

## **New Test Available**

### **Methicillin-resistant *Staphylococcus aureus* Detection by PCR**

An important consideration for any MRSA surveillance methodology is the length of time it takes to get results that will impact infection control strategies. Our MRSA assay provides a valuable new methodology for the detection of MRSA colonized patients with quick results that can markedly reduce the potential for MRSA transmission. This test is an FDA approved qualitative in vitro diagnostic test for the direct detection of nasal colonization by MRSA to aid in the prevention and control of MRSA infections in healthcare settings.

#### **Background**

Methicillin-resistant *Staphylococcus aureus* (MRSA) is one of the more important pathogens being encountered in healthcare. The incidence of MRSA in U.S. hospitals has increased dramatically since the 1990's, from 20-25% of the total *Staphylococcus aureus* isolates in clinical cultures to 50-70% in recent years<sup>(1)</sup>. Adding collateral effect to the burden of healthcare-associated MRSA infections are the ever increasing numbers of MRSA circulating among individuals in community settings<sup>(2,3,4,5)</sup>. Patients colonized or infected by these community-associated MRSA are presenting in hospital emergency rooms and outpatient clinics and potentially become a reservoir of hospital spread after admission. The Association of Professionals in Infection Control and Epidemiology (APIC) has issued guidelines for the elimination of MRSA transmission<sup>(6)</sup>. These guidelines address the importance of an active MRSA surveillance program that includes risk-based assessment and laboratory testing to identify MRSA cases.

#### **Intended Use**

This is a qualitative in vitro diagnostic test designed for rapid detection of methicillin-resistant *S. aureus* in patients at risk for nasal colonization. The test is not intended to diagnose MRSA nor to guide or monitor treatment for MRSA infections. Concomitant cultures are necessary only to recover organisms for epidemiological typing or for further susceptibility testing.

The rapid detection of MRSA by real-time PCR on the GeneXpert has an analytic turn-around time of 75 minutes. While Marshfield Laboratories will continue to offer culture-based detection of MRSA, clinicians are encouraged to consider the value of rapid results for making infection control decisions aimed at minimizing MRSA transmission and decreasing the need for unnecessary isolation rooms.

An important consideration for any MRSA surveillance methodology is the length of time it takes to get results that will impact infection control strategies. Our MRSA assay provides a valuable new methodology for the detection of MRSA colonized patients with quick results that can markedly reduce the potential for MRSA transmission.

For your MRSA needs, please contact us at 1-800-222-5835 or visit our website at [www.marshfieldlaboratories.org](http://www.marshfieldlaboratories.org).

## References:

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4. Stemper ME, Shukla SK, Reed KD. Emergence and Spread of Community-Associated Methicillin-Resistant *Staphylococcus aureus* in Rural Wisconsin, 1989-1999. *J Clin Micro* 2004;42:5673-5680.
5. Shopsin B, Kreiswirth BN. Molecular Epidemiology of Methicillin-Resistant *Staphylococcus aureus*. *Emerging Infectious Diseases* 2001;7(2) 323-6.
6. Guide to the Elimination of Methicillin-Resistant *Staphylococcus aureus* (MRSA) Transmission in Hospital Settings, APIC, 2007.