Alberta Health Services

PROCEDURE

TITLE
BIOMEDICAL WASTE

SCOPE
Provincial

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NOTE: The first appearance of terms in bold in the body of this document (except titles) are defined terms – please refer to the Definitions section.

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OBJECTIVES

- To outline Alberta Health Services' (AHS) roles and responsibilities for handling, transporting, and disposing of **biomedical waste** in a safe and efficient manner.
- To promote a safe and healthy work environment and protect **patients**, visitors, and **AHS representatives** from environmental contamination, disease transmission, and/or injury.

APPLICABILITY

Compliance with this document is required by all Alberta Health Services employees, members of the medical and midwifery staffs, students, volunteers, and other persons acting on behalf of Alberta Health Services (including contracted service providers as necessary).

ELEMENTS

1. Biomedical Waste

1.1 Biomedical waste requires special handling, **treatment**, and **disposal** due to environmental, health and safety, and aesthetic concerns.

a) **Cytotoxic waste** and hazardous **medication/pharmaceutical wastes** are considered separate from the biomedical waste stream but are included in this Procedure.

1.2 The following are types of biomedical waste:

a) **animal waste** is only considered biomedical waste when contaminated with organisms listed as reportable diseases under the *Health of Animals Act* (Canada) and *Health of Animals Regulations* (Canada);

b) **human anatomic waste**;

c) **human blood and body fluid** waste (as defined by the Canadian Council of Ministers of the Environment [CCME] *Guidelines for the Management of Biomedical Waste in Canada* and the Canadian Standards Association [CSA] *Handling of Health Care Waste Materials*);

d) **prion disease** (e.g., **Creutzfeldt-Jakob Disease [CJD]**) waste (refer to Section 11 of this document);

e) **microbiological waste**; and

f) **contaminated sharps waste**.

1.3 All **wastes** must be handled, transported, and disposed of following all **regulatory requirements**.

2. Exclusions

2.1 It is not necessary or practical to treat all **health care waste** as biomedical waste. Certain materials are excluded from biomedical waste and should be **segregated** and disposed of into other waste streams (as appropriate) including, but not limited to:

a) waste that is household in origin;

b) waste that is otherwise controlled in accordance with the *Health of Animals Act* (Canada) or *Health of Animals Regulations* (Canada) (i.e., animal waste that is not contaminated with organisms listed as reportable diseases under this Act and Regulations);

c) waste that is generated in food handling, general building maintenance, or office administration activities;

d) **general waste** from clients on isolation procedures; and

e) **non-contaminated sharps**.

2.2 For additional information regarding health care waste materials that may be disposed of as general waste, see Appendix A: *Examples of Items That Can Go into General Waste* of this document.

3. Health and Safety

3.1 AHS **accountable leaders** are responsible for confirming their program training requirements. AHS representatives must complete role-specific

education/training prior to completing activities with biomedical waste and comply with the AHS *Waste Management* Policy, *Transportation of Dangerous Goods Act* (Canada), and the *Waste Control Regulation* (Alberta).

3.2 AHS representatives must handle biomedical waste in a safe and efficient manner that minimizes the likelihood of spills, leaks, or exposure including but not limited to the following:

a) using appropriate personal protective equipment (PPE) when handling or transporting biomedical waste;

(i) The need for PPE must be identified as part of completing the Hazard Identification, Assessment and Control (HIAC) process. AHS representatives must speak to their manager/**supervisor** if appropriate PPE cannot be found or is not readily available.

(ii) PPE includes, but is not limited to:

- gloves (e.g., puncture resistant, chemical resistant, disposable, waterproof);
- apron and/or gown;
- safety glasses, safety goggles, or face shield;
- mask or respirator; and/or
- protective footwear (e.g., shoe covers).

b) following the AHS *Hand Hygiene* Policy Suite; and

c) immediately reporting any biomedical waste related hazards or incidents, such as improper packaging, leaks, spills, and/or accidental exposure (including any symptoms or infections that may be related to exposure to biomedical waste) through the AHS MySafetyNet reporting system and following applicable AHS policies and procedures, including the *Workplace Health and Safety* Policy, *Emergency Response Codes* Policy, and the *Occupational Exposure to Blood and Body Fluids* Policy.

3.3 Information on Infection Prevention & Control (IPC) hand hygiene and PPE resources are available through the AHS external website and Insite. Additional information on respiratory protective equipment (RPE) is available on Insite.

4. Biomedical Waste Segregation

4.1 AHS representatives must segregate biomedical waste from other waste streams at the point-of-origin.

a) If biomedical waste materials are inadvertently mixed with other waste streams (except for hazardous chemical waste, see the AHS *Hazardous*

Chemical Waste Procedure), the entire contents must be treated and disposed of as biomedical waste.

b) If biomedical waste comes into contact with hazardous chemical waste, the entire contents must be treated and disposed of as hazardous chemical waste (see the AHS *Hazardous Chemical Waste* Procedure).

4.2 Appropriate segregation of waste materials is important to maintain safety, efficiency, and cost controls, as biomedical waste represents (on a dollars per kilogram basis) the highest waste disposal cost to AHS.

4.3 Animal Waste:

a) The handling and disposal of animal waste is subject to the *Health of Animals Act* (Canada) and the *Health of Animals Regulations* (Canada).

(i) Animal waste must be placed in either an orange or red biomedical waste **container**.

4.4 Cytotoxic Waste:

a) Cytotoxic waste (considered known **hazardous medication**) must be placed within a red biomedical waste container or red **sharps** container with a cytotoxic label. See Appendix B: *Container Specifications and Symbols* of this document.

4.5 Hazardous Medication:

a) All three hazardous medication classifications as per the AHS *Hazardous Medication Waste Handling and Disposal* Guide must be placed within a red biomedical waste container or white pharmaceutical waste container.

4.6 Human Anatomic Waste:

a) As per the CSA standard for the *Handling of Health Care Waste Materials*, human anatomic waste is to be treated with respect. For this reason, human and animal waste should not be intermixed and should be placed in separate waste containers.

(i) Human anatomic waste must be placed within a red biomedical waste container.

4.7 Human Blood and Body Fluids:

a) Liquid waste materials within this category must be contained in a sealed, single-use container (such as pleurevacs, phlebotomy blood collection tubes, etc.) and then disposed of in a yellow biomedical waste container, unless it has been treated and/or alternately disposed of following regulatory requirements.

b) For additional protection and elimination of spills, it is recommended that AHS representatives:

(i) solidify large volumes of blood and body fluids (i.e., more than 500 millilitres [mL]) using an AHS-approved solidifier (e.g., Red Z, Isolyser).

c) Any other waste material within this category must be placed within a yellow biomedical waste container, unless it has been treated and alternately disposed of following regulatory requirements. Examples of these materials include, but are not limited to:

(i) bandages, gauze, disposable linens, or drapes (that are saturated or dripping with blood, or release blood upon compression);

(ii) plastic IV bags containing blood; and

(iii) blood filter tubing filled with blood (with needles removed and disposed of as contaminated sharps waste).

4.8 Medication/Pharmaceutical Waste:

a) Medication/pharmaceutical waste must be placed in a red biomedical waste container or white pharmaceutical waste container. Consideration must be given when disposing of liquid medication/pharmaceutical waste to solidifying using an AHS-approved solidifier (e.g., Red Z, Isolyser) prior to disposal.

(i) Controlled substances must be denatured before disposal as per site protocol (see the AHS *Controlled Substances* Procedure).

4.9 Microbiological Waste:

a) Liquid microbiological waste must be placed into a leak-proof container and then placed within a yellow biomedical waste container, unless it has been treated (e.g., autoclaved) and alternately disposed of following regulatory requirements.

b) Solid microbiological waste must be placed within a yellow biomedical waste container, unless it has been treated and alternately disposed of following regulatory requirements.

4.10 Contaminated Sharps Waste:

a) To prevent injuries, needles must be disposed of immediately after use.

b) Sharps must be disposed of in a yellow biomedical sharps container.

c) Sharps must never be forcibly pushed into the container.

d) Sharps containers must not be overfilled.

e) When approximately three-quarters (3/4) full, the sharps container must be properly sealed. If the container does not have a snap lid, the lid must be taped securely shut and disposed of in a yellow biomedical waste container.

f) Sharps that are contaminated with cytotoxic agents must be considered and disposed of as cytotoxic waste.

g) Larger pieces of glass that are contaminated with human blood or body fluids that may not easily fit into a smaller sharps container should be placed within a yellow biomedical waste container that is equipped with a sealable lid.

4.11 Waste Materials Containing Confidential Patient Information:

a) AHS representatives must protect a patient's personally identifiable health information in accordance with the *Health Information Act* (Alberta) and AHS information and privacy policies by:

(i) removing adhesive labels on waste items that have patient information, where it is safe and appropriate to do so, prior to disposal and dispose of as confidential paper waste.

- If a patient's information cannot be removed, the entire waste item must be disposed of as biomedical waste (in a yellow biomedical waste container) to ensure that patient information is protected.

5. Biomedical Waste Containers

5.1 Nutrition, Food, Linen, and Environmental Services (NFLES) accountable leaders must ensure waste containers meet all regulatory specifications and labelling requirements. See Appendix B: *Container Specifications and Symbols* of this document for additional information on biomedical waste containers.

5.2 Once containers are sealed, a unit or area-specific bar-code label must be affixed to the side of the biomedical waste container, unless directed to place otherwise. The purpose of the bar-code label is to monitor the volume generated by each unit and to track the source of the material in the event of an accident or injury. All biomedical waste containers require a bar-code label.

5.3 AHS representatives must utilize biomedical waste containers for designated biomedical waste only (refer to Section 4 of this document) and must not re-open them once sealed.

a) Where issues with biomedical waste containers at the point-of-origin prohibit the ability for safe facility transfers (i.e., leaking biomedical box, weight exceeds 30 pounds [lbs]) the waste-generating department

responsible for packaging the waste must rectify the identified issue prior to NFLES removal from the area.

b) Facility-specific information about acceptable biomedical waste may be found on posters, printed on the biomedical waste containers, or on cardboard inserts that accompany the biomedical waste containers and are available by contacting the local NFLES accountable leader.

6. Carts

6.1 AHS representatives must ensure that carts used to collect and move biomedical waste through the **AHS facility** must be:

a) capable of holding the waste;

b) designed to prevent spillage and leakage;

c) constructed of materials that allow effective cleaning and disinfection;

d) designed to minimize the physical strain of loading and unloading materials;

e) disinfected in case of a leak or spill during **collection** and/or transportation; and

f) cleaned weekly, at minimum, or if visibly soiled from a leak or spill during collection and/or transportation.

7. Collection and Transporting

7.1 The AHS accountable leader responsible for waste collection within an AHS facility must designate and document corridor and elevator routes for transporting biomedical waste ensuring:

a) planned routes minimize the passage through patient care, public, and other clean areas;

b) planned routes are available to AHS representatives required to collect and move biomedical waste; and

c) AHS representatives collecting and transporting biomedical waste within the AHS facility are trained on appropriate routes prior to collecting waste containers.

7.2 AHS representatives must move biomedical waste along the planned routes to mitigate exposure to patients, visitors, and AHS representatives. Detailed information on planned routes is dictated by local facility protocols and must follow Section 7.1 of this document.

7.3 AHS representatives collecting biomedical waste containers must transport them to the **final storage area** daily at a minimum (when practical).

a) If it is not practical to collect biomedical waste daily, collection may be done on a lesser frequency provided that this has been pre-arranged with the department responsible for waste collection and provided the situation does not result in a nuisance (e.g., odour or clutter) or present a risk or hazard to patients, visitors, or AHS representatives.

b) Sharps containers that are being temporarily stored in a **primary storage area** do not need to be picked up daily; however, once the sharps container is approximately three-quarters (3/4) full, it must promptly be disposed of within a yellow biomedical waste container so that it can be collected and removed to final storage.

c) Biomedical waste must not be collected and transported with other waste streams.

d) Biomedical waste containers that are being transported, or have been removed to final storage, must not be re-opened.

8. Storage

8.1 The AHS accountable leader responsible for biomedical waste storage within an AHS facility must ensure:

a) all waste **storage** areas follow regulatory requirements (e.g., building and fire codes);

b) final storage areas:

(i) restrict access to AHS representatives who have been authorized by the waste-generating department;

(ii) are completely enclosed and always kept locked when unoccupied;

(iii) are separate from supply rooms or food handling areas;

(iv) are properly identified as holding biomedical waste and must have the biohazard symbol on the door;

(v) are used to store biomedical waste only;

(vi) are accessible to on-site waste hauling equipment; and

(vii) are emptied out and cleaned and disinfected on an annual basis (at minimum) or more often if a leak or spill occurs; and

c) written processes for refrigerating or freezing biomedical waste are in place where applicable:

(i) to handle excess waste, or in the case that either refrigeration or disposal facilities or equipment become inoperative. This may include, but is not limited to, scheduling additional pick-up times with the waste vendor once the storage room reaches a pre-determined capacity; and

(ii) to outline the maximum storage time of refrigerated or frozen biomedical waste based on storage capacity, rate of waste generation, and regulatory requirements (if applicable).

- Anatomic waste must be stored at a temperature of four (4) degrees Celsius (°C) or lower unless contained in formaldehyde.
- Biomedical waste being stored for more than four (4) days, except for sharps waste, is recommended to be stored at a temperature of four (4) degrees Celsius (°C) or lower.
- Caution with the temperature should be exercised as glass or plastic items in the waste containers may fracture at lower temperatures.

8.2 AHS representatives must promptly remove biomedical waste from primary storage areas to remove a potential source of infection and to protect patients, visitors, and AHS representatives, from exposure.

a) Biomedical waste (excluding sharps containers) must not be stored in patient or client rooms.

b) Biomedical waste may be temporarily stored in a **secondary storage area**, out of the way of general traffic (e.g., normal hospital traffic such as the public and/or AHS representatives) prior to being removed to the final storage area.

c) Biomedical waste containers/bins (including boxes and pails) must be stacked so that they are stable, safe, and easy to lift. Biomedical waste containers should be stacked no more than two (2) units high, depending on the size of the containers.

9. Treatment and Disposal

9.1 NFLES accountable leaders must work with AHS waste management and applicable regulatory authorities to review new technologies for the treatment of biomedical waste prior to implementation and use at AHS facilities.

9.2 AHS accountable leaders and the waste-generating departments (as applicable) must work with service providers and landfill operators prior to disposing of treated biomedical waste materials to ensure:

a) the service providers and landfill operators are educated on the nature and handling of the waste and are prepared to accept the waste for transportation and disposal.

(i) In some cases, landfill operators may specify more stringent standards or conditions before accepting treated biomedical waste.

9.3 The AHS accountable leader responsible for final waste disposal within an AHS facility must ensure anatomic waste must be transported off-site by a licensed carrier and incinerated.

9.4 Human Blood and Body Fluids:

a) AHS representatives may dispose of human blood and body fluids into the **sanitary sewer** untreated provided that:

(i) the process is compliant with regulatory requirements; and

(ii) it is carefully poured down a drain connected to the sewer, taking care to eliminate spills or the formation of aerosols.

b) AHS representatives may dispose of treated human blood and body fluids into the sanitary sewer provided that:

(i) the process is compliant with regulatory requirements; and

(ii) it is treated by either steam autoclaving or chemical decontamination.

- Otherwise, blood and body fluids must be disposed of as biomedical waste, see Section 9.4 c) of this document.

c) AHS representatives disposing of human blood and body fluids as biomedical waste must ensure it is treated by adding an AHS-approved solidifier (e.g., Red Z, Isolyser) prior to disposing into the landfill (as general waste) if this is compliant with regulatory requirements.

(i) Otherwise, it must be disposed of as biomedical waste.

9.5 Non-Anatomical Biomedical Waste:

a) AHS representatives must ensure non-anatomical biomedical waste is treated by steam autoclaving and then disposed of into the landfill (as general waste) if this is compliant with regulatory requirements.

(i) Untreated non-anatomic biomedical waste must be transported off-site by a licensed carrier and incinerated.

9.6 See Appendix C: *Summary of Disposal Options for Biomedical Waste* of this document for additional information on biomedical waste disposal options.

10. Transportation of Dangerous Goods (TDG)

10.1 The AHS accountable leader responsible for final waste disposal within an AHS facility must:

a) ensure biomedical waste is transported by a licensed carrier, in accordance with the *Transportation of Dangerous Goods Regulation* (Canada);

b) ensure contents are in compliance with UN3291 Biomedical Waste;

c) ensure means of containment are in compliance with the CAN/CGSB-43.125 safety standard;

d) ensure a biohazard symbol or the word 'BIOHAZARD' is displayed on the means of containment; and

e) retain a waste shipping document from a licensed carrier to confirm the number of containers and/or pails of biomedical waste removed from the AHS facility for final disposal.

(i) The waste shipping document must outline an AHS facility, NFLES accountable leader name, and a phone number that can be referenced on the contents of waste disposed in the event of an emergency.

10.2 AHS representatives in Home and Community Care or Public Health who are transporting sharps containers and/or small oxygen cylinders in their vehicles are exempt from transportation of dangerous goods documentation, placarding, and training certification, and must ensure:

a) the sharps container must be labelled “Exempt Human Specimen”; and

b) the container/oxygen tanks are secured to limit/prevent movement while transporting.

11. Prion Disease Waste

11.1 Biomedical waste materials that are known or are expected to have been exposed to or contain **high-risk tissue** (e.g., brain tissue) contamination from high-risk persons, which most often occurs in an operating room, must be controlled by following all applicable regulatory requirements for special handling, containment, labelling, collection, storage, transportation, and disposal and in

accordance with the AHS *Prion Disease: Perioperative Special Precautions for High-Risk Cases to Prevent Iatrogenic Transmission* Policy.

a) For more information, consult the local Infection Control Professional and refer to the AHS *Prion Disease/CJD: Perioperative Special Precautions for High-Risk Cases* Standard Operating Resource.

12. Records Retention

12.1 Information and records about biomedical waste must be maintained by NFLES accountable leaders following regulatory requirements, the AHS *Records Management* Policy, and the AHS *Records Retention Schedule*.

12.2 NFLES accountable leaders must use weight logs to verify that shipping weights match the biomedical waste material removed by the licensed carrier.

DEFINITIONS

Accountable leaders means the individual who has ultimate accountability to ensure consideration and completion of the listed steps in the management of the *Biomedical Waste* Procedure. Responsibility for some or all of the components of management may be delegated to the appropriate level responsible administrative leader, but accountability remains at the senior level.

AHS facility means any facility, property, or ground owned, operated, leased, or funded by AHS.

AHS representatives means Alberta Health Services employees, members of the medical and midwifery staffs, students, volunteers, and other persons acting on behalf of AHS (including contracted service providers as necessary).

Animal waste means all animal tissues, organs, body parts, carcasses, bedding, fluid blood and blood products, items saturated or dripping with blood, body fluids contaminated with blood and body fluids removed for diagnosis or removed during surgery, treatment, or autopsy. Animal waste does not include teeth, hair, nails, hooves, and feathers.

Biomedical waste means solids, liquids, laboratory waste and sharps that are generated within a health care or veterinary facility, and that require special handling and disposal because they represent a risk of disease transmission.

Collection means the accumulation of waste from several primary or intermediate storage sites for movement to a waste-holding area, or from several waste-holding areas for movement to final storage.

Container means any receptacle for the storage of waste.

Contaminated sharps waste means clinical and laboratory materials capable of puncturing, cutting, or tearing skin (such as needles, Pasteur pipettes, lancets, scalpels, blades, and laboratory glass) and have come into contact with blood or body fluids or microorganisms. Drug vials and ampoules are not considered contaminated sharps.

Creutzfeldt-Jakob Disease (CJD) means a type of prion disease that encompasses the following types: sporadic CJD, genetic CJD, iatrogenic CJD, Gerstmann-Sträussler-Scheinker syndrome (GSS), and fatal familial insomnia (FFI).

Cytotoxic waste means any waste material that has become contaminated with cytotoxic agents, such as anti-neoplastic or chemotherapy drugs, during preparation, handling or administration.

Disposal / disposed means the removal of waste, treated waste, or residue from a facility, off-site waste treatment facility, or transfer station to a final location. Disposal includes placement in a landfill or discharge to a sanitary sewer.

Final storage area means where the waste is transported to and stored just prior to disposal (e.g., on-site biomedical waste refrigerator/freezer or other designated final storage area).

General waste means any waste material that is not hazardous, does not contain an infectious substance, and which can be safely disposed of into a Class II landfill site.

Hazardous medication means medication that can pose a health risk from exposure in the workplace due to the medication's inherent toxicity.

Health care waste means all waste that is generated by health care facilities, including biomedical waste, cytotoxic waste, pharmaceutical waste, hazardous medications, hazardous chemical waste, radioactive waste, general waste, recycling waste, and restricted, confidential, and protected waste.

High-risk tissue means the following: brain and cranial nerve ganglia, spinal cord and spinal ganglia, dura matter, pituitary gland, and posterior eye (including retina or optic nerve).

Human anatomic waste means any biomedical waste that pertains to the human body.

Human blood and body fluid means human fluid blood and blood products, items saturated or dripping with blood, body fluids contaminated with blood, and body fluids removed for diagnosis during surgery, treatment or autopsy, but does not include urine, feces, saliva, human bile (vomit), or tears.

> **Note:** The *Occupational Exposure to Blood and Body Fluids Policy* (#1111) defines body fluids differently. For the purposes of determining what must be disposed of as biomedical waste, the definition in this policy must apply.

Medication/pharmaceutical waste means any medication or medicinal chemical that is unusable including products that may be outdated, potentially contaminated, stored improperly and/or partially used.

Microbiological waste means laboratory cultures, stocks or specimens of microorganisms, live or attenuated vaccines, human or animal cell cultures used in research, and laboratory material that has come into contact with any of these.

Non-contaminated sharps means a material that can puncture, penetrate, or cut the skin and that has not come into contact with blood and body fluids.

Patient means an individual, inclusive of residents and clients, who receives or has requested health care or services from Alberta Health Services and those authorized to act on behalf of Alberta Health Services. In the context of informed consent or other decision-making, patient also means any alternate decision-maker or co-decision maker for the individual, when applicable.

Primary storage area means where the waste originates and is segregated into the appropriate waste container (e.g., patient rooms, laboratories, operating rooms).

Prion disease means a rare neuro-degenerative disease also known as transmissible spongiform encephalopathies (TSE) which includes sporadic Creutzfeldt-Jakob Disease, genetic (familial or inherited) Creutzfeldt-Jakob Disease, Gerstmann-Sträussler-Scheinker syndrome, fatal familial insomnia, iatrogenic Creutzfeldt-Jakob Disease, and variant Creutzfeldt-Jakob Disease.

Regulatory requirements means all acts, legislations, regulations, and bylaws.

Sanitary sewer means a sewer to dispose of sewage but not water from ground, surface, or storm.

Secondary storage area means where the waste is temporarily stored before being transported to the final storage area (e.g., soiled utility rooms). This also includes the means by which the waste is transported.

Segregation / segregated means the separation of wastes, according to classification, at the point of generation and prior to storage.

Sharps means items used in medical care diagnosis or research that are capable of causing punctures, cuts or tears in skin or mucous membranes. Sharps include hypodermic, surgical, suture, or IV (intravenous) needles, syringes with needles, Pasteur pipettes, lancets, scalpels, blades, and laboratory glass.

Storage means the accumulation of wastes after segregation into specified containers.

Supervisor means a person, whether unionized or non-unionized, who has charge of a work site or authority over an AHS representative.

Treatment means a process to change the biological or chemical character of waste to eliminate or significantly reduce potential infectious substances or harm contained in the waste (e.g., incineration, autoclave).

Waste means an unwanted substance or mixture of substances and includes refuse and garbage.

REFERENCES

- Appendix A: *Examples of Items That Can Go into General Waste*
- Appendix B: *Container Specifications and Symbols*
- Appendix C: *Summary of Disposal Options for Biomedical Waste*
- Alberta Health Services Governance Documents:
  - *Controlled Substances* Procedure (#HCS-277-01)
  - *Emergency Response Codes* Policy (#1132)
  - *Enterprise Risk Management* Policy (#1125)
  - *Hand Hygiene* Policy Suite (#PS-02 and #PS-02-01)
  - *Hazardous Chemical Waste* Procedure (#ESM-01-02)
  - *Occupational Exposure to Blood and Body Fluids* (#1111)
  - *Prion Disease: Perioperative Special Precautions for High-Risk Cases to Prevent Iatrogenic Transmission* Policy (#PS-03)
  - *Records Management* Policy (#1133)
  - *Records Retention Schedule* (#1133-01)
  - *Waste Management* Policy (#ESM-01)
  - *Workplace Health and Safety* Policy (#1121)
- Alberta Health Services Resources:
  - Hazard Identification, Assessment and Control (“HIAC”) Process
  - *Hazardous Medication List*
  - *Hazardous Medication Personal Protective Equipment (PPE) Guide*
  - *Hazardous Medication Waste Handling and Disposal* Guide
  - *Prion Disease/CJD: Perioperative Special Precautions for High-Risk Cases* Standard Operating Resource
- Non-Alberta Health Services Documents:
  - *Canadian Environmental Protection Act*
  - *Guidelines for the Management of Biomedical Waste in Canada* (Canadian Council of Ministers of the Environment)
  - *Handling of Health Care Waste Materials* (CSA-Z317.10:21) (Canadian Standards Association)
  - *Health Information Act* (Alberta)
  - *Health of Animals Act* (Canada)
  - *Health of Animals Regulations* (Canada)
  - *Nuisance and General Sanitation Regulation* (Alberta)
  - *Occupational Health and Safety Act* (Alberta)
  - *Transportation of Dangerous Goods Act* (Canada)
  - *Waste Control Regulation* (Alberta)

APPENDIX A

Examples of Items That Can Go into General Waste

Materials that come into contact with blood and body fluids can be safely disposed of into the general waste stream as long as they are not saturated or dripping, and do not contain pathogenic agents that may cause disease in humans exposed to the waste. Due to the sensitivities surrounding health care waste, consideration should be given to items which are especially soiled or unsightly as to whether they should be disposed of in general waste or another more appropriate waste stream.

Health care facilities / NFLES accountable leaders should work with service providers and landfill operators to ensure they will accept the waste for transportation and disposal.

Examples of items that may be safely disposed of as general waste include, but are not limited to:

- soiled dressings;
- sponges;
- surgery drapes;
- lavage tubes;
- dialysis wastes such as tubing filters, towels, and disposable sheets;
- IV bags and tubing, empty or with residual blood;
- diapers;
- disposable pads;
- soiled feminine hygiene products;
- disposable gloves;
- catheters;
- specimen containers (*with no patient information*);
- casts;
- splints and orthotic devices / materials;
- syringes without needles;
- empty medication containers or vials;
- lab coats and aprons;
- laboratory slides with tissue fixed (treated as glass waste); and
- pathological samples processed and fixed (paraffin blocks or slides are not considered viable unless infectious).

APPENDIX B

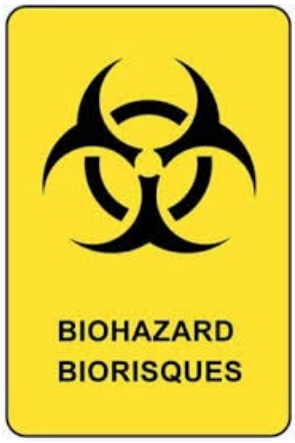
Container Specifications and Symbols

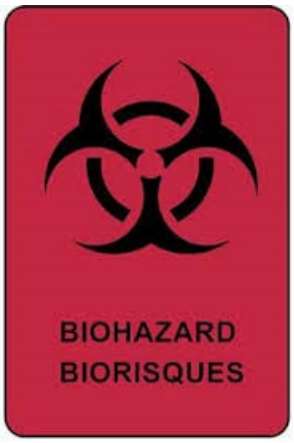
All containers must meet the requirements of the *Transportation of Goods Regulations* ("TDGR").

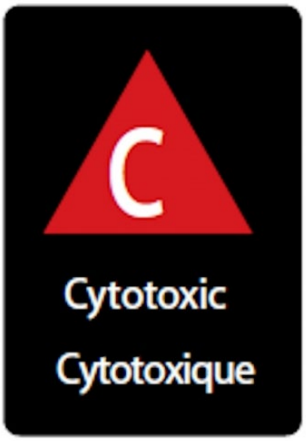
Biomedical Waste Type	Biomedical Waste Container Colour	Labelling**
Animal Waste	ORANGE or RED	Biohazard Symbol
Contaminated Sharps	YELLOW	Biohazard Symbol*
Prion Disease (e.g. Creutzfeldt-Jakob Disease [CJD]) Waste	RED	Biohazard Symbol
Cytotoxic Waste	RED	Cytotoxic Symbol*
Hazardous Medication	RED or WHITE	Biohazard/Pharmaceutical Symbol
Human Anatomic	RED	Biohazard Symbol
Human Blood and Body Fluids	YELLOW	Biohazard Symbol
Medication/Pharmaceutical Waste	RED or WHITE	Biohazard/Pharmaceutical Symbol
Microbiological Waste	YELLOW	Biohazard Symbol

*Cytotoxic sharps waste must be labelled with the cytotoxic symbol.

**Labels being placed on containers must be placed on the sides of the container.







Pictures from CSA Z317.10-2021

Plastic bags for waste holding must:

- be sturdy enough to resist puncture under conditions of use and at the point of disposal;
- have a minimum thickness of three (3) millimetres; and
- be labelled with a biohazard symbol.

Biomedical containers must:

- be colour-coded (see table above);
- be labelled with the biohazard symbol; and
- be rigid, closable, leak-resistant, and capable of being sealed.

There are several models of sharps containers that meet the criteria below; however, not all models are appropriate in all situations. A risk assessment of the tasks being performed must guide the selection of an appropriate container.

Sharps containers must:

- be located as close as is reasonably practicable to where sharps are used;
- be sturdy enough to resist puncture under normal conditions of use and handling;
- have a visible fill line (must not be filled more than three-quarters (¾) full);
- be closable (contained sharps must not be able to fall out);
- be leak-proof;
- be labelled as containing sharps;
- be labelled with a biohazard symbol; and
- remain upright if used in kit bags.

APPENDIX C

Summary of Disposal Options for Biomedical Waste

Below is a summary of disposal options for biomedical waste produced within AHS facilities; however, this is a high-level guideline only. Regulatory requirements for each area must be consulted to determine appropriate disposal methods.

Biomedical Waste Type	**Disposal Options**		
	Steam Autoclaving	Incineration	Disposal Once Treated
Animal Anatomic*	No	Yes	N/A
Prion Disease (e.g. Creutzfeldt-Jakob Disease [CJD]) waste	No	Yes	N/A
Hazardous Medication	No	Yes	N/A
Human Anatomic	No	Yes	N/A
Human Blood and Body Fluids	Yes	Yes	Sanitary Sewer or Landfill*
Non-Anatomic Waste	Yes	Yes	Sanitary Sewer or Landfill*
Medication/ Pharmaceutical Waste	No	Yes	N/A

*If compliant with regulatory requirements.