Editorial Comment

This issue contains 3 interesting articles dealing with real-life clinical issues. The reviews by Drs Gotfried and Aronovitz present general and specific recommendations on how to deal with 2 common clinical conditions—pneumonia and otitis, respectively. The marketing of pharmaceuticals can be directed at—and patients and parents can be motivated by—the real but unlikely possibility that delay in using an effective antimicrobial agent may lead to morbidity or even mortality. Although unlikely, this possibility must be considered by the physician and patient, and weighed against the risks and costs of following specific recommendations. No "guideline" or particular drug will be appropriate for all patients or clinical situations.

Dr Gotfried's review of clarithromycin in the treatment of pneumonia gives a good description of the "disconnect" that can occur between the in vitro activity of an antimicrobial agent and the clinical response. Reasons for such a discrepancy may include the possibility that an infection is not bacterial (this applies to otitis as well as pneumonia); that the organisms cultured are not causative; that in vitro systems may identify clinically less relevant resistance mechanisms (eg, "efflux strains"); that active metabolites are not included in in vitro systems; and that in vitro systems do not test host immune factors.

The paper on alendronate in osteoporosis by Dr Bone et al is unusual in that it reviews a "virtual" study. No actual clinical data are presented. Rather the authors attempt to use animal studies, a review of the drug's mechanism of action, and human pharmacokinetic data to justify a trial of once-weekly alendronate. Their hypothesis is that human studies will replicate animal data, which implies that once-weekly use of a higher dose would be as effective as but less toxic than daily dosing. This hypothesis is worthy of testing; however, there are problems with predicting human results from animal data. Compliance is only one such problem. Once-daily dosing has been shown to have a higher rate of compliance than more or less frequent dosing. If toxicity, especially GI irritation, could be minimized without loss of efficacy, such a regimen would be highly useful. Even if the amount of GI irritation were equal, patients would welcome having to curtail postdose activities (ie, lying down, eating) only once a week rather than every day. Actual clinical studies must be performed to look at the efficacy, toxicity, and costs of such an approach, as well as its effects on quality of life.

Dr Aronovitz reviews the recommendations contained in 3 published treatment guidelines for acute otitis media (AOM). His summary recommendations do not differ greatly from the generally accepted guidelines he reviews. However, Dr Aronovitz's claim that treatment must be "early" is not well studied, and, given the fact that antibiotic resistance is a consideration, the claim may well be overemphasized. In some countries, "otitis" is managed with analgesics/antipyretics only and not initially with antibiotics. Some of the differences in therapy may be related to the diagnostic confusion between AOM and otitis media with effusion. Nevertheless, the therapeutic responses are not worse and the incidence of resistance and costs of treatment are both lower in these other countries than in the United States, where antibiotics are routinely used.

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