Don't Culture for Community-Acquired Pneumonia

BY TIMOTHY F. KIRN
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SAN FRANCISCO — Physicians who forgo obtaining cultures from patients who come in with possible community-acquired bacterial pneumonia are probably practicing wisely, John G. Bartlett, M.D., said at the annual meeting of the American College of Physicians.

It has been reported that the etiologic agent in pneumonia is never identified in 50% of cases. But that figure comes from clinical trials, in which patients are tested and cultured exhaustively, said Dr. Bartlett, chief of the division of infectious diseases at Johns Hopkins University, Baltimore.

In the hospital, the etiologic organism is identified in only 15%-20% of pneumonia cases, and the most of those results come from blood culture, not sputum.

"We don't do very well with cultures, and therefore, you can't rely on them," he said.

Sputum rarely yields a positive culture, even in a patient with a pneumonia caused by *Streptococcus pneumoniae*. And blood cultures may give misleading results because they are so often contaminated, Medicare data have suggested. "There have been several reports that have shown that blood cultures really don't affect outcome in any meaningful way," Dr. Bartlett said.

Instead, current guidelines say when diagnosing suspected pneumonia from bronchitis, an x-ray is key, although not needed in the patient with normal vital signs and no rales. If the x-ray shows an infiltrate, then the patient has pneumonia, and antibiotic treatment can be initiated empirically, with no need for a culture, because experience suggests that most patients get better with empiric treatment. "The x-ray showing an infiltrate is really a pivotal part of the diagnostic evaluation," he said. "It separates, to a large extent, antibiotics vs. no antibiotics."

The exception to this empiric-treatment rule is a patient who is ill enough to be hospitalized, he said. In those patients, he would order a urinary antigen test for *Legionella* species, because of its virulence and because it is a public health problem, and perhaps a urinary antigen test for pneumococcus, to pick up bacteremia. ■

Pneumonia Hospitalization Rule Endorsed

SAN FRANCISCO — A simple clinical rule known as the CURB-65 can be a big help in identifying those patients with community-acquired pneumonia who need to be hospitalized, Michael S. Niederman, M.D., said at the annual meeting of the American College of Physicians.

Unlike the Pneumonia Severity Index, which is designed to predict mortality, CURB-65 is convenient, and was designed specifically to assess need for hospitalization, said Dr. Niederman, chairman of the department of medicine at Winthrop-University Hospital, Mineola, N.Y.

CURB-65—which stands for confusion, urea, respiratory rate, blood pressure, and 65 years of age or older—uses five criteria, to be applied to a patient with a fever less than 37° C and an albumin level less than 3 g/dL. The criteria are confusion, BUN greater than 7 mmol/L, respiratory rate of at least 30 breaths per minute, systolic blood pressure less than 90 mm Hg or diastolic blood pressure less than or equal to 60 mm Hg, and age of 65 years or older.

With this rule, one point is given for each criterion present. A score of 0-1 indicates the patient has a low risk of death and could be sent home, provided there are no complicating factors. A score of 2 indicates that the patient has about a 10% risk of death and should be considered seriously for hospital admission. A score of 3 or higher indicates a 20% or higher risk of death; the patient should be admitted, probably to the intensive care unit.

"I like this rule," Dr. Niederman said. "It is not 100%, but it is really simple and I can access all these criteria and very quickly know what I want to do with a patient."

The CURB-65 rule does not replace clinical judgment, he said. But "it is, in my mind, a reality check that I use on every pneumonia patient before I decide where to put them," Dr. Niederman said. "The one caveat I have is that if you are going to use this [rule], count the respiratory rate yourself."

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