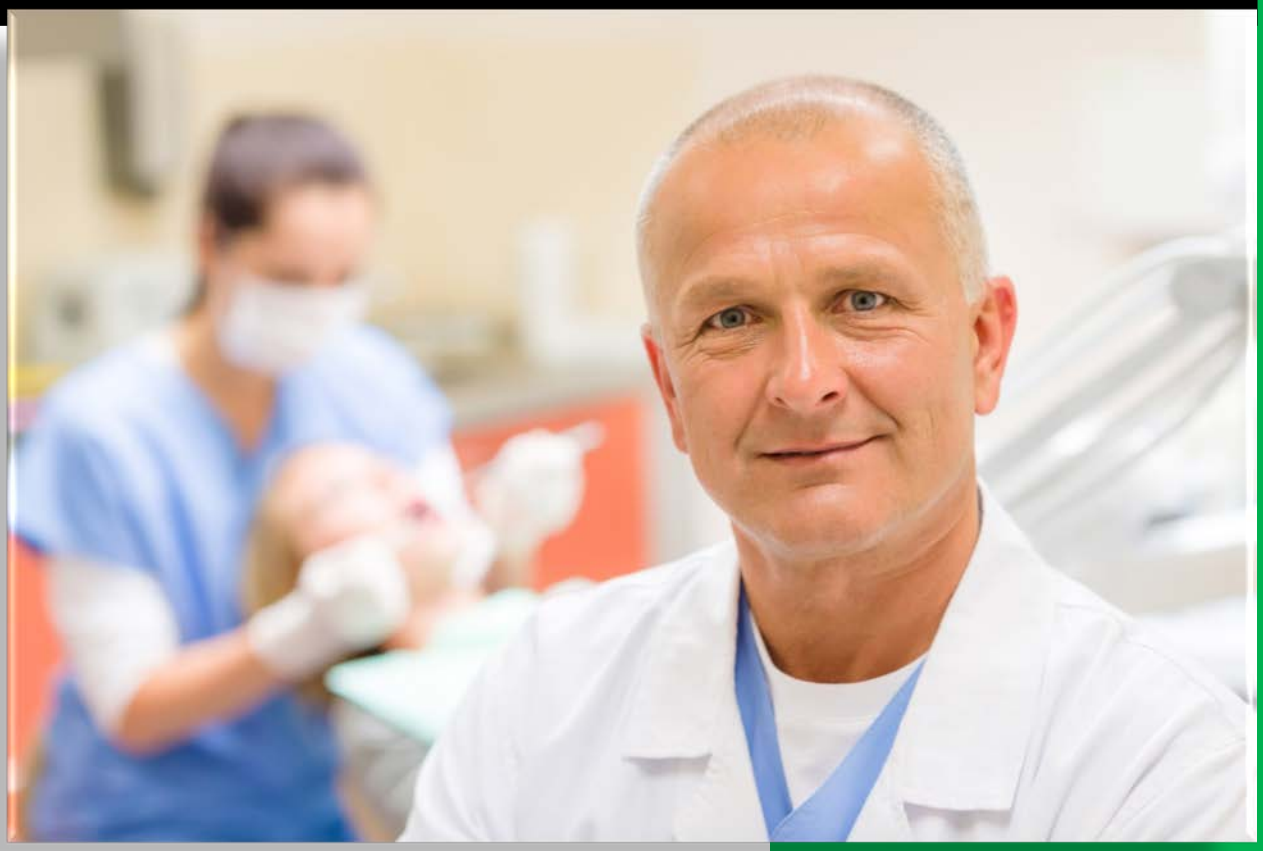
CODE RED

2015

Medical Waste Management: New York Edition



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The contents of this e-book on medical waste is for information purposes only and it addresses the basics of medical waste management in New York State, specifically Brooklyn, Bronx, Manhattan, Queens, Staten Island, and Suffolk and Nassau counties in Long Island. For specifics or items not covered in this book consult with the appropriate government agencies such as Business Integrity Commission, Department of Environmental Conservation, Environmental Protection Agency, and Department of Health or any other agency with jurisdiction over medical waste management in New York State and the City of New York.

Code Red Medical Waste Solutions, Inc. or its officers and employees or its agents are not responsible for misinterpretation of the law as consequence of reading the material in this e-book. While we have done due diligence in obtaining and conveying correct information relating to medical waste management in New York State the fact stands that laws and regulations change often. We advise on visiting the RMW regulatory agencies' websites for confirmation of the information herein provided and to confirm changes in laws and regulations.

Contents

Note from the author

My name is Jose Rodriguez, CEO and President of Code Red Medical Waste Solutions, Inc. As the owner of a medical waste collection company in New York City I field many questions about the proper management of medical waste. A lot of my clients are small generators that do not have the need for employing a dedicated person that deals only with medical waste. I was motivated to write this e-book for two reasons: (1) To try to answer most of the questions I was getting from medical office managers and doctors; and (2) to inform the general public of the steps our government is taking, in conjunction with medical waste generators, to protect our communities and the environment.

The topic of medical waste and its treatments and disposal is vast and so it would not be fair to infer that I cover all the bases in this document. What I try to do here is to draw from many different sources of information as to make it easier for the reader to find the information and resources to make an informed decision on the proper management of biohazard waste.

A lot of damage can be made to people, the environment, and property if this type of waste is not properly managed. It is important to understand then that this is just a guide and that your ultimate source of information should be the government agencies in charge of setting the rules and regulations concerning medical waste.

I hope you find this information useful and do not hesitate to contact me at j.rodriguez@medwastenyc.com with comments and questions.

Sincerely,

Jose Rodriguez

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What is medical waste?

Medical waste is a term for waste that comes from health care[1]. Medical waste is also known as biohazardous waste. Medical waste is found in hospitals, veterinary clinics, physician and dental clinics, laboratories and research facilities, funeral parlors and blood banks. Some places such as homes, nursing facilities and slaughterhouses, also produce significant amounts of medical waste. Places and facilities that produce medical waste are termed as 'generators'.

Here are some specific examples of medical waste:

- Bloody bandages
- Glassware used and discarded by laboratories
- Culture dishes
- Used gloves
- Used and discarded medical instruments
- Used needles and lancets (medical sharps)
- Whole body organs like limbs and tissues (termed as pathological waste)
- Medical devices
- Pharmaceuticals
- Waste from cancer treatment (cytotoxic waste)
- Radioactive materials used in medical research and treatment, like in radiography and cancer treatment (termed radioactive waste)
- Remains of animals used in research or have died due to disease

Medical waste can contain disease-causing microorganisms and dangerous chemicals that can be volatile or radioactive. Humans and animals can get sick from exposure to medical waste. Because of its nature, medical waste should always be carefully isolated and separated from other types of waste[2].

Important things to know for the proper treatment of medical waste

Medical waste is dangerous

Medical waste is a serious hazard to human and animal health. Disease, poisoning, physical injury, chemical burns and exposure to radiation are just some of the conditions caused by exposure from medical waste.

One of the significant dangers of medical waste is the risk of being infected by serious blood-borne condition such as AIDS, hepatitis B and C. Medical waste contain syringes, used bandages or lancets with traces of blood that may contain viruses that cause these diseases[3]. People who work around medical waste, like health care personnel and waste collectors, face the most risk of harm.

Because of these dangers, waste management is particularly important in medical waste.

Medical waste must be handled properly

Because it is hazardous, there are strict guidelines in handling medical waste to reduce the chance of exposure and prevent contamination to the environment. Generators are responsible for proper handling and disposal of medical waste and have to observe regulations on the packaging and containment of medical waste. Penalties for violations can be severe.

Here are some essential rules you need to remember. In simple terms, medical waste must be:

- Kept separate from other types of waste, starting right at the source of generation.
- Must have conspicuous labels.
- Packaged to prevent leaks and access by vermin.
- Always managed with corresponding documentation.

Medical waste must be collected by a licensed waste collection company

It is unlawful to dispose medical waste by throwing it in dumpsters or giving it to trucks collecting municipal waste. Medical waste is collected by specialized waste collection businesses, which must have the proper qualifications and secure registration from local government agencies.

These collectors haul and transport medical waste for further treatment or disposal. It is their duty to collect and transport packaged medical waste. These waste collection companies are specifically trained to handle medical waste. Medical waste collectors also provide consulting services to help businesses managing medical waste.

What are the different processes by which medical waste is processed and destroyed?

Here are some of the methods used to treat and destroy medical waste.

Incineration

The most common method used is incineration[4]. This method burns waste in special ovens that completely disintegrates medical waste items into ash. However, this method releases dioxins, mercury, furans and many other pollutants and fine dust in the air.

Incineration is still used today, but facilities have to use multiple scrubbers to remove pollutants from flue gasses, and their operations are monitored closely to detect any release of hazardous substances. Medical waste items such as organs, human tissues, remains of animals used for research, and sharps are commonly disposed through incineration.

Chemical disinfection

This is another common method of processing medical waste[5]. This process involves soaking medical waste, particularly solid inorganic ones, in antiseptic solution to kill disease-causing microorganisms. Medical waste from health facilities and industrial sites are often treated using chemical disinfection.

Chemical disinfection use ozone, aldehydes (like formaldehyde), chlorine compounds, ammonium salts and phenolic compounds to kill germs in waste. Chemical disinfection may pose lower risk of spreading pathogens, but the chemicals used in this treatment are hazardous to humans and animals.

Wet-steam treatment (aka autoclaving)

This process involves subjecting medical waste to hot humid steam at very high pressures. Hot steam kills bacteria and the high pressure inactivates hardy spores. This is done inside a reinforced, pressurized vessel called an autoclave. The pressure inside an autoclave can reach up to 2-5 bar (200-500 kPA) at minimum of 121˚C. Autoclave vary in sizes and capacities, ranging from the size of slow cookers to huge industrial vessels that sterilizes ton-sized batches of waste at a time.

Autoclave is popular because it is cost-effective and efficient in sterilizing medical waste. It is often used to reduce hazard of certain medical waste items, such as inorganic solids, glassware and shredded waste including sharps.

Non-burn, dry thermal disinfection

This treatment involves subjecting medical waste in dry intense heat without burning them. In this process, medical waste is shredded and continuously fed in the heater. This treatment can reduce medical waste volume by as much as 90%. Non-burn, dry thermal disinfection treatment can be used for inorganic waste and sharps.

Microwave radiation

This method exposes medical waste to microwave radiation much similar to how microwave oven cooks food. Microwave kills microorganisms and can be used to sterilize medical waste to make it less dangerous. Microwave radiation treatment use a frequency of 2450 Mhz and a wavelength of 12.24 cm. The main issue with microwave radiation is the expense of the machine itself. .

Who regulates medical waste in State of New York?

The New York State Department of Environmental Conservation (DEC) is the primary regulating agency for medical waste disposal in the state[6]. DEC regulates generators and waste collectors, and issues permits for the proper treatment and disposal of medical waste. The DEC exerts authority for storage, treatment and destruction processes, off-site transport and tracking of medical waste not under DOH jurisdiction. DEC responds to illegal disposal complaints and incidents as well.

The DEC shares jurisdiction and authority with New York State Department of Health (DOH) in administering New York's medical waste program. [7]The DOH exerts jurisdiction over hospitals, diagnostic and treatment centers, residential nursing care facilities, laboratories and their on-site waste management processes.

Medical waste collectors have to be registered with DEC and display their registration numbers in all vehicles and marketing materials.

The role of Business Integrity Commission (BIC) in the medical waste collection industry

Medical waste collection companies in New York must be licensed by the Business Integrity Commission (BIC). BIC registers private sanitation businesses, including medical waste collection companies[8]. BIC gives licenses to waste and sanitation companies that respect customers' rights, charge fair and competitive prices for services, and provides excellent service.

Medical waste collectors have to be registered with BIC and display their registration numbers in all vehicles and marketing materials.

It is the responsibility of the medical waste management company you hire to provide you with a BIC decal. Regulations state that (1) all licensees are required to provide every customer with a customer decal which the licensee has "obtained from the commission"..." (2) Licensees "cannot charge a fee for such decal." (3) "Licensees are also required to inform their customers that under Administrative Code §16-116(b) each commercial establishment is required to **conspicuously post the decal in a window near the principal entrance to their establishment**." (4) "Licensees must also inform customers that they will be given replacement decals if their decals become damaged or lost."

The role of Environmental Protection Agency (EPA) in medical waste

The Environmental Protection Agency (EPA) is a federal agency[9]. The studies and actions of EPA were used as a model for medical waste programs in state governments and federal agencies[10]. Managing medical waste is now primarily regulated at the state government level[11].

The role of Code Red Medical Waste Solutions, Inc. in medical waste management

Code Red Medical Waste Solutions, Inc. works with generators to make sure that waste materials from health care undergo proper management. We haul waste from generators and at same time work to prevent hazards of contamination, leakage or physical injury associated with medical waste disposal. We transport hauled medical waste to processing centers for further treatment or end disposal. As we do these things, we make sure to follow laws and regulations of the state of New York.

Code Red Medical Waste Solutions, Inc. is registered with DEC,, EPA, and BIC.

Understanding OSHA Bloodborne Pathogens

The Occupational Safety and Health Administration (OSHA) is an agency of the U.S. Department of Labor responsible for enforcing rules for healthful and safe workplaces. Due to their mandate, OSHA created the Bloodborne Pathogens standard to protect workers working with blood and other potentially infectious materials.

This section discusses the must-know points in the Bloodborne Pathogens standard. This is not a comprehensive explanation of the standard, but a simplified guide to help you understand it better.

For a detailed explanation of the OSHA standards visit their website at the following link: https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10051

What is OSHA Bloodborne Pathogens?

This is a standard made by the Occupational Safety and Health Administration of the Department of Labor for occupational exposure to blood and potentially infectious materials. All facilities, institutions and businesses that work with these materials are required to follow this standard [1910.1030(a)].

Occupational exposure means encountering hazardous substances in the performance of job duties, like in the case of health care workers and waste collectors [1910.1030(b)].

The likelihood of occupational exposure puts workers at risk. The purpose of this standard is to reduce and prevent harm due to exposure to blood and infectious materials like medical waste.

Safety plans

OSHA requires employers to have an occupational Exposure Control Plan specific to BBP which is designed to reduce or eliminate employee exposure [1910.1030(c)(1)(i)].

The Exposure Control Plan must be accessible to employees, reviewed and updated at least once a year. During each review, it must account for new trends, policies or procedures, and for the use of new commercially available medical devices to eliminate or reduce employee exposure. In establishing an Exposure Control Plan, employers must also ask input from non-managerial employees involved in exposure incidents [1910.1030(c)(1)(iv)].

Exposure Control Plan has specific rules for HIV and HBV Research Laboratories and Production Facilities. We will discuss more of it later.

Defining exposure

The Exposure Control Plan must list tasks and procedures that have incidents of occupational exposure. The list must also include closely-related tasks as well. This exposure determination shall be made without regard to the use of personal protective equipment [1910.1030(c)(2)]. Code Red Medical Waste Solutions, Inc. can assist you in developing the Exposure Control Plan for your practice.

Methods of compliance

This is a component in Exposure Control Plan and contains information on how to reduce or eliminate exposure in the workplace [1910.1030(d)].

Universal precautions and engineering controls

This section details the observance of universal precautions i.e. considering all body fluids to be potentially infectious, and engineering and work practice controls to eliminate or minimize employee exposure. Engineering controls must be examined regularly or replaced when necessary [1910.1030(d)(2)].

Handwashing

Handwashing is an important work practice control, and employers must furnish necessary facilities for it [1910.1030(d)(2)(iii)]. In case that handwashing is not feasible, employers must provide antiseptic hand cleanser with clean paper clothes or towels or antiseptic wipes. Employers have to ensure that employees perform handwashing after removal of protective equipment and following contact with potentially infectious materials [1910.1030(d)(2)(v) and 1910.1030(d)(2)(vi)].

Handling and disposal of used and contaminated needles

Discarded or contaminated sharps must never be bent, recapped or removed. Recapping or removing needles must be accomplished using a mechanical device, or one-handed technique [1910.1030(d)(2)(vii)] [1910.1030(d)(2)(vii)(A)]. Used or contaminated needles must be disposed immediately in a specialized sharps disposal container, which must be:

- Resistant to puncture
- Labeled and color-coded
- Leak-proof on sides or bottom

Prohibited activity and items in work areas with likelihood of exposure

The following are prohibited activities in work places with likelihood of exposure [1910.1030(d)(2)(ix), 1910.1030(d)(2)(x), 1910.1030(d)(2)(xii) and 1910.1030(d)(2)(xi)]:

- Eating and drinking
- Applying lip balm or cosmetics
- Applying or handling contact lenses
- Placing food or drink in refrigerators, freezers or shelves where blood and other infectious materials are present
- Actions that increase potential for spraying, splashing, spattering or generation of droplets
- Mouth pipetting or suctioning

Selection and handling of containers for blood and potentially infectious materials

The standard has the following specifications for containers that will be used for blood and other infectious materials [1910.1030(d)(2)(xiii)]:

- Container must be leak-proof

- Labeled and color-coded before the container leaves the facility
- Have a closable lid, and must be closed before transport, stored or shipped
- If the specimen could puncture the primary container, the primary container must be placed inside another more rigid secondary container

Equipment contaminated with blood and potentially infectious materials

All equipment contaminated with blood and/or potentially infectious materials must be examined before servicing. The equipment must be decontaminated if feasible [1910.1030(d)(2)(xiv)].

In addition, there must be a readily observable label attached to equipment stating which portions are contaminated. The employer must convey this information to employees, servicing representative or manufacturers as appropriate before servicing, shipping or handling. [1910.1030(d)(2)(xiv)(A), 1910.1030(d)(2)(xiv)(B)].

Personal protective equipment (PPE)

Employers provides PPE and make sure that workers use it

Employers must provide appropriate PPE to employees when there is occupational exposure, at no cost to employee. Employers also have to ensure that employees wear appropriate PPE at work [1910.1030(d)(3)(i), 1910.1030(d)(3)(ii)]. Employers have to ensure that PPE is easily accessible at the worksite or is given to employees. Employers must provide hypoallergenic gloves, powderless gloves or glove liners and alternatives to allergic employees [1910.1030(d)(3)(iii)].

The 'appropriate' PPE

PPE is considered 'appropriate' if it does not permit entry of blood and potentially infectious materials into employee's work clothes, street clothes, undergarments and parts of the body and mucous membranes under normal work conditions [1910.1030(d)(3)(i)].

What if a worker/employee refuses PPE?

This is permissible if the employer shows proof that the employee did decline to use PPE according to his or her professional judgment that its use might have prevented delivery of health care or safety service or would have caused increased hazard to safety of self or others [1910.1030(d)(3)(ii)].

An investigation must take place on this incident to determine if changes are needed to prevent this from happening again in the future.

Cleaning, laundering, disposal or repair of PPE

It is the employer's responsibility to clean, launder and dispose PPE properly at no cost to employees. Employers also have to repair or replace PPE to maintain effectiveness, again at no cost to employees. [1910.1030(d)(3)(iv), 1910.1030(d)(3)(v)]

Removing PPE

PPE that is compromised or penetrated by blood and potentially infectious materials must be removed immediately or as soon as feasible [1910.1030(d)(3)(vi)]. PPE must be removed before leaving work area

and placed in an appropriate container or designated area for storage, cleaning, decontamination or disposal [1910.1030(d)(3)(viii)].

About using gloves

Gloves must be worn by employees when there is anticipated contact with blood and other potentially infectious materials, mucous membrane and non-intact skin. Gloves must be worn when performing phlebotomy or other vascular access procedures, and when touching or handling contaminated items or surfaces [1910.1030(d)(3)(ix)].

Disposable gloves must be replaced immediately if torn, punctured or compromised [1910.1030(d)(3)(ix)(A)]. Disposable gloves must never be washed or decontaminated again for reuse [1910.1030(d)(3)(ix)(B)].

Utility gloves can be decontaminated if its integrity is not compromised. Change utility gloves when they show signs of wear like peeling, cracking, torn or punctured [1910.1030(d)(3)(ix)(C)].

In case employer judges that routine gloving for phlebotomy in a volunteer blood donation center not necessary…

Gloves must remain available and accessible to employees wishing to use them, and employers must not discourage their use [1910.1030(d)(3)(ix)(D)(2), 1910.1030(d)(3)(ix)(D)(3)].

If employee has cuts or scratches in skin, or judges that blood contamination on the hand may occur or is receiving training for phlebotomy, using gloves is a requirement [1910.1030(d)(3)(ix)(D)(4)].

Use of masks, eye protection, and face shields

These PPE must be worn in anticipation for splashes, spatter or droplets with blood or potentially infectious materials to the face, eyes, nose or mouth [1910.1030(d)(3)(x)].

Use of gowns, aprons, and other protective body clothing

These PPE must be appropriately worn when the workplace anticipates exposure. Surgical caps, hoods and boot covers must be worn in likelihood of potential gross contamination [1910.1030(d)(3)(xi), 1910.1030(d)(3)(xii)}.

Housekeeping

Employers must ensure that the workplace is clean and in sanitary condition. There must be an appropriate written schedule for cleaning and decontamination. Cleaning and decontamination must immediately take place in any area that have contact with blood or biohazardous waste [1910.1030(d)(4)(i), 1910.1030(d)(4)(ii) and 1910.1030(d)(4)(ii)(A)].

Protective coverings on equipment

Protective coverings must be removed and replaced when they become visibly contaminated [1910.1030(d)(4)(ii)(B)].

Contaminated reusable items

Contaminated items like pails, bins, cans and other items intended for reuse must be inspected and decontaminated soon as feasible and on a regular basis [1910.1030(d)(4)(ii)(C)].

Broken glassware

Broken glassware, contaminated or not, must be handled using a brush and dust pan, tongs or forceps, and never by hand [1910.1030(d)(4)(ii)(D)].

Management of reusable sharps

Reusable sharps that are contaminated must be stored or processed in a manner that will not require manual reaching into the containers where sharps have been placed [1910.1030(d)(4)(ii)(E)].

Regulated waste

Discarding and containing contaminated sharps

Contaminated sharps must be discarded immediately in appropriate sharps waste containers. Appropriate containers for sharps waste must be [1910.1030(d)(4)(iii)(A)(1)]:

- Closable
- Puncture resistant
- Leak-proof on sides and bottom
- Labeled and color coded
- During use, is easily accessible to employees and located as close as possible to area of generation of sharps waste
- Maintained upright during use, and must not be easily toppled over

Sharps waste containers must be routinely replaced when two-thirds full, and must be never allowed to overfill. Here are the step-by-step instructions in moving and handling sharps waste containers [1910.1030(d)(4)(iii)(A)(3)]:

1. Closed immediately before removing or replacing to prevent spillage
2. Placed in a secondary container if there is risk of leaking. Secondary container must be closable and constructed to prevent leaks during handling,
3. Properly labeled and color-coded

Reusable containers must never be opened, emptied or cleaned manually in a manner that requires reach hands into the container.

Containment for other regulated medical waste

These waste items are still medical waste, and must be treated as such. They must be contained in containers specifically for medical waste as well [1910.1030(d)(4)(iii)(B)(1)]. The handling, storage, transport and shipping of such waste must be the same as other medical waste [1910.1030(d)(4)(iii)(C)].

Contaminated laundry

The important thing about contaminated laundry is to handle them as little as possible [1910.1030(d)(4)(iv)(A)]. This is possible by bagging the laundry right at source. Contaminated laundry must never be sorted or rinsed at location of use [1910.1030(d)(4)(iv)(A)(1)].

Bags for containing contaminated laundry must be color-coded or labeled [1910.1030(d)(4)(iv)(A)(2)]. This applies to laundry containers that will be processed in a facility that does not observe Universal Precautions in handling laundry [1910.1030(d)(4)(iv)(C)].

Wet contaminated laundry, or items that presents a likelihood of soaking, must be placed and transported in leak proof bags or containers [1910.1030(d)(4)(iv)(A)(3)].

HIV and HBV Research Laboratories and Production Facilities

This section is for institutions or workplaces working with human immunodeficiency virus (HIV) and hepatitis B virus (HBV). This include research laboratories and production facilities that culture, produce, concentrate, experiment or manipulate HIV or HBV [1910.1030(e)(1)].

Specifications of the workplace

The entry doors in the workplace or containment area must be self-closing [1910.1030(e)(4)(iv)].

The work area must be separate from areas open to traffic flow in the building. Two sets of doors must be used to separate entry points of the workplace from access corridors and other contiguous areas. High-containment areas must be physical separated from other areas, which can be provided by double-doored clothes change room with showers and airlock [1910.1030(e)(4)(i)].

There must be an autoclave for decontamination, eyewashing and handwashing facility in the workplace [1910.1030(e)(3)(i), 1910.1030(e)(3)(ii) and 1910.1030(e)(4)(v)]. The handwashing facility must be located near the exit, and can be automatically-operated or operated using the foot or elbow.

The walls, doors, floor and ceilings of the workplace must be water-resistant to facilitate cleaning and decontamination [1910.1030(e)(4)(ii)].

There are specific rules for airflow in the work area. The workplace must use a ducted exhaust-air ventilation to direct the air into the work area. The exhaust air are not recirculated, but discharged outside of the building away from other occupied areas or air intakes [1910.1030(e)(4)(vi)]

Treatment of waste

All regulated medical waste must be either incinerated or decontaminated using autoclave [1910.1030(e)(2)(i)].

Important special practices

Institutions working with HIV and HBV must adhere to these special work practices [1910.1030(e)(2)(ii)]:

- Laboratory doors must be closed when work with HIV and HBV is in progress

- Contaminated material for decontamination must be placed in durable, leakproof and color-coded container first, closed and then removed from the work area
- Work area must be restricted and only limited to authorized persons only
- There must be written policies and procedures in determining which individuals can come inside the laboratory. These must include advise of potential biohazard, meeting specific entry requirements and complying with entry and exit procedures
- A conspicuous hazard warning sign must be present in the work area whenever potentially infectious materials or infected animals are present
- Work with potentially infectious materials must be conducted only in biological safety cabinet or similar containment modules
- PPE items including lab coats, gowns, smocks and uniforms must be worn inside the work area and animal rooms. PPE must be removed upon leaving the work area. PPE must be decontaminated prior to laundry
- Always wear gloves when working with potentially infectious materials
- Use liquid disinfectant traps and high-efficiency particulate air (HEPA) filters to protect vacuum lines.
- Contain and clean spills immediately. This must be only done by appropriate professional staff, or others who are trained and equipped to clean spills with potentially infectious materials.
- Spills or accidents resulting to an exposure incident must be immediately reported to the laboratory director or other responsible persons

Biosafety manual

The workplace must prepare or adopt a biosafety manual, which must be reviewed and updated at least annually or as necessary. The Biosafety manual must advise personnel of biohazards, reading and following instructions on practices and procedures.

Use of hypodermic needles and syringes

Workplaces working around HIV and HBV must be extra careful and prudent in selecting and using hypodermic needles. Keep in mind that these viruses are bloodborne and can be easily transmitted through hypodermic injections.

Here are the rules for using needles and syringes [1910.1030(e)(2)(ii)(J)]:

- Hypodermic needles and syringes must be used only for parenteral injection and aspiration of fluids.
- For injection and aspiration purposes, only use needle-locking syringes or disposable syringe-needle units (i.e. needle is integrally attached to the syringe).
- Exercise extreme caution when handling and using needles and syringes.
- Needles must never be bent, sheared, replaced in sheath or guard or removed from the syringe.
- After use, needles and syringes must be immediately placed in a sharps disposal container. Waste sharps waste must be decontaminated or autoclaved before disposal.

About containment equipment

For workplaces working around HBV and HIV, containment systems are important and the only way to do work with hazardous substances.

Certified biological safety cabinets (Class I, II, or III) or other appropriate combinations of personal protection or physical containment devices, such as special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals, shall be used for all activities with other potentially infectious materials that pose a threat of exposure to droplets, splashes, spills, or aerosols [1910.1030(e)(2)(iii)(A)]. All biological safety cabinets must be certified annually, or when installed and whenever moved [1910.1030(e)(2)(iii)(B)].

Training of personnel

Personnel of facilities doing work with HBV and HIV must undergo thorough training before entering or performing duties in the facility.

Employers must ensure that employees demonstrate proficiency in standard microbiological practices, techniques and operations in the facility before they are allowed to work [1910.1030(g)(2)(ix)(A)]. Employees must have prior experience in human pathogens or tissue cultures before working, and their initial work activities must not include handling of infectious materials [1910.1030(g)(2)(ix)(C)].

Hepatitis B vaccination

Employers have to make hepatitis B vaccine and subsequent shots available to employees who have occupational exposure. Post-exposure evaluation and follow-up must be available to employees who have had an exposure incident [1910.1030(f)(1)(i)].

Employers must also provide medical evaluations, vaccination procedures and follow-ups, laboratory tests and prophylaxis available at no cost to employees. Employees must receive care from a licensed healthcare professional and their lab tests done by accredited laboratories, again at no cost [1910.1030(f)(1)(ii)].

Providing hepatitis B vaccination

Hepatitis B vaccination must be available as soon as employees receive training and within 10 working days of initial assignment. This is not a requirement to those who previously received complete hepatitis B vaccine, immune status according to analysis of antibodies and for those contraindicated due to medical reasons [1910.1030(f)(2)(i)].

Participating in a pre-screening program is not a prerequisite for hepatitis B vaccination [1910.1030(f)(2)(ii)].

If the employee initially declines hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the employer shall make available hepatitis B vaccination at that time [1910.1030(f)(2)(iii)].

Hepatitis B vaccines and boosters must be made available by employers to employees who initially declined [1910.1030(f)(2)(iv), 1910.1030(f)(2)(v)].

Post-exposure Evaluation and Follow-up

Employers must provide a confidential medical evaluation, document details of exposure, identify source individual if feasible and provide consented blood tests as soon as feasible [1910.1030(f)(3)]. Affected employees must receive post-exposure prophylaxis, counseling and evaluation of health complaints [1910.1030(f)(3)(v), 1910.1030(f)(3)(vi)].

If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible [1910.1030(f)(3)(iii)(B)].

Providing information to healthcare professionals

Healthcare professionals giving care to employees after exposure incident must have details of the incident, documentation of exposure, results of blood tests and relevant medical records [1910.1030(f)(4)(ii)].

Employers have to obtain and provide written opinion of the medical evaluation to the employee within 15 days [1910.1030(f)(5)].

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