Antibiotic Rx's Still Sought by 'Educated' Parents

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Contributing Writer

hen James A. Taylor, M.D., and his colleagues found that an educational pamphlet and a video changed parents' attitudes about antibiotic use 2 years ago, they assumed that such a change would lead to fewer demands on pediatricians and fewer antibiotic prescriptions.

They were wrong.

In a randomized controlled trial, their educational intervention did not result in a decrease in antibiotic prescriptions.

Prescriptions were high over a 12-month postintervention period, with antibiotics prescribed during 46% of all visits for upper respiratory infection (URI) symptoms—regardless of whether the parent had received the pamphlet and video or another control intervention.

It could be that "although attitudes about antibiotic use were modified, par-

There were no significant differences in number of visits, diagnoses, or prescriptions between the intervention and control groups.

ents still desired these medications when their child was ill," said Dr. Taylor of the Child Health Institute at the University of Washington, Seattle, and his colleagues.

It's also possible that "pediatricians may have failed to

detect a change in expectations for antibiotics by parents of children in the intervention group," they wrote (Pediatr. Infect. Dis. J. 2005;24:489-93). Their study was conducted by the Puget Sound Pediatric Research Network, a regional practice-based research group composed of Seattle-area pediatricians.

Parents of 499 healthy children under age 2 years were enrolled at the time of an office visit and randomized to receive either a pamphlet and video promoting the judicious use of antibiotics (the intervention) or brochures about injury prevention (the control group).

The educational pamphlet, "Your Child and Antibiotics," was developed by the American Academy of Pediatrics, the Centers for Disease Control and Prevention, and the American Society of Microbiology. The video was professionally produced and featured one of the physicians from the child's pediatric practice.

At the end of a 12-month period, each child's medical record was reviewed. Of 4,924 outpatient visits, almost 1,420 (29%) were for URI symptoms as the chief complaint. Pediatricians were not informed about which children/parents were involved in the project.

At least one antibiotic was prescribed during 46% of the visits for URI, 92% of which were for a diagnosis of otitis media or sinusitis. Antibiotics were prescribed at only 10 visits at which the only diagnosis made was URI and at 7 visits at which the diagnosis was bronchitis.

Overall, the "average" study patient had approximately 10 visits—a remarkably high level of utilization, the investigators noted—3 of which were visits for URI symptoms. The average patient also had two diagnoses of otitis media and received two prescriptions for antibiotics during the 12-month period. There were no significant differences in any of the outcomes—number of visits, specific diagnoses, or prescriptions—between children in the intervention and control groups.

Although antibiotics were "clearly indicated" for a proportion of patients with the diagnoses of otitis media or sinusitis, "it is equally certain that for a significant proportion... there was uncertainty regarding the diagnosis and/or need for antibiotic therapy, or the diagnosis was made by the practitioners to justify the use of antibiotics," Dr. Taylor and his associates said.

In an earlier study of the pamphlet and video, they had found that these educational tools resulted in "changes in parental

attitudes that were more supportive of the judicious use of [antibiotics]," the investigators said. "We postulated that if parental expectations could be altered by an educational intervention, pediatricians would perceive less demand for antibiotics and prescribe fewer of these medications."

Now, they said, "it is clear that more research is needed to identify methods for reducing antibiotic use in children that are effective, inexpensive, and easily implemented."

