Instructions for the Learner

If you are studying the inservice on your own, please do the following:

- Read through all the material. You may find it useful to have a highlighting marker nearby as you read. Highlight any information that is new to you or that you feel is especially important.

- If you have questions about anything you read, please ask ____________________.

- Take the quiz. Think about each statement and pick the best answer.

- Check with your supervisor for the right answers. You need 8 correct to pass!

- Print your name, write in the date, and then sign your name.

- Keep the inservice information for yourself and turn in the quiz page to ____________________ no later than ______________. Show your Inservice Club Membership Card to ____________________ so that it can be initialed.

- Email In the Know at feedback@knowingmore.com with your comments and/or suggestions for improving this inservice.

THANK YOU TO ALL THE CAREGIVERS AT BrightStar

We hope you enjoy this inservice, prepared by registered nurses especially for nursing assistants like you!

After finishing this inservice, you will be able to:

Discuss how germs are spread on the hands of healthcare workers.

Recite and demonstrate the five steps of proper hand washing.

List at least four different situations when you should wash your hands.

Discuss at least three ways to protect your hands from drying, cracking and dermatitis.

Discuss the barriers that keep healthcare workers from washing their hands.
An Infection Control Module: Hand Washing

**GERMS NEED PEOPLE!**

Benjamin Franklin said, *"In this world nothing can be certain, except death and taxes."* But, Ben was WRONG!

There is something else you can be certain of . . . germs!

Germs are everywhere! No matter how much we spray, wipe, dip, scrub, sanitize and sterilize, we’ll never be completely free of germs.

The good news is that germs only have the power to make people sick if we let them. The fact is that most **germs need people** to get from place to place. If you take the time to wash your hands at the right times throughout your day, you will deny many of those germs the vehicle (your hands) that they need to spread from person to person.

*Hand washing is the single most important thing you can do to stop the spread of germs!*

The bad news is that studies continue to show that **less than half** of all healthcare workers actually wash their hands as often, or as well, as they should. This makes germs happy . . . but it makes people sick!

The CDC estimates that each year, at least 1.7 million people get sick from germs that are spread by the hands of healthcare workers. Nearly 100,000 people die from complications of those infections.

**The bottom line:** You can be **certain** there are germs on your hands! Therefore, you have to make the **choice** to wash them away before they make you or someone else sick.

*Keep reading to learn more about how, when and why you should make the choice to wash your hands, and then get out there and DO IT!*
HOW DO YOUR HANDS SPREAD GERMS?

THE HOST: This is any place where germs are happy to live and grow! It may be a person, like your client or co-worker ... or it may be a place in the environment, like a table doorknob or telephone.

THE RIDE: Germs can’t just get up and walk around, so they hitchhike a ride on someone’s hands! The most common way germs are spread in healthcare settings is by the hands of healthcare workers.

THE RECEIVER: This is any person who cannot block germs from invading the body and causing infection. Most of your clients are germ receivers.

The Facts

- Eighty percent of all infectious diseases are spread by touch.
- It is estimated that the hands of medical workers carry as many as 500,000 bacteria per square centimeter!
- The CDC recommends healthcare workers wash their hands for at least 15 seconds. However, studies show that washing with soap for 30 seconds gets rid of ten times more bacteria than soaping up for just 15 seconds.
- Unfortunately, the average wash time for health care workers is a mere 9 seconds.

Grab your favorite highlighter! As you read this inservice, highlight five things you learn that you didn’t know before. Share this new information with your co-workers!
WHICH GERMS ARE ON YOUR HANDS?

There are many different types of disease causing germs that can be passed from person to person by your hands. Here are a few:

- **Bacteria, Viruses, Worms, Parasites and Yeast**
  - The Common Cold
  - Herpes Simplex (Cold Sores)
  - Mono (It’s not just from kissing!)
  - Pink Eye
  - RSV (A serious lung infection)
  - MRSA (Antibiotic resistant staph)
  - Strep Throat
  - Scarlet Fever
  - Yeast Infections
  - Scabies
  - Lice
  - Infectious Diarrhea
  - Ringworm
- Norwalk Virus
- Hand, foot and mouth disease
- Viral Meningitis
- Salmonella (Food Poisoning)
- Thrush
- Warts

**Vaccine Preventable Diseases**
- Chicken pox and Shingles
- Diphtheria
- Rotavirus
- Hepatitis A
- Measles
- Mumps
- Polio
- Rubella

ARE ALL GERMS BAD?

There are two types of microorganisms that can be found on your hands — "resident flora” and “transient flora.”

- **RESIDENT FLORA**: Bacteria that normally live on everyone’s skin are called resident flora. These microscopic creatures are found on healthy people and are generally not harmful. In fact, they can even be helpful!

The “Residents” are attached to deeper layers of the skin and are harder to wash away with soap and water.

- **TRANSIENT FLORA**: Transient germs are “just visiting” or “hitchhiking a ride.” These freeloaders attach to your hands when you touch a colonized person or object in the environment.

The “Transients” sit on the outer layers of the skin and are removed easily by routine hand washing. The “Transients” are the germs that most frequently cause illness and infections.
When should you wash your hands?

Here are a few times when it is absolutely necessary to wash your hands:

- Before and after ANY contact with a client.
- Before and after you use the bathroom or eat.
- After touching contaminated items such as urine measuring devices.
- Before putting on, and after taking off gloves.
- Any time a client asks you to wash your hands.
- Whenever you are preparing food for a client.
- After sneezing or coughing, even if you used a tissue.

Think about it!

When should you wash your hands?

Here are a few times when it is absolutely necessary to wash your hands:

- Before and after ANY contact with a client.
- Before and after you use the bathroom or eat.
- After touching contaminated items such as urine measuring devices.
- Before putting on, and after taking off gloves.
- Any time a client asks you to wash your hands.
- Whenever you are preparing food for a client.
- After sneezing or coughing, even if you used a tissue.

Think of at least three more situations when you absolutely must wash your hands.

Share your answers with your supervisor and co-workers!

FIVE EASY STEPS TO HAND HYGIENE!

Since you deal with many different clients everyday, it is extremely important to keep your hands clean.

Even by touching a doorknob or a cell phone, you can pick up and pass on thousands of different germs. Here are the five suggested steps to follow to properly wash your hands, whether you are at home or at the workplace.

1. WATER AND SUDS: Begin by wetting each hand thoroughly. Use an antibacterial soap. It can be in either a liquid form or a bar of soap. If using a bar of soap, make sure that it is placed on a clean rack when you are finished. All water will drain off the soap and keep it free from germs.

2. RUB: Once you have applied soap, rub your hands together making sure you don’t miss any spots. Scrub all surfaces, including in between each finger.

3. TAKE YOUR TIME: Resume scrubbing each hand for at least 15 seconds (but 30 is better). Do not rub so hard that your skin becomes irritated, as this can lead to certain skin conditions.

4. RINSE: Rinse both hands well in warm, but not scalding, water. There are studies proving that very warm water can do a lot of harm to your skin, and even add to infection!

5. DRY: Dry hands thoroughly. As paper or cloth towels work, the best way to dry is by using a motion activated dryer. These dryers are touch free, which means less infection!

WHAT ABOUT WATERLESS HAND CLEANERS?

Waterless hand sanitizers can eliminate many of the problems that health care workers face when taking care of patients.

- Alcohol-based hand rubs are faster because you can rub your hands while you are moving between patients.
- Hand rubs are gentler and do not cause the irritation, drying and cracking you find with hand soaps.
- To use: Place a small amount in the palm of one hand. Rub hands together, being sure to cover all surfaces of hands and fingers. Rub until hands are dry.
- Only use waterless hand rubs when hands are not visibly soiled. If hands are visibly soiled always wash with soap and water.

“GEL IN, WASH OUT!” Clean your hands both before and after client care by using the “Gel In, Wash Out” method. Use waterless hand cleaner before client care, then wash with soap and water when you are done!
ALL ABOUT GLOVES!

You should always wear gloves whenever you are likely to come into contact with any bodily fluids, blood, mucous membranes, contaminated materials, or broken skin.

For these reasons, gloves are essential. But, are they harmful as well?

- No glove, no matter how tough, is completely resistant to infectious diseases.
- Gloves can protect the wearer, but what about the client? Microorganisms can still be passed from the outside of the glove to the client!
- Wearing gloves constantly can irritate your hands and possibly lead to dermatitis.

That's why it's important to know:

- The Center for Disease Control (CDC) advocates proper hand washing at all times . . . even after removing gloves!
- Gloves and waterless hand sanitizers should never take the place of proper hand washing. While these types of preventive measures are important, they are only meant to aid infection control. Hand washing still remains in first place.

CAN YOU BECOME ALLERGIC TO GLOVES?

Latex allergies develop over time with repeated or prolonged exposure. So, while you may not have been allergic to latex in the past, there is a chance you could develop a latex allergy in the future.

Latex contains certain proteins that cause allergic reactions. At least 10 different proteins have been linked to allergic reactions.

Other chemicals in gloves, known as accelerators and antioxidants may also cause allergic reactions.

- Typical allergic reactions to latex include itching, hives, swelling, and runny nose.
- More serious symptoms may involve wheezing, difficulty breathing, nausea, heart palpitations, decreased blood pressure and anaphylactic shock.

Ask your supervisor for latex free gloves if you are experiencing a latex allergy.

Latex free gloves may also be called vinyl, nitrile rubber or neoprene gloves.
KEEPING HANDS GERM FREE

A surprising statistic from The Association for Professional Infection Control and Epidemiology (APIC) states that regular hand washing for general patient care only occurs about half the time. To make things worse, the healthcare workers that DO wash their hands, don’t do a good enough job!

- According to the Chicago Tribune, the yearly deaths due to germs from unclean hands in hospitals are higher than deaths due to fire, drowning, and car accidents combined!

- Most of the germs on your hands are hiding under and around your fingernails. Be sure to scrub your nails well when you wash your hands.

- Keep nails shot and natural. Long (artificial and natural) nails have been blamed for numerous outbreaks of infectious diseases around the country.

- Artificial nails are difficult to clean with proper hand washing. It’s best to avoid them if you are providing patient care.

- Freshly applied nail polish has not been shown to increase germs on fingernails. However, chipped or flaking nail polish CAN harbor dangerous germs.

- Jewelry on your fingers and wrists can serve as a nest for germs. Think about leaving your rings at home and sliding your watch above your wrist when you wash your hands.

PROTECTING YOUR SKIN

Germs on your hands are not just harmful to your clients. They can make you sick, as well! Any break in the skin on your hands can serve as an “on-ramp” for germs to enter YOUR body. Protect the skin on your hands by following these suggestions:

- Wash your hands under water that is at least 110 degrees F. It’s important to keep the water hot enough to remove bacteria, but cool enough not to cause any damage to your hands. A tip for water temperature is to turn it as hot as you can stand and still be comfortable.

- Rinse all the soap off your hands. The water will carry away the germs that you have loosened by rubbing your hands together and rinsing will keep your hands from drying out and cracking.

- Harsh soaps, detergents, chemicals, and not completely drying your hands can lead to dermatitis. Read more about the dangers associated with dermatitis on page 7.
**A WORD ABOUT DERMATITIS**

*Dermatitis is an inflammation of the skin and can be a very frustrating condition for healthcare workers. It is a chronic disease, but is not contagious (cannot be passed from one person to another). The cause of dermatitis is not known, but the disease seems to result from a combination of genetic and environmental factors.*

- Eczema, one type of dermatitis, occurs when an irritating material comes in contact with the skin. For hospital workers, this material is often the latex in gloves! Excessive hand washing and chemicals can also irritate the skin and cause dermatitis to worsen.

- According to the National Institute for Occupational Safety & Health, skin injuries and illnesses (including dermatitis) make up a huge amount of all occupational injuries and illnesses!

**The symptoms of dermatitis include:**

- Persistently itchy, red, swollen skin
- Tender, hot, or painful skin
- Dry, scaly, sensitive skin
- Blistered and/or crusty skin

If dermatitis remains untreated, the skin could become thicker and/or a darker color. And, as dermatitis heals, the skin may begin to flake and/or scale. Sometimes this healing process is confused with dry skin.

**HOW CAN YOU PREVENT DERMATITIS?**

*Even though dermatitis is sometimes hard to avoid, there are a few things you can do to prevent it:*

- Use mild antibacterial soaps.
- Rinse hands thoroughly and do not leave any excess soap residue.
- Dry hands completely after hand washing.
- Apply moisturizers to your hands frequently. Keeping your skin healthy and moisturized is one of the key ways to prevent dermatitis.
- If you feel you are developing an allergy to latex, be sure to talk to your supervisor right away about an alternate type of glove.
THE COST OF INFECTIOUS DISEASES

When a client who is free of infection develops an infectious disease after being cared for by healthcare workers, it is said to be a “healthcare associated infection, or HAI for short.

- Hand washing is the single most important activity in health care settings that can prevent the spread of dangerous HAI's, like those mentioned on page 4.
- Paying close attention to basic hand hygiene has the potential to reduce the nation’s health care debt by billions of dollars.
- The CDC estimates there are 1.7 million health care associated infections each year and nearly 100,000 people die from complications of those infections.
- It is estimated that the cost of treating patients with HAI's is at least $20 billion a year.
- On average, a hospital charge for patients without an HAI is $33,260. The average hospital charge for a patient with an HAI is $175,964 and the average length of stay increase by 5 times.

The Centers for Medicare and Medicaid Services no longer make payments for the treatment of eight hospital-acquired conditions, including some types of healthcare associated infections.

In addition to not receiving reimbursement from Medicare for these situations, healthcare providers are not allowed to seek payment from the client or family, either!

So, who is paying for this? If you think that because you have never been directly billed that you are not paying . . . think again!

- As a society, we pay for these infections through increased insurance premiums, staggering medical costs and tax raises.
- We all suffer when small community hospitals close because they can no longer afford to operate.
- Nurses and Aides suffer when there is not enough money to offer our hardest workers a decent wage or an occasional pay raise.
- Clients suffer when employers can no longer afford to staff facilities appropriately, leaving everyone overworked and stretched to the limit!
WHAT’S STOPPING YOU?

Statistics show that fewer than half of all healthcare workers wash their hands as often as they should.

There are many reasons health care workers give for not washing their hands before and after patient care. Here are a few:

- **Skin Irritation.** The hand cleaners are harsh and damage the skin.

- **Supplies are not available.** Sinks are not conveniently located or are not stocked with soaps and towels.

- **Urgent or emergency care.** The client needs immediate care, there is no time to wash hands.

- **Wearing of gloves.** The belief that if gloves were worn, hands do not have to be washed after client care.

- **Not enough time.** High workload and understaffing.

- **Hand hygiene interferes with health-care worker relationships with patients.** There are those who mistakenly believe that a client will feel insulted if the healthcare worker goes right to the sink to wash her hands after touching the client.

- **Low risk of acquiring infection from certain patients.** A false sense of security may lead some healthcare workers to believe that if a client doesn’t seem sick, there is no need to wash hands after care.

- **Lack of knowledge of guidelines or protocols.** When the guidelines are unclear, absent or misunderstood, people are left to make assumptions. And, you know what happens when you assume!

- **Not thinking about it/forgetfulness.** You have so much to think about and do during the day. It’s easy to let this one step slip your mind.

- **Skepticism regarding the value of hand hygiene.** The problem with germs is that you can’t actually SEE them on your hands. When you can’t SEE a problem, it’s hard to believe you need to do something about it.

- **Lack of proof of the positive impact of hand hygiene on healthcare associated infection rates.** Some people just need to see the proof. If you need proof, go to www.cdc.gov and type “hand hygiene” in the search box. Click around the site. You will find proof in everything you read.
FINAL HAND WASHING DO’S AND DON’TS

There are many hidden dangers when you wash your hands. Here are a few things to watch out for during your workday!

DO:

- Make sure to wash the entire surface area of your hands and wrists. Many people forget to wash the tops of their hands. This skin is more sensitive than the palms of your hands, so be sure to get it clean without rubbing too hard!
- Remove all jewelry and/or watches before washing your hands. If you don’t, microorganisms can hide under your jewelry and then be free to contaminate your clients!
- Make sure to clean underneath your fingernails, and to remove all debris. This area of the finger is one of the areas most responsible for spreading infections.
- Wipe down any soiled counters or stove tops if you cook for your client. Diseases can thrive on uncooked food, and can transfer from food to counters, then to your hands. Make sure to use a strong disinfectant spray, and not just a wet paper towel.
- Encourage your client to wash their hands on a regular basis, if they are able. If your client keeps up with their own hygiene, it is less likely that they will become sick.
- Try to tidy up a client’s area. Keeping surfaces as clean as possible can help get rid of those tiny bacteria all over their house and/or personal space.

DON’T:

- Wear the same pair of gloves when treating a different client, even if they are washed or rinsed. Gloves can easily carry illnesses from client to client.
- Skip drying your hands after you wash them. Much of the bacteria is removed by the heat of a dryer, or they are simply wiped off with a dry towel. If you only shake your hands in the air, it is likely that there are still lots of tiny microorganisms all over your hands.
- Use a community towel in the restroom. Who knows what type of germs call that towel home!
- Directly touch the sink at any time while washing your hands. Use a dry towel to turn the faucet on and off.
- Touch your eyes, nose or mouth after washing your hands.
- Use a damp cloth to take excess water off your hands. Bacteria thrives in warm, damp places, such as a wash cloth.
- Touch or examine a client without washing your hands first. Hands should be washed immediately before you come into contact with a client, and again immediately after.

WHAT I KNOW NOW!

Now that you’ve read this inservice on hand washing, jot down a couple of things you learned that you didn’t know before.
Are you “In the Know” about hand washing? Circle the best choice or fill in your answer. Then check your answers with your supervisor!

1. Most germs are spread by
   A. Sneezing.   C. Touching.
   B. Coughing.   D. Exposure to infected blood.

2. Proper routine hand washing easily removes
   A. Transient flora.   C. Primary Flora.

3. When using a waterless hand cleaner, you should
   A. Dry hands with a clean paper towel.
   B. Rinse hands with water after using gel.
   C. Apply every 15 minutes for best results.
   D. Rub hands until they are completely dry.

4. When using gloves, you should NOT
   A. Wash hands before use.   C. Wash hands after use.
   B. Reuse on several clients.   D. Change glove if torn.

5. True or False
   The most common way germs are spread in healthcare settings is by the hands of healthcare workers.

6. True or False
   Dermatitis is contagious and can be passed from person to person by touching.

7. True or False
   Medicare covers the additional cost to care for people who get healthcare associated infection.

8. True or False
   Some healthcare workers will ignore proper hand washing guidelines if they think a client doesn’t seem sick.

9. True or False
   The way to dry your hands after washing with soap and water is with a dry, disposable, paper towel.

10. True or False
    Most germs on your hands are resting on the wrists and palms.