Antibiotic Overprescribing Remains a Problem

More than half of physicians would give an antibiotic when the diagnosis was uncertain.

BY DEEANNA FRANKLIN
Senior Writer

WASHINGTON — Physicians understand that overuse of antibiotics is contributing to rising resistance rates, yet a large minority of physicians continue to prescribe antibiotics for viral illnesses, Mohmad G. Fakih, M.D., reported in a poster presentation at the annual Inter- science Conference on Antimicrobial Agents and Chemotherapy.

Dr. Fakih and his colleagues approached primary care physician members of Blue Cross Blue Shield of Michigan in four separate regions of the state, and 277 physicians out of a total of 875 completed surveys.

Among the respondents, 73 were pedi- atricians, 126 were family physicians, and 58 were internists.

They were questioned on age, special- ty years and type of practice, geographic region, views regarding their education, medical knowledge, and management of upper respiratory infections (URIs); an- tibiotic use and resistance; and patient ex- pectations.

Regarding their management of URIs, 74.6% of family physicians, 81.0% of in- tertists, and 90.1% of pediatricians felt comfortable in rating their knowledge at above average to excellent. When queried about their treatment approach for URI with pharyngitis, with or without exudates and/or lym- phadenopathy, internists were more likely than were family physicians and pedia- tricians to prescribe antibiotics when more symptoms were present.

“Physicians agreed that overuse of anti- biotics is the major factor in increasing resistance,” however, more than half of them would give an antibiotic when the di- agnosis is not certain, the researchers said.

A big surprise in the study was that 55% of those surveyed thought that penicillin resistance to group A streptococci was emerging. “There has never been any ev-idence of resistance to penicillin,” Dr. Fakih said in an interview with this newspaper. He could not explain the regional vari- ances in prescribing, but suggested that differences in phy- sician education or in patient populations might be involved; one region studied included the Detroit area, while the north- ern region is more rural.

There were significant differences in knowledge of URI depending on region, with more antibiotic prescribing for viral symptoms in more populous areas.

But demand patients are not the only factor; “physicians need to be educated. We can’t blame it on the patients,” he said.

The conference was sponsored by the American Society for Microbiology.

Reading Problems Resolve When Ear Infections Resolve

BY MICHELE G. SULLIVAN
Mid-Atlantic Bureau

NEW YORK — Reading performance will return to normal in children who have lagged behind because of hearing impairment associated with chronic middle ear infections, Avishay Golz, M.D., said at the annual meeting of the American Academy of Otolaryngology–Head and Neck Surgery Foundation.

“Reading performance is not affected once these children are healed and their hearing is restored,” said Dr. Golz of Ramban Medical Center, Haifa, Israel.

“They catch up very rapidly to the same level as children who have never had otolog- ic problems.”

Dr. Golz presented the results of a follow-up study on the reading performance of 75 children with chronic middle ear in- fection; the same group was the subject of a similar study he conducted 4 years earlier.

The follow-up study included 75 of the original 80 subjects; the children ranged in age from 10 to 11.7 years. Of this group, 64 no longer had otologic in- fections and had regained normal hearing.

Eleven children still had middle ear dis- orders, including perforations of the eardrum, middle ear effusion, or infected eardrums. Hearing loss in this group ranged from 24 to 41 dB.

The control group consisted of 60 of the subjects’ classmates. All controls had a negative history of middle ear infection and had normal tympanic membranes and normal hearing thresholds.

All children received a complete ear, nose, and throat examination and audi- ologic assessment; they also received two reading tests 4-6 months apart. Each reading test had a possibly of 220 mistakes; the expected average score was 5%.

The control group scored an average of 3.1% on the test, while the children whose ear infections had resolved scored an average of 3.4%—not a significant dif- ference. The children whose ear problems persisted scored an average of 7%—sig- nificantly worse than the scores of either of the other groups.

The unhealed children scored better than they did in the initial study, but the second scores were still worse than what was considered an acceptable average, Dr. Golz pointed out.

“Although the children had improved their performance, this should still be re- garded as functionally significant,” he said.

Teachers should be made aware of chronic ear disorders that can affect hear- ing and impede reading development, as well as other academic areas.

Low-Dose Fluconazole May Prevent Invasive Fungal Infection in Newborns

BY DOUG BRUNK
San Diego Bureau

SAN FRANCISCO — Fluconazole pro- phylaxis twice weekly during the first 6 weeks of life is similar to the previously studied schedule of more frequent doses in preventing invasive fungal infection in high-risk preterm infants who weigh less than 1,000 g at birth, David Kaufman, M.D., reported at the annual meeting of the Pediatric Academic Societies.

“This dosing seems comparable,” Dr. Kaufman said in a later interview. “Cer- tainly, [it] offers the benefit of less cost and less patient exposure as far as po- tential side effects. The bigger issue is that some fungi develop resistance to fluconazole. This [dosing] is another way to reduce the possibility of resis- tance.”

Dr. Kaufman and his associates con- ducted a 2-year prospective, randomized, double-blind study of 81 high-risk preterm infants at the University of Vir- ginia Children’s Medical Center, Char- lorottesville.

The infants had birth weights of less than 1,000 g and either an endotracheal tube or central venous catheter. Infants were randomized to receive one of two dosing schedules. Dosing schedule A con- sisted of 3 mg/kg of intravenous fluconazole per kilogram of body weight every 72 hours during weeks 1 and 2, then every 48 hours during weeks 3 and 4, and every 24 hours for weeks 5 and 6. Dosing sched- ule B consisted of 3 mg/kg fluconazole twice a week.

The 41 infants randomized to dosing schedule A and the 40 on dosing sched- ule B were similar in mean body weight (691 g vs. 704 g), gestational age (23 weeks vs. 26 weeks), and risk factors for fungal infection, said Dr. Kaufman of the uni- versity’s department of pediatrics. Two patients in each group had baseline fun- gal colonization.

During the 6-week treatment period, fungal colonization was documented in five schedule A patients (12%) and in four schedule B patients (10%). Invasive fungal infection occurred in two sched- ule A patients (5%) and in one schedule B patient (3%).

All these infections cleared with line re- moval and amphotericin treatment. All fungal isolates remained sensitive to flu- conazole, and no adverse side effects were noted.

Dr. Kaufman said he and his associates would like to conduct a larger, multisite, randomized trial of 1,000-1,500 infants within the next year or 2 to confirm the findings.

A multicenter study would better con- firm the efficacy as well as further eval- uate side effects and resistance,” he said. “It might also be able to show if pro- phylaxis would decrease mortality. Since up to 40% of extremely preterm infants who develop fungal bloodstream infec- tions die, prevention should improve sur- vival.”

If one assumes that each dose of flu- conazole costs $50, he added, the cost dif- ference between schedule A dosing and schedule B dosing is significant ($1,600 vs. $600, respectively).

The study was supported by a grant from Pfizer Inc., which markets flucona- zole under the brand name Difucan.

The meeting was sponsored by the American Pediatric Society, the Society for Pediatric Research, and the Ambula- torial Pediatric Association.