spective study looking at the incidence of breast cancer and related deaths in women who underwent prophylactic mastectomy. Women who had undergone BPM were divided into moderate- and high-risk groups on the basis of their family history. The Gail model,[2] that considers characteristics such as family history, birth history, and previous breast pathology, was used to calculate the expected incidence of breast cancer in the moderate-risk group as a theoretical control group. The high-risk group was compared with a control group of 403 of their sisters who had not undergone prophylactic mastectomy.

Outcomes measured The primary outcomes were the incidence rates of breast cancer and death from breast cancer.

Results Of the 639 women studied, 214 were classified as high risk and 425 as moderate risk. The median length of follow-up was 14 years. BPM reduced the expected number of breast cancers during the follow-up period among the 214 high-risk women from 37.4 to 3 (number needed to treat [NNT] = 6.2), and the number of deaths from breast cancer from 10.5 to 2 (NNT = 25.2). For the 425 moderate-risk women, the expected number of breast cancers was reduced from 37.4 to 4 (NNT = 12.7), and the number of deaths from breast cancer from 10.4 to 0 (NNT = 39.6).

Recommendations for clinical practice **This study convincingly demonstrates that BPM reduces breast cancer and related deaths in moderate- and high-risk women. It also demonstrates that to prevent cancers in a few women, many other women will undergo unnecessary bilateral mastectomy. In this study, 639 women were treated to prevent 18 cancer deaths. Women need accurate information to calculate their risk of getting breast cancer. They will then be able to weigh the risk of unnecessary surgery—along with emotional factors, such as the fear of breast cancer and the cosmetic impact of mastectomy—against possible prevention in making their decisions. BPM may become a more useful option as the accuracy of predicting the risk of breast cancer improves.**

Laurel M. Kuehl, MD
Sharon Dobie, MCP, MD
University of Washington
Seattle
E-mail: lkuehl@u.washington.edu

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Once-Daily Amoxicillin for Streptococcal Pharyngitis in Children

Feder HM Jr, Gerber MA, Randolph MF, Stelmach PS, Kaplan EL. Once-daily therapy for streptococcal pharyngitis with amoxicillin. Pediatrics 1999; 103:47-51.

Clinical question **Is once-daily therapy with amoxicillin an effective treatment for children with streptococcal pharyngitis?**

Background Group A beta-hemolytic streptococcus (GABHS) pharyngitis remains a fairly common problem for family physicians. Although twice-daily dosing is acceptable in adults, the standard dosing schedule for the pediatric population is 4 times a day.[1] Once-daily dosing would be easier, and might lead to better compliance. The Food and Drug Administration has approved cefadroxil, cefixime, ceftibuten, and azithromycin for once-daily dosing in the treatment of GABHS pharyngitis. However, these antibiotics are much more expensive than penicillin V. Previous trials of once-daily penicillin have produced mixed results. A study published in 1993 showed the effectiveness of once-daily amoxicillin.[2] This study compares once-daily amoxicillin to penicillin V taken 3 times a day.

Population studied The population studied was children with an age range of 4 to 18 years (mean = 9.9) with suspected GABHS pharyngitis in a private pediatric practice.

Study design and validity Consecutive patients with suspected GABHS pharyngitis were considered for the study. Their throats were swabbed for both a rapid antigen test and culture, and they were randomly assigned to a 10-day course of either 750 mg amoxicillin once per day or 250 mg penicillin V 3 times per day. Patients were asked to return for follow-up at 18 to 24 hours, 4 to 6 days, and 14 to 21 days. Clinical symptoms were recorded and throat cultures performed at each follow-up visit. All cultures were performed at the same laboratory, and all GABHS isolates were serotyped (M typing and T agglutination patterns). Patients treated with amoxicillin who had a positive culture at any follow-up visit were then treated with penicillin. Compliance with antibiotics was measured by an assay for urinary antimicrobial activity. Treatment failure was defined as presence of the same serotype of GABHS on a follow-up culture as on the initial culture. Exclusionary criteria included any antibiotic therapy in the week before the visit for pharyngitis and hypersensitivity to penicillin or amoxicillin. This study is methodologically sound but does not have sufficient numbers to examine the rate of suppurative (ie, peritonsillar abscess) or nonsuppurative (ie, poststreptococcal

glomerulonephritis or rheumatic fever) complications of GABHS.

Outcomes measured Outcomes measured included clinical symptoms and signs (fever, tonsillar exudate, cervical lymphadenitis, throat pain), eradication of GABHS within 18 to 24 hours, and bacteriologic treatment failure rate at 4 to 6 and 14 to 21 days.

Results A total of 152 children were studied. The children in the 2 treatment groups were similar with respect to clinical and demographic factors. Compliance rates were also similar. There was no difference in the 2 groups at 18 to 24 hours. One child (1%) in the penicillin group and none in the amoxicillin group had a positive culture for GABHS. There was no statistically significant difference in the rate of treatment failures between the amoxicillin and pencillin groups at 4 to 6 days (11% vs 16%) or at 14 to 21 days (5% vs 3%). There was also no difference in the rate that symptoms resolved. Adverse drug effects were similar, with 10% of patients in the amoxicillin group and 5% in the penicillin group reporting some side effect. All side effects were minor and resolved within 24 hours of stopping the treatment. There was no mention of complications such as peritonsillar abscess or rheumatic fever.

Recommendations for clinical practice **As shown in an earlier study,[2] once-daily dosing with amoxicillin is as effective for treating children with GABHS pharyngitis as 3-times daily dosing with penicillin. Amoxicillin is less expensive than other antibiotics approved for once-daily dosing. Whether 10-day treatment with once-daily amoxicillin is as effective as penicillin V in preventing suppurative and nonsuppurative complications remains unanswered.**

Alan Adelman, MD
Pennsylvania State University
College of Medicine
Hershey
E-mail: aadelman@psghs.edu

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