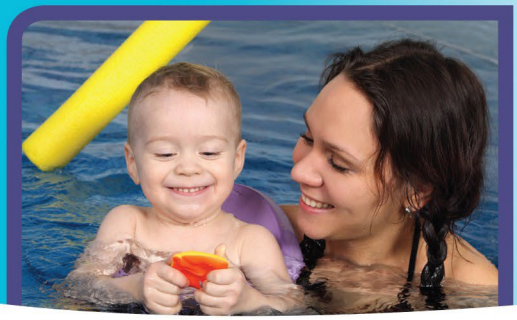
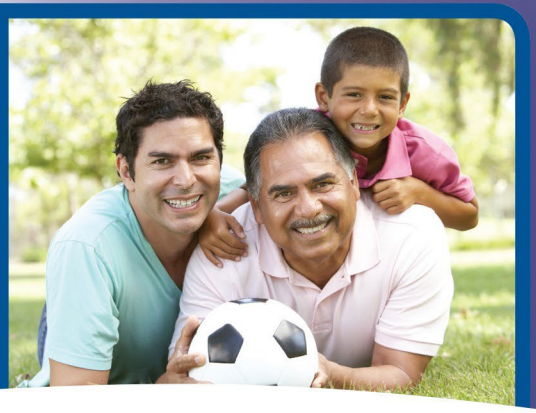
Vancomycin resistant enterococci (VRE)

Surveillance protocol version 6







Department of Health

Tasmanian Government

Vancomycin resistant enterococci (VRE) surveillance protocol V6

Public Health Services

Department of Health, Tasmania

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Contents

Background

Enterococci are Gram-positive bacteria that are normally present in the human gastrointestinal tract, and female genital tract. Some enterococci have acquired resistance to the antibiotic vancomycin, and these enterococci are called vancomycin-resistant enterococci or VRE.

Enterococci can cause several infections including urinary tract infections, wound infections and more rarely, bloodstream infections. VRE infections can be more difficult to treat than those caused by enterococci sensitive to vancomycin.

Tasmanian laboratory identified VRE is notifiable under the *Public Health Act* 1997, thus all VRE cases identified in Tasmania are notified to the Director of Public Health by the identifying Tasmanian laboratory.

The Tasmanian Infection Prevention and Control Unit (TIPCU) monitors and reports on VRE identified within Tasmania in accordance with the surveillance methods outlined in this protocol.

Surveillance objectives

1. To monitor VRE cases, clusters and trends with VRE with respect to person, place and time, and emergence of antibiotic resistance.
2. To provide surveillance data to local stakeholders.
3. To inform the planning and implementation of evidence-based policy, service provision, prevention strategies and other public health interventions.

Definitions

Screening specimen – a rectal swab and/or faecal specimen that identifies VRE.

Clinical specimen – any other specimen that identifies VRE.

Relevant personnel – person/s external to Public Health Services who cross-checks VRE data; this is usually infection prevention and control personnel or healthcare workers in residential aged care facilities (RACF).

Case definition

- A case of *E. faecalis* or *E. faecium* non-susceptible to vancomycin (i.e. vancomycin MIC > 4 mg/L) and/or *E. faecalis* or *E. faecium* containing vanA and/or vanB gene.

Inclusions

- The first case is recorded as a clinical specimen or a screening specimen with the clinical site recorded for clinical specimens.
- Subsequent specimens from the case are recorded if:
    - the specimen is a clinical specimen where the first specimen was a screening specimen;
    - the specimen is a blood culture, with a maximum of three blood cultures episodes being recorded for each case with a minimum of 14 days between each positive blood culture.

Exclusions

- Repeat positive screening specimens, clinical specimens, or blood cultures where ≤ 14 days have elapsed since the previous positive blood culture.
- Duplicate results of the same specimen.

Data collection process

- All VRE cases identified in Tasmania are notified to Public Health Services (PHS) by the identifying laboratory.
- TIPCU assess whether the VRE case meets the case definition and enters the relevant laboratory and demographic information.
- Identifying laboratories perform at a minimum, a quarterly data extraction of all VRE cases identified within Tasmania and securely transmit the extracted data to TIPCU.
- TIPCU cross check the data extraction against VRE cases notified to PHS within the same quarter.
- Any discrepancies are investigated by TIPCU and the identifying laboratory.
- The VRE data is sent to the relevant personnel quarterly for enhanced data collection and cross checking against their own data set and returned to TIPCU.
- TIPCU make any changes or additions to the final version of the data.

Data collection responsibilities

	Notification	Data
Laboratory	Notifies PHS of result.	• Hospital identification number where available. • Date of birth. • Surname. • Sex. • Specimen date. • Specimen laboratory number. • Specimen site. • Name of organism. • VRE genotype (when done). • Antibiotic susceptibilities (when done).
TIPCU	Identifies if the VRE specimen meets the case definition. First specimen: • Enters minimum patient/client data. • Sends data to relevant personnel to cross-check the notification with their own data. • Enters returned data and makes any changes. Subsequent clinical specimen: • Enters details of clinical specimen. into the patient/client details. VRE BSI: • Requests suspected source of blood stream infection. Duplicate results are discarded.	For first case: • Hospital identification number when not provided by laboratory. • Indigenous status. • Postcode. • Hospital code. • Laboratory code. • Type of specimen - clinical (site) or screening. For all and subsequent clinical specimens including blood cultures: • Specimen date. • Specimen site. • Specimen laboratory number. • VRE species. • VRE genotype (when done). • Hospital code.
Relevant personnel	Cross-checks new VRE specimens sent from TIPCU with laboratory data. Records suspected source of VRE BSI episode/s.	• Enters missing data. • Corrects erroneous data.

Reporting

TIPCU produce publicly available, annual surveillance reports that are available online and on request from TIPCU.

Optional attribution surveillance

TIPCU do not perform attribution or acquisition surveillance but suggest that the following definitions be used for hospitals who wish to locally report or designate whether a new VRE case was attributed to a healthcare facility or the community.

Healthcare-associated VRE – the new VRE case was identified ≥48 hours after admission OR was linked to a previous hospital admission where the last discharge date is within four weeks of the first VRE case.

Community-associated VRE - the new VRE case was identified ≤48 hours after admission **AND** the event was not linked to a previous admission where the last discharge date is within four weeks of the first VRE case.

Information management

All information held by TIPCU is in accordance with the information privacy principles as set out in the *Personal Information Privacy Act 2004*.

Information shared by laboratories (public and private) pursuant to the *Public Health Act 1997* is held in accordance with the *Personal Information Privacy Act 2004*.

Refer data or information requests to the Director of Public Health or delegate.