STI Vaccines: Efficacy Is Most Important to Parents

Parents respond positively about vaccines, even those that target sexually transmitted infections.

BY MICHELE G. SULLIVAN
Mid-Atlantic Bureau

Parents of adolescents appear to accept the idea of vaccinating their teens against sexually transmitted infections, expressing the most concern about the efficacy of the vaccine and the severity of the infection it could prevent, rather than the mode of transmission, Gregory D. Zimet, Ph.D., and his colleagues have reported.

Some surveys have suggested that physicians and others who provide care to adolescents might be reluctant to recommend STI vaccines, perhaps because of concerns about how parents might react. "The high acceptability ratings reported by most parents in this study suggest that most parents would not react negatively to the suggestion," said Dr. Zimet of Indiana University, Indianapolis (Arch. Pediatr. Adolesc. Med. 2005;159:132-7).

The researchers surveyed 278 parents of adolescents aged 12-17 years. The mean age of parents was 41 years. The mean age of children was 14 years, and 69% were female.

The survey presented nine different vaccine scenarios, each of which uniquely defined four variables: mode of transmission (STI or non-STI), severity of infection (curable, chronic and incurable, usually fatal); vaccine efficacy (50%, 70%, or 90%); and availability of behavioral methods of prevention (such as condoms or hand washing).

For each scenario, parents were asked, "If this vaccine were available today and you had the time, would you let your child get vaccinated?" Parents rated vaccine acceptability on a scale of 0-100, with 100 being "I would definitely let my child get this vaccine."

The parents were recruited from urban, Midwestern adolescent medicine clinics and private practices. More than half (56%) were white, and about 40% were African American. Less than 2% were Hispanic.

The least acceptable scenario, with a mean score of about 75, was a vaccine with 50% efficacy against a non-STI that could be prevented by hand washing. The most acceptable scenario, with a mean score of 88.6, was a vaccine with 90% efficacy that protected against a usually fatal non-STI that could not be prevented by hand washing.

The mean score for the six STI scenarios was slightly, but not significantly, higher than the mean score for the three non-STI scenarios. The lowest-scoring STI vaccine scenario was a vaccine that was 50% effective against a curable STI that could not be prevented with condoms (75.7). The highest-scoring STI scenario was a vaccine that was 70% effective in preventing a usually fatal STI that could be prevented by the use of condoms (84.4).

For the majority of parents, sexual transmissibility had the least influence on acceptability ratings.

Vaccine efficacy was the most influential factor in the ratings, followed by severity of infection and availability of behavioral protection. However, 31 parents (11%) indicated a relatively strong preference for an STI vaccine, and 16 parents (6%) indicated a relatively strong opposition to it.

About a quarter (27%) of the parents gave ratings of 100 to every vaccine. High accepters were more likely to be in the urban clinics and to have only a high school diploma. Acceptability was not related to the child's age, suggesting that parents may not make these decisions based on the proximity of their child's sexual activity.

In an accompanying editorial, Susan L. Rosenthal, Ph.D., of the University of Texas, Galveston, said questions still remain, not only about STI vaccine acceptability, but how to maximize its use to offer the broadest protection.

The study involved mostly white, Midwestern parents, so the results cannot be extrapolated to other groups. And, she noted, it does not address provider feelings about the child's age—a factor that will invariably affect who gets vaccinated, and when. "It will be important to understand how the age of the child or adolescent will influence parents' and health care professionals' attitudes, including assessing the acceptability of vaccinating even younger children," she said (Arch. Pediatr. Adolesc. Med. 2005:159;190-2). ■

Patient-Delivered Treatment for Partners Reduces Chlamydia and Gonorrhea

BY KATE JOHNSON
Montreal Bureau

The provision of chlamydia or gonorrhea treatment directly to patients' sexual partners, without requiring the partners to visit a physician, significantly improved infection control in patients, researchers at the University of Washington in Seattle reported.

"We believe that the inadequacies of current approaches to partner notification and the persistence of unacceptably high levels of morbidity from sexually transmitted infections in the United States should motivate both clinicians and public health authorities to incorporate patient-delivered partner therapy and other approaches to expedited care of partners into clinical and public health policies," wrote Matthew R. Golden, M.D., the study's lead investigator (N. Engl. J. Med. 2005; 352:676-85).

The study randomized 2,751 patients recently treated for chlamydia and/or gonorrhea infections to either expedited treatment or standard referral for their partners.

The 1,376 patients in the expedited treatment group were offered medication to give to as many as three partners. An additional 1,375 patients in the standard referral group were advised to tell their partners to seek care, available at no cost at the public health department's sexually transmitted diseases (STD) clinic.

The medication for partners in the expedited treatment group was distributed to patients in three ways; at the STD clinic, by direct mail, or through participating pharmacies. It consisted of either a single 400-mg dose of cefixime and a 1-g sachet of azithromycin for partners of patients with gonorrhea or azithromycin only for partners of patients with chlamydia.

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Warnings and information about the medication, condoms, and STD prevention also were included in the packets.

A total of 1,860 patients (67%) completed the study and were interviewed and retested 10-18 weeks after their initial diagnosis and treatment.

More patients in the expedited treatment group reported that their partners were likely to have been treated, or to have tested negative for STDs—making persistent or recurrent infection with either gonorrhea or chlamydia significantly less common in this group (10%), compared with the standard referral group (13%), for a relative risk of 0.76.

Expedited treatment was more effective in reducing gonorrhea (73%) than chlamydia (15%)—a finding that might be partially explained by chlamydia treatment failure, the authors suggested.

The findings represent "a major advance for the control and prevention of STDs," reported Emily J. Erbelding, M.D., and Jonathan M. Zenilman, M.D., of Johns Hopkins University, Baltimore, in an accompanying editorial (N. Engl. J. Med. 2005;352:720-1).

"We can conclude that the use of expedited approaches designed to circumvent traditional evaluation by a clinician increases the chance of an exposed partner's receiving proper therapy and, most important, reduces the original patient's risk of reinfection," Dr. Erbelding and Dr. Zenilman wrote.

The study authors noted several weaknesses in their model of patient-delivered partner therapy. These included legal barriers in many states, the uncertain availability of cefixime, potential adverse effects of treating partners without a clinical evaluation, and the missed opportunity for educating partners as well as treating them for other STDs. ■

Syphilis Incidence Soars Among Homosexual Men

Washington — The overall incidence of syphilis has been dropping in the United States since the mid 1990s, but a syphilis epidemic is raging among men who have sex with men.

Several factors appear to be driving this syphilis epidemic, the most notable of which has been an increase in unprotected sex between men who are infected with HIV, Matthew Golden, M.D., said at the annual Interscience Conference on Antimicrobial Agents and Chemotherapy.

Based on data collected in Seattle and King County, Wash., men who are HIV positive are often having unprotected sex with other HIV-positive men. The rate of unprotected sex rose from 32% in 1994 to 45% in 2004. The percentage of HIV-positive men who have sex with men who said they had more than two sex partners in the preceding 2 months rose from 25% in 1993 to 39% in 2004.

These factors may help explain why the incidence of syphilis among HIV-positive men who have sex with men soared from about 55 cases/100,000 people in Seattle and King County in 1997 to a projected incidence of nearly 1,200/100,000 people in 2004, reported Dr. Golden, medical director for public health at the Seattle King County STD clinic.

"A 1%/yr rate is extraordinary," compared with typical rates in the U.S. population, Dr. Golden said at the conference, sponsored by the American Society for Microbiology.

Although an education campaign about the risks of sexually transmitted diseases is being targeted to HIV-infected men in Seattle and King County, additional education programs appear needed, Dr. Golden added.

Other factors that may be helping to feed this syphilis epidemic include the recent growth in the availability and popularity of methamphetamine, and the growth of the Internet as a way for HIV-infected men to meet other HIV-infected men as potential sex partners. But the possible roles played by any of these factors remain speculative for the time being, Dr. Golden cautioned.

—Mitchel L. Zoler

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