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Hand Hygiene



TEACHING PLAN

To use this lesson for self-study, the learner should read the material, do the activity and take the test. For group study, the leader may give each learner a copy of the learning guide and follow this teaching plan to conduct the lesson.



LEARNING OBJECTIVES

Participants will be able to:

- Recognize why, as a home health aide, it's important to practice infection control.
- Demonstrate how to properly wash hands or use a hand rub.
- Identify when and how to use standard precautions.
- Recognize general methods to prevent the spread of infection.



LESSON ACTIVITIES

- Practice sneezing and coughing into your elbow and washing your hands correctly.
- Visit the Centers for Disease Control and Prevention (CDC) website at www.cdc.gov/hai to review standard procedures and the basics of infection control.
- Review your agency's infection control policies and procedures.
- Review the ACIP Vaccine Recommendations for Health-Care Personnel and Influenza Vaccination of Health-Care Personnel at www.cdc.gov/vaccines/hcp/acip-recs. Make sure your immunizations are up to date.
- Review the CDC handwashing guidelines at www.cdc.gov/handhygiene.
- Review standard precautions in detail. Provide a summary of CDC print guidelines at www.cdc.gov/HAI/prevent/ppe.html.

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THE LESSON

Review the material in the lesson with participants. Allow for discussion.



CONCLUSION

Have participants take the test. Review the answers together. Award certificates to those who answer at least seven (70%) of the test questions correctly.



TEST ANSWERS

1. d
2. b
3. d
4. c
5. d
6. d
7. a
8. d
9. b
10. b

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Overview

As an aide, you care for people in ways they need care — bathing, grooming, feeding and attending to all sorts of needs. This care involves close contact and touching, often with individuals who are ill, who have weak immune systems or who simply cannot afford to get sick.

You must recognize that you are a common factor between all your patients. This means that you can carry germs from one patient to another, even if you do not feel ill. Many illnesses such as the flu can be transmitted before symptoms develop. This means you must be on guard and use methods to prevent the spread of infection at all times. Once someone is sick, it's too late.

You don't have to use a hazmat suit all day long, but you should take simple yet effective measures every day. This in-service gives general and practical advice for stopping the spread of infection and explains effective measures to take and why they are so important.

Facts

Many people have weakened immune systems for a lot of different reasons, including cancer, HIV and receiving organ transplants. People who have undergone an operation have a higher chance of developing an infection. People with diabetes have a difficult time healing from skin infections and often suffer from unusually high blood sugar during illness. Older adults often cannot recover quickly from illness. Older people who come down with the flu or a chest infection might have a harder time staying hydrated and breathing. People who are susceptible to the flu can die from it. These are just a few examples of why it's critical to protect your patient population and yourself from getting ill.

Keeping a distance from those who are sick is a good prevention method but one that is difficult for health care workers to implement. Some illnesses, such as the flu, are spread through droplets in the air. Other illnesses are contracted only through bodily fluids. Many are spread by hands. Knowing and diligently applying the principles of hand hygiene and standard precautions is the best way of protecting your patients and yourself.

Hand Hygiene

Hand hygiene is the most effective way of preventing the spread of infection. Germs can stay on your hands and be transferred. Think of all the things and people you touch in a day. You use the bathroom, are in pub-

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lic spaces, handle money, care for patients, touch your face, touch doorknobs and food. The list is endless. Practicing good hand hygiene helps protect your patients, yourself, your family and others. You might think you don't always have time to clean your hands, but in all the things you're rushing around to do — caring for your patient — you might be causing more harm than good if you don't take a moment for hand hygiene.

KEY TERMS TO AID YOUR UNDERSTANDING

Hand hygiene: A general term referring to any action of hand cleansing.

Immune system: A system of biological structures and processes within the body that protects against disease. A weakened immune system leaves the body susceptible to disease.

Contagious: Able to be passed from one person or animal to another by touching.

You should wash your hands:

- Before and after caring for a patient
- After caring for personal needs, such as using the toilet, blowing your nose, covering a sneeze, combing hair, etc.
- Before consuming, handling or serving food or drink
- Upon return from public places
- Before and after each shift or upon leaving one home and entering another
- After any contamination or after handling waste materials, secretions, drainage or blood
- After handling soiled items, including linens, clothing, bedpans, urinals or garbage
- Before and after wearing gloves
- Before and after touching wounds

The final interpretive guidelines for the revised Home Health Conditions of Participation (CoPs) specifically list six situations (at a minimum) in which hand hygiene should be performed:

- Before contact with a patient
- Before performing an aseptic task (insertion of IV, preparing an injection, performing wound care)
- After contact with the patient or objects in the immediate vicinity of the patient
- After contact with blood, body fluids or contaminated surfaces
- Moving from a contaminated body site to a clean body site during patient care
- After removal of personal protective equipment (PPE)

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The CDC has guidelines for hand hygiene. They include:

- Wet hands with warm water.
- Apply soap.
- Rub your hands palm to palm.
- Put one hand over the other, both palms facing down. Interlock your fingers and rub.
- Put your hands palm to palm, interlace your fingers and rub.
- With fingers together, grab one set of fingers with the other, palms facing each other.
- Grab your thumb with your other hand and twist; repeat with the opposite hand.
- With closed fingers, cup your hand and rub the tips of those fingers into the palm of your other hand. Do this to the opposite hand.
- Rinse hands.
- Dry hands thoroughly.
- Use a towel to turn off the faucet.

Always wash your hands when they are visibly soiled. Handwashing should take 15 to 20 seconds.

Alcohol hand rub products are more effective than handwashing with soap unless the:

- Hands are visibly soiled
- Person has a condition that is known or potentially spread by spores, such as norovirus or *Clostridium difficile* diarrhea

Please note that the effectiveness applies only to alcohol-based products. Avoid sanitizers in which the active ingredient is triclosan or others that do not contain 60% to 95% alcohol. Higher concentrations are less potent because they contain less water than lower concentrations. The reduction in water causes some of the original germ-killing properties to be lost or diminished.

The following are hand rub guidelines:

- Apply the rub to your palm.
- Rub hands together, palm to palm.
- Put one hand over the other, both palms facing down. Interlock your fingers and rub.
- Put your hands palm to palm, interlace your fingers and rub.

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- With fingers together, grab one set of fingers with the other, palms facing each other.
- With closed fingers, cup your hand and rub it into the palm of your other hand. Do this to the opposite hand.
- Continue to rub for length of time recommended by manufacturer, until hands are dry, or for at least 20 seconds. Hands must be dry for the sanitizer to be effective.

Clean personal equipment such as a stethoscope or bandage scissors with alcohol after use. Clean nonwashable items with disinfectant wipes.

Standard Precautions

Be familiar with the principles of standard precautions and select the correct personal protective equipment (PPE) for the task.

Guidelines for standard precautions

Routinely cleanse hands.

Wear gloves for any contact with blood, body fluids, secretions, excretions (except sweat), mucous membranes or nonintact skin. Also:

- Anytime your hands are cut, scratched, chapped or have a rash
- When cleaning up blood or body fluid spills
- When cleaning potentially contaminated equipment

Make sure your gloves are intact and fit properly. Gloves that are torn or too large or small will not protect you.

Change gloves:

- After caring for each patient
- Before touching noncontaminated articles or environmental surfaces
- Between tasks with the same patient if there is contact with infectious materials
- When caring for multiple wounds on the same patient
- Any time your gloves become soiled for any reason

Dispose of gloves properly, according to agency policy.

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Wear a waterproof apron or gown for procedures that are likely to produce splashes of blood or other body fluids:

- Remove a soiled apron or gown as soon as possible and dispose of it properly.
- Wash your hands.

Wear a mask and protective eyewear or a face shield for procedures that are likely to produce splashes of blood or other moist body fluids. The surgical mask covers both the nose and the mouth.

The mask is used once and discarded. If it becomes damp during use, change it. Masks lose their effectiveness when moist.

Goggles or a face shield help protect the mucous membranes of the eyes from splashes or sprays of blood and other body fluids. Wear a surgical mask with goggles or a face shield to protect the nose and mouth. Your eyeglasses, if you wear them, will not protect you.

A good rule to follow is that a surgical mask may be worn without protective eyewear, but protective eyewear is never worn without a surgical mask. Apply the mask first, followed by the protective eyewear. Some one-piece, disposable masks have a protective eye shield attached to them.

You should:

- Know where to obtain PPE.
- Correctly apply the PPE.
- Be familiar with the principles of standard precautions and select the correct PPE for the task.

Do not contaminate environmental surfaces with used PPE. Correctly remove and discard the PPE before leaving the work area. Place used PPE in the proper container for laundering, decontamination or disposal. A plastic bag is usually the best option.

Remember that humans need to be touched. It is not necessary to wear gloves 100% of the time unless needed to apply the principles of standard precautions.

Ebola Raises PPE Removal Questions

In 2014, an epidemic of the deadly Ebola virus in Liberia resulted in the evacuation of patients to other countries. There have been patients in many countries including Spain, Germany, France, the UK, Norway and the United States.

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A visitor from Liberia became the first person in the United States to be diagnosed with the disease. After his death, two nurses who cared for him were diagnosed with Ebola. Luckily, both survived. CDC dignitaries were quick to note that a breach in protocol must have been responsible for transmission of the virus in both instances.

“It’s important to wear it, but it’s important also that when you take it off, you take it off properly,” the CDC insists. “It is conceivable that you could be protected while you’re doing everything you need to do with the patient, and then as you remove the protective material that could be a point of vulnerability.”

Wear Gloves

Gloves are an important part of patient care. They are worn to avoid:

- Picking up a pathogen from a patient
- Giving a patient a pathogen that is on your hands
- Picking up a pathogen and contaminating environmental surfaces and personal property on the hands
- Passing a pathogen to a coworker, visitor, family member (or other person) from your hands

Clean exam gloves are generally used in the home. Most of the gloves used today are made of nitrile, vinyl and other synthetic products. Inform your employer if you are allergic to latex. They will provide another type of glove. Disposable gloves are to be used only once and may not be washed for reuse. Even if he or she is properly gloved, an aide who has broken skin should be sure to inform the care team members. Gloves do not take the place of proper hand hygiene. You must clean your hands before and after touching a patient, even if you wear gloves.

Gloves will become contaminated while providing care to a patient, so it’s important to remove gloves immediately after providing that care. Gloves must be changed if they become damaged or soiled in any way. It’s easy to contaminate the patient’s room with gloved hands, so aides must remove gloves, wash hands and replace gloves in the presence of open sores and cuts, before touching bodily fluids, and before and after:

- Assisting with or performing mouth care
- Assisting with or performing perineal care
- Performing any other personal care
- Shaving a patient
- Disposing of soiled linens, dressings or pads

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Putting on gloves:

- Wash hands
- Place glove on one hand
- With your gloved hand, put the other glove on
- Look for tears and holes and immediately replace gloves that are damaged

Taking off gloves:

- Touching the outside of one glove with the gloved fingers of the other hand, pull the glove down from the wrist.
- As the glove comes off, roll it inside out.
- Hold the removed glove in your opposite gloved hand.
- With bare fingers, grasp the inside of your glove and roll it down from the wrist, turning it inside out. You will now have one glove in your hand, clean side out, with the other glove inside it.
- Dispose of used gloves properly.
- Wash hands again.

Sick Days

If you feel sick, you might think that your patients still need you and the gallant thing to do is to work anyway. However, you should assess how sick you are and take the necessary precautions. Discuss with your supervisor whether you should work at all that day.

Vaccination

Health care workers should be vaccinated against many diseases including the flu. Because you provide care in close quarters with many patients, your having the flu creates a danger to a wider net of people who are more vulnerable to illness. Every health care worker who doesn't come down with the flu could stop countless others from catching it.

Sanitation

Always wipe down and clean high-traffic areas or hazardous areas, such as surfaces in bathrooms and kitchens. Wipe items that are used for meals or snacks, such as tray tables or trays attached to wheelchairs, with soap and water after each use. Keep kitchen eating and food preparation surfaces clean. Wiping down doorknobs, cabinet knobs, counters, remote controls, phone receivers, cell phones, toilet flush handles,

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faucets, keyboard, mouse, light switches and handles to appliances such as the microwave, oven or toaster often is always a good idea. Linens, eating utensils and dishes belonging to those who are sick should not be shared without washing thoroughly first.

Sneezing and Coughing

Never sneeze or cough into your hands. If you do accidentally, be sure to immediately sanitize or wash them. Using a tissue is best, but if you can't use a tissue, use the crook of your arm. This is an area unlikely to touch others and it provides a better shield to prevent contact with others. Either way, clean the hands or elbow with alcohol. Discard tissue correctly. Try to cough and sneeze away from others. Even if the cause is allergies, you can still transmit microbes you might be carrying.

General Infection Control Practices

To limit the spread of infection, follow your agency infection control procedures. Some tips to remember include:

- Basic handwashing: Wash your hands before and after patient care. Use an alcohol-based hand sanitizer if your hands are not visibly dirty.
- Use warm water and soap when washing hands. Hot water from the tap is not hot enough to kill germs and can cause skin problems.
- Cough or sneeze into a tissue and then discard the tissue. Clean your hands with alcohol. If you do not have a tissue, cough into your elbow or upper sleeve.
- Wash your hands with soap and water after coming in contact with any body fluids from your patient or yourself. This includes an unprotected sneeze or cough.
- Wear gloves for patient care that may include body fluids.
- Wear a surgical mask for care of patients with flu.
- Try not to touch your face. Germs from your hands can enter the mouth, nose or eyes through contact.
- Do not share drinks or food.
- Use gloves when emptying wastebaskets at the patient's home to avoid contamination by used tissues and other items carrying germs.
- Use gloves when cleaning the patient's home to avoid contact with germs on the surface of chairs, tables, toilets, wheelchairs and other items. Remember that germs can travel many feet from a sneeze.

Patient Education

Stopping the spread of illness is everyone's job. Teach your patient to use alcohol hand cleaner or wash hands often and to keep a clean home. Make sure the patients tell you when they're not feeling well. Teach them this content. Be sure they keep surfaces clean and keep liquid soap in the bathroom.

Outcomes and the aide

Infection control prevents harm to the patient and others. The last thing a patient needs is to develop an infection. Viruses like the flu can make recuperation difficult and take longer. A recently discharged patient may have to return to the hospital. Old, young, chronically ill and healthy people die of the flu each year. Your role in preventing these outcomes is critical. As a constant observer, you can also alert the health care team if a patient has signs of infection so treatment can begin as soon as possible.

CMS' Expectations

As a result of the Outcome and Assessment Information Set (OASIS), the Centers for Medicare & Medicaid Services (CMS) reviews the quality outcomes and processes regarding the care an agency provides. It also reviews potentially avoidable events. It expects that agencies use the information available for their quality improvement programs. CMS expects an agency's quality improvement efforts to take a multidisciplinary approach in meeting and improving the care needs of its patients.

Case Study

Molly is an 80-year-old married female, being cared for at home after hospitalization for pneumonia. She lives with her husband Donald in their lovely waterfront home. While in the hospital, she was given intravenous fluids and antibiotics. She was discharged to home after just three days, although very weak and still with a slightly productive cough. She was able to eat small meals. Home health was called in to follow up with Molly at home.

The RN admitted her to home health care and has arranged for the aide, Madeline, to provide assistance with personal care and activities of daily living (ADL). She left a care plan for Madeline in the home as well as talking with her in the office about Molly's needs.

Madeline called ahead and arranged to come to the home at 11 a.m. the next day. Upon arrival, Madeline was greeted at the door by Donald, who escorted her to Molly's bedside. She found Molly a bit groggy. Madeline asked where she could put her bag and proceeded to access her alcohol-based hand sanitizer and cleaned her hands, which took about 20 seconds. When her hands were fully dry, she took Molly's vital signs and had a conversation with her.

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Molly revealed that since coming home, she had developed some abdominal pain and unremitting diarrhea. Molly reported feeling weaker since returning home, but the cough she had experienced was less and her breathing had improved. She complained of thirst.

Madeline asked to use the house phone to report the changes to her supervisor. After using the phone, she wiped it down with an antiseptic towel.

Madeline then went on to assist Molly with her bath, oral hygiene and toileting. Prior to doing so, she put on non-sterile gloves. After providing care, Madeline removed her gloves with the dirty side inside and again cleansed her hands with the hand sanitizer. She then went on to the kitchen and prepared a half sandwich and cup of soup for Molly and served her, pausing to straighten Molly's clothing and shift her sheets a bit.

THINK ABOUT IT

1. Should Madeline ever during this visit have used the water and soap method of washing her hands instead of the sanitizer? Why or why not?
2. Since Madeline did not know the cause of Molly's diarrhea, should she assume it could be from the *Clostridium difficile* bacteria until proven otherwise?
3. Identify three times during the visit when Madeline made the right decision to cleanse her hands.
4. Were there any other times a hand cleansing would have been appropriate?
5. How should Madeline make the decision whether to use sanitizer versus soap and water? (Consider the possible diagnosis.)

Molly was assured that the RN on the case would be in contact with her physician about the diarrhea and weakness.

Madeline once again used the hand sanitizer before leaving the home.

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TEST

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Name _____ Date _____ Score _____

Directions: Read each question carefully, then determine the best answer. Seven correct answers required.

1. **Why is it important to practice infection control?**
 - a. As an aide, you could carry germs from one patient to all the others.
 - b. Many of your patients are highly susceptible to infection.
 - c. Many of your patients would experience serious consequences of infection.
 - d. All of the above.

2. **If your hands are visibly soiled, you should:**
 - a. Use alcohol hand rub.
 - b. Wash your hands.
 - c. Use hand rub, then wash your hands.
 - d. Wipe them off with a dry towel.

3. **You should perform hand hygiene:**
 - a. Before caring for a patient.
 - b. After caring for a patient, even though you wore gloves.
 - c. When you get home from your shift.
 - d. All of the above.

4. **According to the CDC, handwashing should take:**
 - a. 10 seconds.
 - b. 10 minutes.
 - c. 15 to 20 seconds.
 - d. As long as it takes until hands look clean.

5. **To take your gloves off, you should:**
 - a. Have someone else help you.
 - b. Carefully take them off and put them away for later use.
 - c. Pull them from the fingertips.
 - d. Remove one glove, hold it in the gloved hand and then roll it up in the second glove.

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6. When you sneeze:

- a. Hold it in when working.
- b. Cover your nose with both hands.
- c. Do not try to cover it at all.
- d. Use a tissue or the crook of your elbow.

7. When washing hands with soap and water, you should:

- a. Use warm, but not hot, water.
- b. Use very hot water.
- c. Use cold water.
- d. Soak your hands in a sink with soapy water.

8. Germs can enter your body through:

- a. Mouth.
- b. Eyes.
- c. Nose.
- d. All of the above.

9. True or false: The flu cannot be transmitted before an infected patient shows symptoms.

- a. True.
- b. False.

10. The immune system is:

- a. A system the CDC uses to track illness.
- b. A system that protects the body against disease.
- c. A system made up of blood vessels and the lungs.
- d. Another term for the skin.