

Majority of MRSA Is Now Community Acquired

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VIENNA — Community-acquired methicillin-resistant *Staphylococcus aureus* as a proportion of all MRSA infections tripled in a recent 10-year period in the United States, according to a large national study.

This rise in community-acquired MRSA (CA-MRSA) has occurred across all age groups, in all types of *S. aureus* infections, all geographic regions of the country, and both inpatient and outpatient settings, Dr. Robertino M. Mera reported.

At the hospital level, the incidence of CA-MRSA has increased faster than hospital-acquired-MRSA (HA-MRSA). The rate of U.S. hospital discharges for HA-



Eighty-two percent of all MRSA infections in U.S. children under age 15 had the CA-MRSA phenotype.

DR. MERA

MRSA infections has gone from 3.2/1,000 discharges in 1998 to 4.8/1,000 in 2007, a modest albeit statistically significant increase. Meanwhile, the rate of discharges for CA-MRSA has shot up eightfold, from 0.4/1,000 to 3.3/1,000.

The biggest changes in CA-MRSA trends, however, have occurred in children and in skin and soft tissue infections.

While CA-MRSA accounted for less than 5% of all *S. aureus* infections in U.S. children under age 15 years in 1998, the proportion jumped to 45% a decade later. By 2007, 82% of all MRSA infections in U.S. children under age 15 years had the CA-MRSA phenotype.

"This is quite remarkably high," observed Dr. Mera of GlaxoSmithKline, Durham, N.C.

Moreover, 86% of all MRSA isolates obtained from abscesses in 2007 were CA-MRSA, as were 75% of those from wounds. CA-MRSA has replaced hospital-acquired MRSA as the source of most skin and soft tissue hospital infections.

In contrast, by 2007 CA-MRSA accounted for 30% of all MRSA sputum samples and 44% of blood samples.

Dr. Mera presented an analysis of 824,307 *S. aureus* isolates obtained from across the United States in 1998-2007. The analysis utilized The Surveillance Network (TSN) database and National Hospital Discharge Survey data.

In 1998, MRSA accounted for 33% of all *S. aureus* infections. This proportion climbed steadily during the following decade, reaching 54% in 2007. Meanwhile, the proportion of CA-MRSA within all MRSA infections jumped from 22% in 1998 to 66% in 2007.

In 1998 there were large age group differences in the proportion of *S. aureus* in-

VITALS

Major Finding: U.S. hospital discharges for CA-MRSA over a 10-year period went up eightfold, from 0.4/1,000 to 3.3/1,000.

Data Source: An analysis of 824,307 *S. aureus* isolates obtained from 1998 to 2007 in the TSN Network surveillance database and National Hospitalization Discharge Survey data.

Disclosures: The study was supported by GlaxoSmithKline, which employs Dr. Mera.

fections due to MRSA. Among patients older than 65 the figure was 47%, while in children younger than 15 years it was just 13%. By 2007, however, MRSA accounted for fully 47% of all *S. aureus* infections in children and 57% in the elderly. Among patients aged 16-44 years, the proportion of *S. aureus* infections due to MRSA climbed from 23% to 55% during the decade.

In 1998, CA-MRSA accounted for a mere 7.3% of all *S. aureus* isolates. By 2007, this figure rose to 35.6%. This increase was achieved by CA-MRSA replacing hospital-acquired MRSA strains, and to an even greater extent by replacing methicillin-susceptible *S. aureus* (MSSA), which accounted for 67% of all *S. aureus* infections in 1998 but only 46% a decade later. ■

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[†]Efficacy for this organism was studied in fewer than 10 infections.

Reference: 1. Besivance™ Prescribing Information, April 2009.

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