Welcome to the Basic Infection Control Annual Core Curriculum Training course. Applying standard precaution practices can help prevent the spread of infection in the healthcare setting. By following these practices, you can protect yourself as well as patients and visitors. In this course, you will learn more about the actions that you can take to reduce the spread of infection.
Upon completion of this course, you will be able to:
• Discuss the links in the chain of infection prevention,
• Explain how and when hand hygiene is performed, and
• Apply hygiene practices to situations in the clinical arena.
Your actions can help reduce the transmission of infection causing microorganisms in the healthcare setting and protect the health and safety of our personnel, patients, and visitors.

The spread of infection in the hospital can be greatly reduced by following two key ideas:
• Think Prevention, and
• Routine Hand Hygiene.

The following section will provide more detail on these two key ideas.
The links in a chain help us understand the factors that must be present for an infection to start. Patient characteristics, microorganisms, and transmission are the three factors that lead to infection. By understanding the factors that lead to the spread of infection, you can help break the chain.

Click on each of the buttons to learn more.
Hospitalized patients with a weakened state of health are more vulnerable to developing infections. Invasive procedures and devices also put the hospitalized patient at risk for developing infection.
Microorganisms, or germs, that cause infection are:
• Bacteria,
• Viruses, and
• Fungi

These germs are present in our bodies, on our skin, and on environmental surfaces.
There are three ways that infections can be spread: direct contact, indirect contact, and respiratory contact.

Direct contact means that the infection is spread when a contaminated person comes into physical contact with a non-infected person. Many infections live on the skin and can be transmitted through the hands of healthcare workers.

Indirect contact means that the infection is spread through contaminated equipment to an at-risk person. Even if you do not have direct contact with an infected patient, you are at risk if you have contact with any equipment or surfaces in the patient environment.

Respiratory contact means that the infection is spread through the air from an infected person to a non-infected person.
How can you break the chain of transmission? The majority of hospital-acquired infections can be prevented by using infection prevention practices during patient care and work activities.

Remember these three actions to protect yourself as well as your patients:
• Perform hand hygiene,
• Clean surfaces and equipment with a hospital approved disinfectant, and
• Use Personal Protective Equipment (PPE).
Many infections are transmitted through the contaminated hands of healthcare workers. Hand hygiene is the most important way to prevent passing on an infection to patients, others, or yourself.
To maintain hand hygiene you should avoid unnecessary touching of surfaces near the patient. This will help to prevent contamination and the spread of infectious pathogens.

Proper nail hygiene will also help prevent the spread of infections. You are not to wear artificial fingernails, extenders, or nail jewelry if your duties include providing direct patient care. You should also keep your nails short (less than ¼ inch long), clean, and healthy.
To perform hand hygiene you may use soap and running water or an alcohol-based hand sanitizer. Alcohol-based hand sanitizer is the preferred method of hand hygiene for routine decontamination. Using an alcohol-based hand sanitizer is an efficient and effective method of hand hygiene. Hand sanitizers are also gentler on your hands and will not dry your skin like soap and water will. You should use a waterless hand sanitizer when your hands are not visibly soiled and after visible material has already been removed using antimicrobial soap and water.

To use an alcohol-based hand sanitizer, apply the product to the palm of one hand. Rub your hands together, making sure you cover all surfaces of the hands and fingers, until your hands are completely dry.
You should use soap and water when contact with spores is known or suspected. This includes patients with Clostridium difficile-associated diarrhea (C. DIF) or Bacillus anthracis. You should also use soap and water when your hands are visibly dirty, when your hands are contaminated with proteinaceous material, and when your hands are visibly soiled with blood or bodily fluids.

To wash your hands with soap and water, first wet your hands. Next, apply the soap and rub your hands vigorously together for at least 15 seconds. Make sure that you cover all surfaces of the hands and fingers. Rinse your hands with water, then dry with a disposable towel. Finally, use the towel to turn off the faucet.
In order to thoroughly clean your hands, you must follow the correct steps for hand hygiene. Click the Hand Sanitizer and Hand Washing buttons to watch the videos that demonstrate the proper techniques for each hand hygiene method.

**Hand Hygiene Video Transcripts**

**Hand Sanitizer:** A waterless hand sanitizer is an efficient method of hand hygiene. It is the preferred method of hand hygiene if your hands are not visibly soiled or for routine decontamination. Dispense the product into the palm of your hand. Apply enough of the product to thoroughly cover all surfaces of your hands. Be sure to coat all surfaces of your hands thoroughly, including your palms, between your fingers and under fingernails, the backs of the hands and around your wrists. Alcohol is flammable. Whenever you use an alcohol-based product, rub your hands briskly until they feel completely dry, for about 15 to 20 seconds. Wash your hands with soap and water after 5-10 applications of waterless alcohol based hand sanitizer to remove the build up of emollients.

**Hand Washing:** Hand washing is the single most important way to stop the spread of germs. It is a way to get rid of the germs you may have picked up from touching a person or object. Follow the proper procedures for hand washing. Avoid touching the sink, as there are many germs on the sink area. The faucet handles and the inside of the sink should be considered contaminated. When washing hands with soap and water, wet hands first with warm water. Apply soap from a dispenser. Using warm water, work up a good lather and include your wrists. Rub for at least 15 – 30 seconds using vigorous, circular movement and lots of friction. Interlace your fingers to clean
the spaces between the fingers. Rub up and down to reach all skin surfaces on your hands, between your fingers and two inches above your wrists. Rinse your hands well. Dry hands thoroughly with a paper towel. Finally, turn off the faucet with the towel then discard in the waste paper basket.
There are 5 key moments when healthcare workers should perform hand hygiene.

Click the numbers at the bottom of the screen to learn more about each of the 5 moments for hand hygiene.
Moment 1

Step Text
When entering the room and/or before patient contact

Examples of care situations when the moment occurs:

- Entering the patient room
- Shaking hands
- Helping a patient move around
- Bathing the patient
- Taking pulse, blood pressure and/or other procedures

Performing hand hygiene when entering a patient's room and/or before touching a patient will protect the patient from any germs that may be carried on your skin.
Moment 2

Step Text
Before clean/aseptic procedure

Examples of care situations when the moment occurs:

- Insertion of a catheter
- Performing care to wounds
- Oral/dental care
- Preparation of food
- Handling of medication

Hand hygiene will prevent harmful germs, including the patient’s own germs, from entering the patient’s body.
Moment 3

After body fluid exposure risk

Examples of care situations when the moment occurs:

- Care to skin lesions
- Wound dressing
- Drawing and manipulation of any fluid sample
- Handling waste (bandages, incontinence pads)
- Cleaning of contaminated and visibly soiled material or areas (bathrooms, medical equipment and instruments)

Hand hygiene will protect you and the healthcare environment from harmful patient germs.

Step Text

After body fluid exposure risk

Examples of care situations when the moment occurs:

- Care to skin lesions
- Wound dressing
- Drawing and manipulation of any fluid sample
- Handling waste (bandages, incontinence pads)
- Cleaning of contaminated and visibly soiled material or areas (bathrooms, medical equipment and instruments)
Hand hygiene will protect you and the healthcare environment from harmful patient germs.
Moment 4

Step Text

After touching a patient and/or when leaving the room

Examples of care situations when the moment occurs:

- Exiting a patient room
- Shaking hands
- Helping the patient move around
- Bathing the patient
- Taking pulse, blood pressure and/or other procedures

Cleaning your hands after touching the patient will prevent the spread of germs in the healthcare environment.
Step Text
After contact with the patient's surroundings

Examples of care situations when the moment occurs:

- Changing bed linen
- Touching medical equipment
- Holding a bed rail
- Clearing the bedside table

Performing hand hygiene will protect you from germs that may be on surfaces in the patient environment and prevent the spread of germs.
Routine daily activities can spread microorganisms from one site to another. All exposed surfaces should be cleaned daily with a disinfection solution. Equipment must be completely cleaned between patients. Equipment should not be used from patient to patient without cleaning or disinfecting in between. All work surfaces and spaces need to be cleaned often.
Personal Protective Equipment, or PPE, consists of gowns, masks or respirators, goggles or face masks, and gloves. You should wear PPE to protect yourself from contamination.

Gloves protect you and help prevent the spread of microorganisms. You should wear gloves for all patient contact. Keep in mind, though, that gloves can carry microorganisms as easily as unwashed hands. In order to prevent the spread of microorganisms, remove your gloves and perform hand hygiene after each patient care task that involves contact with blood and body fluid and before moving on to your next task.

You should wear a mask or respirator to protect yourself from airborne diseases.

Eye protection should be worn when there is a chance of splashes.

Wear a gown when there is a chance that your clothes may become soiled as a result of patient care tasks.
For more information on hand hygiene guidelines, please review the Requirements for Hand Hygiene section of the Infection Control and Prevention Manual. The Infection Control and Prevention Manual can be found on the LVHN Intranet. On the home page, select the Resources menu, then highlight Employee, and click on Manuals. On the Manuals and Policies page, click the link for the Infection Control and Prevention Manual.
Simple actions can prevent the spread of infection. Remember these key points:
• Do not work if you have an infected skin lesion, fever, or flu symptoms.
• Refrain from patient care activities if you are not feeling well. Contact Employee Health to be evaluated. It is best for everyone that you come in contact with if you do not work when you are ill. Treatment might be needed to cure the problem as quickly as possible.
• Cleanse equipment and surfaces with hospital approved disinfectant.
• Use care with needles and other sharps.
• Use safety devices as provided.
• Wash hands often, especially before eating or drinking.
• Keep all cuts and abrasions clean, dry, and covered.
• Contact Employee Health if you have problems with hand irritation.