

There has been much in the news lately about infectious diseases, particularly with the Zika virus coming to the US. But, there are some concerns with the rise of other infectious diseases that can be a serious threat to our clients and potentially to you if you would contract them. The viruses that are rising in the elderly population, in particular, are Methicillin-resistant Staphylococcus aureus or MRSA and Clostridium Difficile, also known as C diff. These two infections will be the topic of this month's *Letter from Home*.

MRSA

Let's first discuss MRSA infections. Approximately 2-10% of the population has the MRSA virus. Staphylococcus aureus or "staph" is a very common germ that about 1 out of every 3 people have on their skin or in their nose. This germ does not usually cause any problems for most people who have it, but sometimes, it can cause serious wound or blood infections or even pneumonia. What makes this bacteria particularly dangerous is that it is resistant to many antibiotics. Antibiotics are given to kill Staph germs and if they are resistant, then the infections are much more dangerous and difficult to treat.

Those most at risk for contracting MRSA are those who have other health conditions making them weak or sick, those who have been in the hospital or nursing home, and those having been treated with antibiotics. People who are healthy and have not been around a hospital or nursing home can also get MRSA infections. These infections usually involve the skin. This type of infection is known as "community-associated MRSA" infections.

People who have MRSA germs on their skin or who are infected with MRSA may be able to spread the germ to other people. MRSA can be passed on to bed linens, bathroom fixtures, medical equipment and towels. It can spread to other people on contaminated hands as well. People who are colonized with MRSA may have no symptoms. They can carry MRSA in their nose and on their skin for many years.

Most MRSA infections are treated by antibiotics that kill MRSA germs. However, it is best to try to prevent the spread of MRSA by attention to infection control. To prevent MRSA infections, the most important thing you can do is to wash your hands with soap and water or an alcohol-based hand rub before and after caring for a client. Review your agencies handwashing policies to ensure you are washing your hands when you should. Also, if you are working with a client who you know has MRSA, you will need to wear gloves and a gown when caring for them. The client should avoid sharing their dirty laundry with others in the home and their clothes and bed linens should be washed at the warmest temperatures recommended on the labels.

C. Diff

Each year, C diff strikes about half a million Americans, mostly in hospitals and nursing homes. However, many of those clients with active C diff infections are going home. Plus, the incidence of community based C. diff infections is on the rise and anywhere from 150,000 -180,000 of those cases are now actually acquired in the community. It is

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difficult to determine the exact degree to which the infection has increased, but the experts agree that it is on the rise.

Most cases of C. diff occur in people taking broad-spectrum antibiotics. These antibiotics kill “bad” bacteria as well as “good” bacteria in the gut that keep C. diff at bay. Other risk factors for acquiring C diff include age over 65, recent discharge from the hospital, use of proton pump inhibitor medications, and those who are immunocompromised or suffering from a serious underlying illness. Also, once a person has had C diff more than a few times, their likelihood of recurrence is over 50%, says the CDC’s expert, Clifford McDonald, MD.

C. diff is generally spread by direct and indirect contact with the client or the client’s environment. C. diff spores can live outside the human body for a long time and may be found on things in the environment such as bed linens, bathroom fixtures and toilets, and medical equipment. C. diff produces spores that can persist in the environment for many months (up to 5 months) and are highly resistant to cleaning and disinfection measures. You could without proper measures spread the bacteria to clients or contaminate surfaces through hand contact. Symptoms of infections from C. diff include: diarrhea, fever, loss of appetite, nausea and abdominal pain or tenderness.

C. diff complications can be severe diarrhea that can lead to loss of fluids and very low blood pressure. In some cases, kidney function may deteriorate and cause kidney failure. Bowel perforation may occur in the large intestines

and dump bacteria from the colon into the abdominal cavity and cause a major infection.

Even in mild to moderate C. diff cases, infections can spread quickly if not treated in a timely fashion. In one study, it was found that asking two questions of a client can help identify potential C. diff infection likelihood. Those questions include, “have you been on a broad-spectrum antibiotic within the last 3 months?” and “have you had a C-diff. infection in the past?” Even if clients have no active symptoms, they can still be carriers because they may be shedding spores and can spread the disease.

Clients suspected of having C. diff. should use a private bathroom, if at all possible and their soiled laundry should be kept separate from the other members of the family. You should wear gloves when treating the client, even during short visits as contact with even the client’s environment can spread the disease. Hands should be washed immediately when gloves are removed. Alcohol hand gels are very effective in preventing contamination and spread. However, they do not kill the spores completely. Therefore, water and soap is necessary if your client has C. Diff. Gloves should also be used and removed properly to prevent hand contamination.

You should also wear protective gowns when having contact with client’s soiled laundry or bed linens. Client equipment, such as the toilet or bedside commode should be cleaned with bleach-based disinfectant after each use. You can also use a 1:10 dilution of bleach (mixed fresh daily) if your agency allows.

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You should be using standard infection control precautions at all times anyway, but it may be prudent to review how infectious diseases are spread and how they can be prevented. There are certain conditions that are necessary for bacteria to grow. There must be:

- an infectious agent
- a reservoir, or a place for the germ to reside
- a means for the germ to leave the host or place it is residing
- a route of transmission or a means to travel from one spot to another
- a susceptible host.

For a microorganism to be capable of causing disease, all elements discussed above must be present. This is called the chain of infection. You can interrupt the chain by limiting exposure, handwashing, and maintaining effective immunization. Handwashing is the **MOST** important means to prevent infections. You must wash your hands often, but especially:

- upon arrival to your clients house
- before handling clean linen
- before assisting with meal preparation
- after drinking or eating or coughing or sneezing
- after touching anything that may be considered dirty
- after removing disposable gloves
- before touching your hair, face, nose or mouth.

An alcohol-based hand sanitizer that has at least 60% alcohol may be used to clean hands in some situations. To use an alcohol-based hand

rub: apply the recommended amount and rub hands together until your skin is dry.

Remember if your hands are visibly soiled, you must wash them using soap and water and scrub all parts of the hand for at least 20 seconds.

Disposable gloves should be used when contact is possible with blood or body fluids, when there is a break in skin, and when contact with hazardous cleaning fluids or other chemicals. In the home, situations such as providing oral care, toileting assistance, disposing of soiled linens and dressings also require the use of gloves. Gloves should also be worn any time you have a cut or non-intact skin on your hands. Hands should be washed before and after using gloves.

Gowns must be worn during situations when there may be an exposure to bodily fluids. They also should be used when there is a potential to soil or infect your clothing. If you are in the home and find you do not have a gown and you need one, you can make a barrier covering by using a plastic garbage bag cut for your head and arms. But do this only if you do not have immediate access to a gown.

Although working with clients with known infections can be scary, the use of proper precautions can prevent the spread of infections and keep both the client and you safe. Because you may not always know that a client has MRSA or C. diff, it is important to always practice standard infection control practices, whether there is a known infection or not.