



**Iroquois Healthcare Association  
Regional Infection Control Project  
“Best Practices for MRSA Prevention Strategies”**

**Project Summary**

In December of 2003, the New York State Department of Health (DOH) awarded the Iroquois Healthcare Association (IHA) grant funding to build on the results of an earlier DOH grant funded Infection Control Outcomes Project that was completed in June of 2003. This three-year voluntary project has met the goals for developing and evaluating various strategies aimed at reducing the transmission of Methicillin Resistant *Staphylococcus aureus* (MRSA) in the acute care, inpatient hospital population. The project involved 25 of the 56 Iroquois member hospitals' Infection Control professionals (ICP's). These ICP's developed, implemented and evaluated prevention strategies in their hospitals in an effort to provide the Department of Health with recommendations on “Best Practices” that are effective in controlling the transmission of MRSA in hospitals. Though this project has come to an end, project hospital ICP participation has prepared them for a new national initiative aimed at eliminating nosocomial MRSA in hospitals.

**Goals and Objectives of the MRSA Project:**

- ?? To improve the consistent implementation of MRSA barrier control measures amongst IHA hospitals by identifying best practices aimed at preventing the transmission of MRSA in the acute care inpatient population as well as measuring their ability to decrease the incidence of nosocomial acquisition over time, evaluate resources necessary to implement protocols and assess cost-effectiveness pre and post implementation of protocols.
- ?? Hospital participants will benefit from the project by: (1) developing and implementing prevention strategies that reduce the incidence of nosocomial acquired MRSA, are cost effective and relevant to their patient populations in order to control the transmission of MRSA and (2) enhance and coordinate surveillance systems for drug-resistant infections.
- ?? Provide a mechanism in which to assist hospitals in evaluating several methods for preventing the transmission of MRSA during a patient's acute hospital inpatient stay and then sharing the effect of those strategies that are most effective.
- ?? Provide members with an opportunity to work collaboratively in developing and evaluating best practices and improving continuity of patient care and clinical outcomes.

**Final Recommendations Submitted to the Department of Health are Summarized as Follows:**

1. Statewide standardized MRSA case definitions (nosocomial, healthcare associated and not associated with a healthcare facility) and companion rate calculations should be used consistently by all healthcare facilities.
2. The strategies as presented in projects 4-Key Core Best Practices should be a minimum standard of practice in acute care hospitals regardless of hospital bed size.
3. Gowns used as a barrier to prevent the transmission of MRSA in patients either infected or colonized are effective if worn either by all healthcare workers upon entry to the room or for designated patient care activities. Whichever gown strategy is selected it needs to be consistently implemented throughout the healthcare facility and include periodic educational reinforcement.
4. Culture surveillance screening (CSS) used as a strategy to reduce nosocomial MRSA transmission may not be beneficial for all hospitals. Determining if a CSS program will

be effective in decreasing nosocomial MRSA acquisition, requires two preliminary steps: (1) development of a standardized CSS protocol as was developed by the project group and (2) conducting an infection control risk assessment that includes nosocomial incidence rates, by patient population, in conjunction with a cost-benefit analysis.

5. Compliance with adherence to hand hygiene practices and MRSA isolation gown/glove use should be conducted periodically. Observational monitoring, using a standardized data collection tool, is essential for quantifying results and in providing timely feedback to healthcare workers. Staff, not limited to the infection control professional, should be involved in the compliance monitoring data collection process. There needs to be strong administrative support for any compliance monitoring program.
6. The monitoring of environment of care (EOC) cleaning practices needs more focus on routine daily cleaning of “high-touch” environmental surfaces. There needs to be collaborative relationship between infection control and key environmental services management to effectively develop, implement and monitor EOC cleaning procedures related to high-touch inpatient room environmental surfaces
7. A system wide integrated MRSA electronic alert should be linked to all clinical inpatient and outpatient locations. The initiation of the alert should be incorporated with the microbiology laboratory, patient registration or infection control information data systems.
8. All hospitals should annually assess and trend over time, the changing *Staphylococcus aureus* sensitivity patterns for inpatient and outpatient locations. At a minimum, laboratories should calculate the percent (%) of *Staphylococcus aureus* clinical isolates that are susceptible to oxacillin for the following populations (a) all inpatients, (b) all ICU’s and (c) outpatient locations, excluding duplicate isolations and screening cultures.
9. In order to reduce the incidence of MRSA in healthcare facilities, there must be a comprehensive infection control program. It is the integration of multiple strategies that will have the most significant impact on decreasing nosocomial MRSA rates. A team of hospital healthcare workers representative of various disciplines and committed to decreasing nosocomial MRSA is essential in developing, implementing and assessing a comprehensive MRSA prevention program.
10. Case definitions, 4-key core best practices, intervention protocols and tools developed from this project should be shared with hospitals throughout New York State.

### **Infection Control Project Participant Hospitals**

A.L. Memorial	Oneida Healthcare Center
A.O Fox Memorial	Oswego
Albany Memorial/Northeast Health	Our Lady of Lourdes Memorial
Bassett Healthcare	Samaritan Medical Center
Canton-Potsdam	Samaritan/Northeast Health
Champlain Valley Physicians	Saratoga
Claxton-Hepburn Medical Center	Seton Health System
Columbia Memorial	St. Clare’s
Community General	St. Elizabeth Medical Center
Ellis	St. Mary’s
Little Falls	United Health Services
Lewis County General	University Hospital
Nathan Littauer	