

Cephalosporins Best Penicillin for Strep Throat

BY MIRIAM E. TUCKER
Senior Writer

WASHINGTON — Oral cephalosporins, whether given for 5 or 10 days, are more effective than penicillin in the treatment of Group A streptococcal tonsillopharyngitis, Dr. Janet R. Casey and Dr. Michael E. Pichichero reported in a poster at the annual Interscience Conference on Antimicrobial Agents and Chemotherapy.

Data were derived from a metaanalysis involving a total of 11,426 patients from 47 trials in the United States and Europe, said Dr. Casey and Dr. Pichichero, both of the Elmwood Pediatric Group and the University of Rochester, N.Y.

Among 10 European studies comparing 10 days of penicillin versus 10 days of cephalosporins in the bacterial eradication of Group A streptococcus (GAS) in a total of 1,656 pediatric patients with tonsillopharyngitis, the odds ratio was 4.27 in favor of cephalosporins. In 25 such U.S. trials, involving 5,469 patients, cephalosporins didn't fare quite as well, although

they were still superior to penicillin, with an odds ratio of 2.70. Clinical cures for 10-day regimens were similar for the two continents, with odds ratios of 2.38 in Europe (7 trials/1,488 children) and 2.46 in the United States (22 trials/4,990 children).

Studies of 4-5 days of cephalosporins versus 10 days of penicillin were analyzed in a total of 6 European and U.S. trials involving 1,149 adults and in 6 trials from both continents involving 3,152 children. Odds ratios for bacterial eradication fa-

vored the shorter cephalosporin regimen for the 9 combined European trials (1.30) and even more so in the 3 U.S. trials (2.41). On both continents, the superiority of cephalosporins in bacterial eradication was more pronounced in children than in adults (odds ratios 1.34 vs. 1.09 in Europe and 2.94 vs. 1.65 in the United States).

Bacterial cure rates with cephalosporins were strongly superior to penicillin in trials from the United Kingdom, Germany, France, and Sweden, with odds ratios

ranging from 3.35 to 4.77. Although cephalosporin cure rates remained consistent in the different countries, penicillin bacterial cure rates varied widely, with a low of 66% in Sweden. That's probably because 2 of the 3 trials conducted there were among patients with recurrent GAS tonsillopharyngitis, in whom penicillin would be expected to be even less effective, Dr. Casey and Dr. Pichichero said at the meeting, sponsored by the American Society for Microbiology. ■

Vaccinating All Toddlers Cut Hep A by 95%

WASHINGTON — Vaccinating all toddlers against hepatitis A reduced the overall viral incidence by 95% in one Israeli community, Dr. Beth P. Bell said at the annual Interscience Conference on Antimicrobial Agents and Chemotherapy.

In an investigation led by Dr. Ron Dagan of the Soroka University Medical Center, Be'er Sheva, Israel, the community began vaccinating children aged 18-24 months in 1999. By 2002-2004, the annual incidence of hepatitis A was 2.2-2.5 cases per 100,000 people, which represents a 95% decline in viral incidence relative to prevaccinated levels (JAMA 2005;294:202-10).

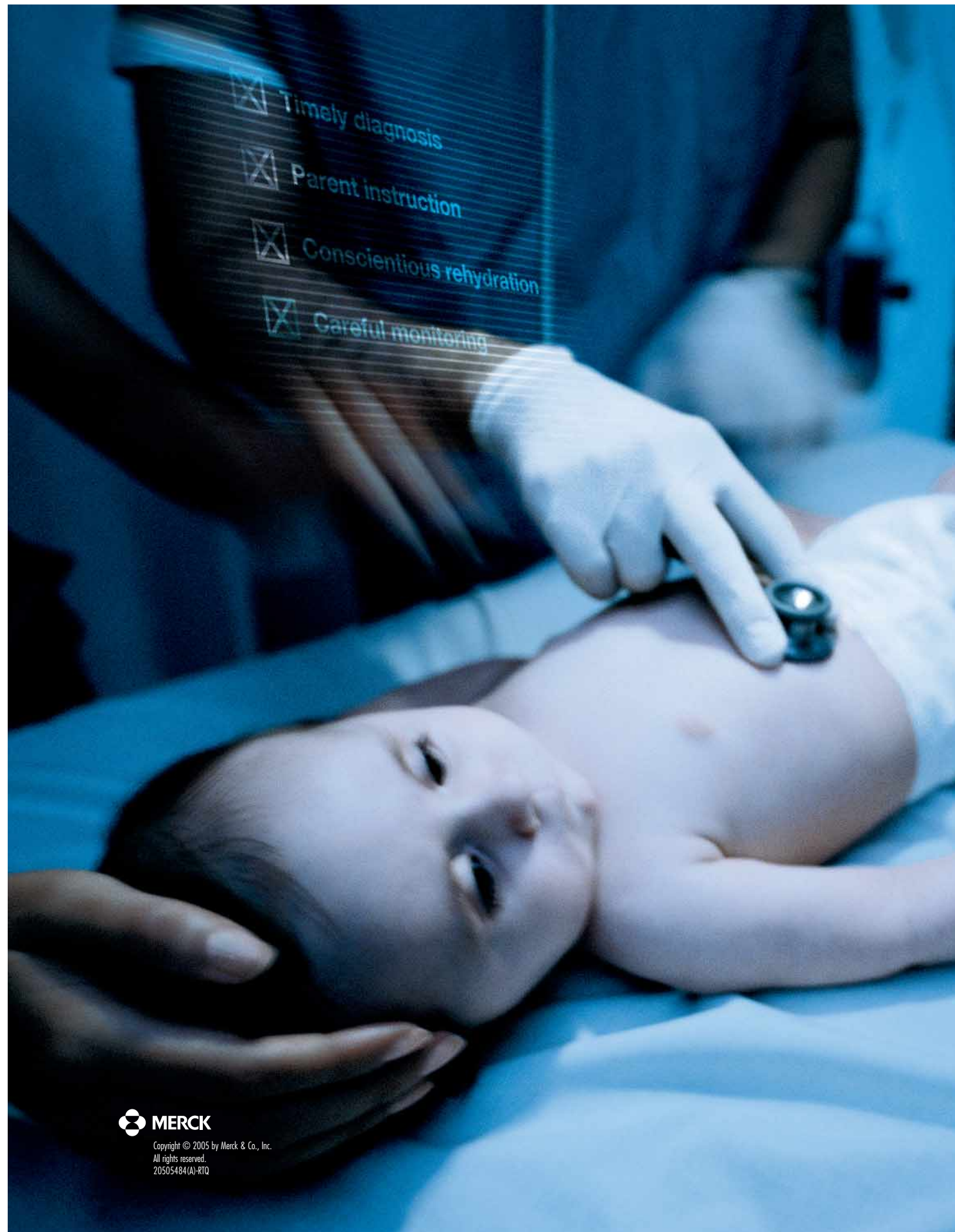
This outcome is the result of herd immunity, said Dr. Bell of the Centers for Disease Control and Prevention's Division of Viral Hepatitis in Atlanta.

"What we've learned about what happens in communities when you use hepatitis A vaccine among children is that there's evidence of considerable cohort effects both among unvaccinated children and also among adults. Early results indicate impressive overall public health impact with quite modest vaccination coverage," said Dr. Bell, who presented the results on behalf of Dr. Dagan.

The 1- to 4-year-old age group, the population at the highest risk of contracting hepatitis A, saw the greatest decline in incidence, with a 98.2% drop, compared with the prevaccinated period.

In addition, the findings indicate that hepatitis A disparities that existed between the Jewish and non-Jewish populations have been almost completely eliminated after the universal vaccination protocol was introduced.

—Amy Pfeiffer



MERCK

Copyright © 2005 by Merck & Co., Inc.
All rights reserved.
20505484(A)-RTQ