

Standard Precautions: A Focus on Hand Hygiene



PARTICIPANT GUIDE

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NOTE: This is NOT the department-approved training on Standard Precautions required under DHS 83.20 for CBRFs.

Learning Points

These are the major goals for this training:

- Review standard precautions and why they are important in your work
- Learn more about common communicable diseases in healthcare facilities
- Practice/review hand hygiene techniques

What are Standard Precautions?



Standard precautions are ways of doing your work to lower the chance of spreading disease. They consist of hand hygiene, protective equipment, care of the environment and safe injection practices. They are based on the principle that all blood, body fluids, secretions, excretions except sweat, non-intact skin and mucous membranes may be capable of transmitting infection.

You must follow standard precautions whenever you care for a resident, even if the person doesn't seem to have an infection or a disease that can spread to another person. Standard precautions can prevent you from becoming infected. They can also protect residents by ensuring that you don't carry infectious agents on your hands, clothing or equipment.

Although standard precautions include several topics, this training focuses on hand hygiene and its role in preventing the spread of communicable disease.

It is estimated that failure to practice proper hand hygiene is the #1 cause of the spread of disease in healthcare facilities.

Communicable Diseases

Some communicable diseases are bloodborne and others spread through contact between people. Can you think of some examples of common communicable diseases?

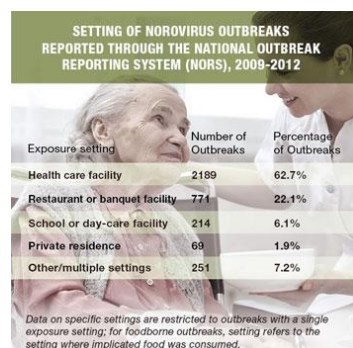
Most healthcare workers must be screened for clinically apparent communicable diseases, including tuberculosis. The purpose of this is to prevent the spread of communicable disease to residents and other staff.

Employees who exhibit signs and symptoms of a communicable disease may not be permitted to work. Employees should seek the advice of a medical professional.

New residents must have a health exam to check for health problems and screen for clinically apparent communicable diseases, including tuberculosis. This helps to make sure that residents get proper treatment so that illnesses are not passed on to other residents or staff.

Let's focus on three of the more common communicable diseases that occur in long-term care settings.

Norovirus



In recent years, almost two-thirds of the confirmed outbreaks of norovirus in the U.S. occurred in long-term care facilities.

You may hear norovirus illness called "food poisoning" or "stomach flu." Food poisoning can be caused by noroviruses, but other germs and chemicals can also cause food poisoning. Norovirus illness is not related to the flu (influenza), which is a respiratory illness caused by influenza virus.

The norovirus can cause severe and sudden gastroenteritis (i.e., inflammation of the lining of the stomach and intestines). Both healthy and compromised persons can be affected. Symptoms include nausea, vomiting, diarrhea, and some stomach cramping. The virus is very contagious and easily transmitted through contaminated hands, equipment/surfaces, or food/water.

The virus can be introduced into healthcare facilities by residents—who may or may not be showing symptoms—or by staff, visitors, or contaminated foods. Outbreaks in these settings can be quite long, sometimes lasting months. Illness can be more severe, occasionally even fatal, in hospitalized patients or long-term care residents compared with otherwise healthy people.

Standard Precautions Help Control the Spread of Norovirus

Practice proper hand hygiene



Wash your hands carefully with soap and water, especially after using the toilet, toileting residents, changing incontinence products, and always before eating or preparing food. If soap and water aren't available, use an alcohol-based hand sanitizer. These alcohol-based products can quickly reduce the number of germs on hands in some situations, but they are not a substitute for washing with soap and water to kill norovirus.

Alcohol-based hand sanitizers can be used *in addition to* hand washing. However, they should not be used as a substitute for washing with soap and water in the case of norovirus outbreak.

Take care in the kitchen

Carefully wash fruits and vegetables, and cook oysters and other shellfish thoroughly before eating them.

Do not prepare food while infected

People with norovirus illness should not prepare food for others while they have symptoms and for 3 days after they recover from their illness.

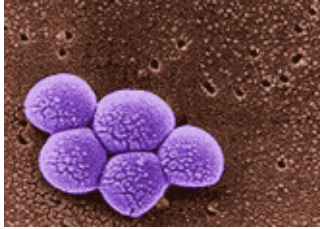
Clean and disinfect contaminated surfaces

After throwing up or having diarrhea, immediately clean and disinfect contaminated surfaces by using a bleach-based household cleaner as directed on the product label. If no such cleaning product is available, you can use a solution made with 5 tablespoons to 1.5 cups of household bleach per 1 gallon of water.

Wash laundry thoroughly

Immediately remove and wash clothing or linens that may be contaminated with vomit or stool. Handle soiled items carefully—without agitating them—to avoid spreading virus. If available, wear rubber or disposable gloves while handling soiled clothing or linens and wash your hands after handling. The items should be washed with detergent at the maximum available cycle length and then machine dried.

MRSA (Methicillin-resistant *Staphylococcus aureus*)



MRSA is a type of staphylococcus bacteria. “Staph” is a very common germ that about one out of every three people has on their skin or in their nose. This germ does not cause any problems for most people who have it on their skin. Sometimes it can cause serious infections such as skin or wound infections, pneumonia, or infections of the blood.

MRSA is resistant to certain antibiotics such as those including methicillin and other more common antibiotics such as oxacillin, penicillin, and amoxicillin. However, there are antibiotics that can kill MRSA bacteria.

In the community, most MRSA infections are skin infections that may appear as a bump or infected area on the skin that may be:

- Red
- Swollen
- Painful
- Warm to the touch
- Full of pus or other drainage
- Accompanied by a fever

More severe or potentially life-threatening MRSA infections occur most frequently among residents in healthcare settings. Common infections include:

- Surgical wound infections
- Urinary tract infections
- Bloodstream infections
- Pneumonia

Standard Precautions Help Control the Spread of MRSA

The #1 precaution that caregivers can take against the spread of MRSA is performing hand hygiene.

- Perform hand hygiene after touching blood, body fluids, secretions, excretions, and contaminated items, whether or not gloves are worn
- Perform hand hygiene immediately after gloves are removed, between patient contacts, and when otherwise indicated to avoid transfer of microorganisms to other patients or environments
- When hands are visibly soiled with blood or other body fluids, wash hands with soap and water
- It may be necessary to perform hand hygiene between tasks and procedures on the same patient to prevent cross-contamination of different body sites

Several other standard precautions or contact precautions may also help prevent the spread of MRSA and may be required by your employer.

Flu (Influenza)



Although there are several types of influenza, perhaps the most common is the seasonal flu. In the U.S., winter is the time for flu, but the exact timing and duration of flu seasons vary. The flu is a contagious respiratory illness caused by influenza viruses that infect the nose, throat, and lungs. It can cause mild to severe illness, and at times can lead to death. The best way to prevent the flu is by getting a flu vaccine each year.

People who have the flu often feel some or all of these signs and symptoms:

- Fever* or feeling feverish/chills
- Cough
- Sore throat
- Runny or stuffy nose
- Muscle or body aches
- Headaches
- Fatigue (very tired)
- Some people may have vomiting and diarrhea, though this is more common in children than adults.

*It's important to note that not everyone with flu will have a fever.

People over 65 and those with medical conditions may suffer complications from the flu. Complications of flu can include bacterial pneumonia, ear infections, sinus infections,

dehydration, and worsening of chronic medical conditions, such as congestive heart failure, asthma, or diabetes.

Most experts believe that flu viruses spread mainly by droplets made when people with flu cough, sneeze or talk. These droplets can land in the mouths or noses of people who are nearby. Less often, people might also get flu by touching a surface or object that has flu virus on it and then touching their own mouth, eyes or possibly their nose.

Standard Precautions Help Control the Spread of Flu



The single best way to prevent flu is to get a flu vaccine. However, once flu has spread in a facility, caregivers must focus on maintaining standard precautions including:

- Perform hand hygiene before and after touching the resident, after touching the resident's environment, or after touching the resident's respiratory secretions, whether or not gloves are worn. Gloves do not replace the need for performing hand hygiene.
- Wear gloves if hand contact with respiratory secretions or potentially contaminated surfaces is anticipated
- Wear a gown if soiling of clothes with a resident's respiratory secretions is anticipated
- Change gloves and gowns after each resident encounter and performing hand hygiene

Your employer may also institute other precautions to help control the spread of flu in your facility.

Other Communicable Diseases

Escherichia Coli (E. coli)

Escherichia coli bacteria normally live in the intestines of people and animals. Most E. coli are harmless and actually are an important part of a healthy human intestinal tract. However, some E. coli are pathogenic, meaning they can cause illness, either diarrhea or illness outside of the intestinal tract. The types of E. coli that can cause diarrhea can be transmitted through contaminated water or food, or through contact with animals or persons.

Clostridium Difficile (C. diff)

Clostridium difficile is a toxin-producing bacillus that causes diarrhea. Any surface, device, or material (e.g., toilets, bathing tubs, and electronic rectal thermometers) that becomes contaminated with feces may serve as a reservoir for the spores. C. diff spores are transferred to patients mainly via the hands of healthcare personnel who have touched a contaminated surface or item.

Hand sanitizer does not kill C. diff. Hand hygiene with soap and water is recommended in outbreak settings.

Hand Hygiene Plays a Strong Role



As we can see from our review of common contagious diseases, hand hygiene is an important factor in preventing the spread of infection. Keeping your body clean, including your hands, helps keep diseases from spreading from person to person. Hand hygiene includes both washing with soap and water or using alcohol gel. Always use soap and water if your hands are visibly dirty, before preparing food and after using the restroom.

Although many of us learned about hand hygiene in the past, it continues to be the cause of many deficiencies cited in healthcare facilities. In other words, caregivers are either failing to practice hand hygiene properly or skipping it all together in some circumstances.

Let's spend some time refreshing our knowledge of the principles of proper hand hygiene. These are the recommendations of the U.S. Centers for Disease Control and Prevention (CDC):

When Must I Perform Hand Hygiene?

Before:

Right after:

Activity: Practice Hand Hygiene Techniques

Handwashing is like a "do-it-yourself" vaccine—it involves five simple and effective steps (Wet, Lather, Scrub, Rinse, Dry) you can take to reduce the spread of diarrheal and respiratory illness so you can stay healthy. Regular handwashing, particularly before and after certain activities, is one of the best ways to remove germs, avoid getting sick, and prevent the spread of germs to others. It's quick, it's simple, and it can keep us all from getting sick. Handwashing is a win for everyone, except the germs.

<http://www.cdc.gov/cdctv/handstogether/>

Hand Hygiene Steps

Washing hands with soap and water is the best way to reduce the number of germs on them in most situations. If soap and water are not available, use an alcohol-based hand sanitizer that contains at least 60% alcohol. Alcohol-based hand sanitizers can quickly reduce the number of germs on hands in some situations, but sanitizers do not eliminate all types of germs and might not remove harmful chemicals.

Hand sanitizers are not as effective when hands are visibly dirty or greasy.

Hand Washing (soap and water)

- Wet your hands with clean, running water (warm or cold), turn off the tap, and apply soap.
- Lather your hands by rubbing them together with the soap. Be sure to lather the backs of your hands, between your fingers, and under your nails.
- Scrub your hands for at least 20 seconds. Need a timer? Hum the "Happy Birthday" song from beginning to end twice.
- Rinse your hands well under clean, running water.
- Dry your hands using a clean towel or air-dry them.

What should you use if you don't have soap and clean, running water?

Hand Sanitizer (foam or gel)

- Apply the product to the palm of one hand (read the label to learn the correct amount).
- Rub your hands together.
- Rub the product over all surfaces of your hands and fingers until your hands are dry.

Soap vs. Hand Sanitizer

Alcohol-based hand sanitizers can quickly reduce the number of microbes on hands in some situations, but sanitizers do not eliminate all types of germs. Why? People may not use a large enough volume of the sanitizer or may wipe it off before it has dried. Furthermore, soap and water are more effective at removing or inactivating certain kinds of germs, like cryptosporidium, norovirus, and c. diff.

Alcohol-based hand rubs are less drying to hands than using soap and water. Hand rubs can be placed in locations where sinks aren't available so they are more convenient to use.

Use of Hand Lotions

Caregivers may experience dryness from frequent hand cleansing. Lotions are important to prevent dryness and irritation.

You should only use hand lotions approved by your employer. Other lotions can:

- Make hand hygiene less effective
- Cause a breakdown of disposable gloves
- Become contaminated with bacteria if dispensers are refilled

Fingernails

Your employer may have a policy regarding fingernails. If not, it's best to keep your fingernails natural and cut to about $\frac{1}{4}$ inch. Artificial or long nails harbor bacteria, take longer to clean and can puncture disposable gloves.

Personal Protective Equipment



Personal protective equipment is specialized clothing or equipment. Wear it to protect your skin and to prevent soiling or contamination of your clothing from contact with bloodborne pathogens.

- You must wear *gloves* whenever there is a chance that your hands could have contact with blood or other body fluids
- You must wear a *gown* whenever there is a chance that other parts of your body may be exposed to blood or other body fluids
- You must wear a *mask or eye protection* whenever there is a chance that your eyes, nose or mouth could come in contact with blood or other body fluids

Your CBRF must provide personal protective equipment at no cost to you. It must be available to you whenever you need it.

If you believe you need personal protective equipment to complete a task safely and the equipment is not available, do not proceed with the task. Report the lack of equipment to your supervisor.

When you remove personal protective equipment, put it in an appropriately designated area or container for storage, washing or disposal.

Gloves

Gloves are a very important part of keeping both you and residents safe from communicable diseases. Gloves can only do their job if you put them on *before* you are exposed to blood or body fluids. Most facilities use disposable gloves. Hypoallergenic (not likely to cause allergic reaction) gloves must be available. Latex gloves are an example of gloves that may cause allergic reactions in some people.

Rules for Wearing Gloves

Wear clean gloves when:

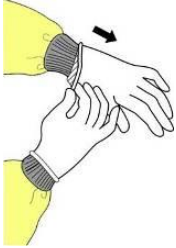

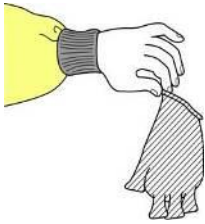
- Touching blood or any other body fluid
- Caring for any invasive device, such as a catheter
- Having contact with items that could contain body fluids such as dressings, dirty laundry, dishes or trash
- Moving from parts of the resident's body that could be contaminated to clean parts of the resident's body
- Your facility's policy requires the use of gloves

Always follow these rules:

- Carefully remove used gloves so that the outer surface never touches your skin
- Wear gloves that fit – gloves that are too small or too big can tear
- Wash your hands after glove removal
- **Never wear the same gloves for the care of more than one resident!**
- **Never reuse gloves!**

Activity: Removing Gloves

What is the correct way to remove gloves? The CDC offers these instructions and drawings:

	<ul style="list-style-type: none">• Grasp outside edge near wrist• Peel away from hand, turning glove inside-out
	<ul style="list-style-type: none">• Hold in opposite gloved hand• Slide unglved finger under the wrist of the remaining glove• Peel off from inside, creating a bag for both gloves
	<ul style="list-style-type: none">• Discard

Wrap-Up

Be a role model. Show co-workers, supervisors and residents that you are serious about everyone's health and safety by practicing standard precautions at all times. A good slogan to remember is:

Practice Standard Precautions. It's Contagious!

Learning Points Review

Let's review the learning points from today's training:

- Review standard precautions and why they are important in your work
- Learn more about common communicable diseases in healthcare facilities
- Practice/review hand hygiene techniques

Resources

The following are resources used for this curriculum. These resources may also provide valuable information about current standards and practices. Instructors and students are encouraged to explore the resources to increase program knowledge.

U.S. Centers for Disease Control and Prevention

<http://www.cdc.gov/>

A US government agency whose mission is to create the expertise, information, and tools that people and communities need to protect their health – through health promotion, prevention of disease, injury and disability, and preparedness for new health threats.

<http://www.cdc.gov/mrsa/index.html>

MRSA Infections

<http://www.cdc.gov/norovirus/index.html>

Norovirus

<http://www.cdc.gov/HAI/pdfs/ppe/PPEslides6-29-04.pdf>

Guidance for the Selection and Use of Personal Protective Equipment (PPE) in Health Care Settings

<http://www.cdc.gov/cdctv/handstogether/>

Put Your Hands Together Video

World Health Organization

http://www.who.int/gpsc/5may/How_To_HandWash_Poster.pdf

How to Wash Your Hands Poster

http://www.who.int/gpsc/5may/How_To_HandRub_Poster.pdf

How to Rub Your Hands (Clean) Poster

Wisconsin Administrative Rules

http://docs.legis.wisconsin.gov/frame/code/admin_code/dhs

Administrative rules governing all DHS-regulated facilities

Wisconsin State Statutes

<https://docs.legis.wisconsin.gov/statutes/prefaces/toc>

A list of all statutes in Wisconsin. Chapter 50 covers Uniform Licensure of DQA-regulated facilities.

Wisconsin Department of Health Services

<https://www.dhs.wisconsin.gov/dqa/memos/index.htm>

The Division of Quality Assurance (DQA) Numbered Memos deal with policies, information and interpretation of federal as well as state regulations and guidelines of the programs under DQA's jurisdiction.