MMRV Is Favored for Second Dose, Not for First

BY MIRIAM E. TUCKER

ATLANTA — The Centers for Disease Control and Prevention's vaccine advisory panel recommended the use of either the combination measles-mumps-rubella-varicella vaccine or the separate MMR and varicella vaccines for children at 12-15 months of age, but to retain a preference for the MMRV vaccine for the second dose given at 4-6 years of age.

The issue was addressed by the Advisory Committee on Immunization Practices (ACIP) at its June meeting because data had emerged last year suggesting an increased risk for febrile seizures in very young children given MMRV, compared with children given the MMR and varicella vaccines separately. ACIP had previously stated a general preference for the use of combination vaccines over separate vaccines whenever possible, said Dr. Jonathan Temte, MMRV vaccine safety working group chair.

In a separate vote, ACIP qualified the language for that preference—contained in its general vaccine recommendations—to say that although combination vaccines are still "generally" preferred over separate injections of equivalent components, "considerations should include provider assessment, patient preference, and potential for adverse events," along with other factors.

"In the era of the lowest levels of vaccine-preventable diseases, increasingly parents express more fear of vaccines than of diseases they prevent. Public trust in the safety and efficacy of vaccines is key to the success of immunization programs," said Dr. Temte of the department of family medicine at the University of Wisconsin, Madison.

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Dr. Jonathan Temte said, "In the era of the lowest levels of vaccine-preventable diseases, increasingly parents express more fear of vaccines than of diseases they prevent."

The MMRV vaccine—Merck & Co.'s ProQuad—is not on the U.S. market but is expected in 2010, a company spokesman said.

The American Academy of Pediatrics Committee on Infectious Diseases (COID) will take ACIP's vote into consideration, AAP liaison Dr. Joseph A. Bocchini Jr. said in an interview.

"The COID has not finished its deliberations on this. But, what this did was to remove the preference for MMRV. This now means the practitioner will have the opportunity, with the parents, to discuss the increased risk of febrile seizures associated with MMRV and make a provider/parent decision about whether to give two shots or one shot with a slightly increased risk."

As to whether the COID—which Dr. Bocchini chairs—will come to the same conclusion, "I think it's possible they'll be in alignment, but I can't really say right now," he said.

The vote on dose 2 was more straightforward, he noted. "The risk of febrile seizures in that age group is low. … So, under usual circumstances a combination vaccine would be preferred," said Dr. Bocchini of Louisiana State University, Shreveport.

During the meeting, Dr. Karen Broder of the CDC's Immunization Safety Office presented a summary of evidence from two studies—one from the CDC's Vaccine Safety Datalink, the other from Merck—which together showed an approximately twofold elevated risk for febrile seizures among children aged 12-23 months in the 2 weeks following receipt of MMRV, compared with receipt of separate MMR and varicella vaccines. After vaccination, 7-9 febrile seizures occur per 10,000 children vaccinated with MMRV, compared with 3-4/10,000 with the separate vaccines.

After dose 1 of MMRV vaccine, 1 additional febrile seizure is expected to occur per approximately 2,300-2,600 children vaccinated, compared with when MMR and varicella vaccines are given separately, Dr. Broder said.

There was no increased risk for febrile seizure after dose 2, which is given to children at 4-6 years of age, although less information is available about the risk in that age group, she noted.

Committee members were divided on the dose 1 decision, with 4 of 14 members voting "no" to giving equal preference for the first dose, stating that they would rather see a preference for giving MMR and varicella vaccines separately. Among the concerns they raised were the need for storing all three vaccines, the need for scheduling additional visits, the extra time it would take to counsel parents about the risk of febrile seizures, and the fact that providers are paid two administration fees for giving the two separate shots.

But panel members who supported the vote for equal choice noted that although febrile seizures are scary to parents, most of these seizures are not of great medical consequence. A few panelists noted that expressing a preference for giving MMR and varicella separately would interfere with physician and patient choice, and might lead to decreased vaccine coverage because of the need for separate injections.

In other business, ACIP voted to apply these recommendations to children receiving the vaccines at ages other than those recommended, and to include the changes in the Vaccines for Children Program.

ACIP members who have conflicts of interest are required to abstain from voting. ■

Many ED Patients Positive for STIs Are Unaware of Infection

BY KERRI WACHTER

BALTIMORE — Empiric treatment for sexually transmitted infections among adolescent girls presenting to a pediatric emergency department is high, but many patients are unreachable for follow-up and some remain unaware that they are infected, according to a 3-month baseline study.

In all, 120 young women aged 14-21 years who were seen at the Cincinnati Children's Hospital pediatric emergency department (PED) tested positive for *Chlamydia trachomatis*, *Neisseria gonorrhoeae,* or *Trichomonas vaginalis* between July 1 and Sept. 23, 2008, reported Dr. Jennifer Reed of the division of emergency medicine at the hospital.

More than two-thirds of adolescents (69%) who tested positive for sexually transmitted infections (STIs) were treated empirically in the PED. The researchers were able to contact only 46% of STI-positive patients within 7 days and 60% within 30 days, according to data presented as a poster at the annual meeting of the Pediatric Academic Societies.

"The most prevalent reasons for the unreachable patients included phones being disconnected, no answer, and full voice mailboxes," Dr. Reed said in an interview. However, she noted that these data have not been analyzed yet.

The researchers tracked adolescent patients who tested positive for any STI. The usual clinical protocol involved contacting only those patients who tested positive for an STI but who were not treated empirically in the PED.

During the study period, a nurse practitioner attempted to contact all patients who tested positive for an STI, as soon as test results were available, regardless of documentation of PED treatment. Patients contacted at home were notified of their results and offered treatment if needed.

After three unsuccessful phone attempts to contact the patient, a registered letter was sent to the patient with the STI test results and a request to return to the PED. Those without treatment and no telephone contact or follow-up in the PED were classified as lost to follow-up.

The researchers recorded the date of contact and calculated the proportion of patients successfully contacted, the mean and median days to treatment/notification, and the proportions notified within 7 days and within 30 days.

For the 36 patients untreated at the initial PED visit but who tested positive and were successfully contacted, the median number of days to treatment was 8. In all, 9% of girls were lost to follow-up.

A total of 33 patients (28%) were empirically treated for STIs but remained unaware of their infections, putting their partners at risk and themselves at risk for reinfection from positive untreated partners. A total of 11 patients (9%) were untreated and were unaware of their infections, putting themselves at risk for complications from STIs, as well as for spreading infection.

This study is phase I of a quality improvement project designed to make the STI reporting system in the pediatric emergency department better. The results will serve as the baseline data that will be used to determine the efficacy of interventions aimed at improving follow-up.

The researchers are looking into "alternative ways to better contact these patients," Dr. Reed said, and are in the process of performing experiments to determine what interventions or combinations of interventions will best improve the contact rate. These include "providing a cell phone for the nurse practitioner who makes calls so she has better accessibility when these patients call back at nontraditional times."

The investigators also have developed a card to be handed out to each patient when she undergoes a pelvic exam. The card provides a phone number to reach the nurse practitioner to obtain culture results. "Lastly, we are encouraging nurses and physicians to obtain a confidential number at the time of the exam, since the number given in registration is often a nonworking one," said Dr. Reed.

The study was supported by a Cincinnati Hospital Research Foundation Outcomes award, as well as a K23 award from the National Institute of Allergy and Infectious Diseases. ■