We would hasten to point out that the size of biopsy needle has been identified as a factor in the development of pneumothorax. Percutaneous needle aspirations by Anderson et al were done with 18- to 22-gauge needles (21-gauge for most), whereas Miller et al used a 22-gauge needle for all biopsies. This could account in part for the higher overall incidence of pneumothorax encountered by Anderson. A more likely explanation for the difference is that Miller et al and Fish et al compared 159 patients whereas the study by Anderson et al includes but 93. We postulate there is a power difference between the two studies, and if Anderson et al were to include more patients in the study, the result might more closely approximate that previously reported by Miller et al and Fish et al.

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Community-Acquired Pneumonia in the ICU

To the Editor:

We read with interest the article on severe community-acquired pneumonia (CAP) published recently in Chest by the French Study Group for Community-Acquired Pneumonia in the Intensive Care Unit.1 We have previously published a retrospective study documenting the etiology and prognostic features of patients with severe CAP admitted to the Hillbrow Hospital ICU, Johannesburg, South Africa.2 Our study did not include a rigorous approach to diagnosis as did the French study, but based on the results of blood culture, Gram's stain and cultures of good quality sputum samples, and serologic testing in selected cases for so-called “atypical pathogens,” a positive microbiologic diagnosis was made in 78% of our cases (81% on the basis of positive blood cultures)3 as compared with 72% in the French study (27% on the basis of positive blood cultures).1 Both studies showed that Streptococcus pneumoniae, gram-negative enterobacteriaceae, and Staphylococcus aureus commonly encountered bacterial pathogens. Whereas the French study showed the predominantly isolated gram-negative enterobacteriaceae to be Escherichia coli,1 our study demonstrated Klebsiella pneumoniae to be far the most common.2

Interestingly, while the former study documented a number of isolates of Haemophilus influenzae, these organisms were not found in the latter study. A number of other recent studies have highlighted the importance of gram-negative organisms (other than H influenzae and including K pneumoniae) as a cause of severe CAP,5 and it is predominantly investigators from the United Kingdom who do not find this group of organisms to be commonly encountered pathogens.4

Of importance is the question of the best choice empiric antimicrobial therapy in patients with severe CAP. The French group extrapolating data from the recommendations of the British Thoracic Society (BTS), which do not record gram-negative organisms as important pathogens among their cases, suggest that high dose ampicillin and erythromycin recommended by BTS may be modified to include ampicillin and a quinolone, or the substitution to a third generation cephalosporin and a macrolide.1 Recent publications from the American Thoracic Society (ATS) suggest that the best empiric therapy for severe community-acquired pneumonia may be a cephalosporin and erythromycin, and include an aminoglycoside initially for suspected infection with Pseudomonas aeruginosa.3

Evidence for the possible benefit of an aminoglycoside in the therapy of severe CAP is two-fold. First, a previous study of the outcome of gram-negative pneumonia suggested that the prognosis in these patients was positively influenced by the rapid attainment of a therapeutic level of aminoglycoside in the serum.4 Second, in a more recent prospective study we conducted among patients with K pneumoniae bacteremia (predominantly cases with CAP) surviving more than 48 h of antibiotic therapy, the best prognosis by far was seen in cases treated empirically with the combination of an “appropriate” beta-lactam and aminoglycoside.5 The poorer outcome in the other treatment groups was not affected by the addition of a quinolone, but since we had only recently introduced these agents into the treatment regimen during the study period and they were used in only a few patients usually in the presence of multiply resistant microorganisms, these agents had probably not received a favorable evaluation.

Based on several of these studies, and in line with the suggestions of ATS, our recommendations for the empiric therapy of severe CAP are a combination of a cephalosporin (second or third generation depending on known susceptibility patterns of gram-negative organisms in a particular area), an aminoglycoside, and erythromycin.

Nevertheless, the definitive suggestions as to the most appropriate empiric therapy in severe CAP still await the results of appropriately conducted prospective studies.

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To the Editor:

We really do appreciate the commentaries by Dr. Feldman and colleagues. The important question is on the best choice of empiric antimicrobial therapy in patients with severe community-acquired pneumonia (CAP). Owing to the severity of these infections and the epidemiologic data recently published, empiric antimicrobial treatment could be, therefore, based on a combined regimen of a β-lactam antibiotic, an aminoglycoside, and erythromycin as it is suggested by Dr. Feldman.

Nevertheless, though the occurrence of severe pneumonia caused by Gram-negative bacilli is increasing, it is still true that *Streptococcus pneumoniae* is the most frequent causative agent of severe CAP, and remains the prime cause of mortality due to severe CAP. Moreover, the proposed recommendations remain totally empirical, based as they are on a number of indirect deductions, their clinical therapeutic efficiencies have not been clearly shown. The rationale for using combination therapy is not only to enlarge the antimicrobial spectrum but also to achieve enhanced bacterial killing by synergism and to prevent the emergence of antibiotic resistance. Combinations that included a β-lactam agent and an aminoglycoside have frequently produced an increased bactericidal effect in vivo in experimental models of aerobic Gram-negative bacillary and Gram-positive cocci infections. This has included models of pneumonitis in neutropenic animals. Studies with neutropenic patients have also demonstrated an improved outcome when aminoglycosides were combined with β-lactam antibiotics for the therapy of Gram-negative sepsis. However, the role of combination therapies for nonneutropenic patients remains unresolved. Moreover, single agent therapy has been shown to be at least as effective as combination therapy. And also, the addition of an aminoglycoside is associated with increased costs and drug-related toxicities. Furthermore, systematic administration in first instance of a second or third-generation cephalosporin in severe CAP as suggested by the American Thoracic Society does not appear—at least where France is concerned—either desirable. Ceftroxime, cefixime, and cefotaxime were shown to be good selectors in vitro for *S pneumoniae* with high-level penicillin resistance while amoxicillin was a good selector for *S pneumoniae* with low-level resistance and a poor selector for the strain with high-level resistance.

At the end, these commentaries point out the importance and the necessity of obtaining a microbiologic diagnosis to manage correctly the initial antibiotic therapy in these critically ill patients.

Pierre Moine, MD, Jean-Baptiste Vercken, MD, Sylvie Chevret, MD, Claude Chastang, MD, Philippe Gaëjos, MD, and the French Study Group for CAP in the ICU; Garches, France

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Pleurodesis for Spontaneous Pneumothorax

To the Editor:

I was very interested in the editorial "Pleurodesis for Spontaneous Pneumothorax" and the article "Intrapleural Talc for the Prevention of Recurrent Pneumothorax," which were published in the October 1994 issue of Chest.

About 30 years ago, one of my residents and I tried talc poudrage on a patient with recurrent pneumothorax who was a poor candidate for thoracotomy. We instilled a mixture of suspended sterile talc in normal saline solution in the patient's chest tube. There was an immediate hair-raising shreek from the patient. My resident and I, as we returned to the floor from the ceiling, noted that the patient wasn't breathing. Neither were we. Before we could institute resuscitative measures, the patient recovered, looked at us, and said something more or less like "Wow!"