

Xpert®
vanA



 **Xpert® vanA**

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

45-minutes. No compromises.

 **Cepheid®**
A better way.



Xpert[®] *vanA* empowers clinicians to make critical decisions at the time it is needed most, thereby improving the quality of patient care while reducing cost.



The Need

According to the Centers for Disease Control and Prevention (CDC), *Enterococci* cause about 1 of every 8 hospital infections with 30% of those infections, caused by Vancomycin-Resistant *Enterococci* (VRE)¹. However, VRE can be even more prevalent in high risk groups, such as immunocompromized and ICU patients.

The human and financial impact of VRE is high²:

- Attributable mortality: 10%
- Extended length of stay: 6.2 days
- Incremental cost: \$12,800

The Solution

The CDC and SHEA have both published guidelines on how to reduce or eliminate healthcare associated infections^{3,4}. As a part of a quality infection control program, Cepheid's Xpert[®] *vanA* provides:

- Immediate and accurate detection of the *vanA* gene most closely associated with VRE colonization
- Superior NPV required in a surveillance test
- Easy-to-use test with less than 2 minutes hands-on-time

Performance

Performance characteristics of **Xpert® vanA** were determined in a multi-site prospective investigation study by comparing Xpert *vanA* run on the GeneXpert® System with direct culture with bi-directional sequencing.

XPRT VAN A PERFORMANCE VS. DIRECT CULTURE WITH BI-DIRECTIONAL SEQUENCING

		Direct Culture + Sequencing		
		POSITIVE	NEGATIVE	TOTAL
Xpert <i>vanA</i> Test	POSITIVE	126	84	210
	NEGATIVE	2	1019	1021
	TOTAL	128	1103	1231

% POS AGREEMENT: **98.4%**
 % NEG AGREEMENT: **92.4%**
 ACCURACY: **93.0%**
 PPV*: **60.0%**
 NPV*: **99.8%**
 PREVALENCE: **94.0%**

*Positive predictive value; Negative predictive value

Reproducibility

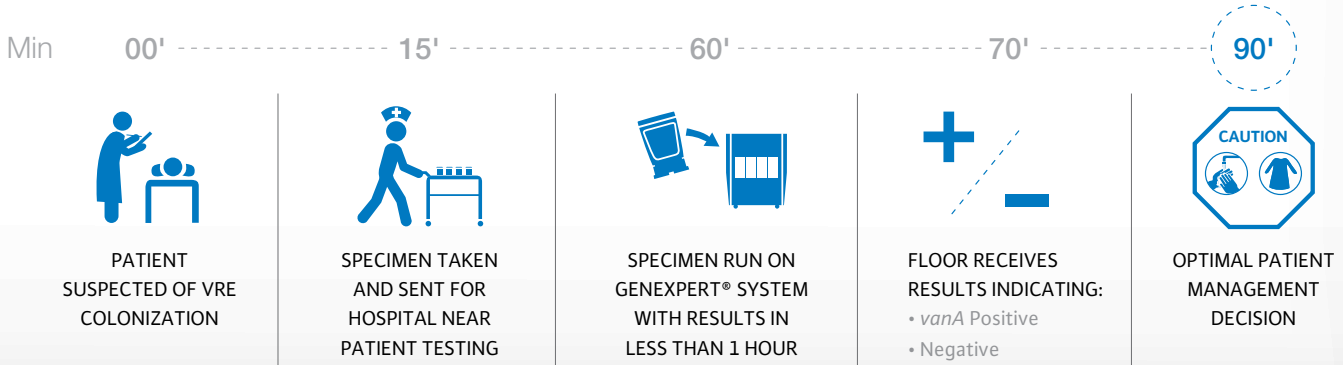
A panel of four specimens with varying concentrations of *vanA* were tested on 10 different days by two different operators at each of three sites (4 specimens x 2 operators/day x 10 days x 3 sites).

SUMMARY OF REPRODUCIBILITY RESULTS

Speciman ID	% Agreement			% Total Agreement by Sample
	Site 1	Site 2	Site 3	
Negative	100% (20/20)	90% (18/20)	100% (20/20)	96.7% (58/60)
<i>vanA</i> High Negative	100% (20/20)	100% (20/20)	95% (19/20)	98.3% (59/60)
<i>vanA</i> Low Positive	100% (20/20)	100% (20/20)	100% (20/20)	100% (60/60)
<i>vanA</i> Moderate Positive	100% (20/20)	95% (19/20)	100% (20/20)	98.3% (59/60)
% Total Agreement by Site	100% (80/80)	96.3% (77/80)	98.8% (79/80)	98.3% (236/240)

Answer you need in 90 minutes or less

Xpert *vanA* provides useful and timely information to clinicians for improved patient management.



Rapid and Accurate. Xpert® vanA

- Fully automated process reduces handling time to just a minute
- Random access for flexibility and workflow optimization
- Fully integrated reagent and instrument system for accuracy and reproducibility

WORKFLOW:

3 Easy Steps

Total hands-on time: 1 Minute



ORDERING INFORMATION

Xpert® vanA (10 cartridges with reagents) Catalog No. GXVANA-10

References:

1. http://www.cdc.gov/ncidod/dhqp/ar_VRE_publicFAQ.html
2. Carmeli et al., "Health and Economic Outcomes of Vancomycin-Resistant *Enterococci*". Archives of Internal Medicine 2002; 162:2223-2228.
3. Siegel, Jane, et al. "Management of Multidrug-Resistant Organisms In Healthcare Settings, 2007," Center for Disease Control, 2007.
4. Muto, Carlene, et al. "SHEA Guideline for Preventing Nosocomial Transmission of Multidrug-Resistant Strains of *Staphylococcus aureus* and *Enterococcus*", Infect Control Hosp Epidemiol 2003; 24:362-386.

Cepheid.



The molecular revolution is here.

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