

Fact sheet for health care professionals

Vancomycin-resistant enterococci (VRE)

What are VRE?

Enterococci (*Enterococcus* species) are a group of bacteria normally found in the gastrointestinal tract of animals and humans, and in the female genital tract. Although usually harmless, these bacteria can be significant pathogens in immune-compromised patients, capable of causing endocarditis, urinary tract, wound and intra-abdominal infections. Bloodstream infection may occur secondary to any of these infections and is particularly difficult to treat.

Vancomycin-resistant enterococci (VRE) are specific strains that have developed resistance to vancomycin, an antibiotic that is commonly used to treat serious infections caused by enterococci. The emergence of enterococci with acquired resistance to vancomycin usually occurs within the context of heavy usage of certain antibiotics in the hospital setting, for example in renal, haematology, liver, organ transplant and intensive care units.

Mode of Transmission

VRE are spread in a similar manner to other multi-resistant organisms – via inadequately decontaminated hands of staff and indirectly via the environment (contaminated surfaces and equipment). VRE are capable of prolonged survival on hands, gloves and environmental surfaces, but can be readily removed by hand hygiene and thorough cleaning of bathrooms and frequently touched surfaces such as door handles, stethoscopes, over-bed tables, call bells, bedside monitors, etc.

Colonised or infected patients who have diarrhoea, faecal incontinence, a colostomy or ileostomy, or whose hygiene practices may be compromised by cognitive or functional impairment, are more likely to contaminate their surroundings.

Why is it important to control the spread of VRE?

Bloodstream infections due to VRE have been shown to be associated with a high morbidity and mortality. Patients who are immune compromised or are in critical care units are especially vulnerable to infection with VRE. Serious infection with VRE is very difficult to treat and is associated with a high mortality rate.

What is SA Health doing about VRE?

SA Health has developed best practice guidelines that includes management and antimicrobial prescribing and also monitors the incidence of VRE infection in hospitals.

Hospitals and other health care settings should have clear written guidelines for the management of patients with VRE, which includes a screening and prevention program that is based on the SA Health VRE Guidelines.



It is important that all clinical staff are aware of and understand these guidelines; if you need further clarification please contact someone from your infection control team.

Are healthcare workers at risk?

VRE poses minimal risk to healthy staff; and this risk is further minimised by adherence to correct hand hygiene and environmental and shared patient equipment cleaning procedures.

How can healthcare workers assist?

Healthcare workers can assist efforts to reduce the incidence and spread of VRE by adhering to the healthcare facility's management policies and guidelines.

Staff should be aware of, and implement, the required contact precautions when dealing with known VRE infected or colonised patients, such as the wearing of appropriate personal protective equipment and performing hand hygiene according to the SA Health Hand Hygiene Policy Directive³.

VRE screening protocols

The hospital should have a strategy for testing for VRE carriage in certain high risk patient groups (refer to local protocols). This allows for the earliest possible identification and decreases the risk of cross-transmission to other susceptible patients. Patient groups that are generally targeted for screening include:

- > All patients admitted to an ICU, transplant, haematology or renal unit
- > All patients who have spent any time in an ICU, transplant, haematology or renal units in the last three months.

Confidentiality

As for any other medical information, it is the responsibility of all staff within the hospital to maintain the confidentiality of VRE patients with regard to their condition.

A patient's VRE status should not be allowed to compromise their care, nor should a person be refused admission to any facility based on their VRE status.

References

1. SA Health Guidelines for the Management of Patients with Vancomycin-resistant enterococci (VRE) Colonisation/Infection. June 2015.
2. Centers for Disease Control and Prevention, Vancomycin-resistant Enterococci (VRE) in Healthcare Settings website: <http://www.cdc.gov/hai/organisms/vre/>
3. SA Health Hand Hygiene Policy Directive. Available at: <http://www.sahealth.sa.gov.au/HandHygiene>

For more information

Infection Control Service
Communicable Disease Control Branch
Telephone: 1300 232 272
www.sahealth.sa.gov.au/infectionprevention

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