

Newsday

Staph infections on rise

Drug-resistant bacterial strain now accounts for more than half of all skin infections in ERs

BY DELTHIA RICKS

Newsday Staff Writer

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A notorious drug-resistant bacterial strain is spreading at a surprising pace and now accounts for more than half of all skin infections treated in emergency rooms, say researchers who've sounded an alarm in a study released today.

The most obvious sign of infection with methicillin-resistant staph aureus - MRSA - is a reddened bump virtually identical to a spider bite. Methicillin resistance means the bacteria possess the capacity to repel the antibiotic. Methicillin is the more chemically potent cousin of penicillin.

"Staph aureus has always been a common cause of skin infections," said Dr. Rachel Gorwitz, an epidemiologist at the Centers for Disease Control and Prevention.

"But there are new strains that are methicillin-resistant and appear to be particularly virulent because of their drug resistance patterns," Gorwitz said. She and colleagues at the CDC and Olive View-UCLA Medical Center in Sylmar, Calif., report on the evolving MRSA menace in today's New England Journal of Medicine.

Infections caused by MRSA can be life-threatening when the pathogens invade the bloodstream, triggering bacteremia.

"The message in this study is that MRSA has become the most important cause of skin infection in many parts of the country," added Gorwitz, who studied patients admitted to emergency rooms in 11 cities, including New York City.

"MRSA was initially described in the 1960s, and at that time it was almost exclusively seen in hospitals and health care settings," Gorwitz said. But the abuse of powerful antibiotics helped create strains that are difficult to control. Antibiotic misuse tends to knock out weak bacteria, allowing the hardiest to thrive. Surviving strains acquire genes that allow them to thwart drugs.

Dr. Bruce Hirsch, an infectious disease specialist at North Shore University Hospital in Manhasset, said community-acquired MRSA infections can be effectively treated with several older antibiotics, such as Bactrim and Clindamycin. Hospital-acquired MRSA infections are more frightening, capable in some instances of repelling every antibiotic in doctors' arsenal.

"Community-acquired MRSA is a real different actor compared with hospital-acquired MRSA," Hirsch said. "Community-acquired MRSA chews up your skin and spreads from person to person much easier. It is also much easier to contract from inanimate objects."

News of growing community-based infections came as scientists at Duke University reported in the

same journal on daptomycin, a recently approved antibiotic capable of treating hospital-acquired MRSA. Daptomycin proved effective against bacteremia and endocarditis, a condition in which MRSA causes an inflammation of the heart's inner lining.

Betsy McCaughey, former New York lieutenant governor and founder of Reduce Infection Deaths, said that although new drugs are needed, they aren't always the answer. "We will not always win the race against these rapidly morphing bacteria," McCaughey said. "Like everyone in health care, I welcome a new antibiotic against these deadly drug-resistant bugs. But rigorous hygiene is almost always the most reliable line of defense. Patients cannot become deathly ill with a drug-resistant infection if the bacteria don't reach the patient to begin with. So clean hands, clean lab coats, clean bed rails and clean stethoscopes will protect patients no matter how the bacteria change genetically."

Spread of a 'superbug'

A methicillin-resistant *Staphylococcus aureus* (MRSA) skin infection first looks like a spider bite or pimple. It can be life-threatening if it moves into the bloodstream. A recent study found the once-rare infection is on the rise.

Adult emergency room skin infections, August 2004

Other germs 41%

Methicillin-resistant *Staphylococcus aureus* (MRSA) 59%

How it spreads

Found in the nostrils and on skin of up to 30 percent of the population.

Gets into blood through open wounds or a tube inserted into the bloodstream.

Resisting MRSA transmission

Hand-washing is the main prevention since the bug is mainly spread by skin contact.

Wear masks, gloves and gowns for or protection from infectious body fluids.

Isolate MRSA carriers in private room or with other known carriers.

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SOURCE: CENTERS FOR DISEASE CONTROL AND PREVENTION