What is vancomycin-resistant enterococci (VRE)?

Enterococci are bacteria that are normally present in the human intestines, urinary tract, and in the environment. Enterococci bacteria do not normally cause problems in healthy individuals but can become a problem when they overgrow and cause infection. Vancomycin-resistant enterococci (VRE) have developed resistance to many antibiotics, especially vancomycin.

These infections can occur anywhere in the body but commonly occur in the intestines, urinary tract, and wounds. The symptoms of a VRE infection depend on where the infection is. If VRE is causing a wound infection, that area of your skin may be red or tender. If you have a urinary tract infection, you may have back pain, a burning sensation when you urinate, or a need to urinate more often than usual. Some people with VRE infections have diarrhea, feel weak and sick, or have fever and chills.

Who is most likely to get VRE?

If you are healthy, your chances of getting VRE are very low. Even if you have been exposed to VRE, you are not likely to get an infection. The following increase a person’s risk for becoming infected with VRE:

- Treatment with the antibiotic vancomycin or other antibiotics for extended periods of time.
- Hospitalization, particularly with antibiotic treatment for long periods of time.
- A weakened immune system.
- Surgical procedures such as abdominal or chest surgery.
- Medical devices that remain in place for a period of time such as urinary catheters or central intravenous (IV) catheters.
- When VRE bacteria establish themselves in the body (colonize).

What causes a VRE infection?

VRE, like many bacteria, can be spread from one person to another, most often from hands after contact with other people with VRE. It can also be spread after touching contaminated surfaces or objects. VRE is not usually spread through the air.

Carefully and frequently wash your hands with soap and water by scrubbing them briskly for at least 15 seconds.
Apply hand sanitizer and rub hands together, covering all surfaces of hands and fingers, until hands are dry.

How is VRE diagnosed?
If your doctor suspects that you are infected with VRE, he or she will send a sample from your infected wound, blood, urine, or stool to a lab. The lab will grow the bacteria in a controlled setting to test which kinds of antibiotics kill the bacteria. This test may take several days.

How are infections treated?
If you contract VRE, you may be isolated in a private hospital room to reduce the chances of spreading the bacteria to others. When health care providers are caring for you, they may wear gloves and gowns.

VRE infections may be difficult to cure because the bacteria do not respond to many antibiotics. If you have an infection, your doctor will order antibiotics that may be given by mouth or through an IV (intravenously). Sometimes more than one antibiotic is prescribed to help stop the infection.

How can I prevent VRE?
In the hospital
• Make sure all hospital staff wash their hands or use an alcohol-based hand sanitizer, before touching you.
• Wash your own hands frequently.
• Make sure that intravenous tubes and catheters are inserted under sterile conditions. The health care provider inserting them must wear gloves and sterilize your skin.

When you go home
• If you have wounds or an intravascular device make sure that you know how to properly take care of it.
• Keep your hands clean by washing them thoroughly for at least 15 seconds, rubbing hands vigorously with soap and warm water or using an alcohol-based hand sanitizer. Hand-washing is the best way to avoid infection of any kind. Always wash hands after using the bathroom and before preparing food.
• Wear gloves if you may come in contact with body fluids that may contain VRE, such as bandages from infected wounds. Always wash your hands after removing gloves. Keep wounds clean and covered with sterile, dry bandages until they heal.
• Wash clothing and bedding frequently. Use the hottest water allowed and dry in a hot dryer.

• Keep your environment clean by wiping frequently touched surfaces with a commercial disinfectant.
• Do not share personal items such as towels, razors, clothing, or bedding that touches the skin.
• Use antibiotics appropriately by taking all of the doses, even if the infection is getting better. Never share antibiotics or save unfinished antibiotics for another time. Misuse of antibiotics contributes to resistance. Remember, antibiotics can help treat bacterial infections but they cannot cure viral infections.
• Make sure to tell your health care providers that you have VRE. This includes home health nurses and aides, therapists and personnel in doctors’ offices.

What are hospitals doing to prevent VRE?
In the hospital, people who are infected or colonized with VRE are placed in isolation to prevent the spread of the bacteria. Visitors and health care workers caring for people in isolation may be required to wear protective garments and gloves and must follow strict hand-washing procedures.

Medical and hospital staff must:
• Carefully clean their hands with soap and water or an alcohol-based hand sanitizer, before and after caring for every patient.
• Thoroughly clean hospital rooms and medical equipment.
• Use precautions when caring for patients with VRE by putting on gloves and wearing a gown over their clothing. When leaving the room, health care providers and visitors must discard their gown and gloves and wash their hands.