



# AHRQ Safety Program for MRSA Prevention

## Informational Webinar Transcript: *AHRQ Safety Program for MRSA Prevention*

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Hello. Welcome to a brief presentation on the upcoming AHRQ Safety Program for MRSA (methicillin-resistant *Staphylococcus aureus*) Prevention. This program is funded and guided by the Agency for Healthcare Research and Quality (AHRQ) and led by Johns Hopkins Medicine and NORC at the University of Chicago.

Intensive Care Units (ICUs) and non-ICUs with elevated levels of MRSA invasive infection, such as MRSA bacteremia, are eligible and encouraged to participate in the program. MRSA is a serious threat to patient safety and many hospitals across the country have elevated rates of MRSA infections.

This program is designed to provide technical assistance and support for MRSA prevention, and we hope that you will consider joining the project to reduce MRSA infections and protect patients.

My name is Lisa Maragakis. I am an infectious diseases physician and a professor of medicine and epidemiology at the Johns Hopkins University School of Medicine. I serve as the senior director of healthcare epidemiology and infection prevention for the Johns Hopkins Health System. I am one of the leaders, along with my colleagues at Johns Hopkins Medicine and NORC at the University of Chicago, of this MRSA prevention project. We will provide a brief overview of the project today and welcome your questions. The Safety Program's email address is [MRSAprevention@norc.org](mailto:MRSAprevention@norc.org).

### **MRSA Is a Serious Threat**

Methicillin-resistant *Staphylococcus aureus* (MRSA) is one of the most invasive and deadly multidrug-resistant organisms or MDROs. In 2019, the Centers for Disease Control and Prevention reported that more than 2.8 million antibiotic-resistant infections occur in the United States each year, and more than 35,000 people die as a result. As a subset of antibiotic-resistant infections, MRSA incidence has decreased since 2013 but continues to be a serious threat, with more than 323,000 cases detected in hospitalized patients and over 10,000 deaths reported each year. In addition, analyses have found increases in hospital-onset resistant infections, including MRSA, during the COVID-19 pandemic. So, preventing MRSA infection and MRSA transmission among hospitalized patients is a very important patient safety goal.



We are seeking ICUs and non-ICUs with elevated levels of MRSA invasive infection, such as MRSA bacteremia, to enroll in the AHRQ Safety Program for MRSA Prevention. This is an opportunity to reduce invasive MRSA infections in your facility and to strengthen team-based infection prevention practices while fostering a culture of safety. We urge you to consider enrolling in the program. The cohort starts in April 2022, and the enrollment deadline is May 15, 2022.

## **AHRQ Safety Program Overview**

The overarching goal of this collaboration is to prevent MRSA infection and transmission among hospitalized patients.

Two additional goals of the program are to strengthen the culture of safety and build capacity for unit-based quality improvement activities; and to provide technical assistance for the implementation of evidence-based infection prevention practices that interrupt MRSA transmission and prevent MRSA infection.

## **AHRQ Safety Program Structure**

The AHRQ Safety Program addresses two major domains of MRSA prevention strategies: adaptive or behavioral interventions and technical interventions.

Adaptive interventions focus on enhancing a culture of safety, guiding and supporting behavioral changes that prevent infections, fostering teamwork, and improving communication. Adaptive interventions are those that affect how we interact with each other to optimize those interactions and maximize patient safety. The core adaptive intervention framework that will be used during this program is the Comprehensive Unit-based Safety Program or CUSP. The CUSP team will be the backbone of improvement efforts on the unit(s). Members of each CUSP team will lead MRSA prevention efforts on their unit and disperse the educational components of the project to others, including the frontline staff. Members of the CUSP team will also serve as master trainers for their unit's personnel.

The AHRQ MRSA Prevention program will help units establish and facilitate a unit-based CUSP team, if they do not already have one, and will support units with the knowledge, strategies, and skills necessary to implement change, and overcome barriers. The CUSP team will then harness this energy and knowledge to prevent MRSA infections using a set of technical interventions.

The technical interventions for MRSA prevention focus on evidence-based best practices to interrupt the chain of MRSA transmission. These include basic infection prevention measures such as hand hygiene and environmental cleaning, as well as targeted MRSA reduction strategies such as chlorhexidine gluconate (CHG) bathing and nasal MRSA decolonization treatment.

To break the chain of infection and meaningfully reduce MRSA transmission and disease, technical interventions must use both horizontal approaches that prevent a wide array of

organisms and infections and vertical infection prevention approaches that are specific to one organism such as MRSA or one type of healthcare-associated infection such as central line associated bloodstream infections (CLABSI).

Horizontal approaches prevent the transmission of all organisms and types of hospital-acquired infections (HAIs). Vertical approaches are tailored, based upon evidence, to target a specific pathogen or type of infection. The AHRQ MRSA Prevention program will provide tools to assist participating units to implement evidence-based MRSA prevention practices. These practices will position participating units to take aim and target MRSA infection and transmission. I'll describe the program's key technical strategies in the next slide.

### **Key Strategies: Take Aim and Target MRSA Infection**

There are four key strategies to "Take Aim to Prevent MRSA" These strategies prevent MRSA infection and transmission through decolonizing patients, decontaminating the environment, preventing person-based transmission, and preventing infection from devices and procedures. Each of these key strategies aims to prevent MRSA by implementing evidence-based interventions.

For instance, patient-focused decolonization strategies such as CHG bathing and nasal MRSA decolonization prevent the patient's own skin flora, or bacteria on their skin, from causing invasive infection. Environmental cleaning and disinfection prevent environmental reservoirs of MRSA from reaching the patient and causing infection.

Hand hygiene and standard or contact isolation precautions interrupt MRSA transmission from person to person, including healthcare personnel to patients. Finally, evidence-based practices to prevent device-related infections such as central line-associated bloodstream infection (CLABSI) aim to prevent all of these device-related infections, including those caused by MRSA.

### **AHRQ Safety Program Details**

The AHRQ Safety Program for MRSA Prevention is a free 18-month program that will run from April 2022 to September 2023, and the deadline for enrollment is May 15, 2022. ICUs and non-ICUs with elevated levels of MRSA invasive infection, such as MRSA bacteremia, are eligible and encouraged to participate in the program. Participation in the program is free.

Each participating unit will form a multidisciplinary team, including leadership and frontline staff, to participate and lead the unit-based intervention for the program. Each hospital may enroll up to four participating units if those units are eligible due to having elevated MRSA infections. Most of the program is applicable to both the ICU and the non-ICU settings. Some of the content will be targeted specifically at either the ICU or non-ICU units as appropriate.

The types of intensive care units that are eligible include:

- Adult and pediatric critical care
- Medical critical care
- Medical-surgical critical care

- Surgical critical care
- Trauma critical care

And the types of non-ICU units that are eligible to participate include:

- Adult and pediatric units
- Burn units
- Medical-surgical units
- Orthopedic units
- Surgical units
- Step down units

We anticipate that participating clinical staff will need to spend a minimum of 3 hours per month focusing on the AHRQ Safety Program for MRSA Prevention in order for the program to be successful.

Continuing medical education units (CMEs) and continuing education units (CEUs) are available for participating physician and nursing personnel. To earn these credits, participants must attend live webinars, or review recorded project webinars, or review the slides and script for the webinars. Participants requesting these credits will be directed to a separate website to answer a few content-related questions to receive credit.

Please note that the Johns Hopkins Medicine institutional review board (IRB) reviewed the project and determined that it is not human subjects research. Individual sites are therefore not expected to obtain local IRB review unless required to do so by their home institution.

## **AHRQ Safety Program Timeline**

Between April and May 2022, participating units will assemble a multidisciplinary CUSP team within their unit and ensure all members of the unit have the opportunity for access to the Safety Program website. This team will include a team leader, such as a clinician or nursing unit leader, and another clinical staff member, such as an infection preventionist, to oversee the work in addition to the other front-line, multi-disciplinary CUSP team members.

Participating units will be asked to sign a letter of commitment prior to participation, and, by July 2022, participating units will submit their infection prevention data by quarter for the 12 months preceding the start of the cohort April 2021 to March 2022.

Between April 2022 and September 2023, enrolled units will participate in educational programs (including an orientation webinar and monthly to twice monthly educational webinars), meet regularly with their CUSP team, implement evidence-based interventions, and review and submit quarterly infection prevention unit-level data to the program.

## **Data Collection from Participating Hospitals**

During the project, participating hospitals will be asked to submit unit-level data to the AHRQ Safety Program on a quarterly basis. Hospitals will have the opportunity to confer rights to the program for extraction of NHSN data, while they will collect and submit other data elements

directly to the program. Additionally, hospitals will complete surveys, such as the Hospital Survey on Patient Safety Culture, as part of their participation in the program.

## **Benefits of Participating**

There are many benefits to participating in the program. Participants will have access to experts in infection prevention and CUSP. These experts will coach the unit teams and help them troubleshoot issues as they set up and maintain a MRSA prevention program on the participating unit or units. Support will also be provided for building capacity and infrastructure for data collection, reporting, analysis, and feedback. This will help you gain a detailed picture of your MRSA prevention performance and the effectiveness of interventions. You will also have access to implementation advisors and the opportunity to participate in monthly office hours and peer-to-peer learning with other participating facilities to assist cross-learning from shared experiences.

Interactive webinars will be held one to two times per month, covering both adaptive and technical approaches to various aspects of MRSA prevention. These webinars will be 60 minutes in length, with time for presentation of educational information, as well as for questions and answers. They will be recorded and available on the project website for 24/7 access following each live webinar. The webinar reference materials, slides, and facilitator guides will also be available on the website. In addition to the webinars, you will also have access to a variety of tools on the project website to assist with developing and sustaining protocols and quality improvement for participating units. These tools include but are not limited to posters, one-page summary sheets, videos, and educational materials for patients and families.

## **Anticipated Outcomes of Participation**

The anticipated outcomes of participation include reduced MRSA infections, reduced healthcare-associated infections (CLABSI), improved team-based infection prevention practices, including environmental cleaning, enhanced communication and teamwork regarding prevention of MRSA infections, and improved patient safety culture.

## **Thank you**

Thank you for your time today and for attending this webinar on the AHRQ Safety Program for MRSA Prevention. As you know, MRSA is a serious threat to patient safety, causing thousands of infections and deaths each year in the United States. The AHRQ Safety Program for MRSA Prevention can help you and your units redouble your efforts to combat this deadly pathogen.

We understand that in the current climate committing to such a program may be a difficult choice. However, during the COVID pandemic, MRSA rates have risen significantly nationwide. If you choose to join our program, we will ensure you have access to tools that will assist and support you and your teams in your implementation efforts. We will also be here for you

should there be another COVID-19 surge, and we will help you overcome any barriers you may encounter.

We hope that this presentation has convinced you of the value of this program and the importance of MRSA prevention for patient safety. Please seriously consider joining the project. We look forward to working with you on improving the delivery of high-quality care for all patients across the United States.

To learn more and enroll, visit: <https://safetyprogram4mrsaprevention.org>  
or email [MRSAprevention@norc.org](mailto:MRSAprevention@norc.org).

The deadline to enroll is May 15, 2022.

Thank you. I will be happy to answer any questions you might have at this time.

