

SYMPTOMS DON'T PREDICT RESPONSE TO ANTIBIOTICS

TO THE EDITOR:

De Sutter and colleagues¹ reported that amoxicillin has no effect on general recovery in patients with purulent rhinorrhea in a randomized trial. The primary outcome was successful treatment defined as absent or very mildly present symptoms on day 10 based on the individualized symptoms each subject included as “the most important item affecting my health.” Successful treatment was reported in 35% of the amoxicillin group and 29% of the placebo group. This difference was not statistically significant. The clinical significance is arguable at best (harm in terms of diarrhea incidence still more likely than benefits), but this study cannot rule out a clinically significant benefit.

More than 50% of the subjects in this study had unilateral facial pain at baseline. More than 60% had sinus tenderness. Evidence-based guidelines recommend consideration of amoxicillin for patients with persistent purulent nasal discharge and facial pain or tenderness who are not improving after 7 days.²

Would it be possible to reanalyze the data from this trial to determine if selected baseline factors (eg, unilateral facial pain or sinus tenderness, with or without duration of at least 7 days) can differentiate subjects who clearly did not benefit from amoxicillin from subjects who might have benefited from amoxicillin? Such a differentiation, if it can be made, would be further evidence that could strengthen use of this guideline. If not, then use of antibiotics in acute sinusitis needs to be evaluated further.

Brian S. Alper, MD, MSPH

*Department of Family and Community Medicine
University of Missouri–Columbia
E-mail: alperb@health.missouri.edu*

REFERENCES

1. Sutter AI, De Meyere MJ, Christiaens TC, van Driel ML, Peersman W, De Maeseneer JM. Does amoxicillin improve outcomes in patients with purulent rhinorrhea? A pragmatic randomized double-blind controlled trial in family practice. *J Fam Pract* 2002; 51:317–23.

2. Snow V, Mottur-Pilson C, Hickner JM. Principles of appropriate antibiotic use for acute sinusitis in adults. *Ann Intern Med* 2001; 134:495–7.

DR DE SUTTER AND COLLEAGUES

RESPOND:

First of all we want to thank Dr. Alper for his interest in our study. To answer his question, we reanalyzed the data for the subgroup of patients with complaints of sinus pain at time of inclusion (sinus tenderness, unilateral facial pain or pressure, pain on bending forward, or pain at the upper teeth) and for the subgroup of patients with complaints lasting 7 days or longer before inclusion. We found following results:

Subgroup	Relative risk (95% CI)
Sinus pain (n = 304)	1.15 (0.90–1.45)
Complaints \geq 7 days (n = 124)	1.02 (0.64–1.60)
Sinus pain and complaints > 7 days (n = 113)	1.07 (0.73–1.56)

Relative risks are for cure, which is defined as all symptoms indicated by the patient at inclusion as “most important item affecting my health” being absent or only very mildly present at day 10. These relative risks are similar to the relative risks we found in the total study population. Thus, our data do not indicate that patients with sinus pain or persistent complaints have more benefit from antibiotics than other patients with purulent rhinorrhea.

An I. De Sutter, MD; Marc J. De Meyere, MD, PhD; Thierry C. Christiaens, MD; Mieke L. van Driel, MD, MSc; Wim Peersman, and Jan M. De Maeseneer, MD, PhD
*Departments of General Practice and Primary Health Care, and Population Studies and Social Sciences Research
University of Ghent, Belgium
E-mail: an.desutter@rug.ac.be*