

**Xpert®**  
*vanA/vanB*



*45-Minutes. Screen, detect, prevent.*

## **Xpert® vanA/vanB**

An accurate, rapid test to identify patients colonized with vancomycin-resistant enterococci (VRE).

The cornerstone of control measures for vancomycin-resistant enterococci (VRE) is the early recognition of colonized patients by rapid and accurate screening tests.

Xpert® *vanA/vanB* allows rapid decisions to be made regarding the best infection control strategies for VRE identified patients at transfer and admission that result in better patient management and substantial cost savings.<sup>1</sup>



## THE NEED

### VRE: A growing concern

Data from the European Antimicrobial Resistance Surveillance System indicates that infection rates with VRE are increasing, particularly in countries with high MRSA prevalence.<sup>2</sup>

- The proportion of invasive vancomycin-resistant *Enterococcus faecium* isolates reached 17% in Greece, 44% in Ireland, 23% in Portugal, 13% in the UK, and 16% in Germany<sup>2</sup>
- The percentage of vancomycin-resistant *E. faecalis* isolates from healthcare-associated infections varies from 4.2% in Spain to 17.8% in Portugal<sup>2</sup>

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

### Xpert *vanA/vanB* provides the following benefits:

- An accurate on-demand PCR test that will allow rapid identification of VRE carriers for better patient and infection control management
- A rapid actionable result in 45 minutes for immediate implementation of barrier precautions to minimize the spread to other patients
- Early identification of VRE patients at admission and transfer to improve bed management and cost
- Enhanced surveillance of Multi-Drug Resistant Organisms (MDRO) with high risk patients to improve overall antibiotic stewardship



# THE IMPACT

With the GeneXpert® System you get both speed and accuracy in a single test cartridge. By providing the most efficient PCR test for VRE you will accelerate your laboratory’s workflow with on-demand, random-access flexibility. Combining performance with the ability to run other tests (GBS, MRSA, *C. difficile*, Flu, etc.) will give you proven efficiency by having true menu consolidation on only one instrument, with less than 1 minute of hands-on time and actionable results in 45 minutes.

## Shift your lab from reactive to proactive

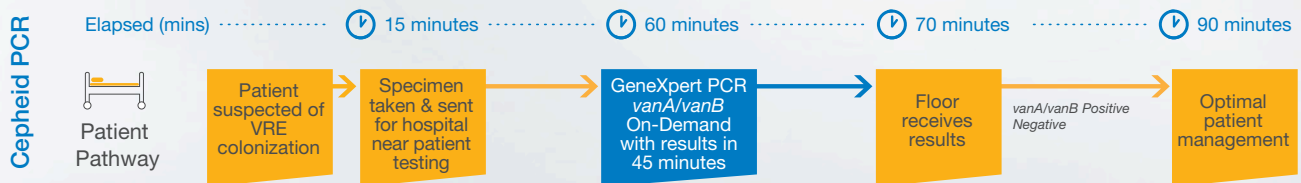
- Receive a rapid result allowing for same day containment and improved infection control management
- Deliver actionable results to the clinician in 45 minutes with an on-demand test
- Implement an “optimal patient management” or “infection control intervention” faster for enhanced outcome



## IMPACT ON OUTPATIENT PATHWAY

### An actionable answer in 45 minutes

Xpert® *vanA/vanB* provides useful and timely information to clinicians for improved infection control management.



## PERFORMANCE

Performance characteristics of Xpert® *vanA/vanB* compared to *vanA* and *vanB* direct culture method.

### XPRT VAN A/VAN B VS. DIRECT CULTURE VAN A/VAN B

	Sensitivity	Specificity	PPV	NPV
<b>Perianal</b>	92.5% (52/56)	88.7% (331/373)	55.3% (52/94)	98.8% (331/335)
<b>Rectal</b>	98.9% (86/87)	80.5% (528/656)	40.2% (86/214)	99.8% (528/529)
<b>Total</b>	<b>96.5% (138/143)</b>	<b>83.5% (859/1029)</b>	<b>44.8% (138/308)</b>	<b>99.4% (859/864)</b>

Performance characteristics of Xpert® *vanA/vanB* compared to *vanA* and *vanB* enriched culture method.

### XPRT VAN A/VAN B VS. ENRICHED CULTURE VAN A/VAN B

	Sensitivity	Specificity	PPV	NPV
<b>Perianal</b>	86.8% (59/68)	90.3% (327/362)	62.8% (59/94)	97.3% (327/336)
<b>Rectal</b>	94.2% (114/121)	81.2% (614/756)	44.5% (114/256)	98.9% (614/621)
<b>Total</b>	<b>91.5% (173/189)</b>	<b>84.2% (941/1118)</b>	<b>49.4% (173/350)</b>	<b>98.3% (941/957)</b>

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





## WORKFLOW:

# 3 EASY STEPS

Total hands-on time: <1 Minute

1

Insert swab into Sample Reagent vial and break



2

Vortex and dispense Sample into Port S



3

Insert cartridge and start assay



➤ **Xpert® *vanA/vanB* is a qualitative *in vitro* diagnostic test designed for rapid detection of vancomycin-resistance (*vanA/vanB*) genes.**

CATALOG NUMBER

Xpert *vanA/vanB* (10 tests) .....GXVANA/B-CE-10

### References:

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2. European Centre for Disease Prevention and Control. Antimicrobial resistance surveillance in Europe 2012. Annual Report of the European Antimicrobial Resistance Surveillance Network (EARS-Net). Stockholm: ECDC. 2013.
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4. Muto CA, et al. SHEA Guideline for Preventing Nosocomial Transmission of Multidrug-Resistant Strains of *Staphylococcus aureus* and *Enterococcus*. *Infect Control Hosp Epidemiol*. 2004;24:362-86.
5. World Health Organization. Practical Guidelines for Infection Control in Healthcare facilities. SEARO Regional Publication No. 41. 2004.

### CORPORATE HEADQUARTERS

904 Caribbean Drive  
Sunnyvale, CA 94089 USA

TOLL FREE +1.888.336.2743  
PHONE +1.408.541.4191  
FAX +1.408.541.4192

### EUROPEAN HEADQUARTERS

Vira Soleih  
81470 Maurens-Scopont France

PHONE +33.563.82.53.00  
FAX +33.563.82.53.01  
EMAIL [cepheid@cepheideurope.fr](mailto:cepheid@cepheideurope.fr)

[www.Cepheidinternational.com](http://www.Cepheidinternational.com)