SERIOUS MRSA-RELATED INFECTIONS NOT DECLINING, DESPITE OVERALL MRSA DECLINE

CDDEP study shows hospitalization rates for serious MRSA infections have not decreased, but have decreased substantially for less serious MRSA cases

Washington, DC - A study from researchers at the Center for Disease Dynamics, Economics & Policy finds that rates of severe methicillin-resistant Staphylococcus aureus (MRSA) blood infections and pneumonias are not declining, despite an overall decline in MRSA-related infections. These findings tell a different story than reported a few years ago from the U.S. Centers for Disease Control and Prevention (CDC) Active Bacterial Core Surveillance (ABCs) system, which found rates of serious MRSA infections falling between 2005 and 2011. More recent studies also report a declining trend.

Rates of S. aureus and MRSA-related hospitalizations were tracked from 2010 to 2014, for septicemias, pneumonias, and other S. aureus infections, using inpatient records from the National Inpatient Survey (NIS), part of the Healthcare Cost and Utilization Project of the Agency for Health Research and Quality (AHRQ). The researchers found that hospitalization rates for MRSA-related skin and soft-tissue infections (SSTIs) decreased between 2010 and 2014, while rates for more serious, invasive MRSA infections, sepsis, remained constant. The study found:

- The overall rate of S. aureus septicemias increased nearly 20 percent, from 2.66 to 3.15 per 1,000 hospitalizations, but most of the increase was in methicillin-susceptible S. aureus (MSSA) cases (from 1.21 to 1.61 per 1,000 hospitalizations). MRSA septicemias held steady, around 1.5 cases per 1,000 hospitalizations.

- MRSA-related skin and soft-tissue infections decreased 29 percent (from 3.8 to 3.0 per 1,000 hospitalizations). The rate of other common primary diagnoses with unspecified MRSA-related infections did not change significantly.

MRSA is the leading cause of mortality due to antibiotic-resistant infections in the United States. Rates of MRSA remain higher in the United States than most other developed countries, particularly for invasive sepsis and pneumonia, which are often transmitted in hospitals.

According to study author and CDDEP Fellow Eili Klein, “It’s important to have an accurate picture of trends in the rates of MRSA infections. That mortality due to sepsis hasn’t declined, despite an overall decline in MRSA infections, underscores the continued need to consider MRSA as a priority in infection control. The overall decrease in Staph aureus is largely confined to community-associated infections, and may reflect natural waning of the epidemic.”

The study is available online from Clinical Infectious Diseases: https://academic.oup.com/cid/article/doi/10.1093/cid/cix640/4036368/Trends-in-Methicillin-Resistant-Staphylococcus
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