



BUGS vs DRUGS

Question of the Week

Is MRSA increasingly responsible for community-acquired pneumonia?

Over the past decade, there has been a growing incidence of methicillin-resistant *Staphylococcus aureus* (MRSA) infections in the community. The large majority of these infections have been associated with skin and soft tissue infections. However, evidence is suggesting an increasing number of invasive community-associated MRSA infections, including community-acquired pneumonia (CAP).

One study retrospectively identified all patients admitted to a large US urban teaching hospital between January 2005 and May 2008 with pneumonia caused by *S. aureus*.¹ A total of 128 CAP patients were identified, and 55 (43%) had initial cultures for MRSA. Among all patients, 69% received mechanical ventilation, 79% were admitted to the ICU, and the mean length of stay was 17.0 days (there were no significant differences between MRSA and MSSA cases). However, patients with MRSA CAP were more likely to receive inappropriate initial therapy (44% for MRSA vs. 18% for MSSA patients; $p=0.002$).

MRSA CAP is also being identified in other countries as well. A retrospective analysis of case records from two large teaching hospitals in Australia from 2002 to 2008 identified 16 patients with community-acquired MRSA pneumonia.² For these patients, there was a mean delay of 69 hours before appropriate therapy was initiated.

Cases of MRSA CAP have often been associated with prior respiratory viral infections, such as influenza. The infections can present with flu-like symptoms and rapidly progress, possibly leading to death in only a few days, especially in cases of necrotizing pneumonia.³ Therefore, prompt diagnosis and intervention are critical to improving outcomes.

1. Taneja C, Haque N, Oster G, et al. Clinical and economic outcomes in patients with community-acquired *Staphylococcus aureus* pneumonia. *J Hosp Infect.* 2010;5:528-534. [Click here for abstract.](#)
2. Thomas R, Ferguson J, Coombs G, Gibson PG. Community-acquired methicillin-resistant *Staphylococcus aureus* pneumonia: a clinical audit. *Respirology.* 2011;16:926-931. [Click here for abstract.](#)
3. David MZ, Daum RS. Community-associated methicillin-resistant *Staphylococcus aureus*: epidemiology and clinical consequences of an emerging epidemic. *Clin Microbiol Rev.* 2010;23:616-687. [Click here for full text.](#)