Consent-Related Barriers Lower Vaccination Rates

BY PATRICE WENDLING

FROM THE ANNUAL MEETING OF THE PEDIATRIC ACADEMIC SOCIETIES

VANCOUVER, B.C. — The inability of older adolescents to provide consent for vaccinations creates a barrier to vaccine delivery, new research suggests.

In a survey of 280 medical providers from 43 states, 95% said that 17-year-olds "sometimes" or "often" present without a parent. Ten percent reported that this is true for 12-year-olds.

The providers were then asked how likely it was that an unaccompanied minor adolescent in their state would be vaccinated for influenza; combined tetanus, diphtheria, and pertussis (Tdap); and human papillomavirus (HPV) if the vaccines were available for free, the patient was medically eligible, and the parent was not available to consent.

Responses varied by vaccine type, patient age, and clinical setting, said Dr. Carol Ford of the University of North Carolina, Chapel Hill.

If a 17-year-old presented alone for routine care in a private primary care clinic and were due for all three vaccines and "all the stars were lined up for them to get the vaccines," except that a parent could not be reached, 30% would not get any of the vaccines. If the same patient presented alone to a private clinic for confidential services, 40% would not get vaccinated.

If the unaccompanied minor were 12 years old, 50% would not get influenza or Tdap, and 70% would not the HPV vaccine, according to the survey.

In a public primary care setting, approximately half of 17-year-olds presenting for routine care and 65% of 12-year-olds would not get any vaccines if they were unaccompanied by a parent, she noted.

Between 30% and 50% of health care provider respondents said that an adolescent presenting to a public clinic for confidential services would not get the HPV vaccine and 60%-70% would not get Tdap or influenza vaccines, with variation by age, Dr. Ford said.

Interventions to increase adolescent vaccinations include strategies such as anticipatory consent for vaccinations at the time of school physical examinations; advance consent for additional doses, as with the three-dose HPV vaccine; and calling parents on cell phones.

Providers must work within the context of legal, ethical, and professional guidelines regarding minor consent, but hospitals and medical sites have a great deal of variety and flexibility regarding the process of documenting consent.

Federal law requires that all heath care providers give vaccine information statements to parents or patients before administering each dose of the vaccines listed in the 2010 vaccine schedule.

Most states require patient assent, not consent. Survey respondents would support efforts to allow minors to consent for vaccination at a mean of 14.26 years for Tdap, 14.08 years for influenza, and 13.81 for HPV, said Dr. Ford, who reported having no conflicts. ■

Pneumococcal Vaccine Does Not Appear to Cut Risk of MI, Stroke

BY MARY ANN MOON

FROM JAMA

Among older men in an ethnically and socioeconomically diverse California population, those who received pneumococcal vaccine did not have a lower risk of acute MI or stroke than did those who were unvaccinated.

Influenza vaccination has been shown to reduce the risk of MI, stroke, sudden cardiac death, cardiac hospitalization, and the need for revascularization, and similar results recently have been reported for vaccination against pneumococcus, said Hung Fu Tseng, Ph.D., of Kaiser Permanente Southern California, Pasadena, and his associates.

It is thought that respiratory infections can trigger an exaggerated inflammatory response that causes destabilization of atherosclerotic plaques and activation of the coagulation cascade.

To explore the possible protective effect of pneumococcal vaccine against MI and stroke, Dr. Tseng and his colleagues reviewed data from 84,170 men enrolled in the Kaiser health plan who were 45-69 years of age at baseline in 2000 and were followed through 2007.

There were 2,705 incident acute MIs and 1,134 incident strokes.

The rate of MI was 10.7 per 1,000 person-years in men who received at least one pneumococcal vaccination, compared with 6.1 per 1,000 person-years in men who had not received any pneumococcal vaccinations. The rate of stroke was 5.3 per 1,000 person-years in vaccinated men and 1.9 per 1,000 person-year in unvaccinated men.

©PAMELA MOORE/ISTOCKPHOTO.COM

The MI rate was 10.7/1,000 person-years with vaccination and 6.1 without.

"We found no evidence for an association between pneumococcal vaccine and reduced risk of acute MI or stroke" in the general study population. Moreover, there also was no protective effect in important subgroups such as smokers, men with diabetes, men with hypertension, and men with low cardiovascular risk (JAMA 2010;303:1699-706).

These results contrast with a well-publicized recent case-control study. Dr. Tseng's study was different in that it controlled for subjects' dietary habits, disease history, and lifestyle factors such as smoking and level of physical activity.

This study was funded by California Cancer Research Program and Kaiser Permanente. Dr. Tseng and his associates reported ties to Merck, the developer of a pneumococcal vaccine, and GlaxoSmithKline. ■

Immunization Intervention Targets High-Risk Urban Teens

BY SUSAN LONDON

FROM THE ANNUAL MEETING OF THE PEDIATRIC ACADEMIC SOCIETIES

VANCOUVER, B.C. — A stepped intervention in primary care practices can improve rates of immunization and well-child visits among urban adolescents at high risk for poor health outcomes.

Data from a randomized trial conducted in Rochester, N.Y., showed that adolescents assigned to the intervention were 1.8 times more likely to receive new vaccines than were their peers assigned to usual care. In addition, they were 1.7 times more likely to have made a well-child visit in the past year.

"A stepped tracking-reminder-recall-outreach program can improve immunization rates for high-risk urban adolescents, and it has spillover benefits on improving preventive care visits," said Dr. Peter G. Szilagyi, professor and chief of the division of general pediatrics and professor at the center for community health at the University of Rochester.

The 15-month trial was conducted in eight primary care practices among adolescents aged 11-15 years. Within each practice, the adolescents were randomized to an intervention group or a control group given usual care.

VITALS

Major Finding: Adolescents assigned to a stepped intervention were 1.8 times more likely to receive new vaccines and 1.7 times more likely to have a recent well-child visit than those given usual care.

Data Source: Randomized controlled trial involving 6,684 high-risk adolescents.

Disclosures: Dr. Szilagyi reported that he had no conflicts of interest related to the study.

In the intervention group, outreach workers tracked all adolescents to monitor their immunization status. For those identified as being behind, progressively intense measures were used until they were up to date: reminders, then recalls, and finally outreach in the form of a home visit, which was used to assess barriers, link the families with social services, and stress the importance of a medical home.

Outreach workers mainly targeted the parents but often did speak with the adolescents. "Reaching them is a constant problem," he commented. "This is why we put human beings here rather than computers or auto-dialers."

The researchers assessed rates of receipt for three new vaccines for adolescents—meningococcal conjugate (MCV4); tetanus, diphtheria, and pertussis (Tdap); and human papillomavirus (HPV) vaccines—and rates of well-child care visits.

Analyses were based on 3,365 adolescents in the intervention group and 3,319 adolescents in the control group. They were a mean 13.5 years old, and half were male. Most were either black (63%) or Hispanic (23%) and most had Medicaid (73%).

Results showed that in the intervention group, 71% of adolescents needed reminders and recall, and 12% needed home visits.

After adjustment for potential confounders, relative to their peers in the control group, adolescents in the intervention group were 1.8-fold more likely to have received all three vaccines at the study's end (P less than .001), Dr. Szilagyi said.

In absolute terms, 44% of adolescents in the intervention group were fully immunized at that point, compared with 32% in the control group. Differences were significant for each vaccine as well.

Similarly, after statistical adjustment, adolescents in the intervention group were 1.7-fold more likely to have had a well-child visit in the past year at the study's end (P less than .001), he said.

In absolute terms, 67% in the intervention group had made such a visit, compared with 55% in the control group.

The difference in immunization rates between groups was significant within each of the eight practices, and the difference between groups in well-child visits was significant within all but one, Dr. Szilagyi noted. Furthermore, improvements in rates of these outcomes were similar by age, sex, race/ethnicity, and type of insurance.

The cost of the intervention (excluding research costs) was $43 per year per adolescent. The cost per additional fully vaccinated adolescent was $465, and the cost per additional adolescent with a recent well-child visit was $417. The number needed to treat (enroll in the intervention) was nine for an additional adolescent to be fully vaccinated and nine for an additional adolescent to have a well-child visit. ■