Waste Management Training
In the clinical setting
Definition of Biohazardous Waste

Biohazardous waste is that waste that is capable of producing an infectious disease in humans and includes, at a minimum:

- Blood
- Body fluids
- Discarded sharps
- Laboratory waste (ex: inoculated culture media, tissues and slides)
- Some isolation waste
- Some animal waste
Blood & Body Fluids Includes:

**Blood/Blood Products**
- Serum
- Plasma
- Other blood components

**Body Fluids**
- Semen
- Vaginal secretions
- Cerebrospinal fluid
- Pleural fluid
- Peritoneal fluid
- Pericardial fluid
- Amniotic fluid
- Any other body fluid visibly contaminated with blood

**Does NOT Include**
- Urine, unless visible blood is present
- Feces, unless visible blood is present
- Vomit, unless visible blood is present
Blood & Body Fluids

In order for blood and body fluids to be considered biohazardous, they must also be present in **pourable, dripable amounts**.

A pourable quantity is defined as the ability of a liquid or semi-liquid form to drip or flow. Items caked with dried blood or other body fluids and are capable of releasing these materials during handling are considered biohazardous as well.

Something is considered biohazardous if:
- Blood or body fluids come out if you squeeze the item
- Flecks of dried blood or dried body fluids flake off if you pull the item taught after it dries
Examples of Biohazardous vs. Non-biohazardous Waste

Biohazardous
Bottles of blood or body fluids are considered biohazardous. This fluid is probably pleural fluid.
Examples of Biohazardous vs. Non-biohazardous Waste

Biohazardous
This lab waste is considered biohazardous.
Examples of Biohazardous vs. Non-biohazardous Waste

Biohazardous
In lab situations, where employees are working with concentrated organisms, culture plates, gloves used to handle them and towels that they sat on are all considered to be biohazardous.

In non-laboratory situations, gloves are considered biohazardous only if they have blood on them and towels are biohazardous only if they have blood or body fluids on them that is in pourable/dripable amounts.
Examples of Biohazardous vs. Non-biohazardous Waste

Non-Biohazardous
Unused suction canisters, unused dressing materials and dry paper products are not considered biohazardous waste.
Examples of Biohazardous vs. Non-biohazardous Waste

**Non-Biohazardous**
The blood on this towel is not considered biohazardous. The blood is well-contained within the fibers of the towel, and will not fleck off if the towel is pulled taught.
Other Inappropriate Waste

Aerosol cans must NEVER go in biohazardous waste. Biohazardous waste undergoes both heat and pressure as part of the process that renders biohazardous waste non-infectious. Aerosol cans, even if empty, can act as a small bomb if placed under these conditions, creating a very unsafe condition for employees handling the waste.

If you are unsure of how to dispose of an aerosol can, consult the Safety Office for assistance.
Disposing of Suction Canisters

Suction canisters containing blood or other body fluids must be carefully emptied using a system that has been approved by Facilities Management and Planning and the Campus Safety Office or sealed and placed in rigid, reusable biohazardous waste containers.
Disposing of Suction Canisters

Personnel must wear appropriate protective equipment to minimize exposure to potential pathogens when handling and/or emptying suction canisters.

Contents may be solidified and discarded using approved methods if emptying contents is not practical.

Empty suction canisters must be handled and discarded as infectious waste.
Contaminated Equipment and Linen

Equipment and linen contaminated with infectious material or biological agents must be handled and decontaminated in accordance with the guidelines established in the UNMC/Nebraska Medicine Bloodborne Pathogen Exposure Control Policy.
Contaminated Equipment and Linen

Equipment and Linen ARE NOT thrown away as a biohazard!

Linen saturated with blood and/or other body fluids should be contained by wrapping it with other used linen and placed with other dirty laundry. Our laundry vendor is capable of removing many stains that might seem impossible to clean out of linen.

Once it has gone through the cleaning process, appropriate personnel will determine if an item must be discarded due to contamination.
Contaminated Equipment and Linen

Equipment contaminated with blood or body fluids is to be wiped off with a low level disinfectant.

If blood or body fluids have leaked into the machinery, place a biohazard label on the piece equipment and indicate on the label where you think blood or body fluids have leaked into the mechanism. Call Biomed to have the equipment serviced.
Infectious Sharps Waste

All discarded items derived from human patient diagnosis, care or treatment, or items from animals infected with zoonotic disease in medical or research facilities which could potentially transmit disease via direct subdermal (beneath the skin) inoculation are considered to be biohazardous.
Infectious Sharps Waste

Infectious Sharps Waste includes the following items that have been contaminated with infectious materials:

• Hypodermic needles
• Scalpels
• Pipettes
• Breakable containers
• Glass products (i.e., slides or cover slips)
Medical Sharps

Medical sharps waste includes needles and syringes used in patient care and have become contaminated with blood or body fluids. Needles and syringes NOT used in patient care and do not have blood or body fluids on them are also considered biohazardous waste as there are safety concerns regarding their disposal.
Non-Contaminated Canisters and Sharps

While it may sound contradictory to dispose of suction canisters, needles and syringes that are not contaminated with blood or body fluids, it is a necessary safety precaution for those individuals handling such items further down the waste stream.

Environmental Services personnel or other waste handlers who sustain injury while handling such waste will look in the waste bag to identify what may have caused their injury. If a leaking suction canister, needle or syringe is visible, the worker will assume they had a blood/body fluid exposure, and will need to go through post exposure prophylaxis treatment.

Handling all suction canisters, needles and syringes as though they are a biohazard can help prevent unnecessary concern and treatment from these types of “exposures.”
Sharps Waste

All sharps containers must meet campus Safety Office stands (i.e., leak-proof, puncture resistant, etc.) If there is any question as to whether or not a sharps container meets acceptable standards, contact the Safety Office and an officer will examine the container to assure that it meets minimal safety standards.
Sharps Waste

Containers must be sealed when they are approximately \(\frac{3}{4}\) full and placed with the biohazardous waste for pick up and disposal. NEVER place sharps in a sharps container once it is beyond \(\frac{3}{4}\) full, as there is a good chance that the sharp may bounce out of the container and cause injury.

Sharps containers should be bagged and sealed as outlined above if they contain liquids in the form of blood, bloody fluids or medications. Bagging sharps containers appropriately when they contain liquid biohazardous substances helps to contain these fluids in the event that the container should tip over during handling, storage or transport.
Isolation Waste

Waste generated from isolation is **not** considered infectious unless it meets the definition of infectious waste as defined by:

- Blood and body fluids
- Infectious sharps waste
- Laboratory waste
- Medical sharps waste
Isolation Waste

Isolation waste is considered infectious if it falls into one of the following categories:

- Waste within the definitions of laboratory, blood and bloody fluid or sharps waste
- Waste from patients diagnosed as having a highly communicable disease caused by the class IV etiological agents defined by Centers for disease control
Laboratory Waste

Laboratory waste includes all cultures and stocks of infectious agents, including specimen cultures from medical and pathological laboratories. It also includes wastes from the production of biologicals, **discarded live and attenuated vaccines**, and culture dishes and devices used to transfer, inoculate and mix cultures.
Handling of Biohazardous Waste

Infectious waste, except for sharps, shall be contained in disposable plastic bags or containers that are tear-resistant, leak-proof, and secured to prevent leakage or expulsion of solid or liquid waste during storage, handling or transport.

Department of Transportation (DOT) regulates shipping of biohazardous waste. DOT requires that all biohazardous waste containers have their inner bag tied at the top in a single knot and the lid securely closed prior to transport. ANY facility not complying with these requirements is subject to heavy fines by DOT.
**STEP 1:**
Only biohazardous waste should be placed in these containers — items contaminated with pourable/dripable or dried, crusted blood or body fluids, sharps (in sharps containers), etc.

**STEP 2:**
Waste must be placed in a red bag in the tub to comply with DOT regulations. Gather bag together keeping the air in bag to a minimum. Do not push down on the bag or puncture it to remove air.
**STEP 3:**
Twist bag into single braid.

**STEP 4:**
Use the braid to tie a single knot.

Note: “Bunny ear” ties do not meet the DOT requirements and could result in a fine.
STEP 5:
Tighten knot by placing one hand above the knot and pulling on the top of the braid while pushing down on the knot. Carefully tuck the knot and bag into the container.

STEP 6:
Place lid on container and snap it into place. Put the container at the designated pickup location.
Bag Tying

The above pictures are examples of inappropriately tied bags. Bags cannot be left open, tied into bunny-ears, or taped/twist-tied closed. The only way to secure bags that is acceptable to DOT is tying the bag at the top in a single knot.
Inappropriately Packaged Waste

This waste was packaged inappropriately. Once the bag is tied, the lid must be placed securely on the container.
Preparation for Transport

Prior to transport off campus, all infectious waste shall be placed in rigid or semi-rigid, leak-proof containers such as disposable or reusable pails, cartons, boxes, drums or portable bins. These containers may come in different shapes and sizes, but all must meet DOT criteria to be used for biohazardous waste transport.

The 28-gallon biohazardous waste containers have a 50 pound weight limit. Animal carcasses must be placed in the larger (taller) red biohazardous waste containers as the contents have a tendency to expand under certain conditions.
Biohazardous Waste Containers

Biohazardous waste containers shall be clearly marked with the universal biohazard symbol prominently displayed or labeled "biohazardous waste" and sealed.
Inappropriate Packaging of Containers

It is unlawful in the city of Omaha to dispose of needles and syringes in plastic bottles; disposing of these items as shown is in violation of DOT regulations on the UNMC/Nebraska Medicine campus. Any containers such as these must be placed in an approved large sharps container and then placed in the designated biohazardous waste area for pickup.
Inappropriate Packaging of Containers

This container does not meet DOT transport regulations. Taping the top of the container allows for sharps or blood and bloody fluids to leak around the weave of the tape, if the container should tip over. Large biohazardous waste and chemo waste containers such as these must be sealed with a tightly fitting lid prior to transport.
Transporting Biohazardous Waste

Biohazardous waste must be transported in separate trailers or carts designed for biohazardous waste.
Biohazardous Waste Treatment

All red bag biohazardous waste must be rendered “non-infectious” using a method approved by the state. In the state of Nebraska, autoclaving is considered an appropriate means of rendering waste “non-infectious.”

Biohazardous waste shipped off campus for treatment must be properly packaged and transported to an approved treatment facility. All waste collected by our waste vendor is taken to their processing plant, where it is autoclaved and then dumped in the landfill with regular waste.
Recyclable Waste

Recyclable waste includes:

- Mixed paper
- Cardboard
- Aluminum cans
- Aerosol cans
- Surplus equipment
- Printer cartridges
- Scrap metal
Recyclable Waste

Blue waste containers and the large green waste bins are used for **MIXED PAPER** only!

- Cardboard is taken to special collection areas by Environmental Services staff
- Aluminum cans are placed in special collection receptacles (call the Recycling Center for these X9-2163)
- Aerosol cans must go directly to the Recycling Center
- Surplus equipment – call for pick-up X9-5899
- Printer cartridges – questions or pick-up call X9-5895
- Scrap metal – is taken to special collection areas by appropriate staff
Contact Us

For additional information about biohazardous waste, please contact:

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