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Infection Control/ Bloodborne Pathogens

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Infection Control/Bloodborne Pathogens

INTRODUCTION

Infectious diseases are caused by microscopic organisms that penetrate the body's natural barriers and multiply. They create symptoms that can range from mild to fatal.

The U.S. Centers for Disease Control and Prevention (CDC), the World Health Organization, and other agencies have established guidelines to help protect patients and healthcare workers from exposure to potential infections. These guidelines establish policies for hand-washing, the use of Personal Protective Equipment (PPE), safe injection practices, cough etiquette, and more.

Following Standard Precautions is a requirement, not an option. It will reduce your risk of cross contamination from infected patients to yourself and others, as well as from yourself to patients. Standard Precautions must be used for all patients, at all times, by all healthcare workers.

PURPOSE/OVERALL GOAL

This module outlines procedures for healthcare workers to avoid personal exposure to infections and bloodborne pathogens, and to keep infections from spreading to patients, visitors, and other workers.

The goal of this module is to instruct you on how to stay safe from infection as you go about your work at your facility.

COURSE OBJECTIVES

After completing this module, the learner should be able to:

1. Explain the importance of standard infection-control precautions
2. Explain how to protect themselves and others from infection
3. Define Personal Protection Equipment and how to use it
4. Describe precautions to take for patients with serious infections
5. Describe how to handle and dispose of infectious waste

HAND HYGIENE

Hand-washing is considered the single most important procedure for preventing nosocomial (hospital-acquired) infections. Any healthcare worker involved in direct or indirect patient care must know how and when to perform proper hand hygiene.

The World Health Organization states that hands must always be properly washed:

1. Before patient contact
2. Before performing an aseptic procedure (a procedure that must be free from bacteria and other microorganisms)
3. After exposure to any body fluids
4. After patient contact
5. After contact with patient surroundings (touching items in the immediate patient care environment, even if you don't touch the patient)

If your hands are not visibly soiled, you may use an alcohol-based rub:

1. Apply the product to the palm of one hand.
2. Rub your hands together, covering all surfaces of hands and fingers.
3. Rub until your hands are dry.

If your hands are soiled, wash with soap and water following these procedures:

1. Wet your hands first with water.
2. Apply soap; liquid, bar, or powdered forms of plain soap are acceptable.
3. Rub your hands together vigorously for at least 15 seconds, covering all surfaces of your hands and fingers.
4. Rinse your hands with water and dry thoroughly with a disposable towel.
5. Use the towel to turn off the faucet.
6. Avoid using very hot water, since repeated exposure to hot water may increase the risk of dermatitis.

If you use hand lotion:

- You should have your own container; shared bottles can easily become contaminated.
- Use only water-based products and only those that are hospital-approved. Just because a product washes off with water does not mean it is water-based.
- Using lanolin or oil-based lotions before donning gloves will seriously weaken the gloves, increasing the risk that germs will pass through the gloves.

Fingernails:

- Numerous studies have been conducted on artificial nails, the nail hygiene of healthcare personnel, and the transmission of healthcare-associated infections to patients.
- The U.S. Centers for Disease Control and Prevention (CDC) states that nail tips should be less than one-quarter inch long.
- The CDC and the World Health Organization state that those who have direct contact with patients at high risk should not have artificial fingernails or extenders.

GLOVES

Personal Protective Equipment (PPE) is specialized clothing or equipment designed for your protection against infection. Gloves are a type of PPE.

Gloves **MUST** be worn when there is a possibility of contact with:

1. Blood and/or body fluids
2. Mucous membranes
3. Non-intact (broken) skin
4. Contact with contaminated items

Keep these important facts in mind regarding gloves:

- Wear gloves that fit properly.
- Do not wear the same pair of gloves for the care of more than one patient.
- Do not wash gloves so that you can reuse them.
- Remove and/or change gloves after you complete your task and whenever the gloves become soiled or damaged.
- Turn the gloves inside out when removing them, and dispose of them in the proper receptacle.
- Clean your hands before putting gloves on and also immediately after removing them.
- Never wear multiple layers of gloves in order to “peel off” layers between tasks.
- Always wear the right gloves for the job:
 - Wear heavy work gloves for cleaning.
 - Never wear latex gloves when caring for a patient with a latex allergy; instead, wear a synthetic glove such as vinyl.

Latex Allergies

Latex is contained in a variety of products such as gloves, catheters, adhesive bandages and tape, and more. It is also present in a variety of household items such as rubber bands, balloons, condoms, and dental dams.

Allergic reactions to latex range from skin irritation and itching to life-threatening episodes of anaphylactic shock. It is the responsibility of healthcare workers to protect themselves, coworkers and patients from unnecessary exposure to latex.

Some important points to remember about latex allergies:

- Ask patients questions about allergies, including latex allergies, in terms that they understand.
- Document findings in the patient chart.
- All latex products, including gloves, **MUST** be kept away from allergic patients and staff.
- Latex products release latex allergens into the air, and these allergens may cause reactions in latex-allergic persons.
- Glove powder from latex gloves may carry enough latex allergen through the air to cause reactions in allergic persons.
- If you suspect that you have a latex allergy, contact Employee Health for an appointment to rule out this allergy.

GOWNS, MASKS, EYE PROTECTION

Other types of Personal Protective Equipment (PPE) include gowns, masks, and eye protection.

Wear a gown that is appropriate to your task, to protect your skin and prevent soiling or contamination of your clothing during procedures or activities when you are likely to come in contact with blood, body fluids, excretions, or secretions.

- Do not wear the same gown for the care of more than one patient.
- Remove a soiled gown as soon as possible.
- Practice hand hygiene after removal of gown.

Wear a mask and eye protection or a face shield to protect the mucous membranes of your eyes, nose, and mouth during procedures or activities when you are likely to come in contact with blood, body fluids, excretions, or secretions.

To protect your respiratory tract from airborne infectious agent such as tuberculosis (TB), use a respirator (commonly called the “N95 mask”) when necessary.

SAFE INJECTION PRACTICES

According to the U.S. Centers for Disease Control and Prevention (CDC), improper use of syringes, needles, and medication vials during routine healthcare procedures have resulted in transmission of bloodborne viruses such as hepatitis and human immunodeficiency virus (HIV).

Recommendations by the CDC for safe injection practices include:

- Follow proper infection control practices.
- Maintain Aseptic Technique when preparing and administering injected medications (follow hand-washing guidelines and maintain a sterile field).
- Never administer medications from the same syringe to more than one patient, even if the needle is changed.
- Never enter a vial with a used syringe or needle.
- Do not use medications packaged as single-dose or single-use for more than one patient.
- Do not use bags of intravenous solution as a common source of supply for more than one patient.
- Limit the use of multi-dose vials and dedicate them to a single patient whenever possible.
- Always use facemasks when injected material or inserting a catheter into the epidural or subdural space.

RESPIRATORY INFECTIONS/COUGH ETIQUETTE

Coughs and sneezes produce droplets that can be inhaled by people nearby, spreading viruses. Following simple “cough etiquette” procedures can help protect you as a healthcare worker as well as patients and visitors at your facility.

- ✓ Cover your mouth and nose when you cough or sneeze, with a tissue if at all possible.
- ✓ Throw used tissues away immediately.
- ✓ Use a surgical mask for patients who are coughing, if tolerated and appropriate.
- ✓ Use a surgical mask yourself if you are coughing.
- ✓ Clean your hands after contact with respiratory secretions.
- ✓ Stay at least three feet away, if possible, from people with respiratory infections.

BLOODBORNE PATHOGENS

Bloodborne pathogens are infectious microorganisms in human blood that can cause disease. Examples are hepatitis B (HBV), hepatitis C (HCV), and human immunodeficiency virus (HIV, the virus that causes AIDS).

Healthcare workers are at risk for exposure through needle sticks or other sharps related injuries. All used sharps are considered contaminated.

It is essential to follow these guidelines:

- Never bend or break needles and other used sharps after use.
- Never recap contaminated needles.
- Always use needle-based safety devices when available.
- Never carry a used sharp in a pocket.
- Dispose of sharps in designated sharps disposal containers.
- Sharps disposal containers should be sealed and removed when three-quarters full to avoid overflow.
- Do not attempt to remove anything from a sharps disposal container.
- Properly dispose of all sharp objects, such as syringes with needles and scalpels, after use.

The U.S. Occupational Safety and Health Administration requires employers to:

- Establish an exposure control plan and update it annually
- Implement the use of Standard Precautions (treating all blood and other potentially infectious material as if known to be infectious for bloodborne pathogens)
- Identify and use engineering controls (sharps disposal containers, self-sheathing needles, and safer medical devices such as needleless systems)
- Identify and ensure the use of work practice controls (appropriate practices for handling and disposing of contaminated sharps, handling specimens, handling laundry, and cleaning contaminated surfaces and items)
- Provide Personal Protective Equipment (PPE)
- Make hepatitis B vaccinations available to all workers with occupational exposure
- Make post-exposure evaluation and follow-up available to any occupationally exposed worker who experiences an exposure incident
- Use labels and signs to communicate hazards
- Provide information and training to workers, and maintain worker medical and training records

HEPATITIS

Hepatitis is a serious disease of the liver, an organ necessary for life. Hepatitis B (HBV) and hepatitis C (HCV), the two most serious kinds of hepatitis, are similar kinds of liver infections caused by different viruses.

Although there are fewer new hepatitis C infections each year compared with hepatitis B, there are more deaths in the long term due to hepatitis C.

About 50% of hepatitis B infections and 75% of hepatitis C infections cause no initial symptoms. When symptoms do occur, they include:

- Jaundice (yellowing of skin and eyes)
- Loss of appetite
- Dark urine
- Nausea and vomiting
- Fever
- Fatigue
- Clay-colored bowel movements
- Joint pain
- Abdominal pain

Hepatitis B and hepatitis C viruses are transmitted through blood and body fluids. Methods of bloodborne transmission of HBV and HCV that you should be aware of include:

- Blood splashes from minor cuts and nosebleeds
- Procedures that involve blood
- Hemodialysis
- Sharing personal items like nail clippers, razors, and toothbrushes
- Sharing needles for intravenous drug use
- Body piercing and tattoos

Precautions for Healthcare Workers

Although it is rare, healthcare workers are at risk of becoming infected with hepatitis. Even exposure to a small amount of blood from an infected person can cause hepatitis.

Here are guidelines to follow:

- Assume that blood and other body fluids from all patients are potentially infectious.
- Routinely use Personal Protective Equipment (PPE) such as goggles and masks if you might come in contact with blood or body fluids
- Immediately wash your hands and other skin surfaces after contact with blood and body fluids.
- Carefully handle and dispose of sharp instruments during and after use.
- The CDC's Advisory Committee on Immunization Practices recommends that all healthcare workers at risk for exposure to blood or blood-contaminated body fluids receive the hepatitis B vaccination.

HIV/AIDS

HIV (human immunodeficiency virus) is the virus that causes AIDS (acquired immunodeficiency syndrome).

HIV weakens a person's immune system by gradually destroying the body's CD4 cells, which fight disease and infection. This makes a person more likely to get other infections or infection-related cancers. AIDS is considered to be the last stage of HIV infection.

Currently, no effective cure exists for HIV or AIDS. With antiretroviral therapy (ART), people can be treated before HIV progresses and have a nearly normal life expectancy. However, ART treatment is a lifetime therapy and must be strictly followed.

Many people infected with HIV may not feel sick or even know they have the virus for many years. During that time, the virus, a bloodborne pathogen, can infect other people – including healthcare workers.

To prevent the transmission of HIV, implement Standard Precautions (treating all blood and other potentially infectious material as if known to be infectious for bloodborne pathogens).

TRANSMISSION-BASED PRECAUTIONS

As a healthcare worker, you should be aware of the three specific Transmission-Based Precautions that are used for patients when there is a risk of the spread of infection by direct or indirect contact:

1. Contact Precautions
2. Droplet Precautions
3. Airborne Precautions

Contact Precautions

Contact Precautions are used for:

- Patients infected with multidrug-resistant organisms (MDROs)
- Situations where excessive wound drainage, fecal incontinence (may include patients with norovirus, rotavirus, or *C. difficile*), or other discharges from the body suggest an increased risk of transmission

Healthcare workers caring for patients on Contact Precautions should:

- Wear appropriate Personal Protective Equipment (PPE) such as gown and gloves when entering the patient's room
- Discard the PPE before exiting the patient's room to contain the pathogens
- Place those patients in a single room when possible

Droplet Precautions

Droplet Precautions are used in cases where respiratory secretions (saliva, mucus) could spread an infection. These patients may not need special air handling and ventilation in their room, but a single room is preferred.

Droplet Precautions may be used for patients with:

- Influenza (the flu)
- Whooping cough (pertussis)
- Adenovirus, which can cause bronchitis, pneumonia, diarrhea, and pink eye
- Group A streptococcus, which can cause strep throat

Healthcare personnel caring for patients on Droplet Precautions should:

- Wear a mask (a respirator is not necessary) for close contact with the patient
- Put the mask on as soon as they enter the patient's room
- Put a mask on the patient, if tolerated, when transporting the patient outside the room

Airborne Precautions

Airborne Precautions are used for patients with pathogens that remain infectious over long distances when suspended in the air. This includes:

- Measles
- Chickenpox (varicella)
- Tuberculosis
- Smallpox

When Airborne Precautions are necessary:

- An airborne infection isolation room (AIIR), which is a room with special air handling and ventilation equipment, is preferred.
- Healthcare personnel caring for patients on Airborne Precautions should wear a mask or respirator, depending on the disease-specific recommendations, which is donned prior to room entry.
- Whenever possible, non-immune healthcare workers should not care for patients with vaccine-preventable airborne diseases (measles, chickenpox, smallpox).

MULTIDRUG-RESISTANT ORGANISMS (MDRO)

Multidrug-resistant organisms (MDROs) are microorganisms, primarily bacteria, that are resistant to antimicrobial agents and therefore can be difficult to treat. Common MDROs are VRE and MRSA.

VRE (Vancomycin-Resistant Enterococci)

Vancomycin-resistant enterococci (VRE) are bacterial strains of the genus *Enterococcus* that are resistant to the antibiotic vancomycin. Enterococci are organisms found normally in the intestinal tract and, in females, in the vaginal tract.

People at higher risk for VRE are those who have been ill and have been taking many antibiotics or have weakened immune systems due to illness or age.

VRE:

- Are found most often in the stool
- Can also be found in the blood, urine, and wounds, or wherever it can be carried by blood
- Can be spread to other people by contact between persons

VRE are hardy organisms. They can survive on hard surfaces for 7 to 10 days and on hands for hours. But it is easy to kill them with hand-washing and the proper use of disinfectants.

Healthcare workers treating VRE patients must follow these rules:

- Gloves **MUST** be worn before or upon entry to patient's room.
- Hands **MUST** be washed after glove removal and before leaving the room.
- Gowns **MUST** be worn by anyone having contact with VRE patients or items that the patient may have come in contact with.
- A standard surgical mask is necessary if the organism is in the respiratory tract for close contact with the patient, which is defined as being within 2 to 3 feet.

MRSA (Methicillin-Resistant *Staphylococcus Aureus*)

MRSA is a strain of the germ *Staphylococcus aureus* that has developed resistance to most of the antibiotics commonly used to treat staph infections.

MRSA is passed from person to person through contact.

- A person who is infected with MRSA may have it in their nose as well as on their hands – so whenever they touch others, they can pass the germ along.
- MRSA can be transmitted from someone in contact with a MRSA patient to another patient.

Healthcare workers treating MRSA patients must follow these rules:

- Use Personal Protective Equipment (PPE), including gloves and gowns, if it can be reasonably anticipated that contact with blood or other potentially infectious materials may occur.
- Hands must be washed after touching blood, body fluids, secretions, excretions, and contaminated items. Also wash hands after glove removal and before leaving the room.
- A standard surgical mask is necessary if the organism is in the respiratory tract and close contact with the patient is required, which is defined as being within 2 to 3 feet.

TUBERCULOSIS

Tuberculosis (TB) is a disease that is caused by bacteria that are carried through the air by tiny droplets. TB mainly attacks the lungs, but any part of the body can be affected, including the kidneys, spine, and brain. With long-term medication, tuberculosis can be cured.

Symptoms of TB include:

- Chest pain
- Prolonged productive cough (3 weeks or longer)
- Coughing up of blood or sputum
- Fever, chills, night sweats
- Weight loss, lack of appetite
- Weakness or fatigue

TB transmission:

- TB is transmitted through the air when a person with TB in the lungs or throat coughs, sneezes, or speaks, infecting those nearby if they inhale the infectious airborne droplets.
- According to the U.S. Centers for Disease Control and Prevention (CDC), TB is NOT spread by shaking someone's hand, sharing food or drink, touching bed linens or toilet seats, sharing toothbrushes, or kissing.

There are two types of tests for TB – a skin test or TB blood test. People working in healthcare settings should receive an initial TB skin test upon hire, and then annual tests depending on the type of setting.

Special precautions for healthcare workers regarding TB patients:

- TB patients should be in private rooms with their door kept closed.
- Pulmonary TB patients should be in a negative pressure ventilated room or an AIIR (airborne infection isolation room).
- Healthcare workers should wear a special “fit-tested” mask such as an N-95 or greater to provide at least 95% efficiency, and receive training on proper fitting and how to wear it correctly.
- The N-95 or greater efficiency mask should be worn when entering the patient's room and while in the room.
- Patients should be kept in their rooms as much as possible; if transportation is necessary, patient MUST wear a high-efficiency mask (if medically feasible).
- Patients should be encouraged to cough or sneeze directly into tissues and to dispose of them.
- HANDS MUST BE WASHED after touching the patient or potentially contaminated articles, and after taking off gloves, mask, and/or gown.

EBOLA

Ebola is a rare and deadly disease that first occurred in remote villages in central Africa but has affected people in other countries around the world.

Symptoms of Ebola may appear between 2 and 21 days after exposure and include:

- Fever
- Muscle pain
- Weakness
- Vomiting
- Fatigue
- Severe headache
- Diarrhea
- Abdominal pain
- Internal or external bleeding (from skin, eyes, gums)

It is difficult to diagnose a person in the first few days of contracting Ebola, mainly because the early symptoms are often seen in many other illnesses. The screening process includes taking a recent travel history. Confirmation of Ebola virus infection is with blood tests.

How Ebola is Transmitted

Ebola can infect humans and other mammals, including bats, monkeys, and apes. Human-to-human transmission occurs through direct contact with blood or body fluids of an infected person.

Healthcare providers caring for Ebola patients, as well as the family and friends in close contact with Ebola patients, are at the highest risk of contracting Ebola because they are more likely to come into contact with their blood or body fluids.

The virus also can be spread through contact with objects that have been contaminated with the virus, such as:

- Clothes
- Bedding
- Needles
- Syringes/sharps
- Medical equipment

Currently there is no FDA-approved vaccine or medicine available for Ebola. These basic interventions, when used early, can significantly improve the chances of survival:

- Providing intravenous (IV) fluids and electrolytes
- Maintaining oxygen status and blood pressure
- Treating other infections that may occur

Caring for a Suspected Ebola Patient

If a patient has met the criteria for Ebola:

- Healthcare providers should implement Standard, Contact, and Droplet Precautions using appropriate Personal Protective Equipment (PPE).
- The patient should be placed in isolation in a single patient room with a private bathroom.
- The patient's door(s) should be kept closed.
- A log should be maintained of all persons entering the patient's room.
- Public health officials should be notified.

Special Precautions for Healthcare Workers

Here are recommendations from the U.S. Centers for Disease Control and Prevention (CDC) for healthcare workers in close contact with patients who have suspected or known Ebola infection:

1. ALL body parts should be completely covered when putting on Personal Protective Equipment (PPE).
2. Impermeable garment should be:
 - Single-use (disposable) fluid-resistant or impermeable gown that extends to at least mid-calf, OR
 - Coverall without integrated hood
3. Respiratory protection should be:
 - PAPR (powered air purifying respirator), a hooded respirator with a full-face shield, helmet, or headpiece. Any reusable helmet or headpiece must be covered with a single-use hood that extends to the shoulders and fully covers the neck and is compatible with the selected PAPR, OR
 - A single-use N95 respirator in combination with single-use surgical hood extending to the shoulders and single-use full-face shield.
4. Single-use boot covers that are waterproof and go to at least mid-calf
5. Single-use examination gloves with extended cuffs, using double-glove technique (sterile for some procedures)
6. Single-use apron that is waterproof and covers the torso to the level of the mid-calf should be used if Ebola patients have vomiting or diarrhea

Healthcare workers should receive rigorous and repeated training to ensure they are knowledgeable and proficient in putting on (donning) and taking off (doffing) PPE prior to managing an Ebola patient. The sequence for donning and doffing are critical to avoiding exposure.

A clear layout and separation between clean and potentially contaminated areas is critical to prevent contamination and exposure.

Non-dedicated, non-disposable equipment used for patient care should be immediately cleaned and disinfected according to manufacturer's instructions and hospital policies.

Additional Infection Control Practices for Ebola

1. Limit the use of needles and other sharps as much as possible.
2. All needle and sharps should be handled with extreme care.
3. Dispose of all needles and sharps in puncture-proof, sealed containers.
4. Keep hands away from the face.
5. Limit touching surfaces and body fluids.
6. Immediately disinfect any visibly contaminated PPE surfaces, equipment, or patient care area surfaces using an EPA-registered disinfectant wipe.
7. Perform regular cleaning and disinfection of patient care surfaces, even if visible contamination is not seen.
8. Perform frequent disinfection of gloved hands using an alcohol-based hand rub, particularly after handling body fluids.

Aerosol Generating Procedures (AGP's)

It has not been established that Ebola can be contracted through airborne transmission; however, there may be some patients with severe pulmonary involvement or who during certain invasive procedures can potentially produce aerosols. Aerosol Generating Procedures (AGPs) include:

- Airway suctioning
- Aerosolized or nebulized medication administration
- Bronchoscopy
- Endotracheal intubation and extubation
- Positive pressure ventilation via face mask

In these instances, facilities may choose to adhere to the following CDC recommendations:

- Visitors should not be present.
- Limit number of individuals entering room.
- Only pertinent healthcare personnel needed for procedure are present.
- Conduct the procedure in a private room or ideally, when possible, in an airborne infection isolation room (AIIR).
- All doors should be kept closed; entry and exit should be limited or eliminated if possible during the procedure.
- Use strict PPE recommendations for these procedures.

Environmental Cleaning & Control

The CDC recommends the following environmental cleaning practices for any care areas of known or suspected Ebola virus patients. This especially applies to Environmental Services staff but is also for anyone who would be performing cleaning tasks.

- Wear Ebola PPE during cleaning procedures, and follow Ebola donning and doffing procedures.
- Use an EPA-registered hospital disinfectant with a label claim for a non-enveloped virus (norovirus, rotavirus, adenovirus, poliovirus).
- Avoid contamination of reusable porous surfaces that cannot be made single use.
- Use disposable cleaning cloths, mop cloths, and wipes, and dispose of these in leak-proof bags.
- Use a rigid waste receptacle designed to support the bag to help minimize contamination of the bag's exterior.

Keep these cleaning facts in mind in cases of diagnosed or suspected Ebola:

- Daily cleaning and disinfection of hard, non-porous surfaces (high-touch surfaces such as bed rails and over bed tables, housekeeping surfaces such as floors and counters) should be done.
- Remove all upholstered furniture and decorative curtains from patient rooms before use.
- Mattresses and pillows should have plastic covers or other protective covering to prevent fluids from leaking through.
- Patient rooms should not be carpeted.
- Basic principles for blood or body substance spill management should be followed as outlined by OSHA's Bloodborne Pathogen.
- Ebola-associated waste that has been appropriately incinerated, autoclaved, or otherwise inactivated is not infectious, does not pose a health risk, and is not considered to be regulated medical waste or a hazardous material under federal law.
- Waste items transported offsite for disposal that is contaminated or suspected of being contaminated with Ebola virus must be packaged and transported in accordance with the Department of Transportation's (DOT) Hazardous Materials Regulations. This includes:
 - Medical equipment
 - Sharps
 - Linens
 - Used healthcare products (such as soiled absorbent pads or dressings, kidney-shaped emesis pans, portable toilets, or byproducts of cleaning)
 - Used Personal Protection Equipment (gowns, masks, gloves, goggles, face shields, respirators, booties, etc.)

If You Are Exposed to Ebola

If you are exposed to the blood, other body fluids, secretions, or excretions of an Ebola patient:

- Stop working and immediately wash the affected skin surfaces with soap and water. Eyes should be irrigated with copious amounts of water or eyewash solution.
- Immediately contact your occupational health/supervisor for assessment and access to post-exposure management services.

If you develop sudden fever, intense weakness or muscle pains, vomiting, diarrhea, or any signs of hemorrhage after exposure to an Ebola patient, you should:

- Not report to work or should immediately stop working
- Notify your supervisor
- Seek prompt medical evaluation and testing
- Notify local and state health departments
- Comply with work exclusion until it is established that you are no longer infectious to others

Post-Mortem Care for Ebola Patients

Unfortunately, there will be Ebola-related deaths. Healthcare workers who will provide post-mortem care for these patients must know and understand their organization's policies and procedures related to providing post-mortem care for Ebola patients.

HANDLING AND DISPOSAL OF INFECTIOUS WASTES

Remember these simple steps when dealing with infectious materials or waste (such as blood and body fluids, human tissue, sharps, needles, scalpels, IV tubing):

1. Infectious waste should be placed in closable leak-proof containers – color-coded, labeled, or tagged with the biohazard symbol.
2. Waste **MUST** be separated into appropriate containers.
3. Biohazard bags should be used for contaminated materials that are saturated with blood or other potentially infectious material.
4. Sharps **MUST NOT** be recapped.
5. Sharps **MUST** be placed in approved puncture-resistant biohazard sharps container, only up to the three-quarters-full mark.
6. Fluids **MUST** be emptied into the sanitary sewer system.
7. Fluid-filled container that cannot be emptied prior to disposal **MUST** be placed in biohazard receptacle.
8. Always protect yourself by wearing Personal Protective Equipment (PPE) when handling infectious waste.

When handling specimens:

1. Laboratory specimens from all patients should be handled with equal care.
2. All non-blood specimen containers **MUST** be securely closed before transport.
3. Blood specimens and other glass containers **MUST** be transported in a manner that reduces the risk of breakage.
4. Specimens with visible soiling on their containers **MUST** be properly cleaned before transport to the lab.
5. If the lab tag becomes visibly soiled, issue a replacement tag for the specimen.
6. Workers transporting specimens should wash their hands after delivering them to the lab. A glove may be worn on the hand used to carry the specimen, leaving the ungloved hand free for opening doors, pushing elevator buttons, etc. A tray or box can make it easier to transport multiple specimens.

CONCLUSION

In the healthcare setting, infections are a major threat. As a healthcare worker, you are an important part of infection prevention at your facility.

Understanding ways to protect yourself and others, particularly when exposed to a patient with a serious transmittable infection, is crucial. By observing certain precautions and following certain procedures, you can reduce the risk that an infection will spread.

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