

## **Hand washing: The latest CDC Recommendations**

Hand washing is the single most effective way to prevent the spread of infections. Many studies show that the bacteria that causes infections are often spread from one patient to another on the hands of healthcare workers. The purpose of this course is to stress the importance of good hand washing practices and reduce the spread of infection.

The Centers for Disease Control and Prevention (CDC) along with the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and other healthcare related organizations believe that cleaning your hands before and after contact with patients is one of the most important measures for preventing the spread of bacteria in healthcare settings.

### **Why do we need to refocus on hand washing practice?**

Although hand washing reduces the spread of germs in healthcare settings, healthcare workers do not wash their hands often enough. In 34 studies on hand washing practices, healthcare workers washed their hands only 40% of the time. Healthcare acquired infections are responsible for 90,000 patient deaths in the United States each year. The treatment of these infections costs more than \$4.5 billion per year.

There are many reasons why healthcare workers do not comply with recommended hand washing guidelines.

None of these reasons are acceptable. Some of the reasons healthcare workers have given include:

- "Heavy workload or too busy" - A recent study showed that the busier a healthcare worker is, the less likely they are to wash their hands when recommended.
- "My hands don't look dirty." - Healthcare workers can be exposed to hundreds of germs on their hands by performing simple tasks, such as:
  - Helping to reposition a patient
  - Taking vitals
  - Touching bed linens
  - Touching equipment in the home such as an iv pole or wheelchair
    - "I wore gloves." - Gloves are used to protect your hands from gross contamination from body fluids during patient care. The CDC estimates that gloves reduce hand contamination by only 70 to 80 percent. Gloves should be used regularly in the healthcare setting, but they should not take the place of practicing proper hand washing.
    - "The sink is not conveniently located." - In some healthcare settings the sink may be located far from the patient care area, making hand washing inconvenient and time consuming.
    - "Hand washing takes too much time."
    - "My skin is irritated by frequent exposure to soap and water." - Frequent exposure to soap and water (especially in the dry winter months) can cause cracked, dry and irritated skin causing pain when washing hands.

Healthcare workers are exposed daily to germs that are visible and those that are not visible. Patients often carry resistant germs on their skin even when they do not have wounds or broken skin. It is estimated that 13 to 39 percent of the population carries methicillin-resistant staph aureus (MRSA) on their skin, under their arms, on their hands or wrists, or in the groin area. Patients who carry resistant germs can also have contaminated clothing, bed linens and equipment. Healthcare workers can get these germs on their hands by touching the surfaces near affected patients.

### **How can we improve hand washing compliance?**

Washing hands frequently with soap and water is inconvenient, time-consuming and may cause skin irritation and dryness. The CDC recognized there was a need to make it easier for healthcare workers to clean their hands quickly with less effort and skin irritation. One effective way to accomplish this goal is to clean your hands with an alcohol-based hand-rub, gel, rinse or foam.

The 2002 guidelines developed by the CDC recommends that healthcare workers use an alcohol-based hand cleaner to routinely clean their hands between patient contacts, as long as the hands are dry and not visibly dirty. The guideline was designed to:

- Make cleaning hands faster, more convenient and easier on healthcare worker's hands
- Increase compliance of healthcare workers to recommended hand washing procedures
- Reduce the spread of germs in healthcare settings
- Protect both the patient and the healthcare worker

Using an alcohol-based hand cleaner requires about 15 seconds of time, instead of the estimated 60 seconds to get to a sink, wash the hands and return to patient care activity. Time issues are reduced because hand cleaner is more readily accessible. Alcohol-based hand cleaners are effective. More than 20 published studies have proven that they are more effective than soap in

reducing the number of bacteria on hands. Several studies have also shown that routine use of alcohol-based hand cleaner results in less skin irritation and dryness than the use of soap and water. Modern alcohol-based hand cleaners contain skin conditioners that help to prevent the drying effects of alcohol.

Compared to using traditional soap and water for hand washing, alcohol-based hand cleaners have the following advantages:

- Take less time to use
- More accessible than sinks
- Cause less skin irritation and dryness
- More effective in reducing the number of germs on hands
- Easy to carry anywhere you go

#### **When should you wash your hands with soap and water?**

Wash your hands with soap and water if your hands are visibly dirty or visibly contaminated with blood or body fluids. Also, carefully wash your hands before eating and after using the restroom.

To effectively wash your hands with plain or anti-microbial soap and water, take the following steps:

- Wet hands first with warm water. Avoid hot water to lessen the drying effects on your skin.
- Apply a quarter-sized amount of soap in your hand
- Rub hands together for at least 15 seconds
- Cover all surfaces of the hands and fingers
- Rinse hands thoroughly with water
- Dry hands using a paper towel
- Use a paper towel to turn off the faucet

#### **When should you wash your hands with an alcohol-based hand cleaner?**

Wash your hands with an alcohol-based hand cleaner if hands are not visibly dirty or contaminated with blood or body fluids to routinely clean your hands.

Use the alcohol-based hand cleaner:

- Before having direct contact with patients
- After having direct contact with the patient's skin, such as after taking vital signs
- Before putting on sterile gloves
- Before performing any medical procedure
- After having contact with body fluids, wounds or broken skin
- Before moving from a contaminated/dirty body site to a clean body site during patient care
- After touching equipment or furniture near the patient
  
- After removing gloves

#### **To effectively use an alcohol-based hand cleaner:**

- Apply a nickel or quarter-sized amount of the cleaner in the palm of one hand and rub hands together
- Cover all surfaces of your hands and fingers, including areas around and under the fingernails
- Continue rubbing hands together until the alcohol dries
- If you have applied enough hand cleaner, it should take at least take 10-15 seconds of rubbing before your hands feel dry
- If applying gloves after using the alcohol-based hand cleaner make sure the alcohol has dried completely before putting on gloves.

After cleaning your hands 5 to 10 times with an alcohol-based hand cleaner, you may begin to feel a build-up on your hands. It is recommended that you wash your hands with soap and water to remove this build-up.

#### **Other hand hygiene considerations**

- Avoid wearing artificial nails or nail tips when having direct contact with patients at high risk of getting infections. Keep natural nail tips less than 1/4 of an inch long: Fingernails are breeding grounds for germs. Recent reports have shown that patients in healthcare settings have received serious infections due to germs carried under healthcare workers' fingernails. Nail care is an important part of proper hand hygiene. Suggestions for proper nail cleaning includes: (1) use a nail brush at least twice a day to clean under nails, (2) use an orange stick or cotton swab soaked in alcohol to clean under nails, and (3) remove artificial nails while involved with patient care activities.
- Wear gloves when coming into contact with blood, mucous membranes, or non-intact skin
- Change gloves during patient care activities when moving from a contaminated/dirty body site to a clean body site
- Use an alcohol-based cleaner if hands are visibly dirty but there is not a water source available, or if leaving the bedside to wash your hands would put the patient's safety at risk.

