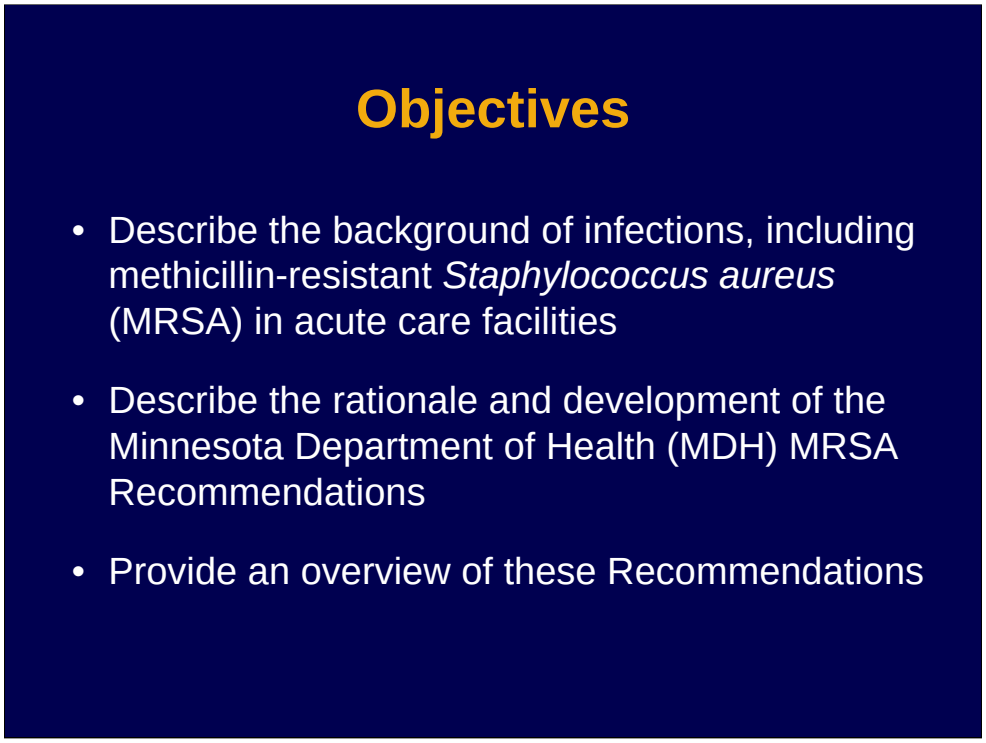
Welcome to this presentation on the Minnesota Department of Health Recommendations for the Prevention and Control of Methicillin-resistant *Staphylococcus aureus* in Acute Care Facilities.

My name is Lindsey Lesher and I will be co-presenting this presentation with my colleague, Jane Harper. We are both with the Minnesota Department of Health and have been members of the MDH MRSA Task Force which has been instrumental in developing these Recommendations.



SLIDE: Objectives

There are 3 objectives for this presentation:

First, to describe the background of infections, including methicillin-resistant *Staphylococcus aureus*, or "MRSA", in acute care facilities

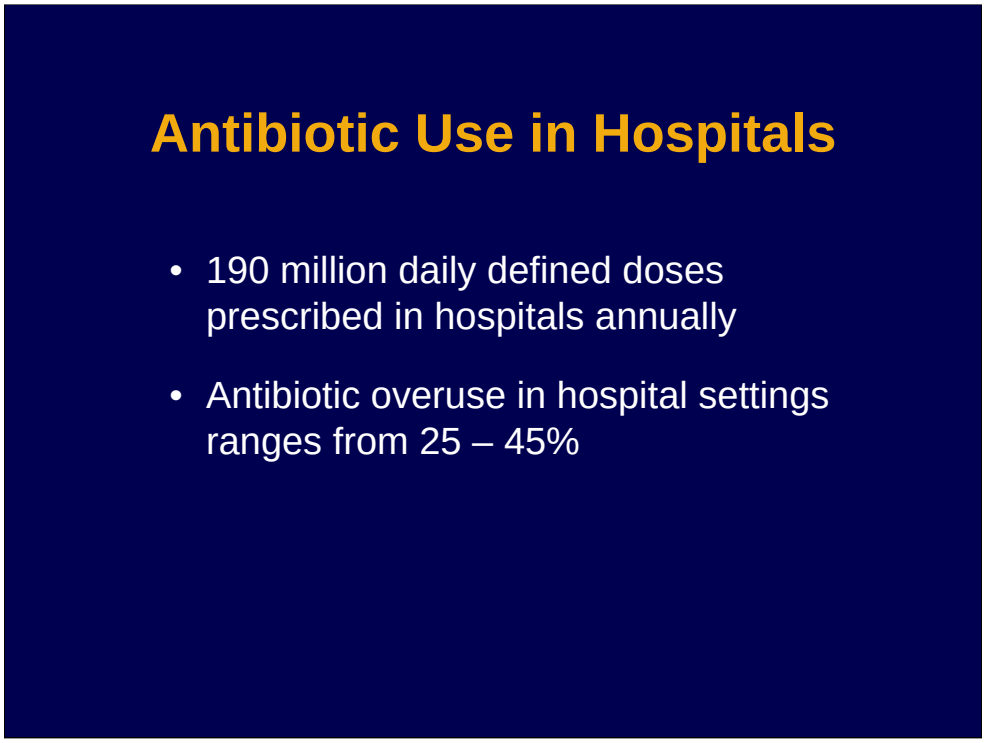
Second, to describe the rationale and development of the Minnesota Department of Health Recommendations for the prevention and control of MRSA in acute care facilities

And finally, to provide an overview of these Recommendations

SLIDE: Purpose of the MDH MRSA Recommendations

The purpose of the MDH MRSA Recommendations, which we'll refer to simply as "the Recommendations" for the remainder of the webinar, is to provide a set of recommended infection prevention and control strategies which acute care facilities in Minnesota will use to develop a facility-specific program to prevent and control infections due to MRSA.

First, I'm going to provide some background about antibiotic use in healthcare facilities and the relationship of antibiotic use to the emergence of antibiotic-resistant bacteria, including MRSA.



SLIDE: Antibiotic Use in Hospitals

The Institute of Medicine estimates that 190 million daily defined doses of antibiotics are prescribed annually in hospitals, and that antibiotic overuse in these settings ranges from 25 to 45%.

SLIDE: Antibiotic Resistance in the U.S.

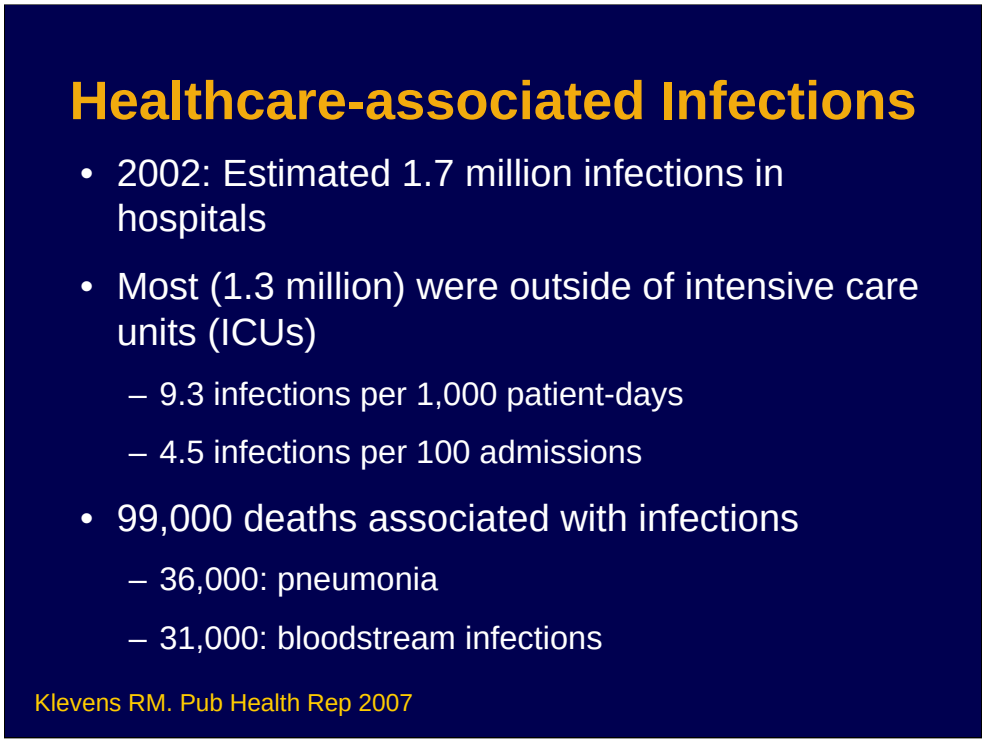
Antibiotic use is the biggest driver for the emergence of antibiotic-resistant organisms, and is one of the world's most pressing public health threats.

Misuse involves prescribing broad-spectrum agents when narrow-spectrum agents would be effective, prescribing antimicrobials for infections with a viral etiology, and prescribing clinically unnecessary doses and extended duration of treatment.

Misuse of antimicrobial agents jeopardizes the utility of these drugs and threatens the successful treatment of all infections.

Studies have shown that antibiotic use is associated with an increased risk of colonization and/or infection with resistant organisms. Specifically, studies have reported an association between antibiotic use and the development of MRSA colonization and/or infection

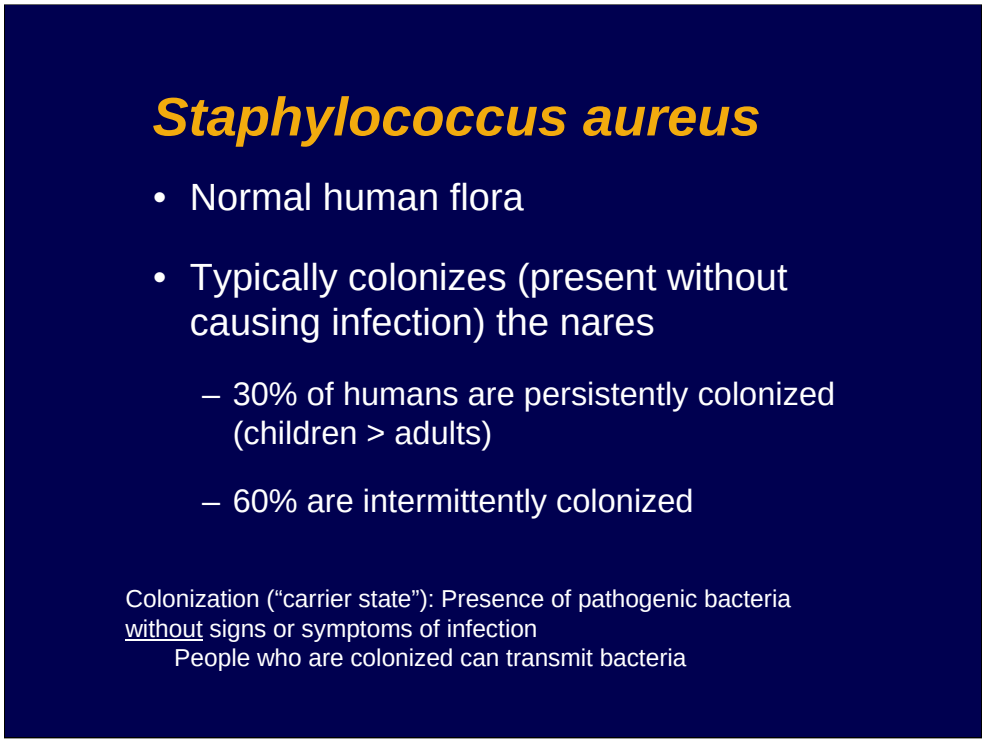
According to the Centers for Disease Control and Prevention, or CDC, more than 70% of healthcare-associated infections are caused by resistant organisms.



SLIDE: Healthcare-Associated Infections

A CDC study reported that in 2002 there were 1.7 million healthcare-associated infections in hospitals. Of these infections, most were reported in non-intensive care unit patients, representing a rate of 4.5 infections per 100 patient admissions.

Additionally, there were nearly 100,000 deaths associated with these infections.

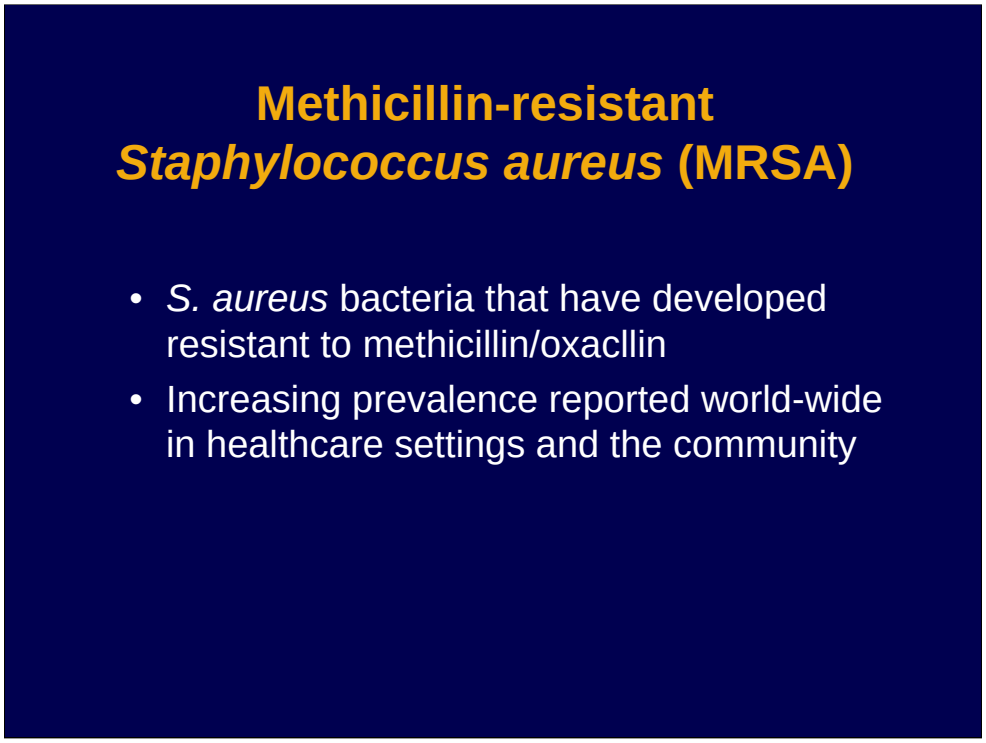


SLIDE: *Staphylococcus aureus*

Now I am going to provide some background on Staphylococcus aureus. These bacteria are considered a normal part of human flora and are commonly found in the nose or on the skin.

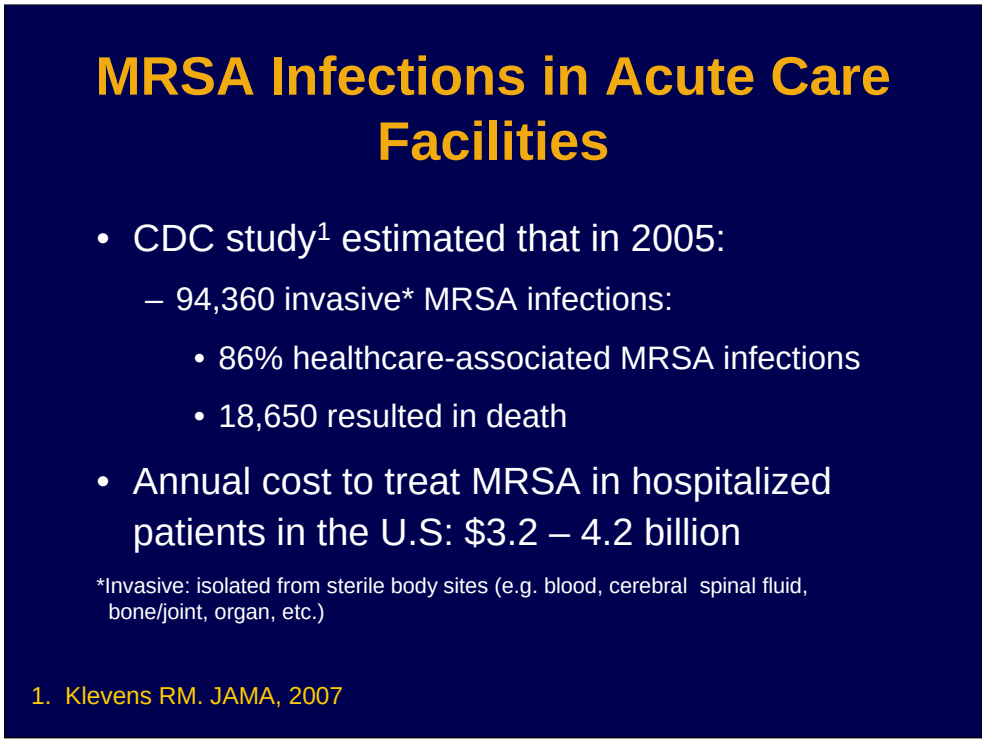
It is estimated that about 30% of people are persistently colonized with *Staph aureus* and about 60% are intermittently colonized.

Throughout this presentation we will be using the term colonization. This refers to the presence of pathogenic bacteria without signs or symptoms of infection. An important point is that people who are colonized can transmit bacteria to others and their environment.



SLIDE: MRSA

Methicillin-resistant *Staphylococcus aureus*, or MRSA, develops when the staph bacteria acquire the ability to survive against antibiotics commonly used to treat them. MRSA bacteria are resistant to methicillin, a member of the beta-lactam class of antibiotics, and may be resistant to additional classes of antibiotics.



SLIDE: MRSA Infections in Acute Care Facilities

Turning specifically to MRSA infections in acute care, a study published last year in JAMA estimated that in 2005 there were more than 94,000 invasive MRSA infections. 86% of these were healthcare-associated. Of note, invasive MRSA infections are usually quite severe as they occur in normally sterile body sites such as the blood or cerebral spinal fluid.

MRSA infections in hospitalized patients represent a major financial burden on the U.S. healthcare system.

MRSA Infections in Acute Care Facilities (cont.)

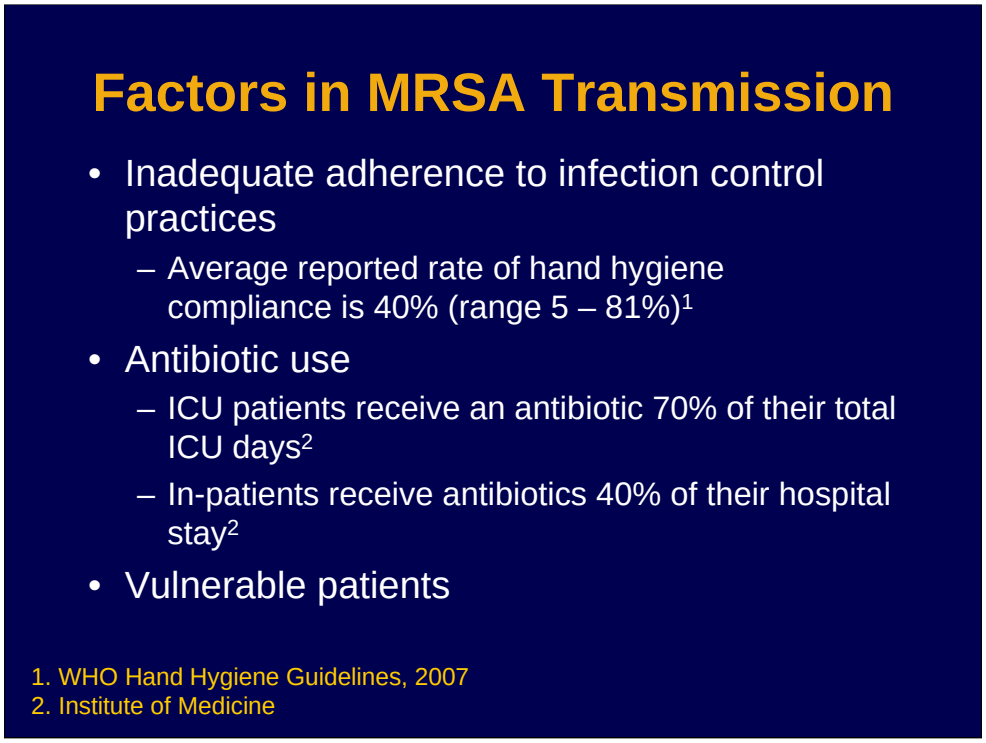
- Proportion of *S. aureus* isolates resistant to methicillin is increasing (1992 – 2003)[1]
  - 60% of *S. aureus* isolated from ICU patients was MRSA
- Nationwide point-prevalence study (2006)[2]
  - 46.3 patients colonized or infected with MRSA per 1,000 hospitalized patients
  - In Minnesota: 30.7 patients colonized or infected with MRSA per 1,000 hospitalized patients

1. National Nosocomial Infections Surveillance (NNIS) System
2. Jarvis WR.AJIC, 2007

SLIDE: MRSA Infections in Acute Care Facilities, cont.

The National Nosocomial Infections Surveillance System or NNIS reported that the proportion of all *staph aureus* isolates that are resistant to methicillin is increasing. In 2003, MRSA accounted for over 60% of *staph aureus* isolated from patients in intensive care units.

To assess the burden of MRSA in U.S. hospitals, a nationwide point-prevalence study was conducted in 2006 and found an alarming rate of MRSA-colonized and -infected patients. In Minnesota, the rate reported in this study was nearly 31 per 1,000 hospitalized patients.



SLIDE: Factors in MRSA Transmission

There are multiple factors that contribute to the transmission of MRSA in acute care settings.

Because MRSA is transmitted by contact with an infected or colonized patient or their environment, inadequate adherence to infection control practices in healthcare settings is a major contributing factor to MRSA transmission. In fact, the average reported rate of hand hygiene compliance is 40% with a range of 5 to 81%.

Another contributing factor to MRSA transmission is antibiotic overuse. The Institute of Medicine reported that ICU patients are on antibiotics for 70% of their ICU stay and in-patients are on antibiotics for about 40% of their hospital stay.

Additionally, hospitalized patients are vulnerable due to the presence of invasive devices, non-intact skin, compromised immune status and other risk factors.

SLIDE: Reported Prevention and Control Strategies

The CDC conducted a thorough review of studies designed to prevent and control the transmission of multidrug-resistant organisms in healthcare settings. This review guided the development of the CDC's 2006 publication, titled: *Management of multidrug-resistant organisms in healthcare settings*.

This document reports that successful infection prevention and control programs used a median of 7 to 8 intervention measures.

This document concluded that it was not possible to determine the effectiveness of individual or specific combinations of interventions that would be appropriate for all healthcare facilities.

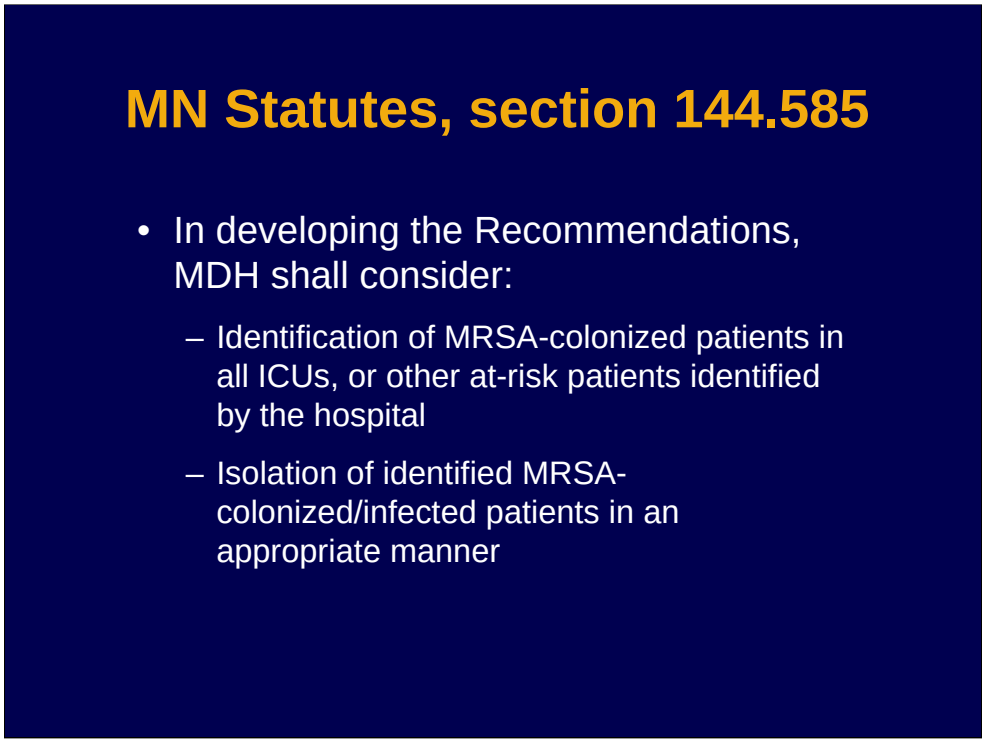
The findings of this review underscore the need for a comprehensive approach to MRSA prevention and control.

SLIDE: 2007 Minnesota MRSA Recommendations Legislation

As you are likely aware, consumer groups have voiced concern over increasing healthcare associated infection rates, and to date, efforts to prevent and control healthcare-associated infections, including MRSA, have been legislated in several states.

In 2007, the Minnesota legislature passed Minnesota Statutes, section 144.585, charging the Minnesota Department of Health to develop Recommendations to be used by hospitals in establishing an MRSA prevention and control program. The legislation states that hospitals shall establish their MRSA control programs based on these Recommendations by January 1, 2009.

These Recommendations are intended to assist acute care facilities in decreasing MRSA transmission rates – regardless of where the MRSA was acquired.

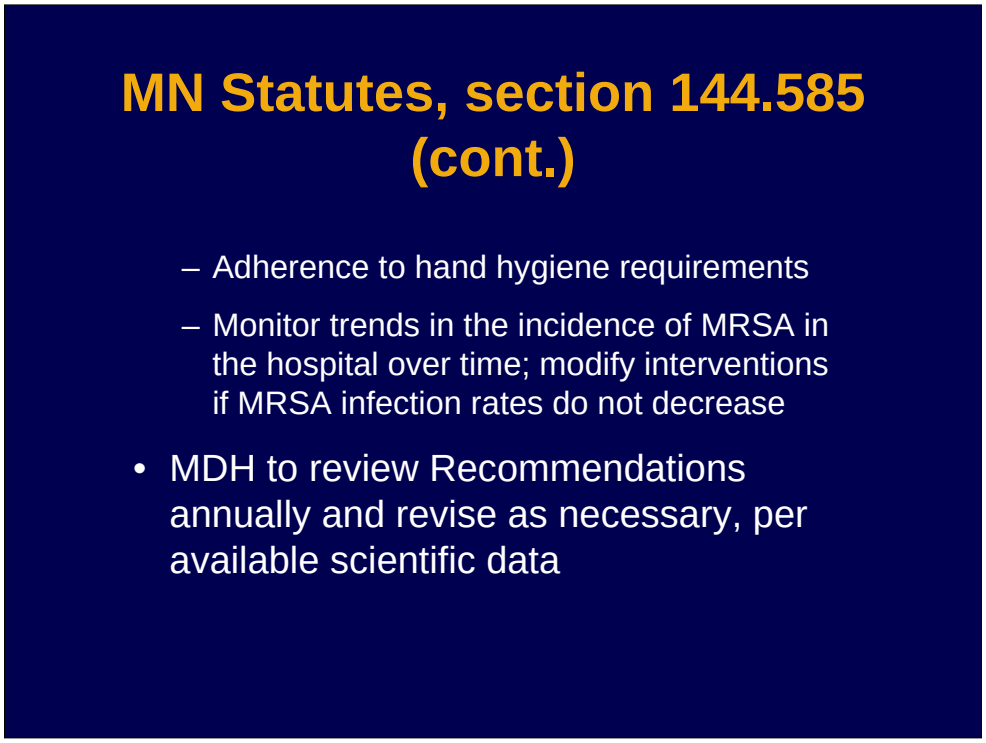


SLIDE: MN Statutes, section 144.585

This statute includes four specific points that MDH had to consider in the development of these Recommendations. These points are:

First, identification of MRSA-colonized patients in all ICUs, or other at-risk patients identified by the hospital

Second, isolation of identified MRSA-colonized or infected patients in an appropriate manner



SLIDE: MN Statutes, section 144.585, cont.

> Third, adherence to hand hygiene requirements and
>
> Fourth, monitor trends in the incidence of MRSA in the hospital over time; and to modify interventions if MRSA infection rates do not decrease.

This legislation requires that MDH reviews the Recommendations annually and revises them as necessary – based on available scientific data.

SLIDE: Development of MDH MRSA Recommendations

These Recommendations were created to enhance and not duplicate published documents. Content development was based on a variety of sources including:

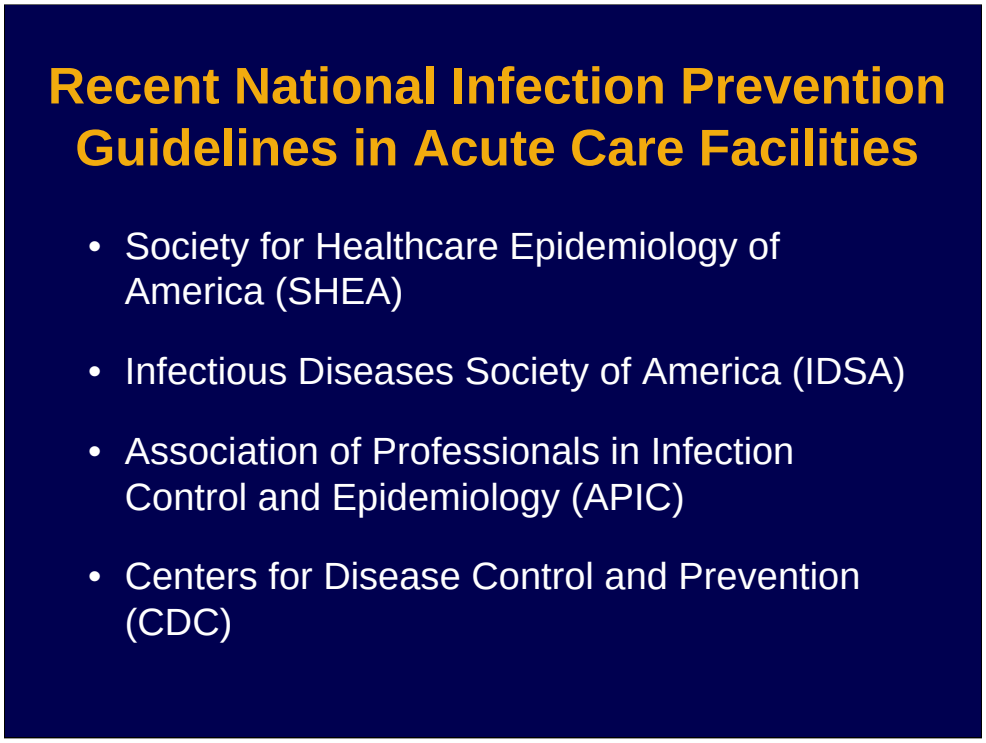
Extensive literature reviews

The expertise of MDH MRSA Task Force members, which included infection control professionals, infectious disease physicians and epidemiologists

Discussions with national experts in the area of MRSA prevention and control

Public comment on a draft version of the Recommendations and

Published guidelines



SLIDE: Recent National Infection Prevention Guidelines in Acute Care Facilities

Examples of organizations that have recently published national guidelines about infection prevention in healthcare settings include:

Society for Healthcare Epidemiology of America

Infectious Diseases Society of America

Association of Professionals in Infection Control and Epidemiology and

The CDC

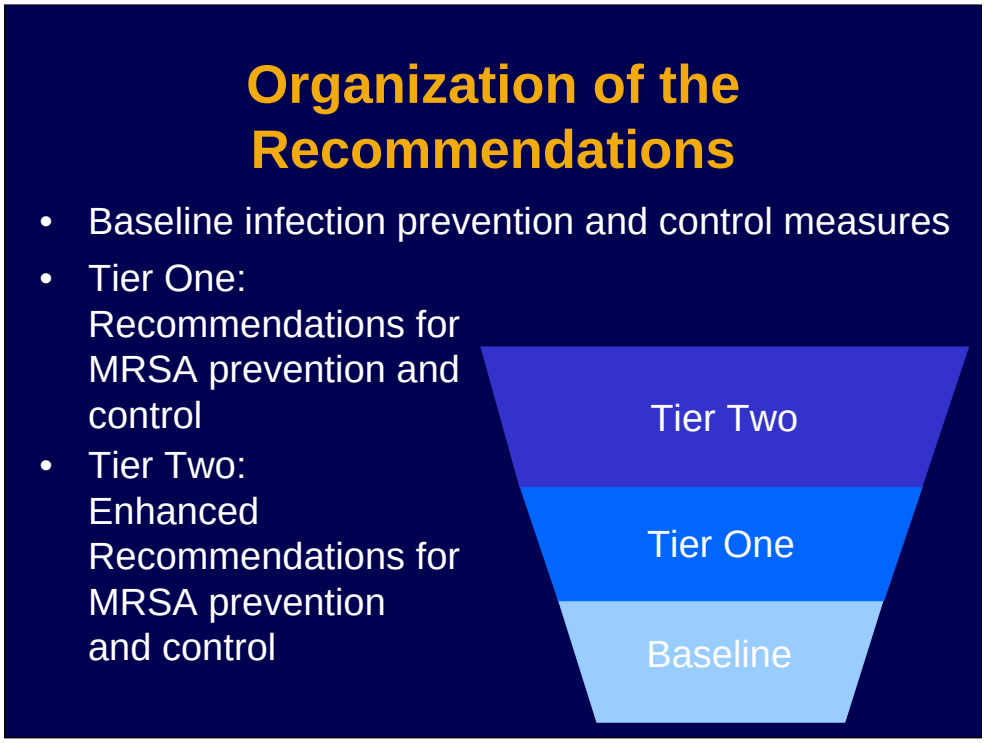
SLIDE: **Rationale for Recommendations Approach**

The rationale for the approach taken in developing the MDH MRSA Recommendations included:

Diversity among acute care facilities

The reported success of comprehensive, multi-factorial approaches to MRSA prevention and control and

Evidence that effective MRSA prevention and control intervention strategies are guided by a facility-wide risk assessment



SLIDE: Organization of the Recommendations

The Recommendations are organized into three sections:

Baseline infection prevention and control measures

Tier One Recommendations for MRSA prevention and control

Tier Two: Enhanced Recommendations for MRSA prevention and control

SLIDE: Recommendation Categories

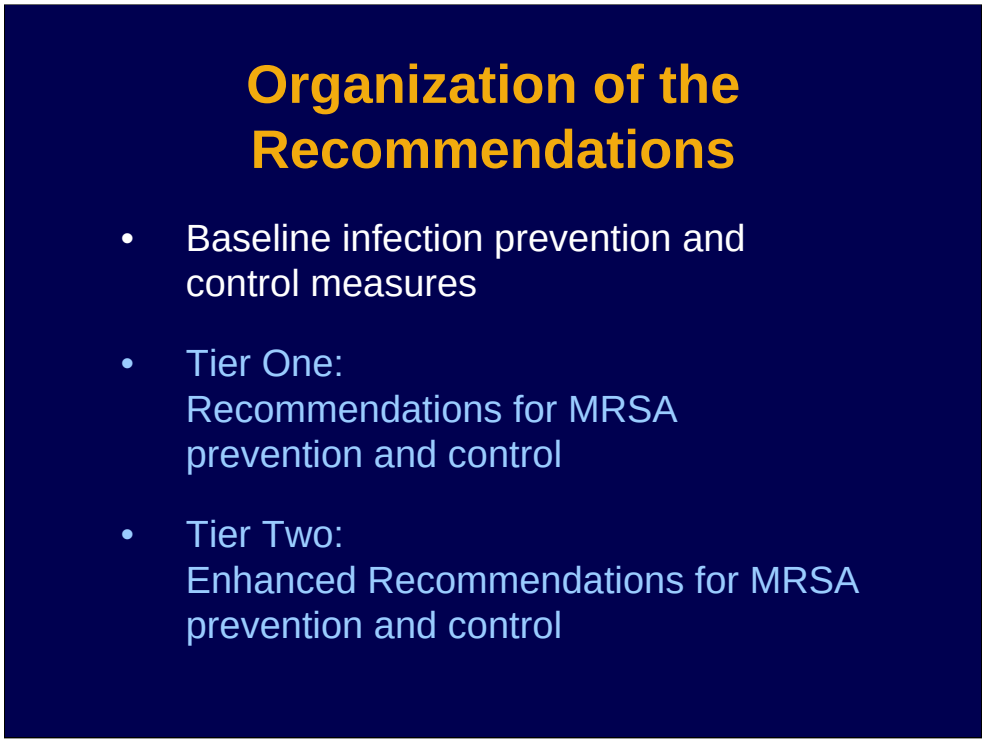
Each recommendation is categorized using the same ranking system as CDC's Healthcare Infection Control Practices Advisory Committee, or HICPAC, to identify the strength of scientific evidence for the specific intervention. These are categories One A, One B and One C and category Two.

Recommendation Categories (cont.)

- II: Supported by suggestive studies or theoretical rationale
- MDH-MRTF Consensus Statement: MDH-MRTF Recommendation

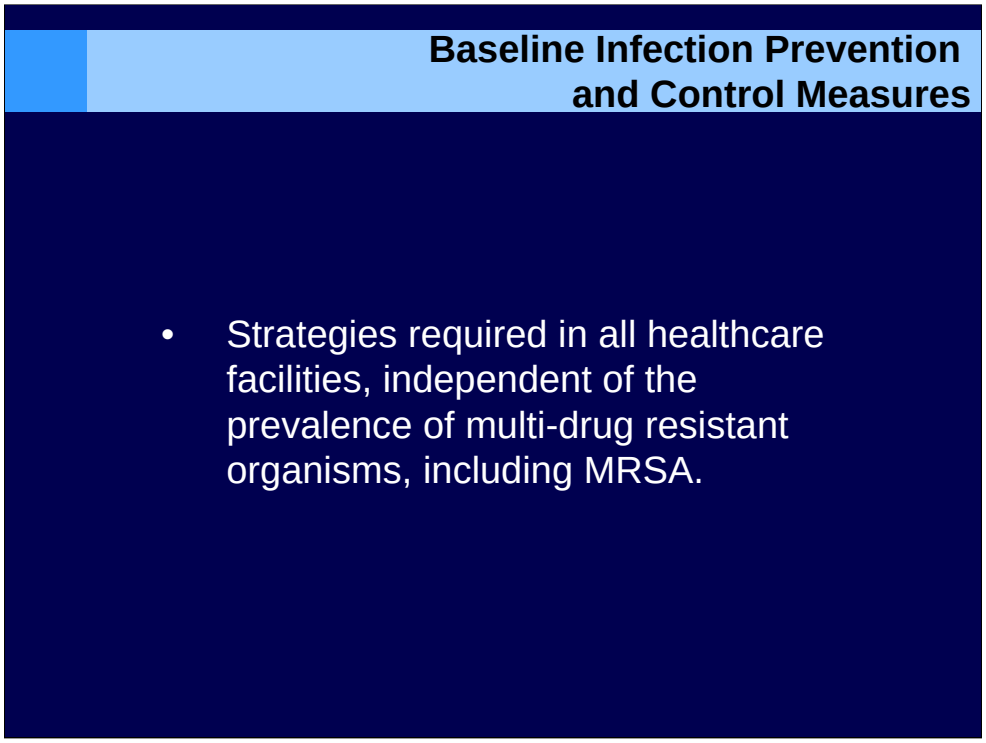
SLIDE: Recommendation Categories (cont)

The MDH – MRSA Recommendations Task Force Consensus Statements identify interventions that were unresolved or unranked by HICPAC.



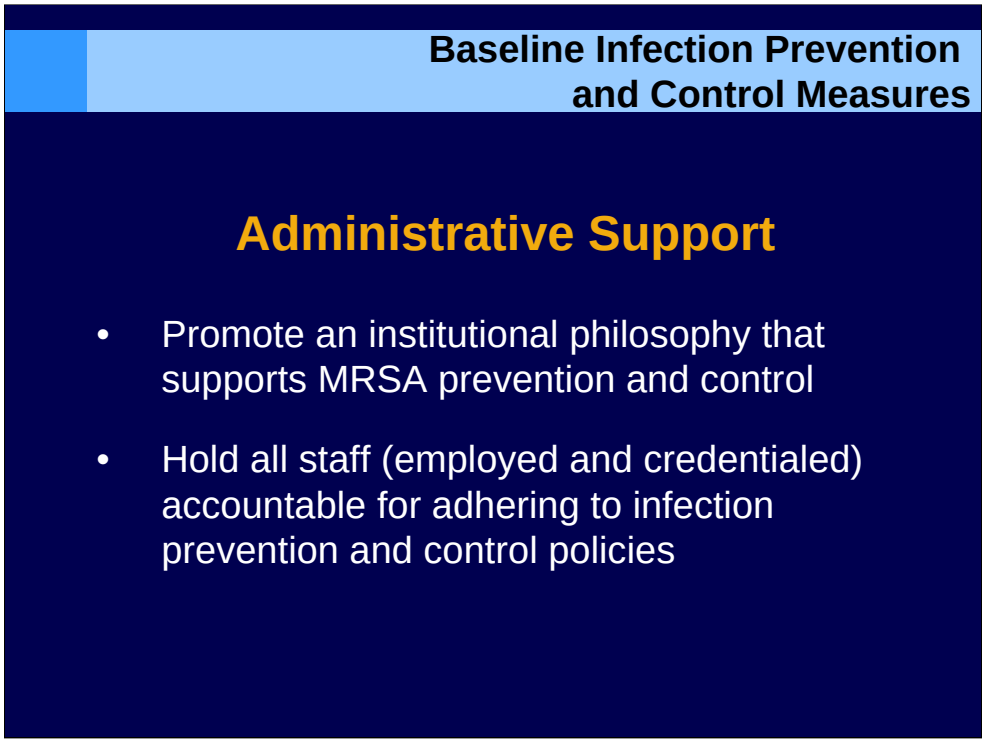
SLIDE: Organization of the Recommendations: Baseline Infection Prevention and Control Measures

At this point, I'm going to turn it over to Jane Harper who will provide an overview of the Recommendations.



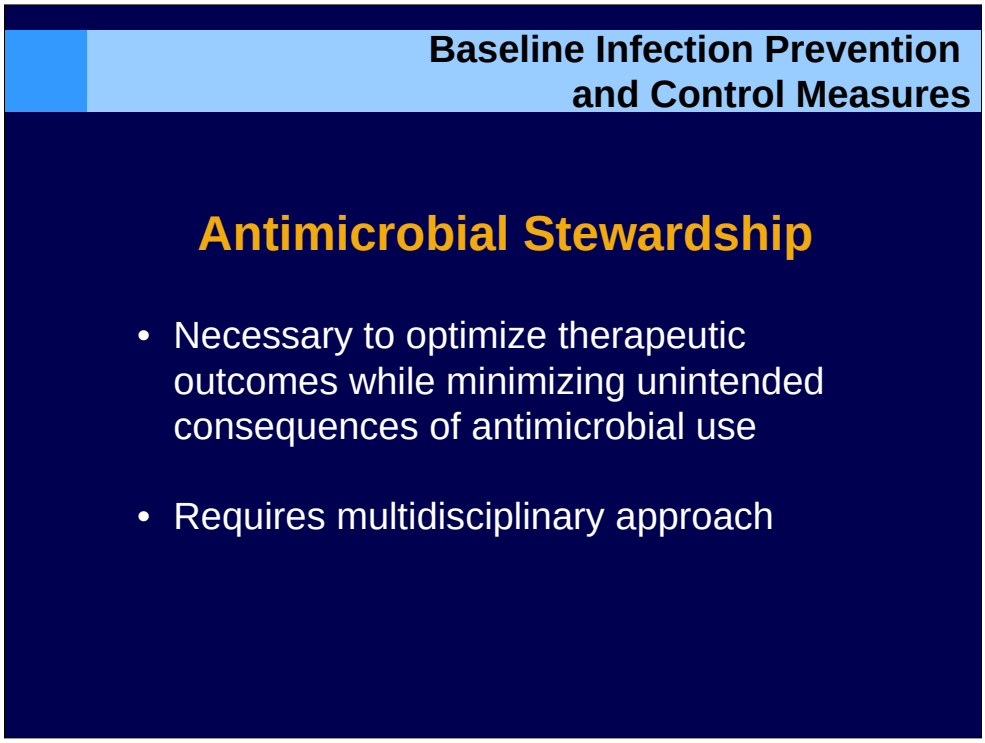
SLIDE: Organization of the Recommendations: Baseline Infection Prevention and Control Measures

Thank you. Before I begin an overview of the Recommendations, I want to mention that you will notice some organizational differences between the Recommendations and this presentation. This is intentional to be able to provide a complete overview in a limited period of time.



SLIDE: Baseline Infection Prevention and Control Measures

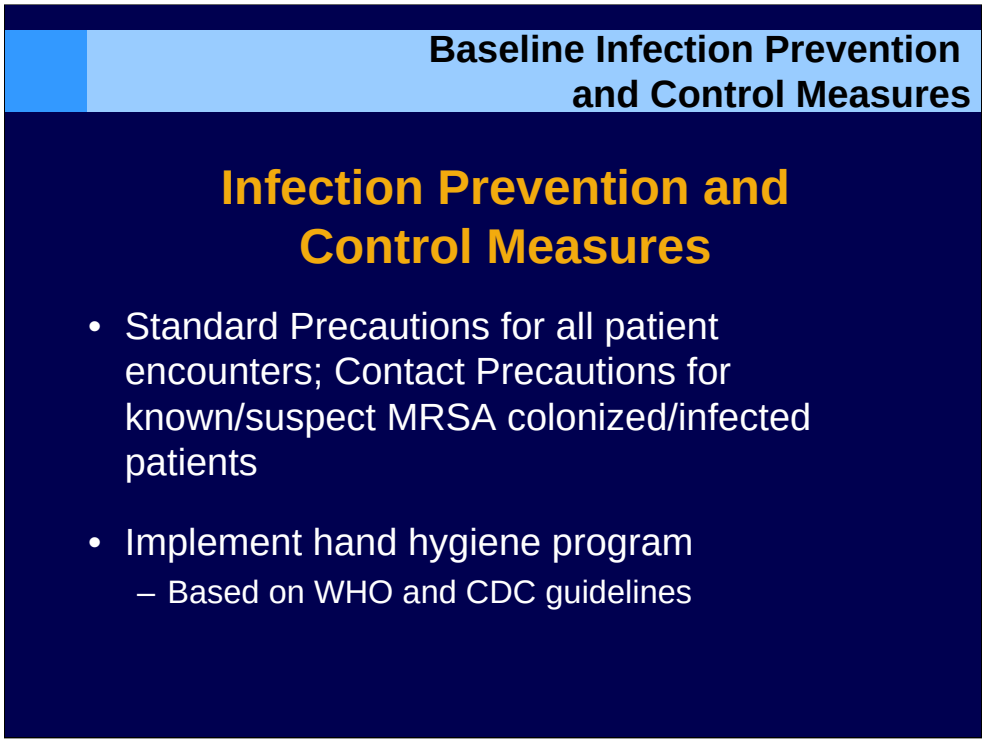
Baseline infection prevention and control measures are strategies that need to be in place in all healthcare facilities, independent of the prevalence of multi-drug resistant organisms, including MRSA. Baseline strategies lay the foundation for an effective MRSA infection prevention and control program.



SLIDE: Administrative Support

Administrative support is essential. Institutional leadership plays a key role in promoting an institutional philosophy that supports MRSA prevention and control, and holds all staff, whether employed or credentialed, accountable for adhering to infection prevention and control policies.

It has been shown that administrative and organizational leadership support for infection prevention and control programs has been associated with improvements in healthcare provider acceptance and adherence to recommended infection prevention and control practices.



SLIDE: Baseline Infection Prevention and Control Measures, cont.

As previously mentioned, antimicrobial overuse is the biggest driver for the development of antimicrobial resistance. Therefore, antimicrobial stewardship must be a cornerstone of the baseline infection prevention and control measures.

Judicious antimicrobial use programs, combined with a comprehensive infection prevention and control program, have been shown to curb the emergence and transmission of antimicrobial resistant bacteria.

Antimicrobial stewardship includes the optimal selection, dosage, and duration of antimicrobial treatment that results in the best clinical outcome and in acute care facilities can incorporate practices such as automatic stop orders, authorization systems, formulary restriction, mandatory consultation and peer review and feedback

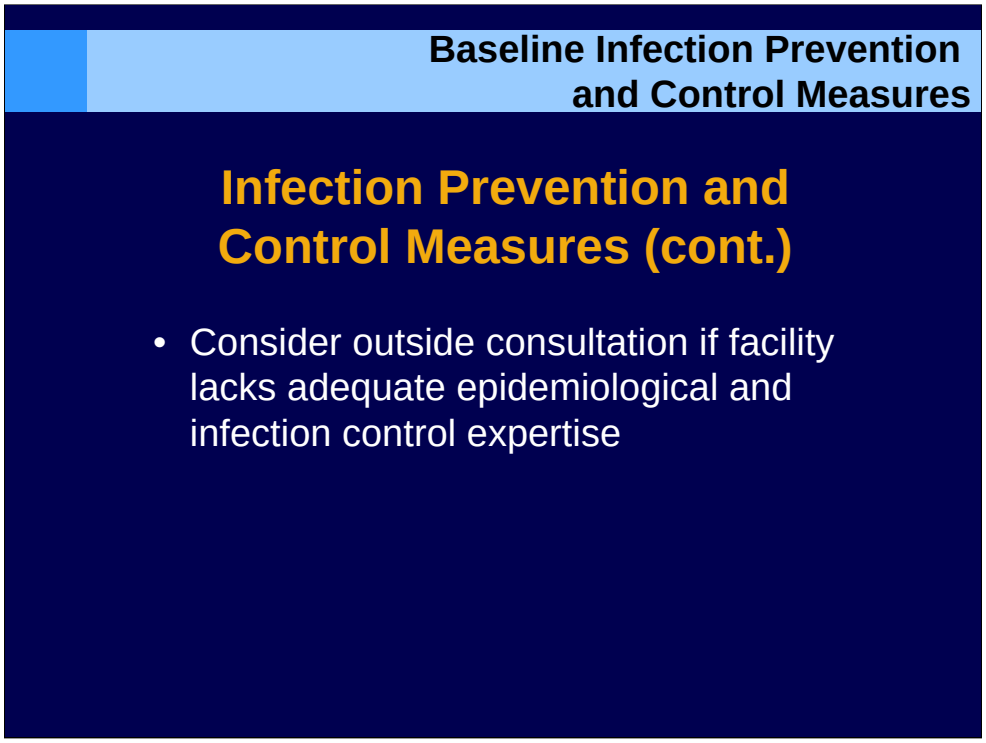
Effective antimicrobial stewardship programs incorporate all levels of the healthcare delivery system including direct care providers, healthcare administration, ancillary staff, patients and payers.

A multi-disciplinary antimicrobial stewardship team that includes a clinical pharmacist and physician with infectious disease training is recommended.

Baseline Infection Prevention and Control Measures call for the implementation of:

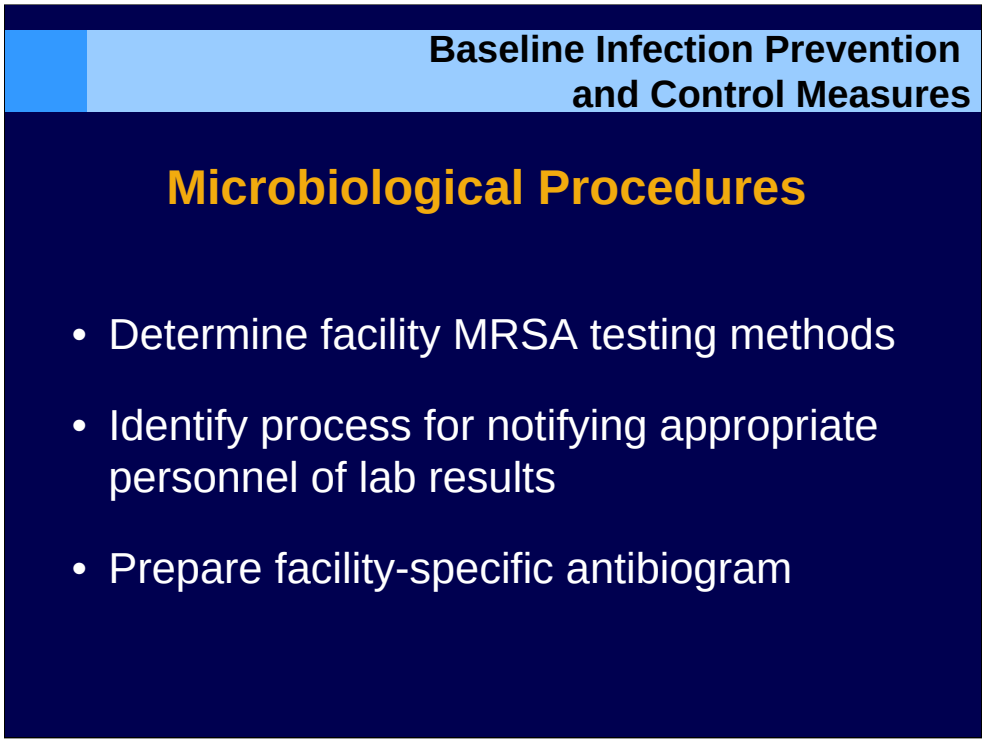
Standard Precautions in the care of all patients; Contact Precautions when providing care to known or suspect MRSA- colonized or infected patients.

And, a hand hygiene program that follows published guidelines, such as those from CDC and the World Health Organization.



SLIDE: Baseline Infection Prevention and Control Measures, cont.

Furthermore, facilities with limited epidemiological, infection control, or antimicrobial stewardship resources or expertise should consider establishing a cooperative relationship or seek consultation with facilities that do.



SLIDE: Microbiological Methods, cont.

Turning to the laboratory,

There are a variety of culture methods including conventional media, selective media or molecular testing for the detection of MRSA. There are pros and cons to each, so laboratory staff should be consulted regarding decisions about MRSA detection methods used by your facility.

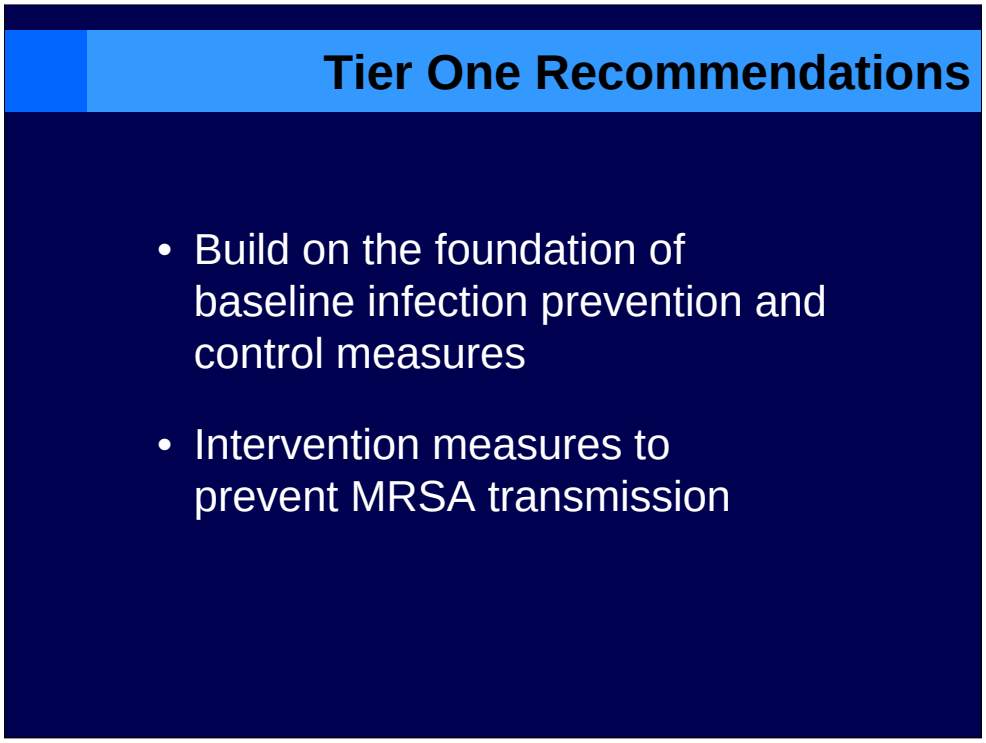
A process for communicating lab results to appropriate personnel in a timely manner should be established.

Laboratory staff, in collaboration with the antimicrobial stewardship team, should consider developing a facility-specific antibiogram to aid clinicians in choosing appropriate antibiotic treatment.

An antibiogram is a compilation of antimicrobial susceptibilities of selected pathogens and can provide facility-specific antibiotic resistance trends for identified pathogens. The Minnesota Department of Health develops an annual antibiogram for several pathogens based on data reported to our lab and it's available on our website (http://www.health.state.mn.us/divs/idepc/dtopics/antibioticresistance/antibiogram.html).

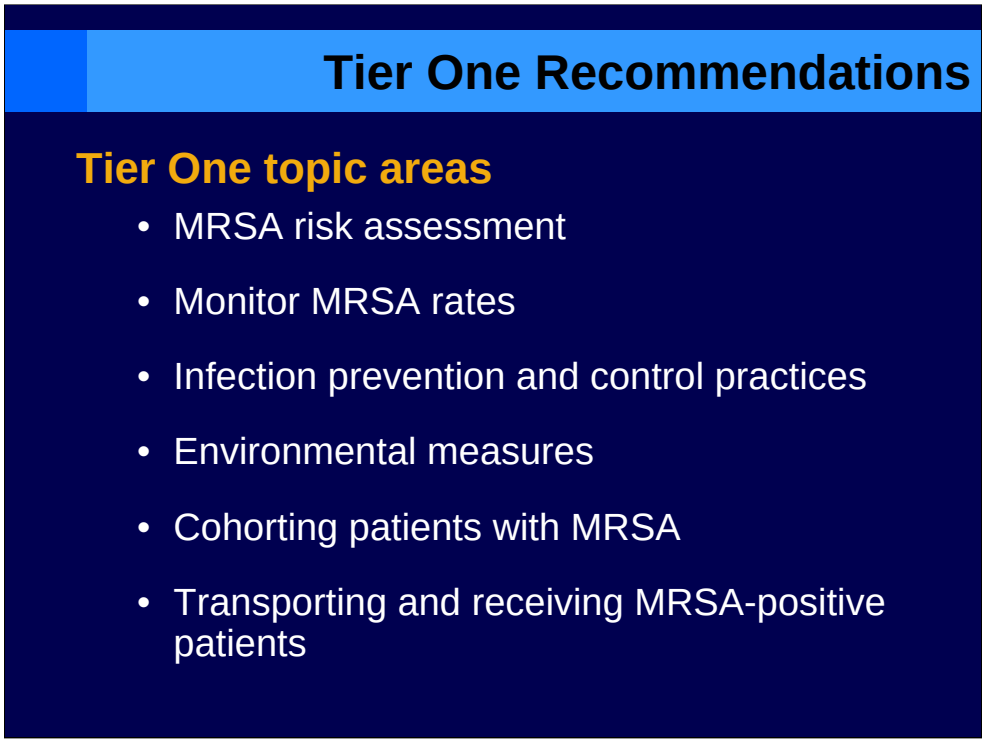
SLIDE: Organization of the Recommendations

Next I'll discuss elements of Tier One Recommendations



SLIDE: Tier One Recommendations

Tier One Recommendations build on the foundation laid by the Baseline Infection Prevention and Control measures. These recommendations include a risk assessment and include strategies to be used in the management of patients identified with MRSA colonization or infection to prevent MRSA transmission.



SLIDE: Tier One Recommendations, cont.

Tier One topic areas include

Conducting an MRSA risk assessment

Monitoring MRSA rates

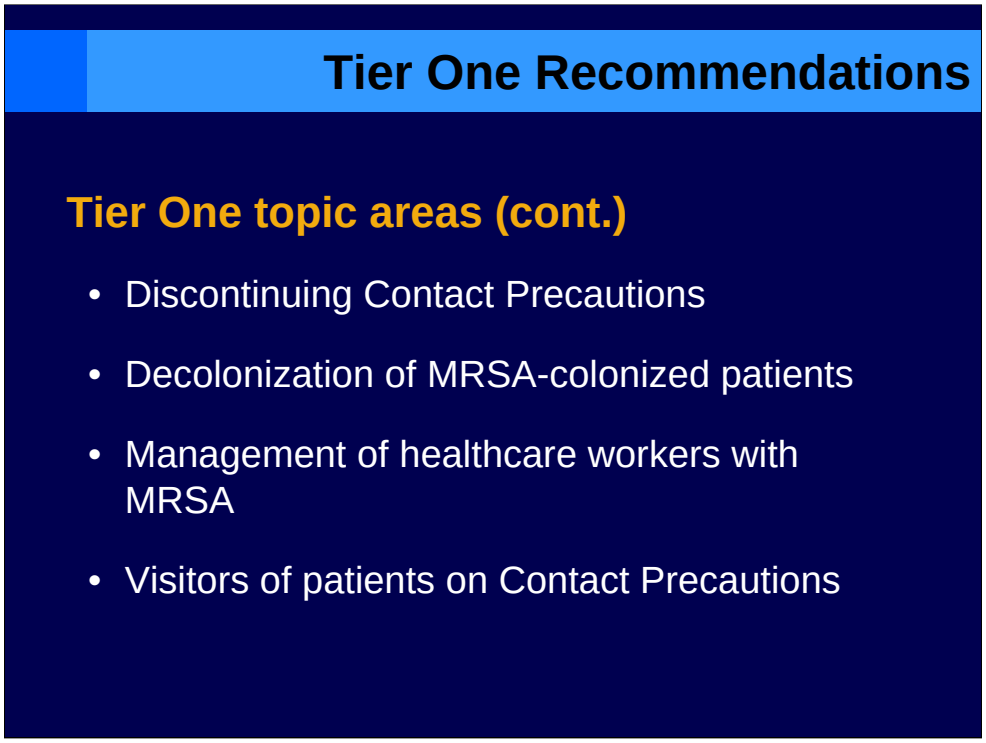
Infection prevention and control practices

Environmental measures

Cohorting patients with MRSA

Transporting and receiving MRSA-positive patients

AND



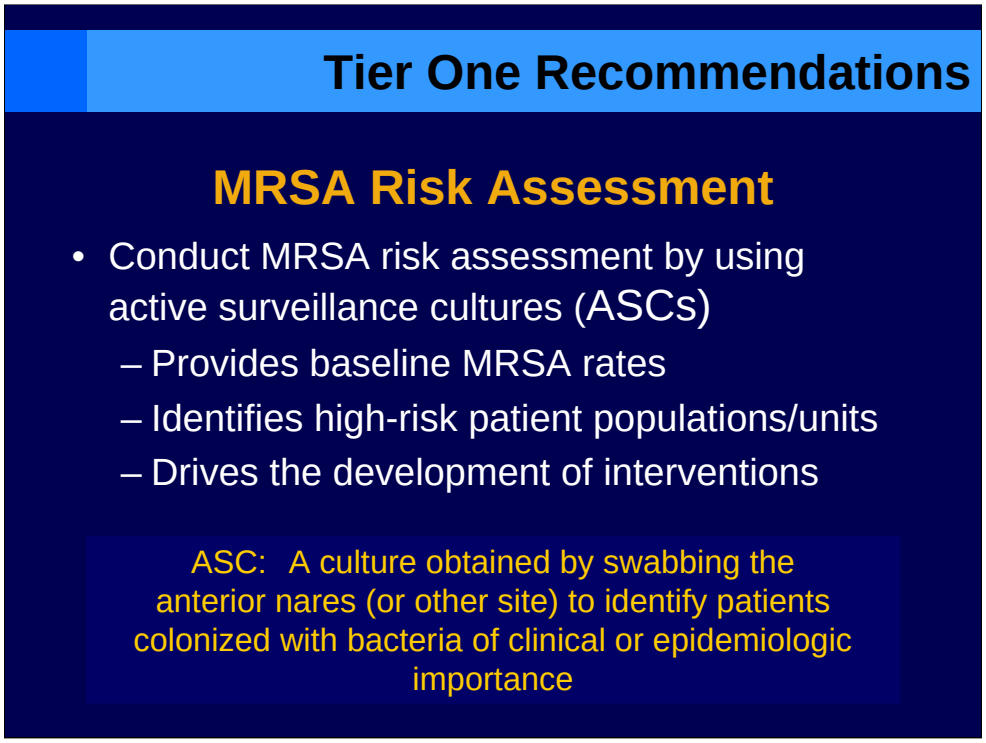
Tier One Recommendations, cont.

Discontinuing Contact Precautions

Decolonization of MRSA-colonized patients

Management of healthcare workers with MRSA

Visitors of patients on Contact Precautions



SLIDE: Tier One Recommendations, cont. Risk Assessment

An MRSA risk assessment is at the core of Tier One recommendations. A risk assessment assists facilities in identifying the extent of their MRSA problem, and will be useful in determining their success in addressing it.

If colonized patients go undetected – or if infection control practices are sub-optimal, colonized patients can serve as a reservoir from which MRSA transmission can occur.

A risk assessment is conducted by screening patients using active surveillance cultures to identify MRSA-colonized patients.

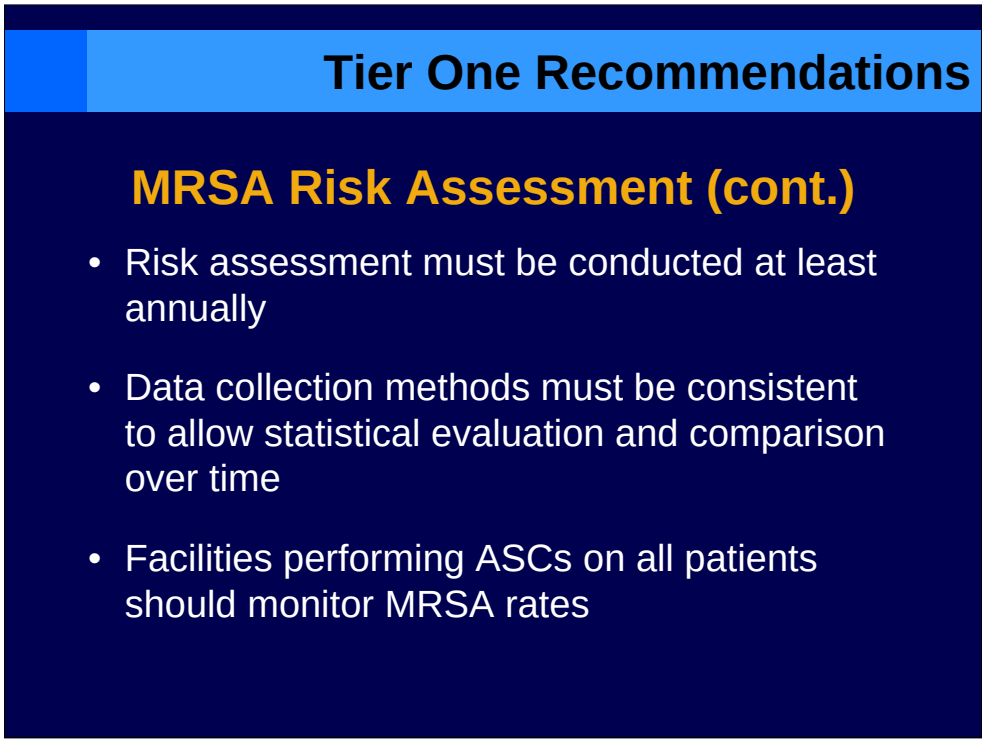
Data obtained by the risk assessment:

Provide baseline MRSA rates,

Identify high risk patient populations or units, and

Drive the development of interventions.

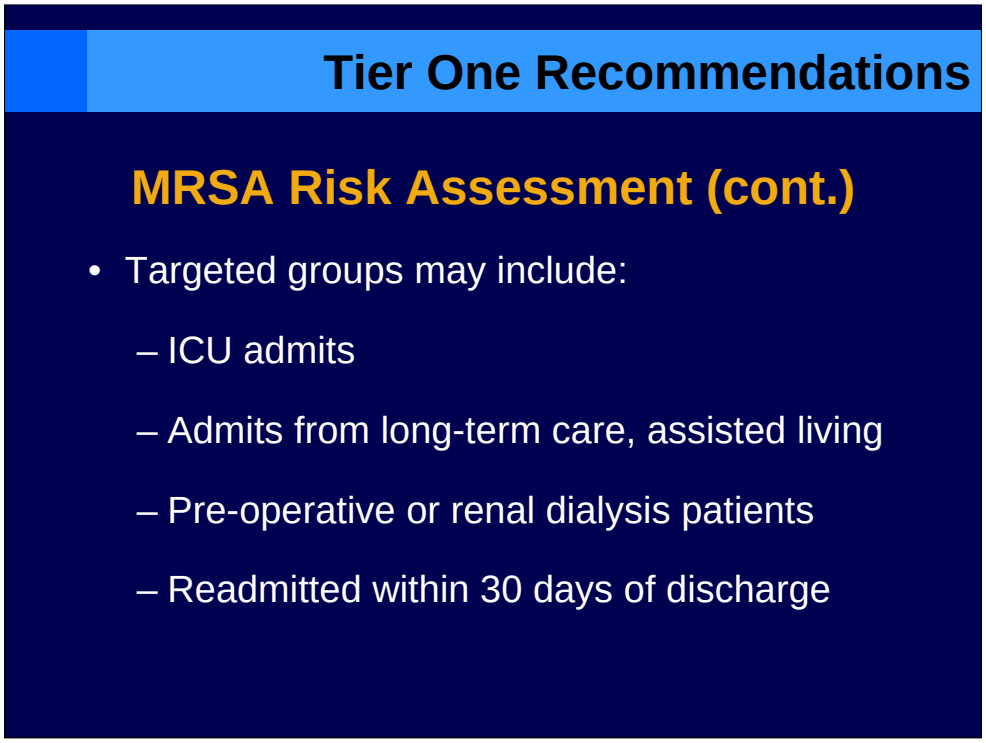
Furthermore, a risk assessment allows facilities to identify, target and monitor interventions to their individually identified high-risk populations and or patient care units. This creates the potential for greater reduction in MRSA transmission.



SLIDE: Tier One Recommendations, cont.

The MDH MRSA Tier One Recommendations require that a risk assessment be performed annually. In order to allow for comparison of data over time, data collection methods must be consistent.

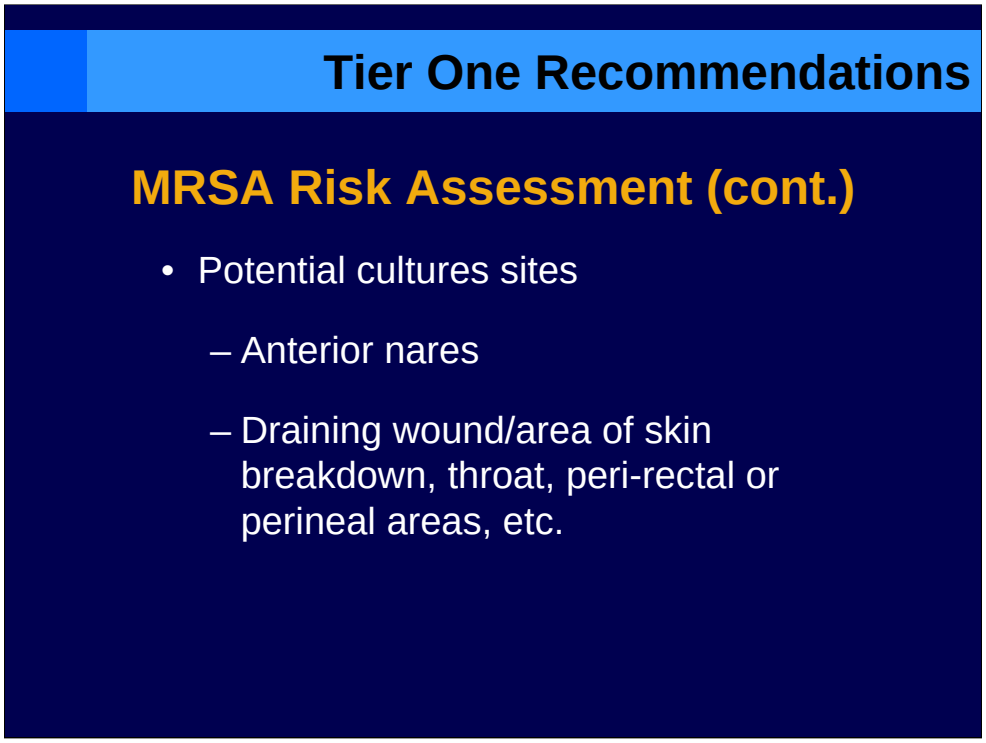
Facilities that are already performing active surveillance cultures on all patients do not need to conduct an additional risk assessment. However, they should regularly monitor their MRSA infection and colonization rates.



SLIDE: Tier One Recommendations, cont. Target Groups

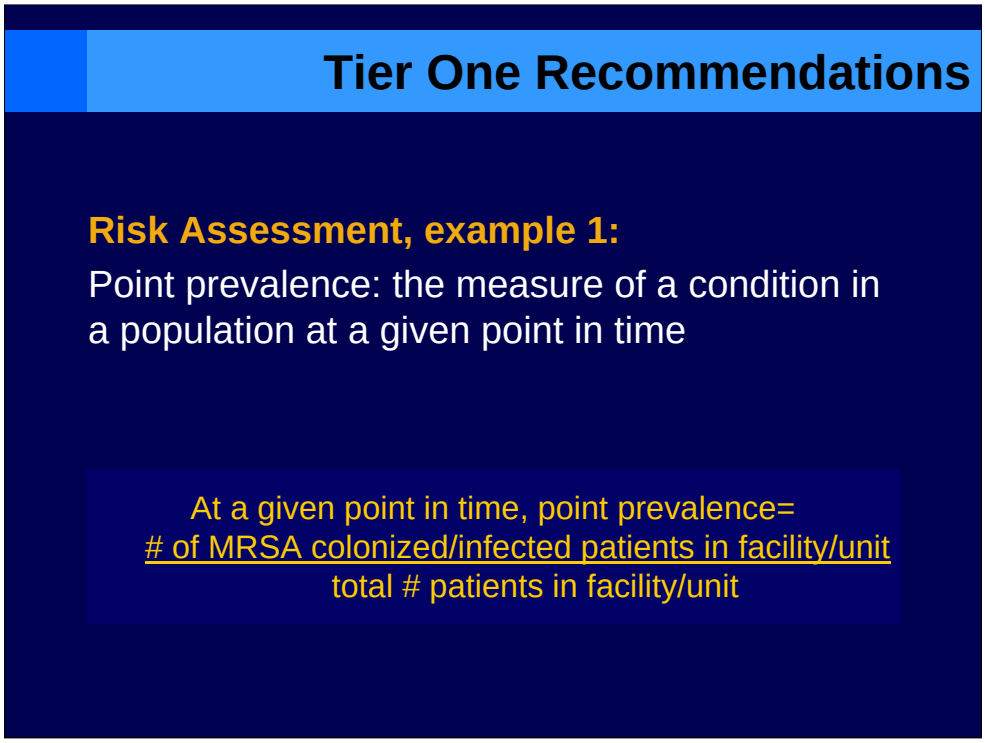
Facilities can conduct a facility-wide risk assessment – or target their risk assessment to known high-risk patient populations or units.

These high-risk populations or units may include patients admitted to intensive care units, those admitted from a long-term care or assisted living facility, pre-operative or renal dialysis patients and those re-admitted within 30 days of hospital discharge.



SLIDE: Tier One Recommendations, cont. Culture sites

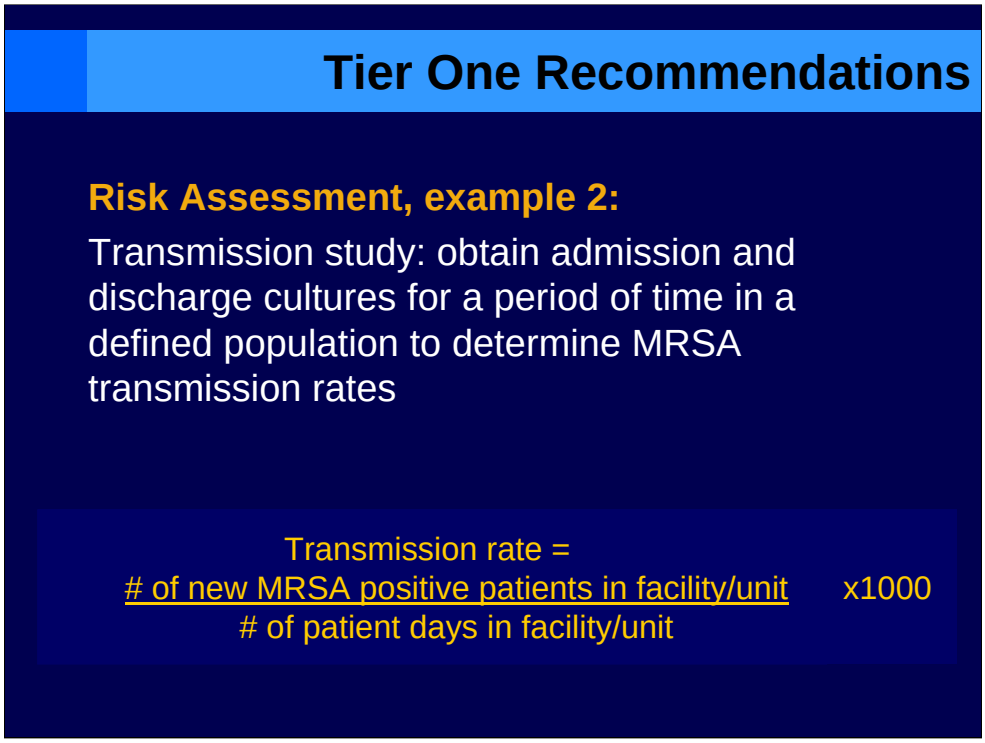
The typical site for collecting active surveillance cultures is the anterior nares. However, other sites, in addition to the nares, that may be considered include a draining wound or area of skin breakdown, the throat, peri-rectal or perineal areas.



SLIDE: Tier One Recommendations, cont. Risk Assessment

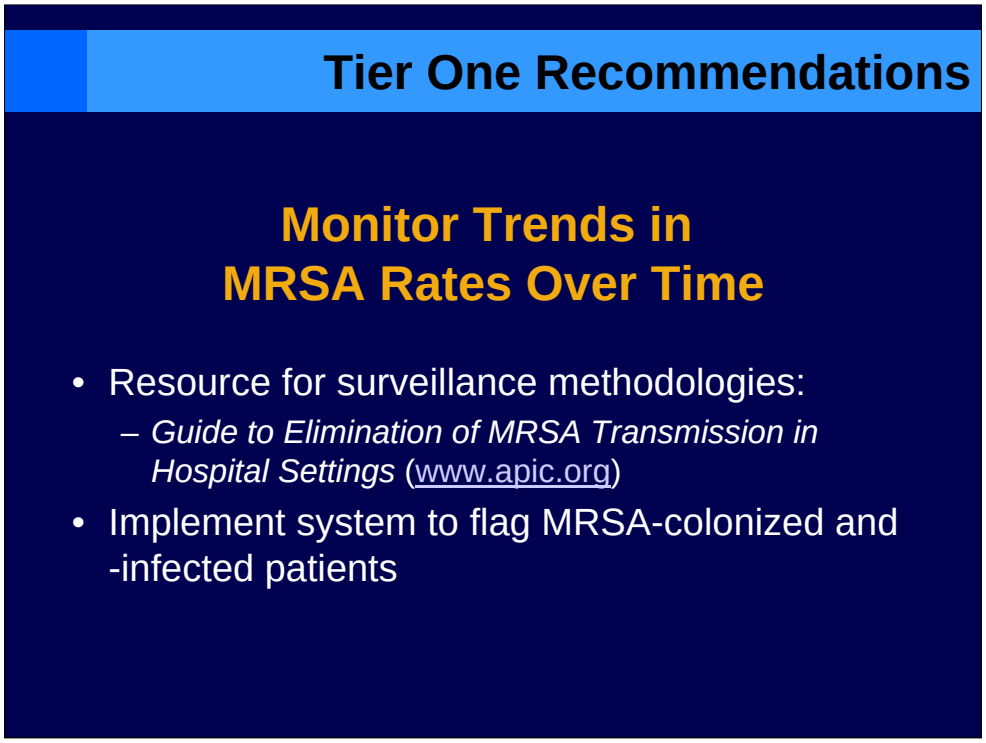
Next, I'm going to describe two methods that can be used for conducting a risk assessment.

The first method is a point prevalence study which measures the presence of MRSA in a defined population at a given point in time. The equation for obtaining point prevalence is provided here.



SLIDE: Tier One Recommendations, cont. Risk Assessment

The second method of conducting a risk assessment is a transmission study where admission and discharge cultures are obtained for a specific period of time in a defined population to determine MRSA transmission rates. This allows you to determine the number of patients who convert from MRSA negative to positive. The equation to obtain a transmission rate is provided here.

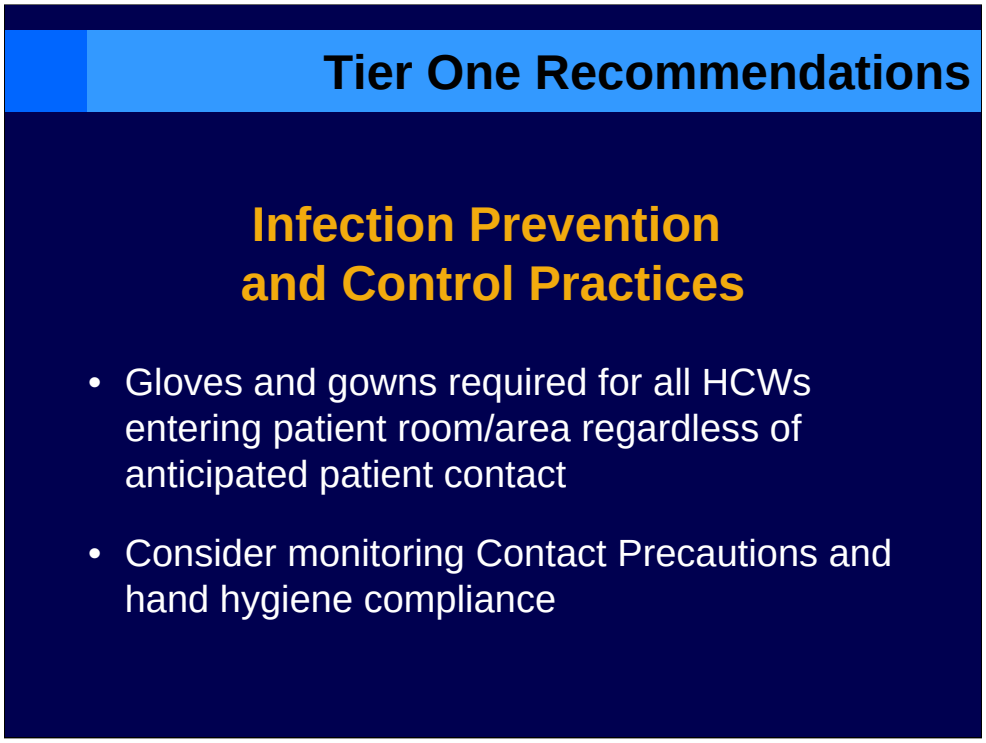


SLIDE: Tier One Recommendations, cont. Monitor Trends in MRSA Rates Over Time

There is only one way to know if improvement occurs - and that is through measurement.

MRSA rates should be monitored over time to identify trends, and a system to track or flag MRSA colonized or infected patients should be implemented.

Additional resources for surveillance methodologies are available in APIC's *Guide to Elimination of MRSA Transmission in Hospital Settings* at the website on this slide.



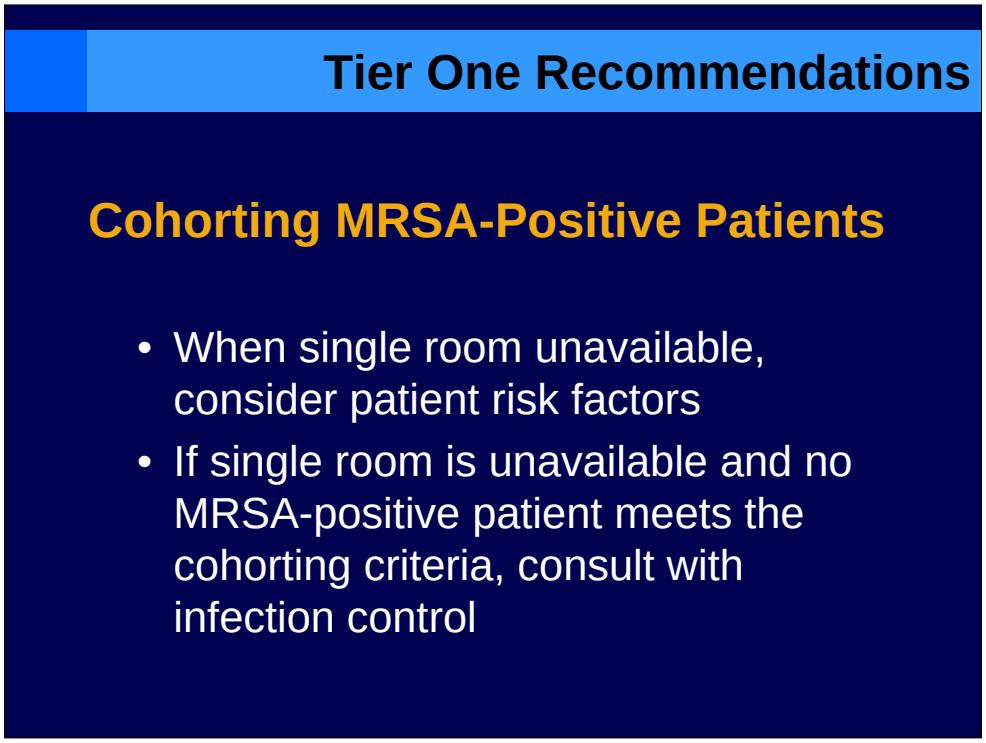
SLIDE: Tier One Recommendations, cont. Infection Prevention and Control Practices

Tier One recommendations require the use of gowns and gloves per Contact Precautions for all healthcare workers when entering the room or area of an MRSA positive patient, regardless of whether or not the healthcare worker anticipates contact with the patient or the patient's environment.

This is based on studies that suggest that universal gowning upon room entry may help to increase overall healthcare worker compliance with infection prevention and control practices.

It has been shown that healthcare provider spend less time providing direct care to patients on Contact Precautions. Facilities should be aware of this, and compensate through increased staff education and awareness about the potential for diminished contact with these patients.

Additionally, facilities should consider monitoring healthcare worker compliance with Contact Precautions and hand hygiene – with feedback provided to the healthcare workers.



SLIDE: Tier One Recommendations, cont. Cohorting MRSA-Positive Patients

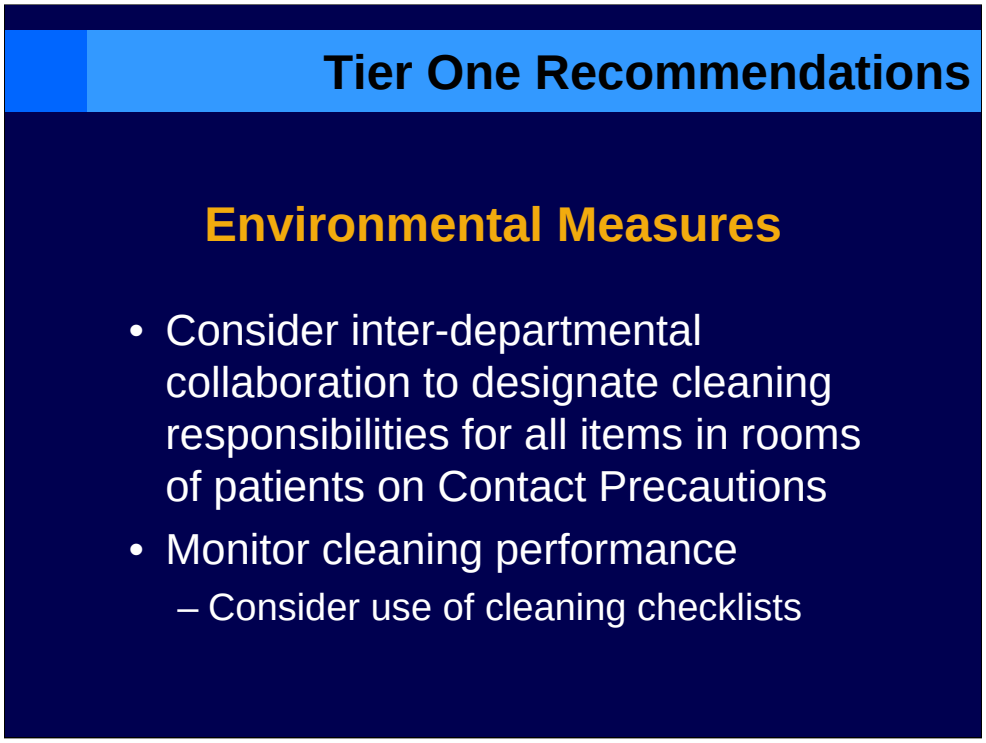
MRSA-positive patients may be cohorted when a single room is unavailable. However, patient risk factors must be carefully considered. A list a risk factors is included in the Recommendations.

If a single room is unavailable and no patient meets the cohorting criteria, the infection control department should be consulted.

To reduce the risk of cross-contamination when between cohorted patients, the integrity of each isolation space must be maintained. For instance, each patient's bed must be considered a separate isolation space.

Healthcare workers must perform hand hygiene and change personal protective equipment between providing care to patients cohorted in the same room.

Where feasible, separate equipment should be used, and when not possible equipment must be thoroughly disinfected between patients.



SLIDE: Tier One Recommendations, cont Environmental Measures

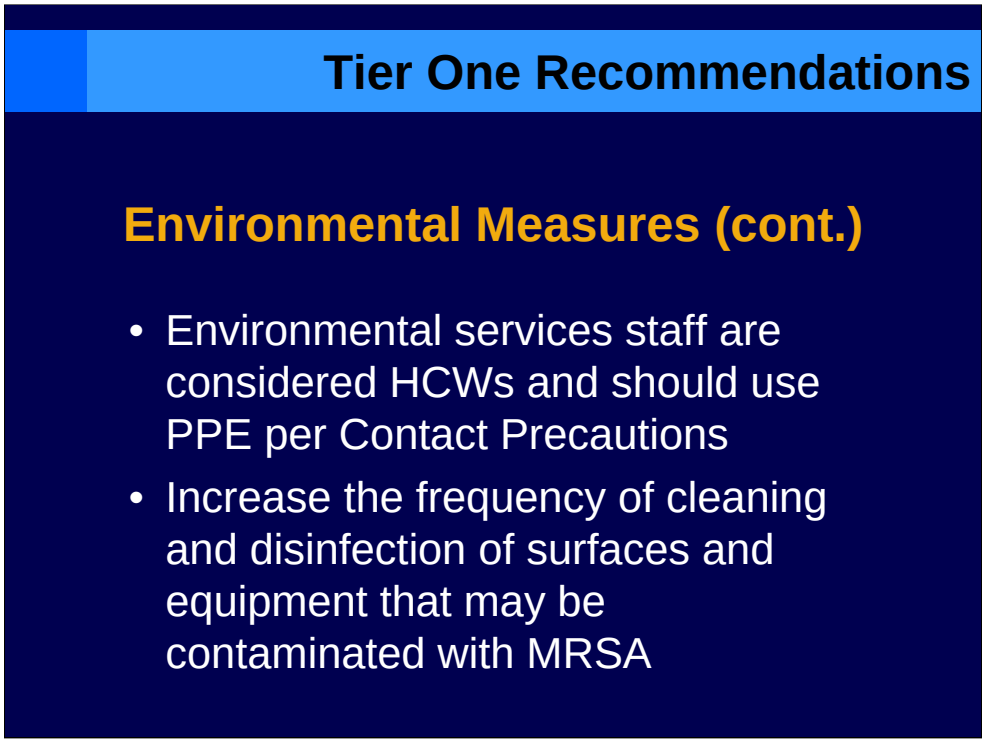
The next topic area is Environmental Measures.

Thorough, regular cleaning and disinfection is essential, regardless of the MRSA status of the patient, and should be a priority in all hospitals.

Studies report that MRSA can persist on surfaces for extended periods of time - ranging from 1 to 56 days. Transient contamination of healthcare workers can occur during patient care delivery or from contact with the patient's environment.

Inter-departmental collaboration may be needed to assure that all items in rooms of patients on Contact Precautions are adequately cleaned and disinfected.

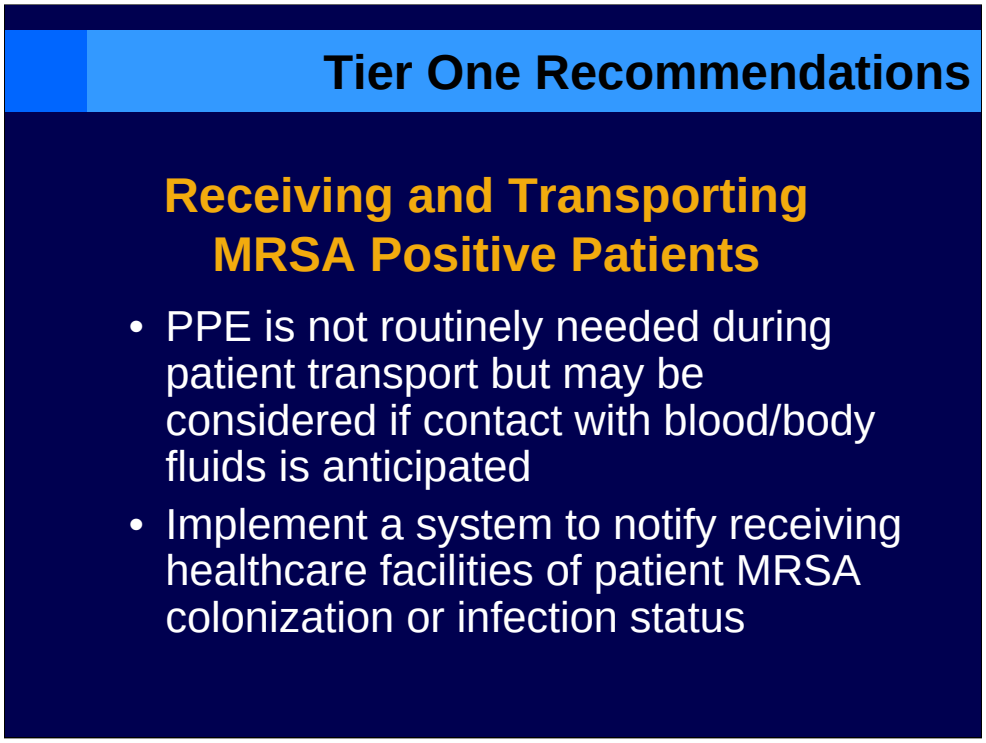
Checklists to assure that cleaning procedures are followed and mechanisms to reinforce proper technique can be used.



SLIDE: Tier One Recommendations, cont. Environmental Measures

Environmental Services staff are expected to wear personal protective equipment, gowns and gloves per Contact Precautions, when entering rooms or areas of patients on Contact Precautions.

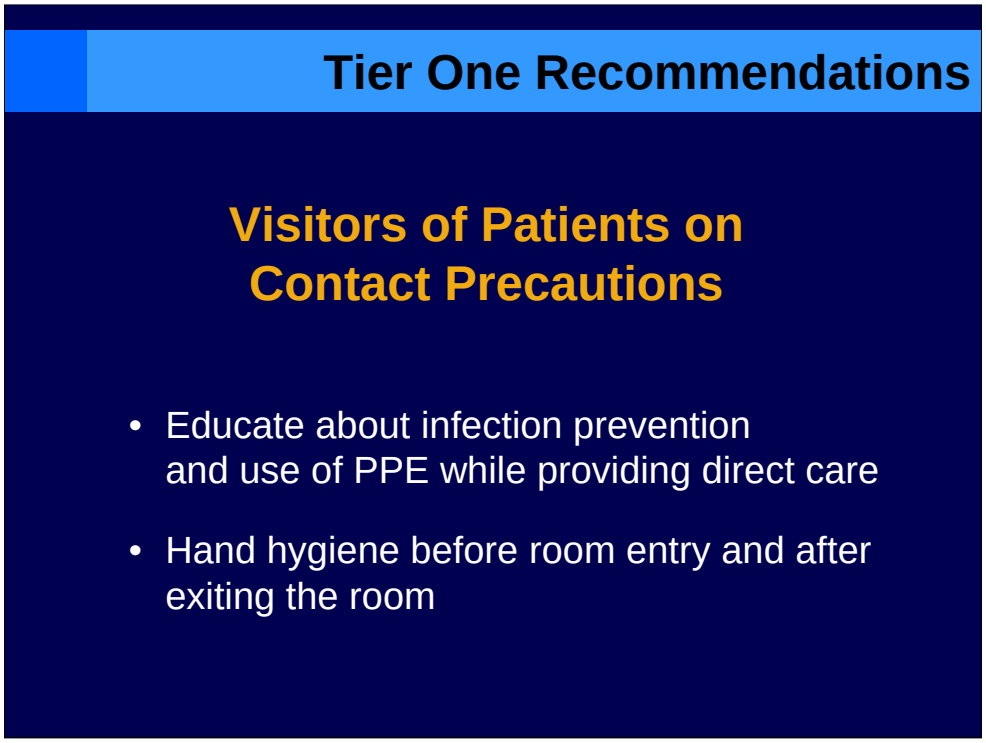
Additionally, consider increasing the frequency of cleaning and disinfection of high-touch surfaces and equipment that may be contaminated with MRSA.



SLIDE: Tier One Recommendations, cont. Receiving and Transporting MRSA Positive Patients

The next topic is Receiving and Transporting MRSA Positive Patients. Personal protective equipment is not routinely needed during patient transport but may be considered if contact with blood/body fluids is anticipated.

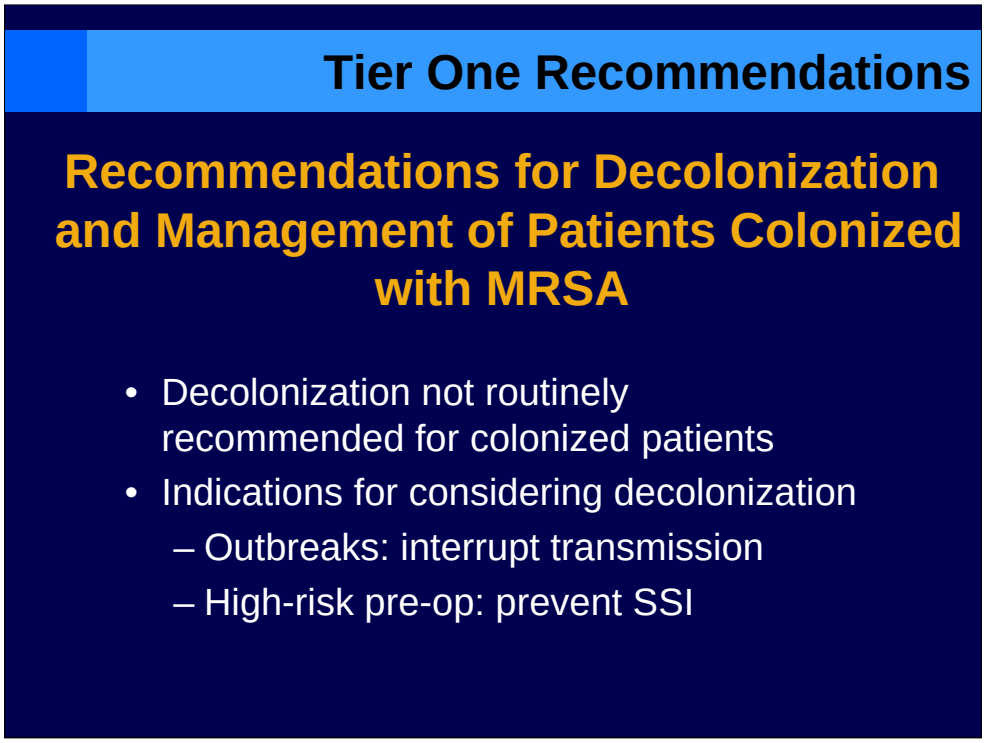
When transferring patients to other healthcare facilities, the transferred patient's MRSA status should be communicated to the receiving healthcare facility. A system should be developed and implemented to make this notification process standard practice.



SLIDE: Tier One Recommendations, cont Visitors of Patients on Contact Precautions

Visitors to patients on Contact Precautions should be educated about infection prevention measures, including the use of personal protective equipment when providing direct patient care.

All visitors, regardless of whether or not they are providing direct care, must clean their hands before entering the patient's room and after leaving the room.



SLIDE: Tier One Recommendations, cont. Decolonization

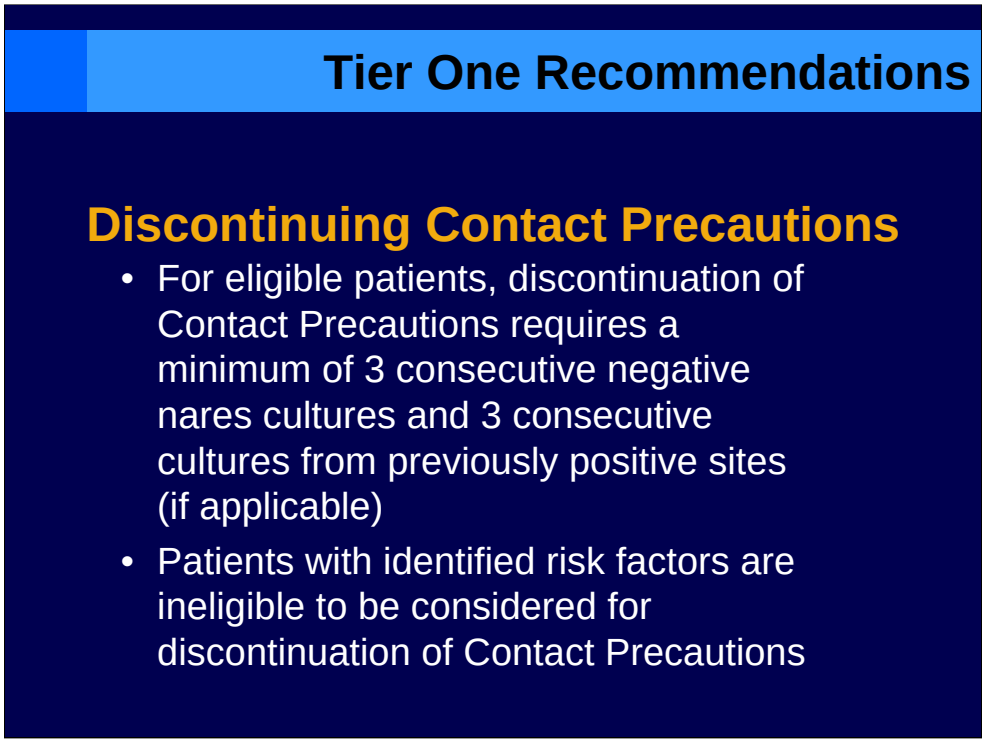
Decolonization is not routinely recommended for patients colonized with MRSA.

The long-term success of decolonization strategies has not been adequately studied and, as a result, there are no standard recommendations for decolonization.

Situations in which decolonization could be considered include:

One: pre-operatively, for colonized, high-risk patients or

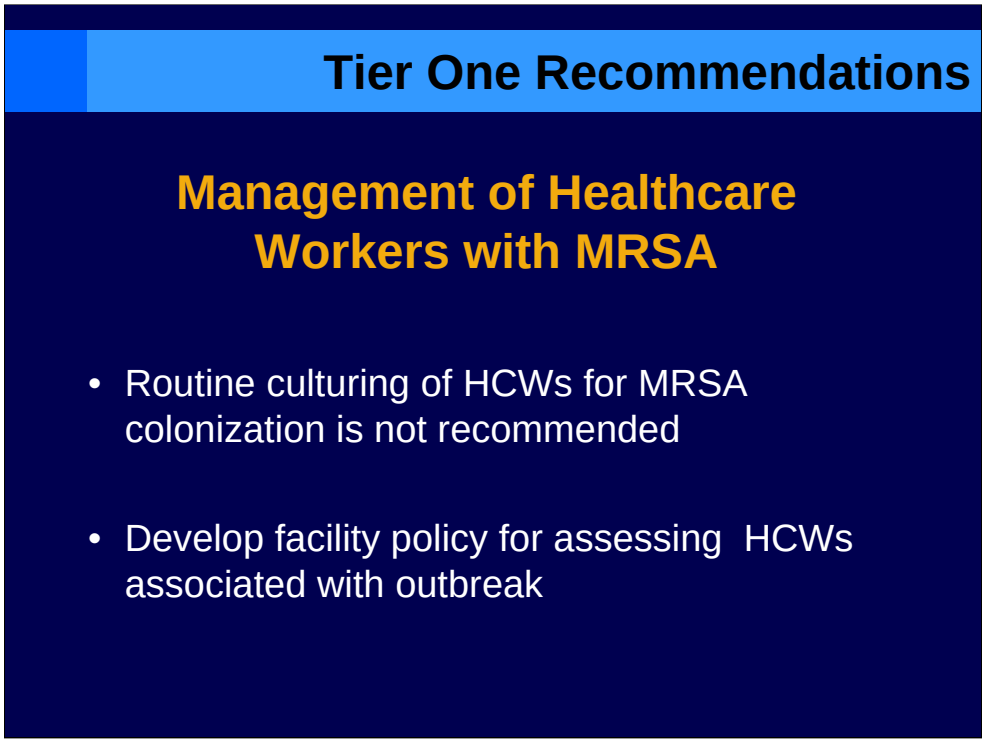
Two: to interrupt MRSA transmission during an outbreak within the facility.



SLIDE: Tier One Recommendations, cont.

For patients who are considered eligible for discontinuation of Contact Precautions, a minimum of 3 consecutive negative nares cultures and 3 consecutive cultures from previously positive sites (if applicable) are recommended.

Patients with identified risk factors, as listed in the Recommendations, are not eligible to be considered for discontinuation of Contact Precautions.



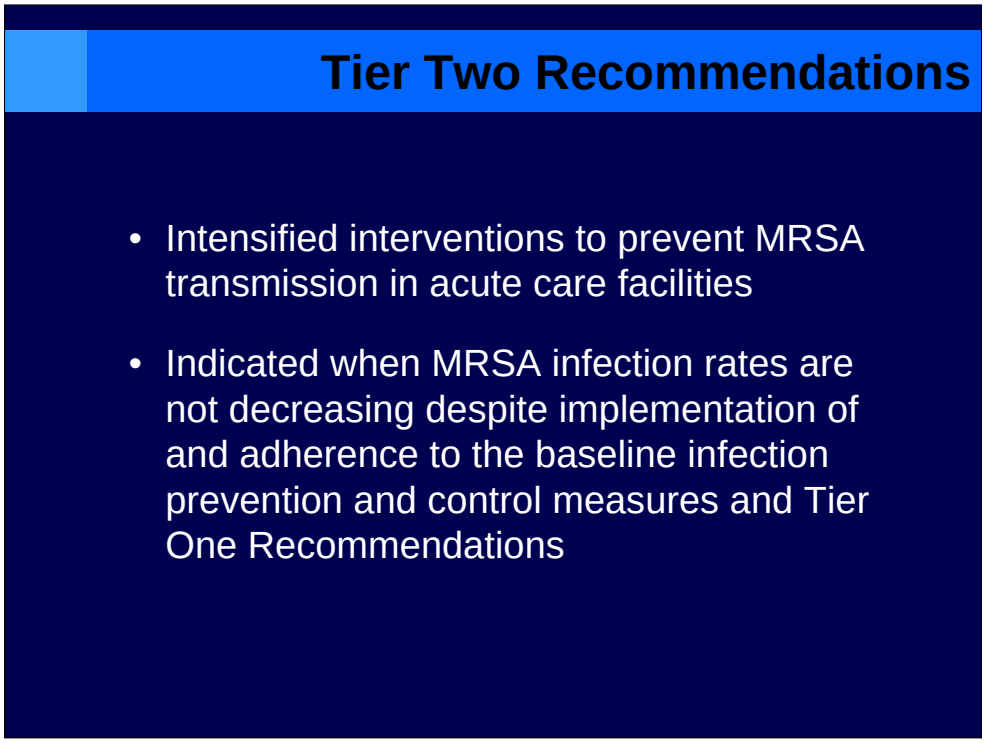
SLIDE: Tier One Recommendations, cont. Management of Healthcare Workers with MRSA

The routine culturing of healthcare workers for MRSA colonization is not recommended.

Facilities should consider developing policies for assessing healthcare workers associated with an outbreak of MRSA, and for managing healthcare workers who have MRSA infections.

SLIDE Organization of the Recommendations

Finally, I'm going to discuss the contents of Tier Two Recommendations



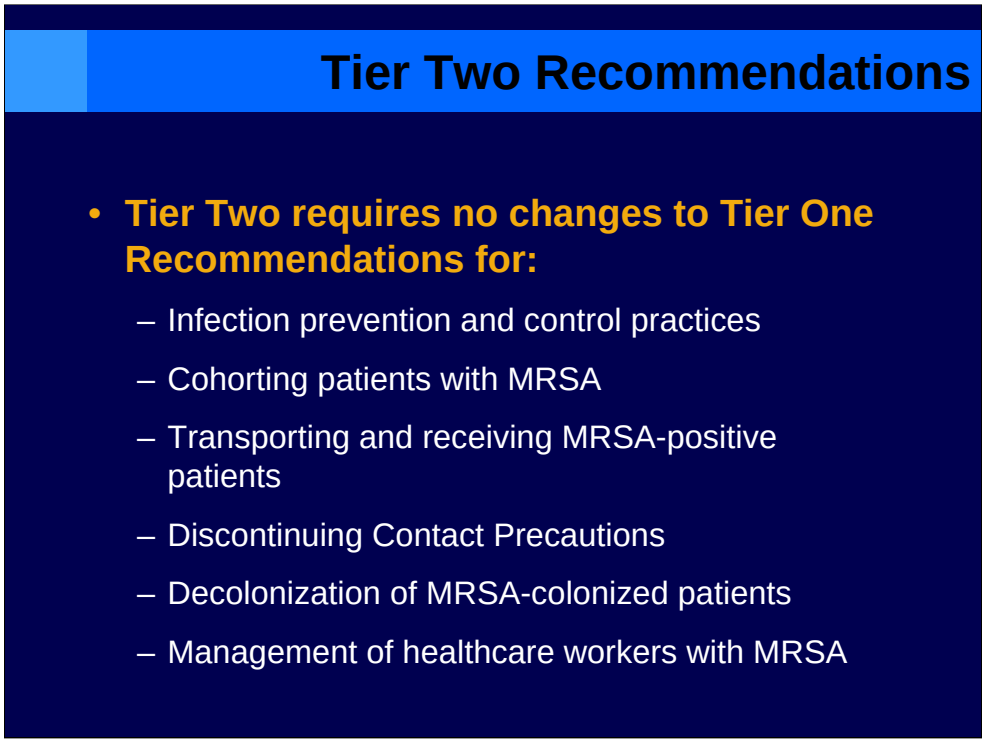
SLIDE: Tier Two Recommendations

Tier Two Recommendations outline intensified interventions to prevent MRSA transmission in acute care facilities.

Tier Two Recommendations are indicated when MRSA infection rates are not decreasing, despite implementation of, and adherence to, the baseline infection prevention and control measures and Tier One Recommendations.

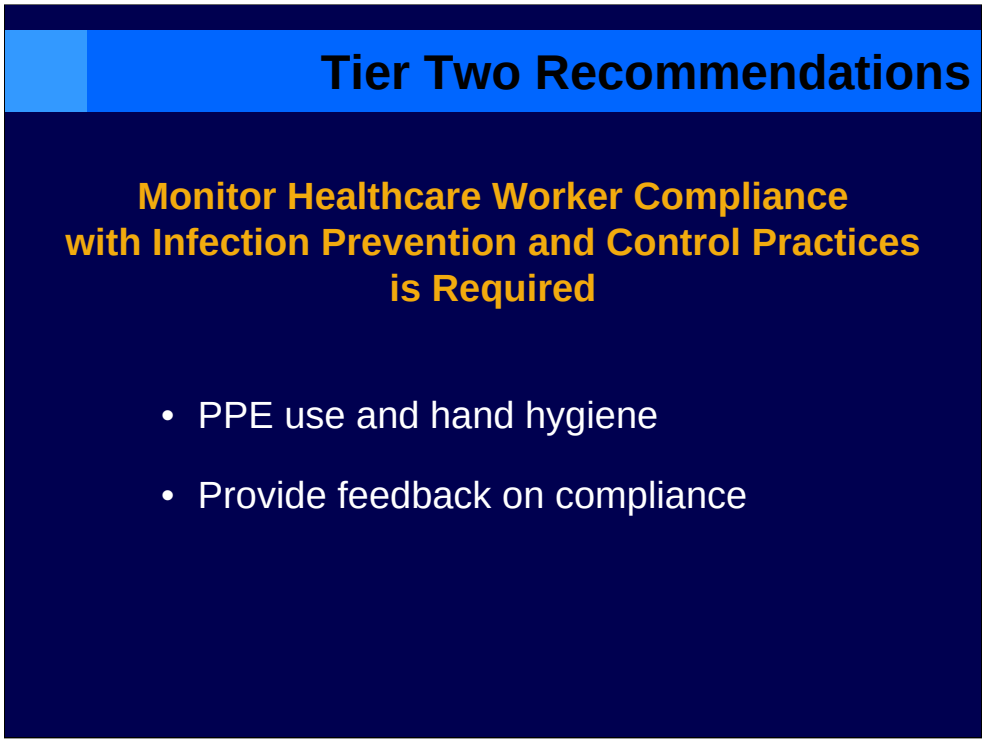
Determining an appropriate intervention or combinations of interventions to be used in Tier Two should consider infection prevention and control practices already in place and possible factors contributing to on-going MRSA transmission.

In the next few slides I will describe infection prevention and control measures that may be considered as part of Tier Two Recommendations.



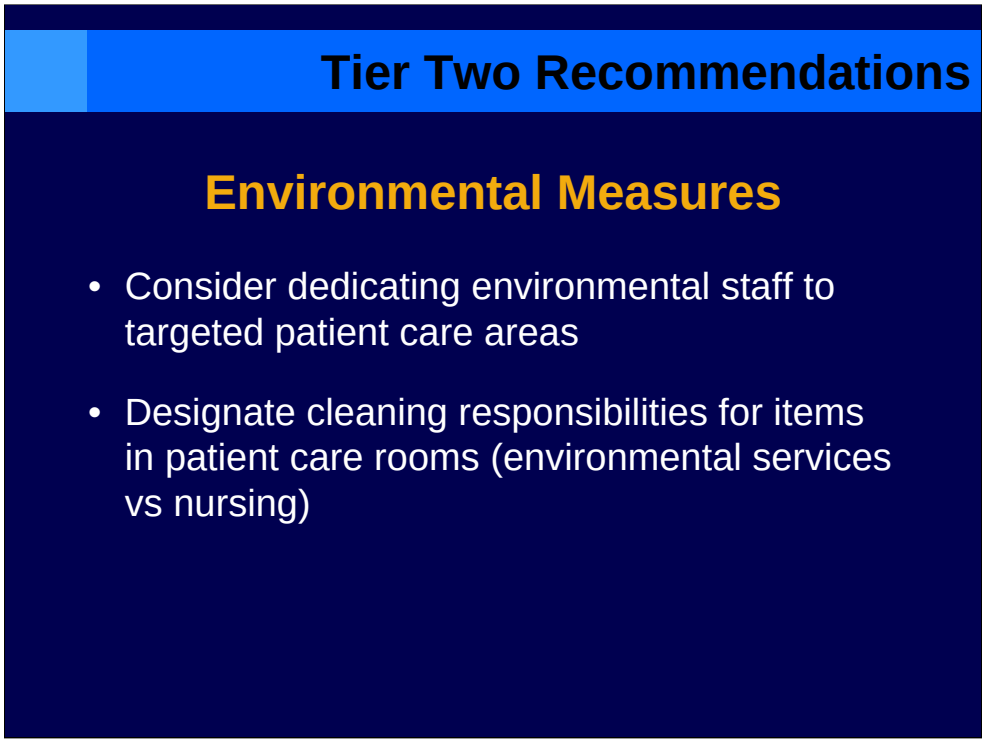
SLIDE: Tier Two Recommendations, cont. Tier Two requires no changes to Tier One Recommendations for:

Tier Two Recommendations require no changes to Tier One Recommendations for the topic areas listed here. In other words, Tier One recommendations should continue for these topic areas.



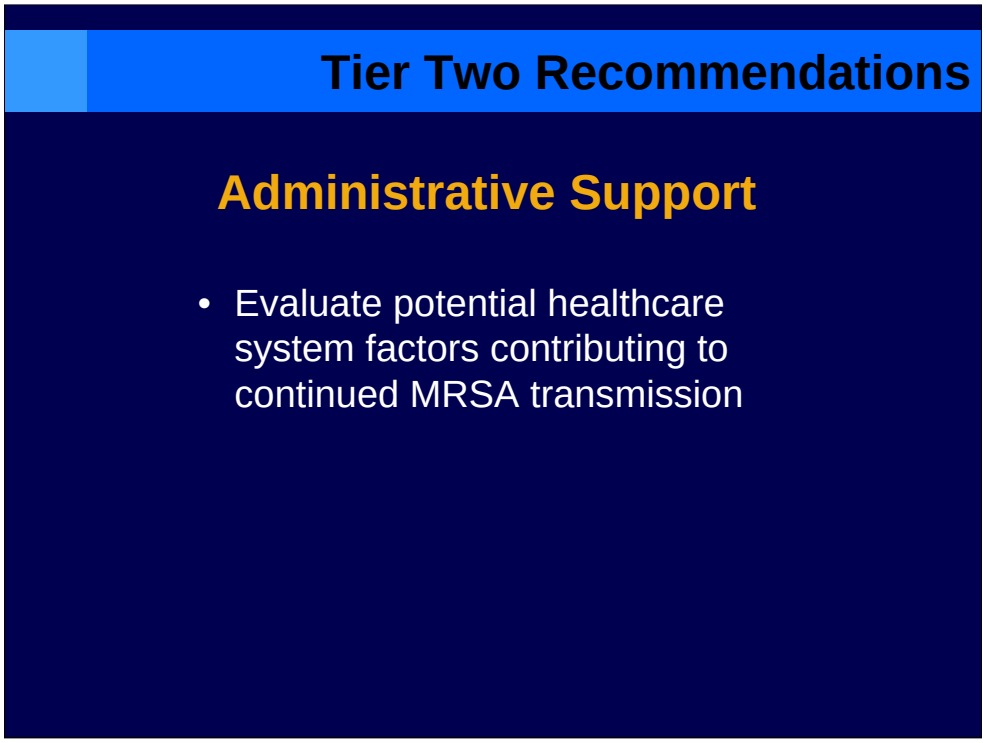
SLIDE: Monitor Healthcare Worker Compliance with Infection Prevention and Control Practices is Required

Healthcare worker compliance with Contact Precautions and hand hygiene must be monitored. You may recall that in Tier One, this activity could be considered. Feedback to staff is an essential component of this monitoring process.



SLIDE: Tier Two Recommendations, cont. Environmental Measures

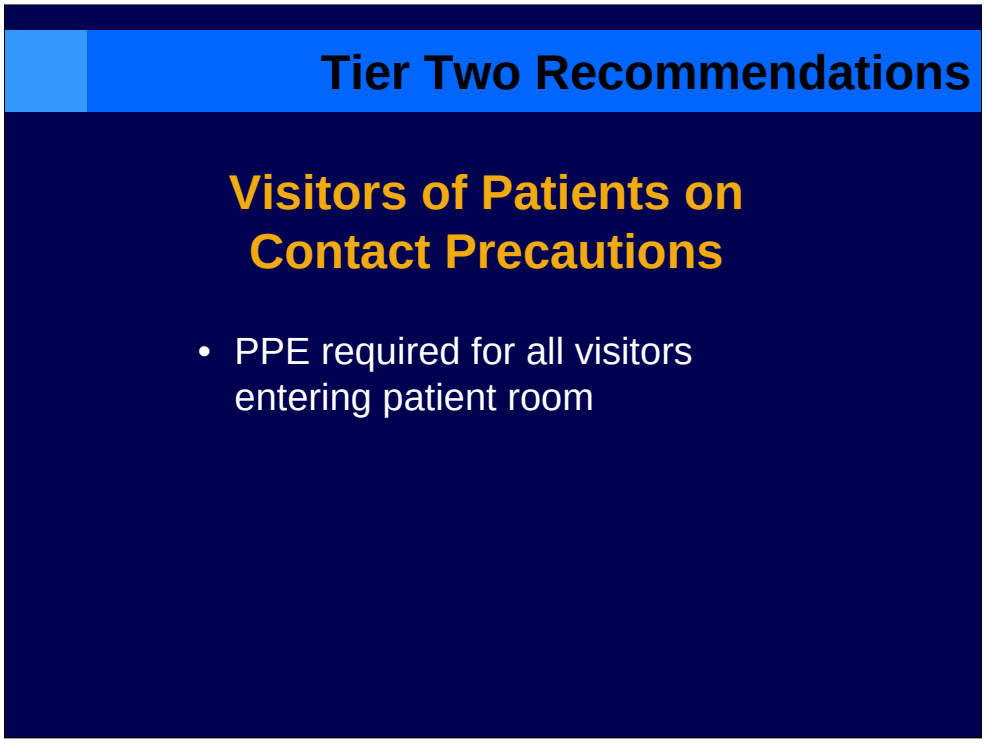
Because the environment can play a role in MRSA transmission, enhanced environmental interventions may be needed. These may include dedicating environmental services staff to targeted patient care areas or designating cleaning responsibilities for items in patient care rooms. For instance, identifying which items will be cleaned by environmental services staff and which will be cleaned by nursing.



SLIDE: Tier Two Recommendations, cont. Administrative Support

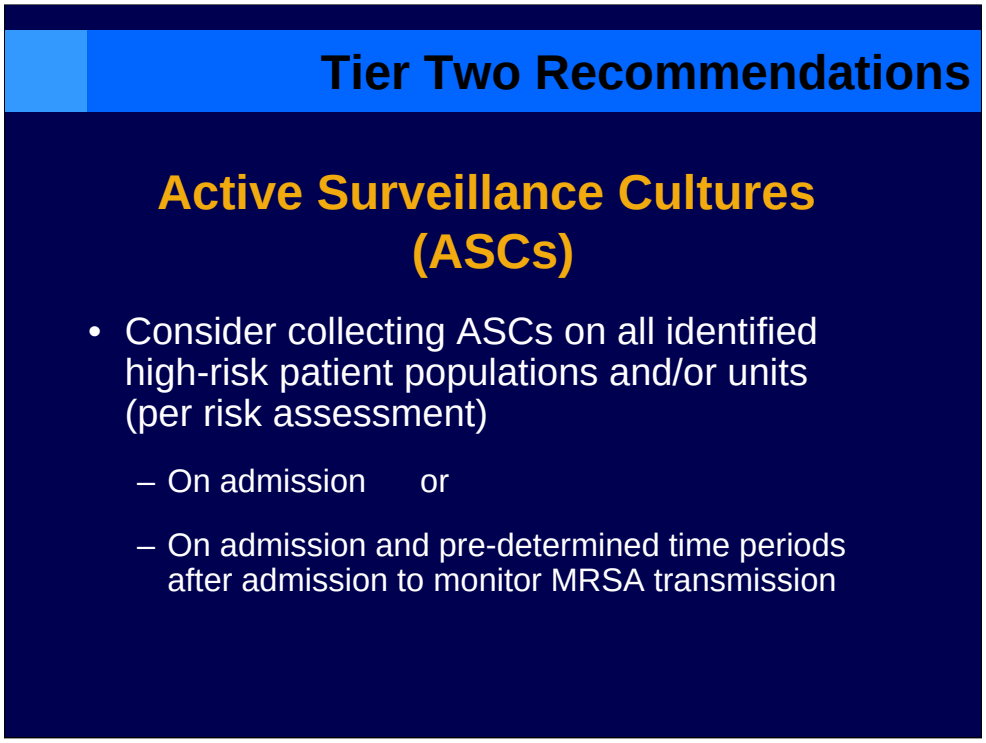
As is true in baseline infection prevention and Tier One, the support of Administration is critical. The APIC *Guide to the Elimination of MRSA transmission in hospital settings*, states - Quote: Support from hospital leadership is essential in order to make the elimination of transmission of MRSA an organizational patient safety priority that is aligned with a culture of intolerance for hospital-associated infections. End quote.

Institutional leadership plays an important role in evaluating healthcare system factors that may be contributing to ongoing MRSA transmission as well as in developing, implementing and monitoring action plans to correct system failures.



SLIDE: Tier Two Recommendations, cont. Visitors of Patients on Contact Precautions

Visitors to MRSA-positive patients on Contact Precautions are required to wear personal protective equipment upon entry to patient rooms or areas, regardless of whether or not they intend to provide direct care. As in Tier One, visitors must perform hand hygiene before entering and after leaving the room or areas of a patient on Contact Precautions.



SLIDE: Tier Two Recommendations, cont. Active Surveillance Cultures (cont.)

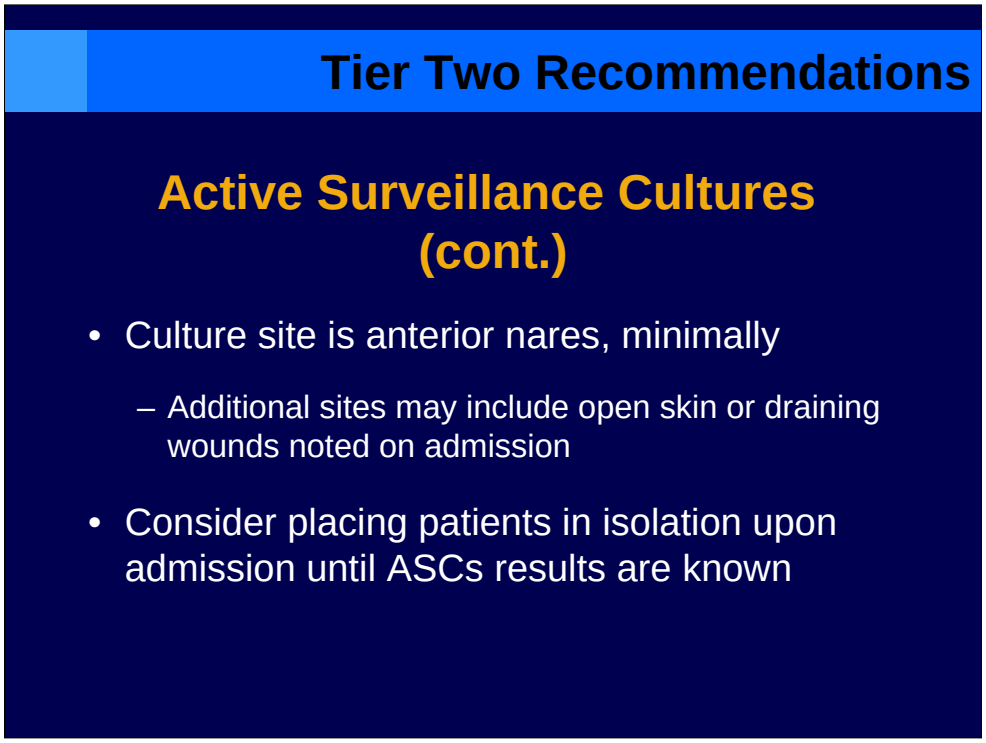
Next I'm going to discuss active surveillance cultures.

There have been no published studies to assess the efficacy of active surveillance cultures alone - in decreasing the rate of MRSA infection, colonization or transmission within acute care facilities.

However, active surveillance cultures have been shown to be an effective tool in decreasing MRSA infection rates when used among identified high-risk patient populations or in high-risk patient care units, in conjunction with other infection prevention and control interventions.

Tier Two recommends that hospitals whose MRSA rates are not decreasing should consider using active surveillance cultures as part of intensified interventions.

These cultures may be obtained upon admission … or upon admission and at designated intervals. The latter approach allows MRSA transmission rates to be determined.



SLIDE: Tier Two Recommendations, cont. Active Surveillance Cultures (cont.)

As I said earlier, the routine site for active surveillance cultures is the anterior nares. In addition to the nares, other sites may include open skin or draining wounds noted on admission.

Facilities who collect active surveillance cultures upon admission should consider placing these patients in preemptive isolation until the result of the culture is known.

SLIDE: Summary

In summary, the successful implementation of the MDH MRSA Recommendations will require:

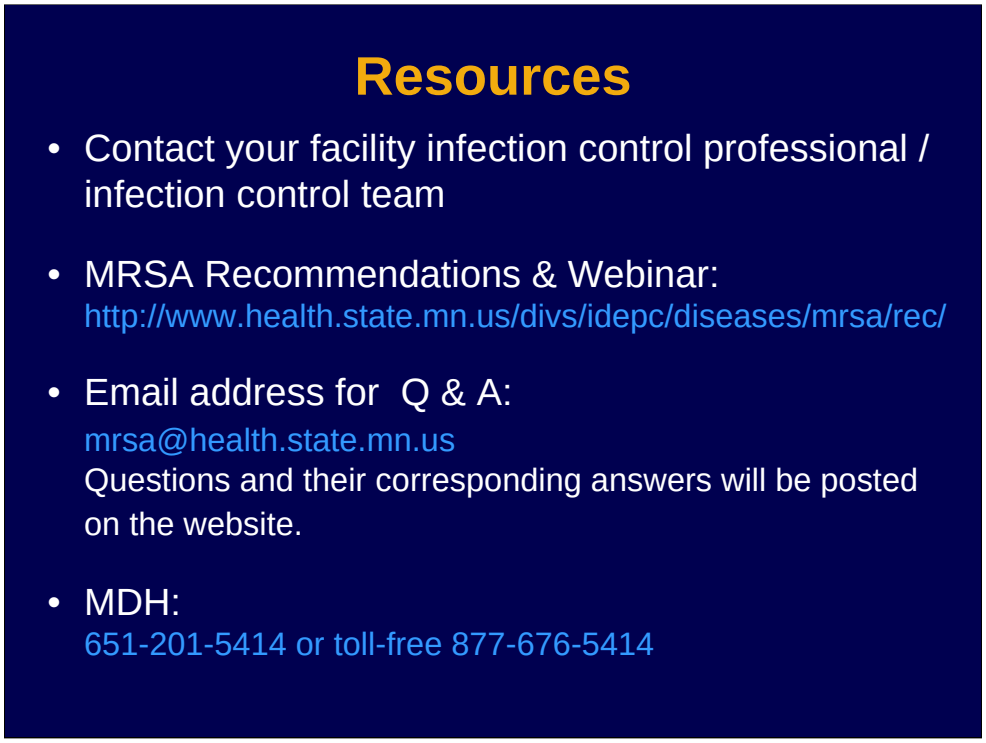
The adoption of an institutional philosophy that supports infection prevention and control at all levels of the institution

An institutional commitment to antimicrobial stewardship as part of an infection prevention and control plan and

Increased human and financial resources.

SLIDE: Implementation of the MDH MRSA Recommendations

As a reminder, all acute care facilities in Minnesota are expected to develop an MRSA prevention and control program based on these MDH MRSA Recommendations by January 1, 2009.



SLIDE: Resources

There are several resources available to assist you in developing your MRSA prevention and control program. The MDH website has many MRSA-related materials, including the MDH MRSA Recommendations.

Questions can be sent to the email address provided. Responses will be posted on the MDH – MRSA website.

Additional resources are located in Appendix A of the Recommendations. These include a list of resources such as instructions for nasal swab culture collection, making the business case for infection control activities, and surveillance methodologies and data analysis.

If you have questions about the Recommendations, we encourage you to contact your infection control professional or team. You may also call the Minnesota Department of Health at the phone numbers provided.

At this time we would like to express our gratitude to the members of the MDH MRSA Recommendations Task Force for their work in developing the Recommendations – and to those who submitted public comment.

Questions?

- Questions from all three webinars, as well as questions to mrsa@health.state.mn.us will be posted on the MDH MRSA Recommendations website.