

Suspending use of Contact Precautions in Patients Colonized with Methicillin-Resistant *Staphylococcus aureus* in a Level III Neonatal ICU and its Effects on Rates of Transmission

Tiffany Dogan, MPH, CIC; Alexandra Hayward, MPH; Sreelatha Ponnaluri-Wears, MPH, CIC; Elizabeth Lloyd, MD; Amanda Valyko, MPH, CIC, FAPIC; Terri Stillwell, MD, MPH

Presenter:

Elizabeth Lloyd, MD
1540 E Hospital Dr.
Medical Professional Bldg, D5101
SPC 5736
Ann Arbor MI 48109-5736
echenowe@med.umich.edu
734-647-0988

INTRODUCTION

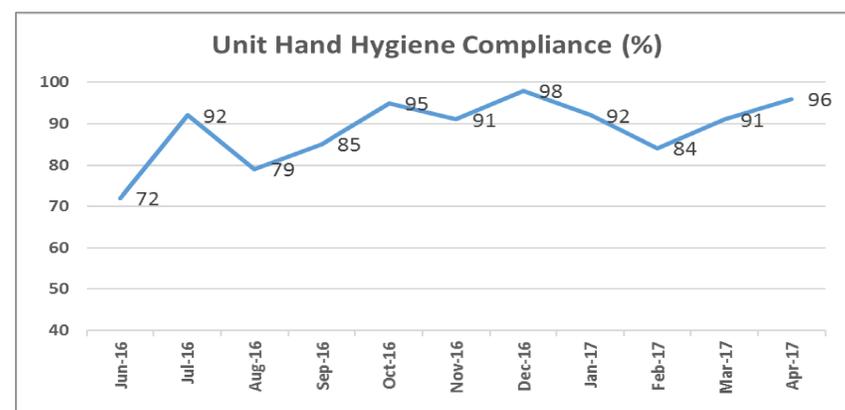
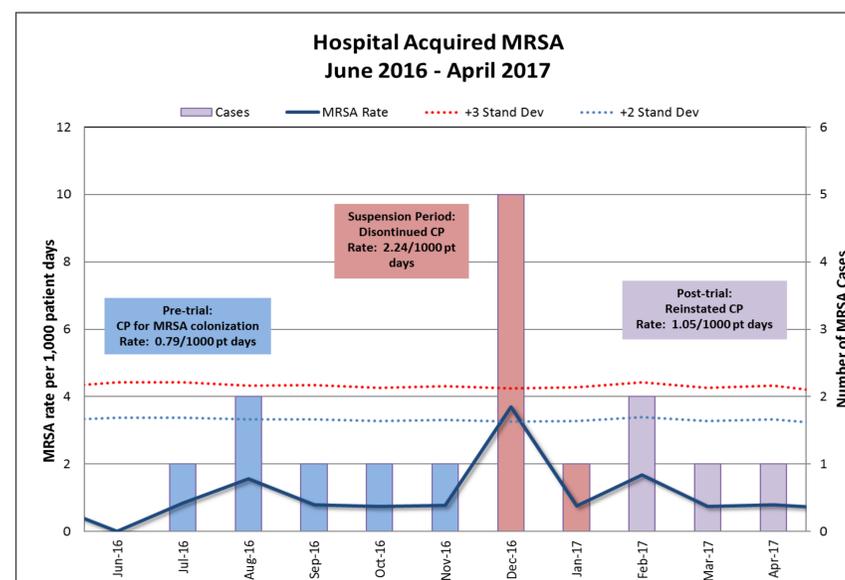
- MRSA has become increasingly endemic in the US; many healthcare facilities are no longer using Contact Precautions (CP) for patients that are MRSA-colonized
- In the setting of endemic MRSA, data is limited on whether CP reduces transmission of MRSA in Neonatal ICUs (NICUs) with private patient rooms
- Given previous evidence of minimal horizontal spread of MRSA in our NICU, the practice of using CP for MRSA-colonized patients was discontinued, when the institutional policy changed in December 2016, requiring CP only for patients with open, draining wounds that were MRSA+
- This study assesses rates of hospital-acquired MRSA (HA-MRSA) in the NICU before and after discontinuation of CP for patients MRSA-colonized in our NICU

METHODS

- Active screening for MRSA colonization occurs on admission and weekly for all NICU patients
- Clinical infections were identified via routine cultures
- Decolonization, with mupirocin and chlorhexidine bathing, was done for all MRSA-positive patients
- Rates of HA-MRSA pre-, during, and post-CP suspension were assessed
- MRSA isolates are routinely saved for pulse-field gel electrophoresis (PFGE) to assess for potential horizontal transmission; results of current and previous clusters were reviewed
- Other NICUs were surveyed regarding MRSA isolation and infection prevention practices
- Covert hand hygiene auditing, enhanced environmental cleaning, and family education were in place throughout the study

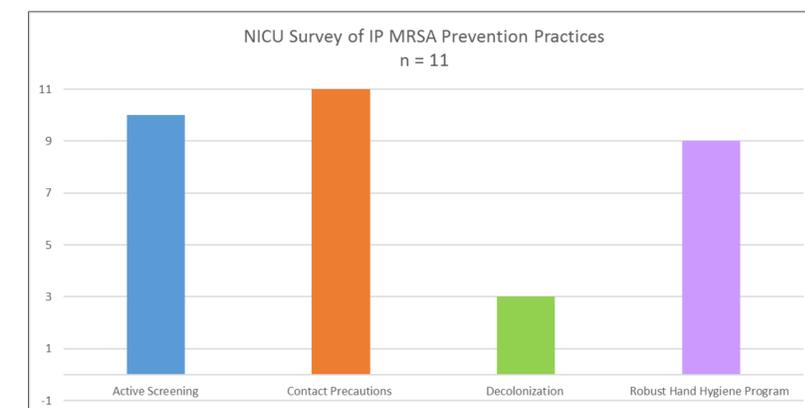
RESULTS

- Rates of HA-MRSA
 - 6 mo pre-trial period (Jun 2016-Nov 2016): 0.79 per 1000 patient days
 - 2 mo suspension period (Dec 2016-Jan 2017): 2.24 per 1000 patient days
 - 3 mo post-trial period (Feb 2017-Apr 2017): 1.05 per 1000 patient days
- PFGE results
 - During previous clusters, 14 isolates were sent for testing resulting in 2 isolates matching
 - 6 isolates from the CP suspension period resulted in 2 matching pairs
 - 3 isolates from post-trial were different from each other and from previous isolates



SURVEY

- 11 highly-ranked level III NICUs were surveyed to compare infection prevention practices for MRSA isolation
 - 11 of 11 (100%) use CP for MRSA-positive patients, including colonized patients
 - 10 of 11 (91%) actively screen for MRSA
 - 3 of 11 (27%) have a decolonization protocol in place
 - 9 of 11 (82%) have a robust hand hygiene program



CONCLUSIONS

- Preliminary results demonstrated an increase in HA-MRSA after suspending CP for MRSA-colonized patients
- According to the survey results, the standard of care appears to be CP for all MRSA-positive patients, including those just colonized, although decolonization practices varied
- Given the limited size of our study, more data is needed to determine if CP is necessary to prevent horizontal transmission of HA-MRSA in the presence of other robust infection prevention measures