

Correspondence

We will try to publish authors' responses in the same edition with readers' comments. Time constraints might prevent this in some cases. The problem is compounded in the case of a bimonthly journal where continuity of comment and redress is difficult to achieve. When the redress appears 2 months after the comment, 4 months will have passed since the original article was published. Therefore, we would suggest to our readers that their correspondence about published papers be submitted as soon as possible after the article appears.

Otitis Media in Adults

To the Editor: The excellent international report on otitis media by Culpepper, et al. published in *JABFP* (1993; 6:333-9) contains a finding which is discordant with the widely accepted assumption that antibiotic treatment is usually beneficial in the treatment of this disorder: in Table 6, patients who received antibiotics were reported, at the $P=0.002$ level, to do worse than those not so treated.^{1,3,7}

I would greatly appreciate the authors of the study sharing any insights they might have about the reason(s) for this result. Were patients who received antibiotics different in some way from those who did not? Could the finding somehow reflect differences in the disease or in physician behavior from one nation to another? Or is antibiotic treatment somehow detrimental to the outcome of adult patients with otitis media?

Robert Gillette, MD
Youngstown, OH

The above letter was referred to the authors of the article in question, who offer the following reply:

To the Editor: We are as interested as Dr. Gillette in our finding that antibiotic treatment of acute otitis media did not appear to be of benefit. This finding has been reported for children by other investigators as well¹⁻⁶; however, we would not change clinical practice based on our results.

These findings could be the result of the design of our study. For it, volunteer family physicians and general practitioners in the nine participating countries were asked to enroll 15 consecutive patients visiting for acute otitis media. Within most of the countries involved, prescription of antibiotics at the initial visit was standard practice and occurred in more than 90 percent of cases. (There is considerable variability among countries in the duration of antibiotic treatment, with most reporting a 5- to 10-day treatment duration as the norm.) In Netherlands and Belgium, in large part because of the work of Dr. van Buchem,^{4,6} patients with acute otitis media are routinely not treated with antibiotics at initial visit, although a small percentage do receive antibiotics as a result of their symptoms continuing for 3 or more days. Except for the samples of

patients in our study enrolled in Netherlands and Belgium, the number of individuals not receiving antibiotics from other countries was few and insufficient to support treatment versus no treatment analyses at the individual country level. In comparing those who were not treated with those who were treated in Belgium and Netherlands, we found no indication that the severity of disease was significantly different or related to outcome. Similarly, in comparing these subgroups of Belgium and Netherlands patients with all those from other countries, we also found no indication of a difference in severity of illness. Although it is possible that unmeasured differences between the treated and untreated population did lead to the observed difference in outcomes, we have no indication of this based on the characteristics assessed.

Outcome at 2 months was determined either by physician examination, patient interview, or patient self-report. It is possible that the expectations of patients and physicians led to an increased perception of wellness in those not treated by antibiotic, or that our results might be due to other errors in the determination of outcome status. A further possibility is that, as patients in Netherlands and Belgium might be aware that they are likely not to receive an antibiotic at the first visit, the population presenting for care in these countries, and thus enrollment in our study, was different from those patients in the countries in which antibiotic treatment was routine. Again, we found no evidence supporting these possibilities in our data.

Currently we are embarking on an AHCPR-funded study comparing outcomes following acute otitis media in Netherlands (where antibiotics are not routinely prescribed at initial visit), England (where antibiotics are routinely prescribed for 5 days), and the United States (where antibiotics are routinely prescribed for 10 days). We will train participating physicians in the standard reporting of symptoms and physical findings and will use tympanometry as an objective measure of ear status both at enrollment and a 2-month outcome. This study should take advantage of the natural experiment possible because of routine differences in treatment practices, while decreasing the likelihood of measurement factors affecting the validity of results.

Larry Culpepper, MD, MPH
Pawtucket, RI
Jack Froom, MD
Stony Brook, NY

References

1. Froom J, Culpepper L, Grob P, Bartelds A, Bowers P, Bridges-Webb C. Diagnosis and antibiotic treatment of acute otitis media: report from International Primary Care Network. *BMJ* 1990; 300:582-6.
2. Schwartz RH, Rodriguez WJ, Greindfast KM. Duration of middle ear effusion after acute otitis media. *Pediatr Infect Dis J* 1984; 3:204-7.