

West Virginia VRE Workgroup's Information for Employees Regarding Vancomycin-Resistant Enterococcus

What is VRE?

VRE stands for Vancomycin-Resistant Enterococcus. VRE are strains of enterococcus bacteria that have developed resistance to the antibiotic vancomycin and most other antibiotics including aminoglycosides and ampicillin. An individual can be "colonized" with VRE (the bacteria is present but does not cause disease) or "infected" with VRE (the bacteria causes clinically apparent infection or illness). The most common VRE infections are urinary tract infections, wound infections, and bacteremia.

How is VRE transmitted?

Because enterococci are found in the normal gastrointestinal and female genital tracts, most enterococcal infections have been attributed to sources from within the individual patient. However, outbreaks and endemic infections caused by enterococci, including VRE, can occur through patient-to-patient transmission of the microorganism, either through direct contact or through indirect contact via the hands of health care workers or contaminated patient-care equipment/environmental surfaces.

How is VRE treated?

Only VRE infection, not colonization, is treated. VRE infection is difficult to treat because it is resistant to many antibiotics. Therapy is based on the antibiotics to which an individual isolate is sensitive. Often, however, treatment is limited to unproven combinations of antibiotics or experimental therapies. Again, VRE colonization should not be treated.

How can I prevent the spread of VRE?

The goal is to prevent spread of VRE to individuals at risk of VRE infection. "Standard Precautions" should be followed with all patients. Gloves should be worn when contacting VRE infected or colonized individuals or potentially contaminated environmental surfaces. Whether or not gloves are worn, hands should be washed before leaving the room. **Thorough hand cleaning, using an antiseptic soap and warm running water for at least 20 seconds, is the single most important measure necessary to control the spread of VRE.** Gowns are necessary if substantial contact with the patient or environmental surfaces is anticipated.

Other useful measures to prevent development or spread of VRE include the following:

- a. Prudent vancomycin use by clinicians (often best accomplished through antibiotic usage review procedures);
- b. Ongoing staff education regarding the problem of vancomycin resistance;
- c. Early detection and prompt reporting by the microbiology laboratory of vancomycin resistance in enterococci and other gram-positive microorganisms;
- d. Immediate implementation of appropriate infection-control measures to prevent person-to-person transmission of VRE when VRE are identified (i.e. handwashing, glove use, and gowns for substantial contact with the patient or the patient's environment, use of supplies dedicated to the infected or colonized patient, and thorough environmental cleaning);
- e. Clear communication about VRE colonization or infection prior to patient transfers.

Do I need to wear a mask or eye protection?

No, unless splashing of blood and body fluids is anticipated (i.e., follow "Standard Precautions").

Can I wear a patient gown as protective equipment?

No. An impervious/fluid-resistant gown should be utilized when a gown is needed. It does not need to be a sterile gown.

Can the VRE patient room with another patient?

Yes, with another patient colonized or infected with VRE and no other current infections. While placement in a private room or with another VRE case is strongly preferred, if this is absolutely impossible, then placement must be with a resident who is not at increased risk for VRE infection (e.g., does not have vascular lines, catheters, ostomies, wounds, decubiti, etc.) and who has no history of MRSA or MRSE.

Why can VRE patients not be placed with a patient with MRSA?

If MRSA acquired vancomycin resistance, it would become virtually untreatable by conventional methods.

Do I need to do anything special when handling linen, trash, and dishes?

No. Usual facility protocols following “Standard Precautions” are adequate for these items.

What precautions should be taken when transporting and utilizing ancillary departments?

Again, thorough handwashing by employees and the patient is crucial. Employees in ancillary departments should follow other VRE precautions, as well (e.g., gloves and gowns for substantial physical contact with the patient). Patients should be scheduled for procedures during low volume times or at the end of the day so adequate cleaning of equipment or environmental surfaces can be performed.

What precautions should the family or other visitors take?

Visitors should be encouraged to wash their hands with an antiseptic soap and water upon leaving the room of a VRE infected or colonized patient.

Can I catch VRE?

Healthy people are usually not at risk of serious, invasive VRE disease. The danger is passing it on to someone who is. Those at increased risk for VRE colonization and infection include those with severe underlying disease, immunosuppression, and indwelling urinary or central venous catheters.

Will I take VRE home to my family?

Again, healthy people are not usually at risk of serious VRE infection. While VRE can live on linens and clothing, these items generally do not transmit the organism. However, wear a protective garment at work if you are at risk of contaminating your clothing with wound or other body fluids or drainage. If you have contaminated your clothing with wound drainage or other potentially infectious body fluids, change your clothes before going home. Contaminated clothing can be washed as per manufacturer’s instructions with laundry detergent and hot water. Add bleach if heavily soiled. Always thoroughly wash your hands before going home from work.