

# VRE in Tasmanian Rural Hospitals

Guidance for the management of patients with  
VRE in Tasmanian Rural Hospitals

V1.0

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Tasmania  
Explore the possibilities

FINAL DRAFT

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## **SCOPE**

This document provides guidance to Tasmania's rural hospitals. Specifically, the guidance relates to inpatients in Tasmania's rural hospital acute or sub acute beds. Refer to guidance on *VRE in Non-Acute Settings* for additional information.

The management of patients with Vancomycin resistant enterococci (VRE) is complex and requires a risk management approach. Information contained in this document is generic and the management of patients with VRE should be done using a risk management approach, consistent with the [Australian Guidelines for the Prevention and Control of Infection in Healthcare \(2010\)](#) along with other reputable guidance.

## **What is VRE?**

Enterococci are bacteria that are intrinsically resistant to a number of antibiotics, such as aminoglycosides and penicillins. Vancomycin resistant enterococci (VRE) were first described in the mid 1980s and have subsequently been reported worldwide. VRE colonisation is more common than infection and is an important risk factor for subsequent VRE infection. The consequences of infection with VRE are serious and the costs associated with controlling an outbreak can be substantial.

In Tasmania, VRE is a notifiable disease. Therefore, pursuant to the Public Health Act (1997), additional information about the affected person may be sought from Public Health or the Tasmanian Infection Prevention & Control Unit (TIPCU).

## **Colonisation or Infection**

It is important to understand the difference between colonisation and infection. Like many bacteria, VRE can live harmlessly on a person's body, a situation called "colonisation". Simply because a person has "VRE" does not mean they have a VRE infection.

A formal definition of colonisation is "a microbe that establishes itself in a particular environment, such as a body surface, without producing disease". Colonisation with VRE is often found in the gastrointestinal tract and therefore found around the anal area or in faeces.

In contrast, infection is defined as "the entry of a microbe into the body and its multiplication in the tissues resulting in disease". VRE infection occurs most frequently in the urinary tract and the bloodstream.

**For the purposes of this document and to assist in a practical manner, VRE infection is defined as person who has VRE identified from a clinical sample AND is currently receiving VRE specific antimicrobial therapy. This is unlikely to occur outside acute hospitals.**

## **Precautions Required**

**Standard precautions must be applied when providing care to any individual, regardless of diagnosis or presumed infection status. Therefore, when caring for any patients with VRE infection or colonisation, standard precautions must be used.** The TIPCU have developed a guide on standard precautions, consistent with the Australian Guidelines for the Prevention and Control of Infection in Healthcare (2010) [www.dhhs.tas.gov.au/tipcu](http://www.dhhs.tas.gov.au/tipcu)

Transmission based precautions are generally **not** required for VRE outside of the acute hospital setting (see TIPCU website for details on transmission based precautions). However, in some circumstances, transmission based precautions may be appropriate.

To determine whether a person with VRE colonisation or infection requires transmission based precautions you need to consider:

- The status of the infection (e.g. site, exudate etc)
- Possible transmission routes
  - Is the resident continent or incontinent of faeces? (VRE is commonly found in faeces)
  - If the resident is incontinent, is the incontinence contained (e.g. an incontinence pad)?
- The ability of the individual to comply with instructions (eg able to undertake appropriate hand hygiene)

### **Summary of VRE Precautions Needed**

#### VRE Colonisation

- Standard precautions are needed
- Transmission based precautions are only needed if
  - the patient is incontinent AND
  - the incontinence is not contained AND
  - there is a risk of transmission to others\*

\* A further consideration is whether a patient is receiving antimicrobial therapy. Contact the TIPCU or an Infection Control Professional for advice.

#### VRE Infection

- Standard precautions are needed
- Transmission based precautions are only needed if the VRE infection
  - Results in a wound or drainage that cannot be contained (e.g. not covered by a dressing)
  - Is a urinary tract infection and the patient is incontinent and the urine cannot be contained

### **“Screening” For VRE**

Screening for VRE refers to taking specimens from specific sites (faeces or faecal swab) to try and identify whether a person has VRE colonisation.

**If a person had previously been identified as colonised with VRE, it is assumed they will be indefinitely colonised and therefore repeat screening is not required or recommended.**

### **Patient Admissions**

The TIPCU does **not** recommend routine screening for VRE for patients admitted to rural hospitals. For example, community, Emergency Department, GP or home settings.

### **Patient Transfers**

Screening of patients transferred from acute hospitals to rural hospitals is recommended in the following situations:

- Direct transfers from acute hospitals, where the patient has had an overnight admission

**AND**

- The patient being transferred has had surgery and has a surgical wound **OR**
- There are other inpatients in the rural hospital
  - that have had surgery and have a surgical wound or
  - are immuno-compromised

**A summary of this is contained in [Appendix A](#)**

If screening is to occur

- it should occur immediately upon **receiving** the transferred patient. You should not ask or wait for a screen to be undertaken before the patient is transferred.
- A sample should be taken, either
  - Faeces OR
  - rectal swab (with evidence of faecal material)

Ongoing Screening of known VRE Patients

The TIPCU does **not** recommend ongoing routine screening for VRE in rural hospitals. If a patient has previously been identified as being positive for VRE colonisation should be assumed. Repeat screening is therefore not warranted.

There may be exceptions when screening is appropriate in an individual patient's management or in the investigation of an institutional outbreak. This should occur as part of a robust organisational infection control program and when support is available from a specialist infection control professional, infectious disease physician or microbiologist.

## **Staff screening**

The TIPCU does **not** recommend screening of staff for VRE in non acute settings. This includes screening of staff caring for a patient identified as having VRE.

Healthcare workers that have an existing infection with VRE, identified by a medical practitioner, for example a skin lesion or wound, should seek medical advice regarding treatment and exclusion from work.

## **Practical Issues**

### **Cleaning**

VRE can be transmitted between persons via indirect contact. For example, a patient with VRE may 'shed' it into the environment. A healthcare worker could subsequently touch a contaminated object, therefore contaminating their hands. This is why hand hygiene (the '5 Moments' model) is so important. The transmission of VRE in the example described would be prevented simply by performing hand hygiene appropriately.

As an added measure, cleaning can reduce the amount of VRE found in the environment and reduce the risk of indirect transmission of VRE.

- A neutral detergent\* is recommended for the cleaning of rooms of residents who have VRE and who are under Standard Precautions. Particular attention should be paid to frequently touched objects such as bed rails, bed side tables and door handles.
- A patient with a heavily exudating infected wound that cannot be adequately covered requires more frequent room cleaning (e.g. twice daily) and the use of a disinfectant

is recommended after cleaning with detergent. (This is a two-step process, detergents and disinfectants should not be mixed together)

- The person cleaning the room does not need to take any additional precautions, standard precautions apply.
- Routine screening/swabbing of the environment is not warranted or recommended.
- No special requirements are needed regarding the cleaning of dishes, cups or eating utensils

\* A disinfectant should be used in addition to detergent, in the case of patients who are under transmission based precautions.

## Single Room Placement

As described earlier, transmission based precautions are generally **not** required outside of the acute care environment.

Patients with VRE in rural hospitals do **not** need to be placed in a single room and can join residents in shared rooms e.g. day rooms. Education and compliance with hand hygiene is important and must be reinforced to all staff and the individual resident.

In some rarer circumstances, contact precautions and therefore single room placement may be needed. Examples of when this might be considered include a resident known to have VRE with uncontrolled faecal incontinence, diarrhoea, enterostomies or VRE infected discharging wounds that cannot be contained or when the resident is unable to comply with basic hygiene practices.

If you are faced with such a situation, further advice could be sought from an infection control professional/TIPCU.

### Summary points:

- Persons with VRE colonisation or infection may join other residents in communal areas such as sitting or dining rooms. Prior to joining communal area, the resident should have performed hand hygiene, have all wounds covered and wear continence aids, if required
- They may receive visitors and go out of the home, for example to see their family or friends.

### Practical points

- You should complete any procedures on other residents before attending to dressings or carrying out other nursing care for residents with VRE infection
- You should carry out any clinical procedures and dressings on a resident with VRE in the resident's own room where possible.

**If residents colonised with VRE have performed hand hygiene, all wounds are covered and faecal incontinence is controlled then they can participate in all activities.**

## Visitors

Visitors should be requested to perform hand hygiene when leaving the resident's room and after visiting.

## Laundry

Residents' clothing may be taken home in a plastic bag for washing or may be washed on site as per usual procedure. A normal wash cycle can be used in accordance with AS/NZS 4146:2000.

**A summary of VRE management in rural hospital acute and sub-acute beds is contained in [Appendix B](#)**

## **Transfers to Acute Hospitals**

If a resident with VRE requires treatment or admission to an acute hospital, you should communicate this information to the hospital, preferably in writing as part of your usual documentation process (e.g. transfer document). The TIPCU have developed an infection control risk transfer document should you wish to use it (see TIPCU website)

## **Transfers from Acute Hospitals**

In Tasmanian acute hospitals, certain patient groups or patients with specific 'risk factors' may be screened for VRE on admission. By doing this, patients with VRE are identified and measures are put in place to reduce the risk of transmission. One reason for doing this is that in acute hospitals, invasive and or high risk procedures are more common. In such circumstances VRE infection can have serious implications. As a result of screening, patients who are admitted to acute hospitals have a greater chance of being identified with VRE.

If you have a resident being transferred to you from an acute hospital with VRE, it may mean they had VRE before they went to hospital (identified on admission) or they have acquired VRE whilst in hospital.

A person with VRE should not be refused admission to a rural hospital. A person with VRE does not generally require any additional precautions in rural hospitals compared to any other resident, as demonstrated by the guidance in this document.

**There is often a great deal of undue concern in rural hospitals and non-acute settings about the spread and significance of VRE - sometimes people with VRE have been refused admission to a facility when ready for discharge from hospital. This can be distressing and cause difficulty for affected patients and their families. The situation has arisen because of some confusion about the nature of VRE and the type of infection that it may cause. There is no justification for discriminating against people who have VRE by refusing them admission to a facility or by treating them differently from other residents.**

## **Clearing VRE**

There is currently no proven reliable way of eradicating VRE from colonised patients. Persons who have been colonised or infected with VRE are generally regarded as being colonised for life.

## **Points to Remember**

- **Hand hygiene is the most important way to prevent the transmission of infections.** The TIPCU recommends the use of the '5 moments' of hand hygiene model. Information regarding hand hygiene can be found on the [TIPCU website](#) or Hand Hygiene Australia website – [www.hha.org.au](http://www.hha.org.au)

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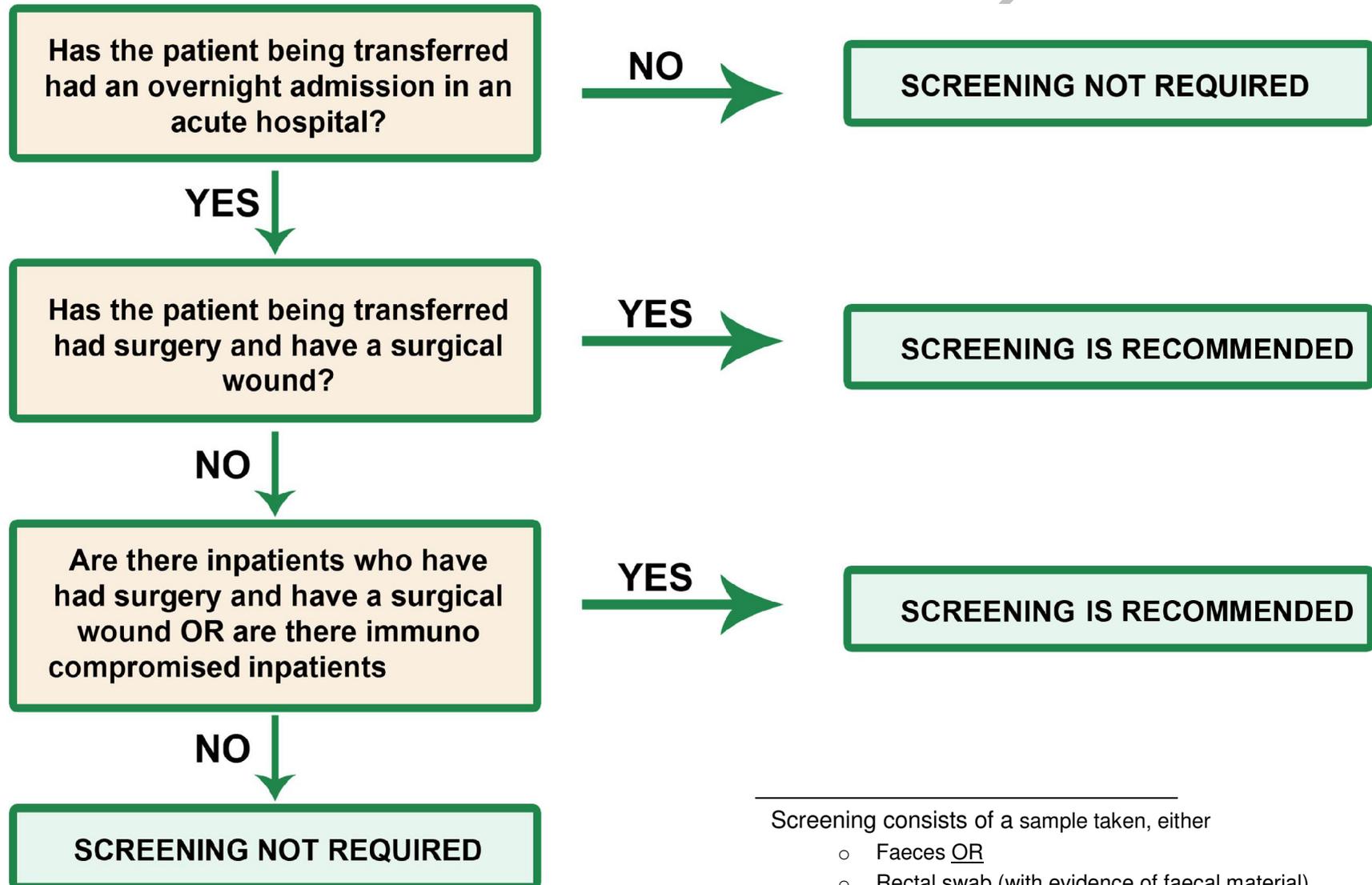
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**VRE FLOW CHART FOR SCREENING**  
**Rural Hospitals (Acute/ Sub acute Patients)**



**Management Summary – VRE Rural Hospitals For Acute/ Sub acute Beds**

Is it colonisation or infection? →

	<b>VRE Colonisation</b>	<b>VRE Infection<sup>1</sup></b>
<b>Precautions</b>	<b>STANDARD</b>	<b>STANDARD + TRANSMISSION BASED PRECAUTIONS IF INFECTION IS NOT CONTAINED</b>
<b>Single Room Placement</b>	Not required (If faecally incontinent and faeces cannot be contained, discuss with infection control professional/ TIPCU)	Not Required (exceptions apply - see page 7 for examples of when Single Room Placement <u>is</u> required)
<b>Cleaning</b>	Detergent followed by disinfectant No environmental swabs needed	Detergent followed by disinfectant No environmental swabs needed
<b>Visitors</b>	Hand hygiene	Hand hygiene

<sup>1</sup> VRE identified by lab and receiving VRE specific antimicrobial therapy



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