

From: NHSN (CDC)

Sent: Wednesday, February 18, 2009 11:31 AM

To: NHSN Users

Subject: JAMA Publication: MRSA CLABSIs in US Intensive Care Units, 1997-2007

Dear NHSN Members:

We want to let you know that today the Journal of the American Medical Association (JAMA) will publish a CDC-authored report showing that from 2001 through 2007, the risk of methicillin-resistant Staphylococcus aureus (MRSA) central line-associated bloodstream infections (BSIs) dropped in almost all of the most common types of intensive care unit patients on which CDC receives surveillance data from hospitals across the U.S. Data were reported to CDC through the National Nosocomial Infections Surveillance (NNIS) system and the National Healthcare Safety Network (NHSN).

Although the report looked at the time period from 1997-2007, the declines in MRSA BSIs were noted since 2001. Other key findings include:

Declines in rates of these MRSA infections ranged from a drop of 51.5% in combined "medical/surgical" ICUs without a major teaching affiliation to a drop of 69.2% in surgical ICUs.

From 2001 through 2007, MRSA central line-associated BSIs incidence declined significantly in all studied ICU types except pediatric, in which there was no significant change in incidence.

Of seven ICU types evaluated, four types (surgical, medical/surgical without a major teaching affiliation, cardiothoracic, and coronary) experienced increases in MRSA central line-associated BSI incidence from 1997 through 2001 prior to the decrease in the later years of the study.

Overall, the incidence of central line-associated BSIs caused by any bacteria also declined steadily from 1997 through 2007, suggesting general infection prevention efforts had a role in the reduction of risk.

Although the overall proportion of *S. aureus* central line-associated BSIs due to MRSA increased 25.8% from 1997 through 2007, the overall incidence of MRSA central line-associated BSIs in ICU patients decreased 49.6% over this time period.

These data do not account for other types of healthcare-associated MRSA infection, such as surgical-related infections, or infections occurring outside of the ICU, where a large burden of healthcare-associated MRSA does exist.

Important caveats of this report:

The MRSA BSIs included in this analysis represent only a small portion of healthcare-associated MRSA infections, however this is an important success. Although the cause of this dramatic decline could not be evaluated by this analysis, improvements in healthcare have likely contributed to this downward trend. Some of those efforts include improvement in central line insertion and care practices, dissemination of prevention guidelines and increasing success in preventing MRSA transmission between patients.

Although this analysis included data from 599 facilities who have reported healthcare-associated infections to CDC during the analysis period, the results may not be applicable to all U.S. hospitals.

Participation in the surveillance process itself likely has a positive influence on hospital infection control efforts and central line-associated BSI risk.

For the entire JAMA Article: <http://jama.ama-assn.org/cgi/content/full/301/7/727>

For the JAMA Press Release: <http://www.newswise.com/articles/view/549134/>

For the JAMA Video News Release: <http://pubs.ama-assn.org/media/2009j/0217.dtl#vnrscript>

For more information on MRSA from CDC:
http://www.cdc.gov/ncidod/dhqp/ar_MRSA.html