



Maryland  
Hospital Association

**MHA**

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Preventing the Spread of  
Methicillin-Resistant *Staphylococcus Aureus* (MRSA)

***Introduction***

During the last several decades the prevalence of methicillin-resistant *Staphylococcus aureus* (MRSA) in hospitals across the country has increased significantly, creating a serious public health issue today. To complicate matters further, the problem has become more challenging with the further emergence in the 1990s of community-associated MRSA with newly recognized virulence that can cause severe, fast moving infections. Most recently, these newer strains have been associated with outbreaks in schools, gyms, and daycare centers, and public awareness of MRSA has been heightened by local and national media stories.

In October 2007, the Centers for Disease Control and Prevention (CDC) issued a report that estimates over 94,000 cases of MRSA infection occurred in 2005 and were associated with over 18,000 deaths. The article was based on a study of nine communities, including Baltimore. The study found that while the majority of cases were healthcare-associated, many more than previously thought occur in the community—corroborating the emerging recognition among health care experts of the risks of community-associated MRSA infections.

***Hospitals Are Working Diligently to Prevent MRSA***

Identifying, controlling, and eliminating MRSA is a top concern of Maryland hospitals. Through their infection prevention and control programs, hospitals continuously strive to improve care and create a safe environment by using the most current science, techniques, and products to reduce the risk of getting an infection. Hospitals also continue to monitor and follow the recommendations of the professional infection control and epidemiology associations and CDC guidelines. The Joint Commission, the national accrediting body that reviews all Maryland hospitals, also has standards and national patient safety goals aimed at reducing the risk of healthcare-associated infections.

In order to gain an understanding of the current approaches and strategies in use in Maryland hospitals to combat MRSA, in November the Maryland Hospital Association (MHA) surveyed infection prevention and control professionals in the state's 47 acute care hospitals, and 41 responded. The results showed that hospitals are performing a wide range of general preventive practices, interventions, and surveillance activities. The top three strategies that hospitals are actively engaged in are improved use of contact precautions of identified patients, improved adherence to proper hand hygiene, and active surveillance testing on certain patients or in selected units (mostly ICUs). Many hospitals are also offering educational programs to help explain the significance of the infection and the need for additional precautions. Increased cleaning and disinfection is also frequently employed to reduce transmission. Some hospitals are also electronically flagging patients with previous MRSA infection or colonization.

As described in more detail below, 26 Maryland hospitals are participating in the Maryland Patient Safety Center's (MPSC) MRSA Prevention Initiative. This is a dedicated intensive effort

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supported by hospital leadership and involving personnel at all levels throughout the organization to stop transmission of MRSA among hospitalized patients.

### ***Maryland Patient Safety Center is a National Leader***

Preventing MRSA infections has been a major priority in Maryland. More than two years ago the MPSC became actively engaged in working with hospitals to help eliminate the transmission of MRSA. In January 2006, the MPSC held a full-day symposium for hospital leaders on eliminating MRSA. This was followed by a number of other programs dedicated to this topic at both the Center's annual patient safety conference in March and again at the annual Medical Staff Governance and Leadership Conference for hospital executives, medical staff leaders, and trustees.

Building upon these educational efforts, the MPSC partnered with the Plexus Institute, CDC, and the Positive Deviance Initiative at Tufts University, with grant support from the Robert Wood Johnson Foundation and CareFirst Blue Cross Blue Shield, to pilot test an innovative approach for eliminating MRSA. The Positive Deviance strategy provides a design that enables the very people whose behavior needs to change, to solve the problem with solutions already present within their organization.

The rollout of the Center's behavior-based MRSA Prevention Initiative was carefully staged to ensure maximum impact. The project was launched with two Maryland hospitals selected to participate as beta sites with four other beta hospitals, and 41 partner facilities around the country in the first large-scale application of Positive Deviance to healthcare in the United States. In the next phase, these two hospitals shared their experiences with eight additional Maryland hospitals interested in adopting this approach. In November 2007, the Initiative was expanded again so that currently 26 Maryland hospitals are committed to using this new approach for making lasting improvements to stamp-out this deadly infection.

### ***Hospitals Support Public Accountability and Transparency***

MHA has an established track record of supporting public reporting of all types of information at the hospital level. In 1999 we supported the legislation requiring the Maryland Health Care Commission (MHCC) to establish a system to comparatively evaluate quality of care outcomes and performance measurements of hospitals. This resulted in the development of a Web-based Maryland Hospital Performance Evaluation Guide which served as a model for the development of the national Hospital Compare Web site launched in 2005 by the Centers for Medicare and Medicaid Services (CMS) and the Hospital Quality Alliance (a collaborative effort of organizations representing hospitals, doctors, employers, accrediting organizations, other federal agencies, and the public). In addition to reporting to the MHCC, all Maryland acute care hospitals voluntarily submit data on their quality efforts for publication on Hospital Compare.

Both the Maryland and national public reporting initiatives continue to evolve and expand the numbers and types of measure reported. In 2005, MHA supported the plan adopted by the MHCC for publicly reporting healthcare-associated infections data on the Maryland Hospital Performance Evaluation Guide. The following year, we supported legislation passed by the Maryland General Assembly mandating the MHCC to include healthcare-associated infection information in its existing Hospital Performance Evaluation Guide. The guide provides a solid foundation for further transparency on quality, which MHA and Maryland hospitals fully support.

In November 2007, the MHCC released the report of its Technical Advisory Committee on Healthcare-Associated Infections for *Developing a System for Collecting and Publicly Reporting Data on Healthcare-Associated Infections in Maryland*. This extensive study provides an excellent framework for reporting healthcare-associated infection—including prevention of MRSA—information and lays out a phased implementation plan. Given the enormous interest in this information by consumers, employers, insurers, and legislators and the heightened media attention that has been focused on this issue, MHA urges the MHCC to implement the new reporting system as expeditiously as possible.

### ***Reaching Out to the Community***

The CDC report provides critical new information documenting that a substantial number of MRSA infections occur outside of health care settings in the community. This study reveals not only the work that hospitals must do internally, but also the importance of reaching out to the community and working with others to prevent infection. Community education should be a priority within the State of Maryland for public health officials, health care providers, and elected officials.

In addition, MHA is sponsoring an initiative for all hospitals to participate in a statewide community outreach effort on MRSA awareness. Every Maryland hospital is encouraged to host a community forum during the month of March 2008 to educate community members about MRSA, the differences between healthcare-associated MRSA and community-associated MRSA, what hospitals are doing to reduce infection transmission, and what community members can do to reduce their risk. In addition, hospitals are encouraged to invite their public health department's participation.

### ***Recommendations***

Fighting drug-resistant infections requires multiple approaches and must involve everyone in the hospital and the community. To prevent MRSA infection and transmission, MHA recommends that every Maryland hospital:

- Develop strategies to improve hand hygiene and monitor compliance;
- Implement enhanced environmental cleaning practices and monitor for adherence to facility procedures for cleaning and disinfection;
- Provide education to facilitate behavior change through improved understanding of MRSA to personnel in all capacities, from physicians, nurses, and other caregivers to support associates, housekeepers, patients, and visitors;
- Perform a risk assessment to determine what interventions are necessary, including assessment of the benefit of active surveillance testing;
- Implement and monitor adherence to contact precautions for all patients identified with MRSA;
- Evaluate existing prevention strategies for effectiveness and modify them as necessary; and,
- Review and update their infection prevention and control plan in light of new evidence – based research and scientific findings