Community-acquired Methicillin-resistant 
Staphylococcus aureus: An Emerging Problem in Children

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ABSTRACT

Community-acquired methicillin-resistant Staphylococcus aureus (CA-MRSA) infections appears to be an increasingly major infectious problem in children globally. CA-MRSA differs from hospital-acquired methicillin-resistant Staphylococcus aureus in epidemiology, clinical manifestations, genetic background, and antibiotic susceptibilities. The patients tend to be younger and often present with skin and soft tissue infections. However, CA-MRSA infections also have the potential to cause invasive diseases such as necrotizing pneumonia, osteomyelitis, and bacteremia, and can contribute to the increased mortality and morbidity rates in children. Most CA-MRSA isolates have been found to carry gene for Panton-Valentine leukocidin, a toxin associated with tissue necrosis and serious illness. As a result of bearing the staphylococcal cassette chromosome mec type IV element, CA-MRSA is commonly susceptible to a variety of non-β-lactam antibiotics. Even though clindamycin is routinely used as a therapy for CA-MRSA infections in daily practice, treatment failure may develop if erythromycin resistance by the erm mechanism is identified in the organisms. Ongoing surveillance is essential to assess the prevalence, geographic distribution, and identification of risk factors of CA-MRSA, and also to improve treatment and control strategies. (J Infect Dis Antimicrob Agents 2006;23:141-48.)