



Xpert®
vanA/vanB



 **Xpert® *vanA/vanB***

The first accurate & rapid test to assist
with VRE outbreak management and surveillance.

45-minutes. No compromises.

  In Vitro Diagnostic Medical Device

 **Cepheid®**
A better way.

Effective prevention of healthcare-associated VRE infections begins with active surveillance programs that facilitate timely interventions to decrease the spread of VRE. Cepheid's Xpert® vanA/vanB delivers on-demand results in less than an hour, reducing the window for potential transmissions from days to minutes. Rapid intervention can prevent VRE transmissions — improving patient care and reducing costs¹ for healthcare facilities.



The Need

VRE: A growing concern

The European Antimicrobial Resistance Surveillance System indicates that infection rates with vancomycin-resistant enterococci (VRE) are increasing, particularly in countries with high MRSA prevalence.²

- The proportion of invasive vancomycin resistant *E. faecium* isolates reached 27% in Greece, 38% in Ireland, 23% in Portugal, 13% in the UK and 15% in Germany²
- The percentage of invasive vancomycin resistant *E. faecalis* was found to be more than 6% in Greece, more than 4% in Portugal and greater than 2% in the UK and Italy²

Recommendations

CDC, SHEA and WHO have put forward the following guidelines on how to reduce VRE infections:^{3, 4, 5}

- Comprehensive surveillance for targeted Multi-Drug Resistant Organisms; especially for those at high risk⁵
- Judicious use of antibiotics
- Application of infection control precautions during patient care
- Education and training of healthcare personnel
- Environmental cleanliness
- Decolonization therapy when appropriate

The Solution

Important healthcare benefits of rapid screening:

- Allows for an immediate identification of VRE carriers from non-carriers
- Rapid implementation of barrier precautions
- Early identification improves patient bed management

Performance

Performance characteristics of the Xpert® vanA/vanB Assay compared to vanA and vanB Direct culture method

XPert® VANA/VANB VS. DIRECT CULTURE VANA/VANB

| | SENSITIVITY | SPECIFICITY | PPV | NPV |
|----------|-----------------|------------------|-----------------|-----------------|
| PERIANAL | 92.5% (52/56) | 88.7% (331/373) | 55.3% (52/94) | 98.8% (331/335) |
| RECTAL | 98.9% (86/87) | 80.5% (528/656) | 40.2% (86/214) | 99.8% (528/529) |
| TOTAL | 96.5% (138/143) | 83.5% (859/1029) | 44.8% (138/308) | 99.4% (859/864) |

Performance characteristics of the Xpert vanA/vanB Assay compared to vanA and vanB Enriched culture method

XPert® VANA/VANB VS. ENRICHED CULTURE VANA/VANB

| | SENSITIVITY | SPECIFICITY | PPV | NPV |
|----------|-----------------|------------------|-----------------|-----------------|
| PERIANAL | 86.8% (59/68) | 90.3% (327/362) | 62.8% (59/94) | 97.3% (327/336) |
| RECTAL | 94.2% (114/121) | 81.2% (614/756) | 44.5% (114/256) | 98.9% (614/621) |
| TOTAL | 91.5% (173/189) | 84.2% (941/1118) | 49.4% (173/350) | 98.3% (941/957) |

Performance characteristics of Xpert vanA/vanB were determined in a multi-site prospective investigation study.

Rapid and Accurate. Xpert[®] vanA/vanB

- Fully automated process reduces handling time to just minutes
- Random access for flexibility and workflow optimization
- Rapid results to improve patient management
- Fully integrated reagent and instrument system for accuracy and reproducibility

WORKFLOW:

5 Easy Steps

Total hands-on time: 2 Minutes

| | | | | |
|---|---|---|--|---|
| <p>1</p> <p>Insert swab into Sample Reagent vial and break</p>  | <p>2</p> <p>Vortex and dispense Sample into Port 5</p>  | <p>3</p> <p>Dispense Reagent 1 into Port 1</p>  | <p>4</p> <p>Dispense Reagent 2 into Port 2</p>  | <p>5</p> <p>Insert Cartridge and start assay</p>  |
|---|---|---|--|---|

ORDERING INFORMATION

Xpert[®] vanA/vanB (10 Cartridges with Reagents) Catalog No. GXVANA/B-CE-10

References:

1. Montecalvo et al (2001) Infect Control Hosp Epidemiol 22:437-442.
2. European Antimicrobial Resistance Surveillance System, <http://www.rivm.nl/earss>. 17 July 2009.
3. Siegel et al (2007) Am J Infect Control 35 (10 Suppl 2):S165-93.
4. Muto et al (2003) Inf Control Hosp Epidemiol 24:362-386.
5. WHO 2004. Practical Guidelines for Infection Control in Healthcare facilities. SEARO Regional Publication No. 41.



The molecular revolution is here.

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