



Steri - Green

“ Earth Friendly Medical Waste Disposal ”

Reduce and Reuse for healthcare providers

www.steri-green.com

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- Medical waste is part of a larger solid waste problem.
- Most waste generated in a healthcare facility can be classified as medical waste.
- The state has a very narrow definition for what is considered to be regulated medical waste. Healthcare facilities often spend more than is necessary to treat medical waste that is not defined as regulated. This increases the cost of healthcare and wastes resources.
- Strategies exist to help minimize the amount of wastes and money that healthcare facilities spend on medical waste treatment.
- Know where to get more info, if you need it.

The Interstate hauling of medical waste began in 1997

- In 1997, the Supreme Court determined that garbage was a commodity that could be traded across state lines.
- Landfills are becoming increasingly difficult to site and expensive to construct.

Landfills are the endpoint of most solid waste

- ▶ Landfill Operators are the ROC (responsible operator-in-charge)
- ▶ Landfill operators have the right to reject any waste for disposal in their landfill, even if state regulations allow landfill disposal of such wastes.
- ▶ Modern day landfills are not dumps.
- ▶ Highly regulated and highly engineered, ongoing construction projects for the life of the landfill.
- ▶ No scavenging is ever allowed.
- ▶ All wastes are required to be covered with soil at end of the work day.

Medical waste is part of a larger solid waste problem.



Medical Waste

- ▶ Medical waste means *any* solid waste which is generated in the diagnosis, treatment, or immunization of human beings or animals.

Medical waste types

- ▶ Unregulated - does not require treatment before disposal-may or may not contain biohazardous materials
- ▶ Regulated -requires treatment before disposal-biological materials-contains biohazardous materials
- ▶ Chemical wastes- labs, pharmacy, other processes- hazardous wastes
- ▶ Radioactive waste- treatment & diagnostic procedures
- ▶ Chemotherapeutic- chemical, antibodies
- ▶ The medical waste rules only apply to regulated and unregulated medical wastes

Regulated Medical Waste(RMW)

- ▶ Regulated medical waste means blood and body fluids in individual containers in volumes greater than 20 ml (about the size of a test tube), microbiological waste, and pathological waste
- ▶ Roughly 9 percent to 15 percent of the waste stream at hospitals is regulated medical waste
- ▶ Regulated medical waste must be treated prior to disposal

Blood and Body Fluids

- ▶ Blood and body fluids means liquid blood, serum, plasma, other blood products, emulsified human tissue, spinal fluids and pleural and peritoneal fluids
- ▶ Dialysates, urine, and feces are not blood or body fluids under this definition
- ▶ Preferred method of treatment- dispose of in a commode.

Microbiological Waste

- ▶ Microbiological waste means cultures and stocks of infectious agents, including, but not limited to, specimens from medical, pathological, pharmaceutical, research, commercial and industrial laboratories
- ▶ Can be autoclaved, incinerated, or treated with disinfectant chemicals (bleach 1:5)

Pathological Waste

- ▶ Pathological waste means human tissues, organs and body parts; and the carcasses of animals that were known to have been exposed to pathogens or that died of a known or suspected disease transmissible to humans
- ▶ Only method of treatment- incineration (and other approved methods)

Trauma scenes excluded

- ▶ Biohazardous waste generated outside this definition is not considered to be medical waste. e.g. - trauma scenes. the exception is animals that died from a zoonotic disease (e.g.-rabies, BSE) .

Non- regulated medical waste or not defined as regulated in Florida

- ▶ Medical waste such as dressings and bandages (even when blood soaked), sponges, disposable instruments, used gloves, and tubing.
- ▶ These items are not included in the definition of regulated medical waste and may be disposed of without treatment in the general solid waste stream with local gov't approval.
- ▶ Many generators choose to ship and treat non-regulated medical waste such as gloves, bloody bandages, dressings, and tubing.

Disposal of Sharps

- ▶ The rules do not require treatment of sharps before disposal.
- ▶ They must be packaged in a container that is rigid, leak-proof when in an upright position and puncture resistant.
- ▶ The package may then be disposed of with general solid waste. Facilities should check with county or city authorities for local approval.

OSHA

- ▶ OSHA specifies certain features of the regulated waste containers, including appropriate tagging (biohazard symbol). This is meant to protect waste industry workers.
- ▶ OSHA definition of regulated waste is not intended to designate waste that must be incinerated or otherwise treated before landfilling. Does not address disposal.
- ▶ OSHA - definition of regulated waste may include waste such as bloody gauze, blood saturated dressings, used gloves, or tubing.

Medical waste is not hazardous waste

- ▶ Medical waste is more properly called biohazardous waste.
- ▶ This is to distinguish it from chemical hazardous waste.
- ▶ Medical wastes come under the authority of the North Carolina's Medical waste rules and the Solid Waste Section.
- ▶ Chemical waste come under the authority of the Resource Conservation and Recovery Act (RCRA) and the Department of Environmental Quality's Hazardous Waste Section

Pharmaceutical Waste

- ▶ It is no longer a “best management practice” to dispose of unwanted pharmaceuticals by flushing them down a commode.
- ▶ Most Rx and OTC products can be disposed of safely in the landfill.
- ▶ Before disposing of a drug in the trash determine if it is categorized as a hazardous waste.
- ▶ More info at the website: [Pharmaceutical Waste Guidance from the EPA](#)

Reduce and Reuse...

- ▶ Eliminate unused items from custom surgical packs (once pack is opened, unused items are discarded).
- ▶ Identify items that are not used regularly enough to justify inclusion in various packs.
- ▶ Tell manufacturer when one outdated item causes entire pack to be outdated (e.g. tetracaine in spinal tray).
- ▶ Estimated cost savings \$30,000/yr
- ▶ Est. waste prevention: 11,000 lbs/yr

Reduce and Reuse...continued

- ▶ Purchase washable surgical and isolation gowns, and sterilization trays.
- ▶ Convert surgical drapes into biopsy cloths.
- ▶ Consider switching to reusable medical instruments (e.g. stainless steel trays and laparoscopic instruments).
- ▶ Sanitize and reuse plastic fracture pans.
- ▶ Sanitize and reuse graduated measuring containers.
- ▶ Estimated cost savings: \$60,000/yr.
- ▶ Est. waste prevention: 50,000 lbs./yr.

Reduce and Reuse...continued

- ▶ Determine if cloth towels can be reused and later sold as rags.
- ▶ Use cloth diapers.
- ▶ Use worn diapers as cleaning rags.
- ▶ Contract with haulers of RMW to provide reusable containers for “red bag” wastes and sharps.
- ▶ Estimated cost savings: \$200,000/yr. Est. waste prevention: 230,000 lbs./yr.

Source: Ca. Waste Prevention Exchange

Who benefits from recovered medical supplies?

- ▶ People in countries in Asia, Latin America, and Africa who are in dire need of medical supplies.
- ▶ Healthcare facilities save money because unused supplies are diverted from the waste stream, and therefore they do not have to pay to have supplies treated and discarded.
- ▶ Some charitable organizations can provide tax incentives for donations.
- ▶ Landfill space is preserved.