



**Xpert<sup>®</sup>**  
MRSA/SA  
Nasal

Test. Inform. Manage.



# Xpert<sup>®</sup> MRSA/SA Nasal

Pre-surgical Testing of *S. aureus* and MRSA  
— *in Less than One Hour.*

CE IVD In Vitro Diagnostic Medical Device

 **Cepheid<sup>®</sup>**  
A better way.

“Determining pre-operative carrier status of *S. aureus*, including MRSA, can be helpful in targeting patient treatment, including decolonization, shown to reduce post-operative SSIs. This is particularly important given the high economic burden of *S. aureus* infection among patients admitted for elective surgery.”



Professor Jan Kluytmans, MD  
Professor of Medical Microbiology and Infection Control  
VUmc, Amsterdam

## Performance

Performance Characteristics of the Xpert® MRSA/SA Nasal Assay Compared to MRSA and SA Direct Culture Method

		MRSA: Direct Culture		
		+	-	Totals
Xpert MRSA/SA Nasal Assay	+	80	28	108
	-	0	636	636
		80	664	744

SENSITIVITY: 100%  
SPECIFICITY: 95.8%

		SA Direct Culture		
		+	-	Totals
Xpert MRSA/SA Nasal Assay	+	152	96	248
	-	1	495	496
		153	591	744

SENSITIVITY: 99.3%  
SPECIFICITY: 83.8%

## The Need

### Current Testing Methodologies Don't Deliver

*Staphylococcus aureus* infections have been increasing in incidence and are reported to be the most common cause of surgical site infections:<sup>1</sup>

- *S. aureus* colonized patients are up to 9 times more likely to develop surgical site infections than non-carriers<sup>2</sup>
- Up to 80% of nosocomial *S. aureus* infections are caused by the patient's own flora<sup>3</sup>
- Surgical site infections are associated with increases in length of hospital stay, costs, morbidity, and mortality<sup>4</sup>

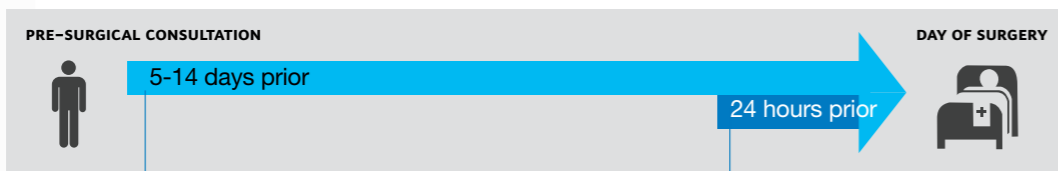
## The Solution

### Xpert® MRSA/SA Nasal Benefits

Determination of *S. aureus* and MRSA carrier status is crucial in reducing the risk of post-operative infections:

- Rapid identification of patient carrier status optimizes pre-admission workflow and counseling
- Enables clinicians to consider enhanced pre and peri-operative patient management approaches, including decolonization
- Supports improved infection control and reduces the risk of cross infection

### Pre-Surgical MRSA/SA Screening



#### BENEFITS:

- Determine carrier status
- Immediately inform & counsel patient
- Initiate targeted therapy, including decolonization

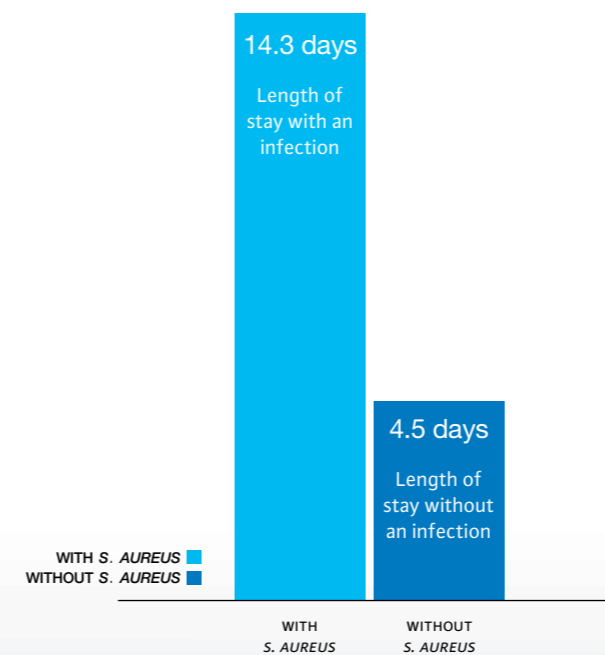
#### BENEFITS:

- Immediately determine carrier status
- Confirm decolonization
- Initiate targeted prophylaxis
- Test patients with unknown status allowing minimal disruption to schedules

## Impact

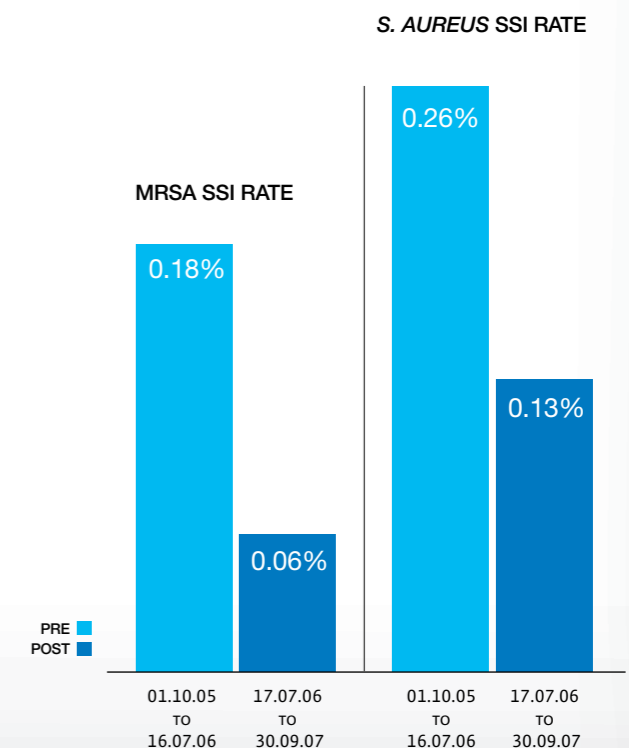
### Impact of Pre-Surgical Screening on Post-Operative Infection Rates<sup>5</sup>

*S. aureus* can lead to more serious complications, especially in orthopaedic and cardiovascular procedures leading to poor patient outcomes which prolong hospital stay and costs.



### Impact on Resource Utilization and Hospital Efficiencies<sup>1</sup>

Pre-surgical screening in combination with decolonization has been shown to reduce post-operative infection rates by up to 60%.



Test. Inform. Manage.  
**Xpert® MRSA/SA Nasal**

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

Xpert® MRSA/SA Nasal (10 cartridges with reagents)..... Catalog No. GXMRSA/SA-NASAL-10

**References:**

1. Noskin GA, Rubin RJ, Schentag JJ, et al. "The Burden of *Staphylococcus Aureus* Infections on Hospitals in the United States," Arch of Internal Medicine 2005, 165: 1756-1761
2. Kluytmans, J., Clinical Microbiology Review, 1997, Vol 10, No. 3
3. Critchley et al, Drug Discovery Today, 2006, Vol. 3 No. 2
4. Perl, T, et al., "Intranasal Mupirocin to Prevent Postoperative *Staphylococcus Aureus* Infections," NEJM, June 2002
5. Kim D, et al. Massachusetts Society of Pathologists, MRSA Eradication, NEBH Case Study. 2008



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