

**Xpert®**  
*vanA/vanB*



## **Xpert® *vanA/vanB***

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

*45-minutes. No compromises.*

**CE** **IVD** 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 costs<sup>1</sup> 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.<sup>2</sup>

- 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 Germany<sup>2</sup>
- 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 Italy<sup>2</sup>

### Recommendations

CDC, SHEA and WHO have put forward the following guidelines on how to reduce VRE infections:<sup>3, 4, 5</sup>

- Comprehensive surveillance for targeted Multi-Drug Resistant Organisms; especially for those at high risk<sup>5</sup>
- 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

## XPRT® *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

## XPRT® *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<sup>®</sup> 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> 
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## ORDERING INFORMATION

Xpert<sup>®</sup> 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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