

■ Xpert®MRSA/SABC

Detection of Life Threatening MRSA and SA in Positive Patient Blood Culture Bottles in About an Hour



"In an era of escalating antimicrobial resistance and lack of new antibiotic discovery, the most efficacious and timely method for S. aureus bacteremia detection and antibiotic therapy with de-escalation are needed. The Xpert® MRSA/SA BC test, in conjunction with an ID PharmD intervention, provides increased clinical and economic benefits in our institution."



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The Need

Blood stream infections are a major healthcare concern:

- Severe sepsis strikes 750,000 people annually in the U.S., resulting in mortality rates of up to 50%.¹ MRSA and S. aureus are the causative pathogen in up to 35% of severe sepsis cases²
- Current culture-based lab testing methods for gram positive blood culture bottles require an additional 18– 48 hours for determination of MRSA or SA
- In the absence of timely diagnostic results, clinicians often employ empiric treatment approaches, using broad-spectrum antimicrobial therapies that can be costly, ineffective and contribute to an increase in drug resistance³

The Solution

On-demand molecular testing — an ideal solution:

- Results from positive blood culture bottles available in about one hour for both MRSA and SA
- Outstanding clinical performance
- · Results available around the clock
- Easily integrates into institution septic bundle processes¹

Critical healthcare benefits in rapid detection:

A recent clinical study (5) showed that using the Xpert MRSA/SA BC test results coupled with an infectious disease pharmacists consultation resulted in:

- Switch to optimum antimicrobial therapy 1.7 days sooner
- Mean length of stay was reduced 6.2 days
- Mean hospital costs were \$21,387 less per bacteremic patient

Performance

MRSA/SA PERFORMANCE VS. REFERENCE CULTURE

		Culture			
		MRSA+	SA+/MRSA-	Neg/No Growth	Totals
Xpert	MRSA+	53	0	0	53
	SA+/MRSA-	0	24	1	25
	SA-	0	0	171	171
	Total	53	24	172	249

Performance characteristics of the Xpert® MRSA/SA Blood Culture Assay were determined in a multi-site prospective investigation study at three U.S. institutions by comparing the Xpert MRSA/SA Blood Culture Assay with culture.

MRSA:

		95% CI
Positive % Agreement	100% (53/53)	93.3-100%
Negative % Agreement	100% (196/196)	98.1-100%

SA:

		95% CI
Positive % Agreement	100% (77/77)	95.3-100%
Negative % Agreement	99.4% (171/172)	96.8-100%

Comprehensive

Capable of detecting strains with all SCCmec and PFGE types found in both healthcare-acquired and community-acquired MRSA.

	Туре
SCCmec	I, II, III, IVc, V, VI
PFGE	USA 100, 400, 500, 800, 1000

Simplicity.

Xpert® MRSA/SA BC

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

WORKFLOW:

3 Easy Steps

Total hands-on time: <1 Minute







ORDERING INFORMATION

References:

- 1. www.lHl.org
- 2. www.thelancet.com Vol 365 Jan 1, 2005; Septic Shock; Djillali Annane, Eric Bellisant, Hean-Marc Caillon
- 3. Dellinger, R. et al., "Surviving Sepsis Campaign guidelines for management of severe sepsis and septic shock."



The molecular revolution is here

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