is to reduce the use of restraint in all its forms and to ensure that, when practised, it occurs in a safe and respectful manner. This Standard covers all forms of restraint, that is, personal, physical, environmental (including seclusion), and enablers. In recent years, there have been excellent developments in practice that have enabled a shift in focus away from restraint practice to restraint minimization. This document aims to reflect this change through an emphasis on restraint minimization and promotion of safe practice.

This Standard has already gained widespread acceptance by those working in the health and disability sector.

NZS 8141:2001 *Restraint Minimization and Safe Practice* will be a legislative requirement for all facilities licensed by the Ministry of Health. Under the Health and Disability Services (Safety) Act 2001 which comes into effect on 1 July 2002, those providers previously licensed by the Ministry of Health will be required to demonstrate compliance with this Standard.

Achieving better mental health services:

NZS 8143:2001 *National Mental Health Sector Standard*

This Standard is an integral part of the Government's strategy for mental health and for supporting implementation of the Mental Health Commission's Blueprint for Mental Health Services in New Zealand 1998. The primary aims of the Standard are to achieve better mental health services and to ensure consistency in the delivery of mental health treatment and support for everyone who needs to use mental health services.

NZS 8143:2001 *National Mental Health Sector Standard* will be a legislative requirement for all facilities licensed or previously registered by the Ministry of Health and providers previously licensed by the Ministry of Health will be required to demonstrate compliance with this Standard.

Audit Workbook to complement NZS 8143:2002

SNZ HB 8143:2002 *National Mental Health Sector Standard – Audit Workbook*

This Audit Workbook is designed to evaluate the organization or service outcomes against those required by NZS 8143:2001 National Mental Health Sector Standard by:

(a) Focusing on the required outcomes of the National Mental Health Sector Standard;

(b) Identifying common acceptable solutions (systems, processes, methods, etc.) appropriate to the consumer, service and setting that will attain the desired outcomes;

(c) Recognizing alternative solutions that achieve the same outcome whilst providing safe services to consumers;

(d) Evaluating the level of attainment within a continuous quality improvement framework, and in relation to the maturity of the service.

This Audit Workbook includes the additional worksheets required for auditing against the requirements of the Health and Disability Sector Standards.

Responding effectively to 'sentinel' events:

SNZ HB 8152:2001 *Sentinel Events Workbook – Process for Standardized Investigation and Reporting in the Health Sector*

The goal of this workbook is to improve the ability of health and disability services to respond effectively when sentinel (serious adverse) events occur. Drawing on the experiences and recommendations from other countries and industries, this workbook recognizes that in order to reduce sentinel events there must be an understanding of the epidemiology of errors. Utilization of this workbook will facilitate a consistent approach to the investigation of sentinel events and allow the lessons learnt to be shared, both locally and nationally, to improve safety.

This workbook uses a number of common quality improvement tools such as PDCA (plan, do, check, act) cycle, fishbone diagrams (cause and effect analysis) and flowcharts and integrates these with root cause analysis methodologies to form a comprehensive workbook for the analysis of sentinel events.

Effective sterilization practice in office-based facilities:

AS/NZS 4815:2001 *Office-based health care facilities not involved in complex patient procedures and processes*

This Standard sets out procedures and process development for cleaning, disinfection and sterilization of reusable medical and surgical instruments and equipment. Maintenance of associated environments in office-based health care facilities is also covered. This Standard is suitable for medical, dental, surgical and allied health facilities and skin penetration establishments.

Effective risk management:

SAA/SNZ HB 228:2001 *Guidelines for managing risk in healthcare*

The purpose of these guidelines is to provide a generic framework for managing risk in the health sector. The guidelines provide a reference point for elected boards of management, chief executive officers, senior executives charged with clinical and corporate governance responsibilities, together with risk management and clinical staff when developing processes, systems and risk management techniques that are appropriate to the functional and organizational context of their organizations.

Health Records:

NZS 8153:2002 *Health Records*

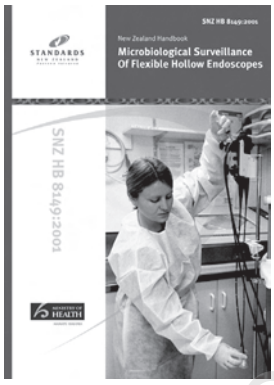
This Standard may be applied to all health records kept by providers of health and disability services, including hospitals, training institutions, residential care facilities, etc. Not yet mandatory, it requires organizations to develop policy on the structure of health records addressing such issues as patient/consumer rights; minimum record requirements; tracking; duplication of health information; retrieval and transfer of records; safe storage and retention of medical records.

Health Network Code of Practice:

SNZ HB 8169:2002 *Health Network Code of Practice*

Information technology promises many benefits to healthcare. This Code of Practice describes how organisations can safely exchange electronic health information over a secure network to enhance information flow between providers while protecting patient privacy and data security. The result will be more effective and efficient delivery of care.

Endoscope Surveillance:



SNZ HB 8149:2001 *Microbiological Surveillance Of Flexible Hollow Endoscopes*

Routine endoscope surveillance cultures are potentially useful. However, no particular method for testing or interpretation has been validated against patient or other relevant outcomes, and there is disagreement about the role and value of these cultures. This Handbook for Endoscopy Users was developed in order to further rationalize and standardize the methods used, and to establish a formal process for prospective evaluation of these cultures. Through the publication of this Handbook, the Standards New Zealand Expert Committee hopes to inform endoscopy staff and raise the standard of endoscope reprocessing practice and quality control in endoscopy units. The ultimate goal is to reduce the risk of transmission of infection during endoscopic procedures in New Zealand.

Management of Healthcare Waste:

NZS 4304:2002 *Management of Healthcare Waste*

Guidance on the disposal of human and animal healthcare waste is covered in this Standard. Addressing non-hazardous, controlled or hazardous wastes, procedures are outlined for their classification, segregation, packaging/containment, labelling, storage, transport and disposal to ensure the protection of community and environmental health irrespective of the technologies used. This Standard will be useful for healthcare waste generators, waste transporters, and waste disposal facility managers. The Standard has the support of the Ministry of Health as a means of providing safe management of healthcare waste.

ORDER FORM

To order any or all of these publications use the Order Form on the next page, or call: 0800 735 656, or order from our website: www.standards.co.nz

Order Form

Product	Quantity	SNZ member	Retail Price	Totals
NZS 8134:2001 – Health and Disability Sector Standards	☐	$21.30	$26.62	
SNZ HB 8134.1:2001 – Health and Disability Sector Standards (Residential) Audit Workbook	☐ ☐ 4 Pack	$27.96 $88.84	$34.95 $88.84	
SNZ HB 8134.2:2001 – Health and Disability Sector Standards (Hospital) Audit Workbook	☐ ☐ 4 Pack	$27.96 $88.84	$34.95 $88.84	
NZS 8142:2000 – Infection Control	☐	$21.30	$26.62	
SNZ HB 8142:2001 – Infection Control Audit Workbook	☐ ☐ 5 Pack	$27.96 $88.84	$34.95 $88.84	
NZS 8151:2001 – Standard for Accident and Medical Clinics	☐	$21.30	$26.62	
NZS 8141:2001 – Restraint Minimization and Safe Practice	☐	$21.30	$26.62	
NZS 8143:2001 – National Mental Health Sector Standard	☐	$21.30	$26.62	
SNZ HB 8143:2002 – National Mental Health Sector Standard – Audit Workbook	☐ ☐ 4 Pack	$27.96 $88.84	$34.95 $88.84	
SNZ HB 8152:2001 – Sentinel Events Workbook – Process for Standardized Investigation and Reporting	☐ ☐ 5 Pack	$21.30 $88.84	$26.62 $88.84	
AS/NZS 4815:2001 – Office-based health care facilities not involved in complex patient procedures and processes	☐	$84.80	$106.00	
SAA/SNZ HB 228:2001 – Guidelines for managing risk in healthcare	☐	$40.00	$50.00	
NZS 8153:2002 – Health Records	☐	$21.30	$26.62	
SNZ HB 8169:2002 – Health Network Code of Practice	☐	$27.96	$34.95	
SNZ HB 8149:2001 – Microbiological Surveillance of Flexible Hollow Endoscopes	☐	$21.30	$26.62	
NZS 4304:2002 – Management of Healthcare Waste	☐	$48.00	$60.00	
		Sub Total		
		Courier charge		$5.00
		Add GST		
		Total		

Three easy ways to pay:

1 **Invoice me** (Members only)

SNZ Membership no: _____

Purchase order no: _____

2 **Cheque** (Ensure you add GST) Enclose a cheque made payable to **Standards New Zealand.** Amount $ _____

3 **Credit Card** (Ensure you add GST)

Please debit my (tick one) Visa ☐ MasterCard ☐

Number ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐

Expiry date _____ Amount $ _____

Cardholder's name _____

Cardholder's signature _____

Your delivery details by courier:

Title Mr/Ms/Mrs/Dr/Other _____

Name _____

Position _____

Organisation _____

Physical address _____

_____

Phone _____ _____

E-mail _____

Post the completed order form (keeping a copy for your records) to **Standards New Zealand, Freepost 1573, Private Bag 2439, Wellington 6020.**
Fax the completed form to us on **(04) 498 5994.**
E-mail your order to us at **snz@standards.co.nz** (remember to include all relevant information in your e-mail).
Phone your order to us on **0800 735 656.**
Unless requested, there is no need to confirm your phone order by fax.
Order on-line on www.standards.co.nz

Approved by the Standards Council on 4 April 2002 to be a New Zealand Standard pursuant to the provisions of section 10 of the Standards Act 1988.

First published: 27 May 2002

The following SNZ references relate to this Standard:

Project No. P4304
Draft for comment No. DZ 4304:2001
Typeset by: Standards New Zealand
Printed by: Hutcheson, Bowman & Stewart/Standards New Zealand

NZS 4304:2002