Methicillin-Resistant *Staphylococcus aureus*–Associated Hospitalizations among the American Indian and Alaska Native Population

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Background. American Indians and Alaska Natives (AI/ANs) have had documented outbreaks of methicillin-resistant *Staphylococcus aureus* (MRSA) infection but, to our knowledge, no studies have examined MRSA infection among this population nationally. We describe MRSA-associated hospitalizations among the ~1.6 million AI/ANs who receive care at Indian Health Service health care facilities nationwide.

Methods. We used hospital discharge data from the Indian Health Service National Patient Information Reporting System to determine the rate of MRSA-associated hospitalizations among AI/ANs who used Indian Health Service health care in 1996–2005 and in the comparison periods 1996–1998 and 2003–2005. Hospitalization rates among AI/ANs were examined by year, age group, sex, and region. MRSA-associated diagnoses were also examined. Rate comparisons were performed using Poisson regression analysis. Comparison of rates to those of the general United States population was made for 2003–2005 by means of the Nationwide Inpatient Sample.

Results. Between comparison periods, the rate of MRSA-associated hospitalization increased from 4.6 to 50.6 hospitalizations per 100,000 AI/ANs ($P < .01$), with increases in both sexes, all age groups, and all regions. By 2005, MRSA was the causative organism for the majority (52%) of all *S. aureus*–associated hospitalizations. The most common associated diagnosis was skin and soft-tissue infection, which accounted for 59% of MRSA-associated diagnoses. In 2003–2005, the age-adjusted rate among AI/ANs was 58.8 hospitalizations per 100,000 persons, compared with 84.7 hospitalizations per 100,000 persons in the general US population.

Conclusions. MRSA-associated hospitalizations have increased significantly among AI/ANs served by Indian Health Service health care facilities. Clinicians should have a high index of suspicion for MRSA infection in AI/ANs, especially in those with a diagnosis of skin and soft-tissue infection.

Methicillin-resistant *Staphylococcus aureus* (MRSA) infection was first reported in 1961 [1]. Although MRSA emerged as a nosocomial infection, during the last several years MRSA has caused an increasing number of community-onset infections [2]. MRSA is resistant to all β-lactam antibiotics and can cause a variety of infections, from cellulitis to necrotizing pneumonia [1].

In studies focused on various American Indian and Alaska Native (AI/AN) populations, MRSA prevalence has been reported to be high. In one rural American Indian hospital, ~55% of *S. aureus* isolates were found to be methicillin resistant [3], and some Indian Health Service (IHS) clinics have reported methicillin resistance in >60% of *S. aureus* isolates [4]. Although the prevalence of MRSA infection in the AI/AN population has been studied in localized communities or regions throughout the country, to our knowledge, no studies

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