Linezolid May Be Overused Weapon for Staph Infections

**ARTICLES BY TIMOTHY F. KIRK**
Sacramento Bureau

SAN FRANCISCO — Linezolid is being used too often to treat methicillin-resistant Staphylococcus aureus (MRSA) pneumonia, and its use may be increasing largely in response to an article published in 2003 in the journal Chest, said Dr. Dismukes, director of the division of infectious diseases at the University of Alabama, Birmingham.

In the paper, the authors combined data from two separate studies in which vancomycin and linezolid were used. They concluded that survival and clinical cure rates were both better with linezolid.

The survival rate was reported to be 80% with linezolid versus 63% with vancomycin. The clinical cure rate, defined as resolution of signs and symptoms at the end of treatment with improvement or no change in x-rays, was 59% for linezolid and 35% for vancomycin (Chest 2003;124:1789-97).

But not everyone is convinced, including Dr. Dismukes. “This paper has generated all kinds of controversy,” he said. In his opinion, the analysis is less definitive because it included groups from two different trials, and there were only 160 MRSA patients. “You do get higher lung-tissue levels with linezolid,” Dr. Dismukes said. “But I am skeptical.”

Another use for linezolid that is becoming increasingly common is staphyloccocal endocarditis. There are anecdotal reports of successful treatments, but clinical data are available on use of nafcillin and gentamicin, or vancomycin with or without gentamicin, Dr. Dismukes said.

“I think we use too much of this drug for indications such as this for which there are no data,” he said.

Linezolid is approved for complicated and uncomplicated soft tissue infections, both methicillin resistant and methicillin susceptible. But community-acquired MRSA infections are different from hospital-acquired MRSA, and so, for uncomplicated infections, community MRSA is not included.

Hospital-acquired Staphylococcus aureus that is methicillin resistant most often has a resistance pattern that includes resistance to other non-beta-lactam antibiotics, because the gene that confers methicillin resistance most commonly comes as part of a cassette chromosome that contains other resistance determinants. But that is not generally true of community-acquired MRSA, which is usually susceptible to doxycycline, trimethoprim/sulfamethoxazole, and quinolones, Dr. Dismukes said.

A single course of linezolid can cost over $1,000, whereas in some cases trimethoprim/sulfamethoxazole would do, he said.

Moreover, adverse events do occur. Linezolid can cause bone marrow suppression, neuropathies with long-term use, and serotonin syndrome in patients on drugs such as selective serotonin reuptake inhibitors.

**To Admit or Not to Admit: Use CURB-65 to Decide**

**SAN FRANCISCO —** A simple clinical rule known as the CURB-65 or Its Index (wht) is not 100%,” he said. But “it is, in my mind, a reality check that I use on every pneumonia patient,” he explained.

“The one caveat I have is that if you are going to use this rule, count the respiratory rate yourself,” Dr. Niederman added.

**MRSA Necrotizing Pneumonia Cases Described as ‘Not Subtle’**

**SAN FRANCISCO —** There are two important things to know about the recently identified threat of staphylococcal necrotizing pneumonia: It generally follows an influenza illness, and a physician seeing a patient in the clinic or office is not going to miss it.

That was the message of John G. Bartlett, M.D., who has been involved with four cases of necrotizing pneumonia seen in Baltimore recently. All of the cases occurred during a period of 2 months in the winter of 2003-2004, and all were community acquired, he said at the annual meeting of the American College of Physicians.

“These patients are not subtle. They are severely ill,” said Dr. Bartlett, chief of the division of infectious diseases at Johns Hopkins University, Baltimore.

Each of the four cases occurred in previously healthy individuals without risk factors for staphylococcal infection. The disease is rare, and a physician would likely recognize right away that he or she was dealing with bronchitis or viral pneumonia.

These atypical presentations appear to progress rapidly. Two of the patients had been vomiting, and each had severe dyspnea and/or hypotension and shock.