ACIP's Annual Flu Statement Has Several Changes

BY MIRIAM E. TUCKER
Senior Writer

ATLANTA — Children aged 6 months to 9 years of age who did not receive two doses of vaccine the first time they were immunized against influenza should receive two doses the following season, the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices recommended at its winter meeting.

That was the only major change made to the ACIP's annual influenza statement, approved by the committee at the meeting. No new age or risk groups recommended for routine immunization were added this time around.

For an adequate immune response, children aged 6 months through 9 years receiving influenza vaccine for the first time are supposed to receive two doses given at least a month apart. But, in situations where a child only receives one dose, two studies published in 2006 suggest that protection against influenza is greater with two doses the following year, Dr. Anthony Fiore of the CDC's National Center for Immunization and Respiratory Diseases told the committee.

In one study, when the influenza B antigen was changed for the second season, children who only received one dose in their first season of being vaccinated and one dose in their second season had decreased immunologic response to the influenza B antigen compared with children who received two doses (Pediatrics 2006;118:e579-85).

The other study showed that, in consecutive seasons when the influenza vaccine antigens were unchanged, effectiveness against influenzalike illness in the second season was significantly less for 6- to 21-month-old children being vaccinated for the first time who received one dose in both seasons, compared with 6- to 21-month-olds who received one dose in their first season and two doses in their second season (J. Pediatr. 2006;149:755-62).

The new ACIP recommendation brings it in line with the American Academy of Pediatrics, which issued the same guideline in October 2006.

The American Academy of Family Physicians, which usually follows ACIP's recommendations, will likely change its advice as well, AAFP coliaison Dr. Doug Campos-Outcalt said in an interview.

Although no other major changes were made to the 2007 influenza statement, it will contain some new language. More direct wording will address the lack of scientifically conclusive evidence demonstrating harm from exposure to thimerosal preservative–containing vaccine, and the recommendation that any age- and risk factor–appropriate preparation is acceptable depending on availability. Prior to its vote on the influenza immunization statement, the ACIP heard a presentation by Dr. Jay M. Lieberman summarizing available data on thimerosal (see accompanying story).

Reinforcement of the need for health care workers to be immunized against influenza will be included in the statement, which also will mention new recommendations from several professional societies that all facilities employing health care workers offer the vaccine and require a written declination for those who chose not to be vaccinated.

New language on the timing of influenza immunization will note that although the ideal time is late September and October, immunization efforts should continue through January and beyond. Peak influenza activity occurs in February or March in most seasons, Dr. Fiore said.

Physicians who treat children should be aware that the ACIP is gearing up to expand its influenza vaccination recommendations beyond the current ages 6 months to 5 years to include all children aged 5-18 years. A meeting is planned for this summer to consider the scientific and implementation issues, with the goal of implementation for the 2008-2009 flu season, Dr. Ban Mishu Allos, the ACIP's influenza immunization task force chair, said.

Indeed, universal annual childhood immunization against influenza is already a stated goal of several national, state, and regional professional health care organizations, including the American College of Obstetricians and Gynecologists, the American Osteopathic Association, the Society for Adolescent Medicine, The National Medical Association, and the Society of Teachers of Family Medicine, Dr. Deborah Wexler, chief of the Immunization Action Coalition, informed the committee at the meeting. ■

Flu Shot Age Expansion Plan Keeps the Thimerosal Issue Hot

BY MIRIAM E. TUCKER
Senior Writer

ATLANTA — Recent efforts to broaden influenza immunization among children have kept the thimerosal/autism issue on the front burner for the Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices.

The link was evident at the ACIP's winter meeting, where plans were discussed to expand the recommended age range to receive annual flu shots from the current 6 months–5 years to children up through age 18. This could happen as soon as the 2008-2009 influenza season (see story above).

Most routine childhood vaccines no longer contain thimerosal, but influenza vaccine remains a notable exception: Only the intranasal vaccine and one brand of injectable influenza vaccine are currently thimerosal free, while the rest still contain small amounts. All of the influenza vaccine manufacturers are working toward producing preservative-free vaccine, and greater capacity is expected over the next 3-5 years, Dr. Anthony Fiore of the CDC's National Center for Influenza and Respiratory Diseases told the committee.

In the meantime, activist groups claiming a link between thimerosal and the documented rise in the number of children being diagnosed with autism spectrum disorders have kept the issue in the news and on the ACIP's agenda. The committee's 2007-2008 influenza statement will specifically state that "no scientifically conclusive evidence has demonstrated harm from exposure to thimerosal preservative–containing vaccine" and that individuals receiving influenza vaccine may be given "any age- and risk-factor appropriate vaccine preparation, depending on availability."

At the committee's request, Dr. Jay M. Lieberman presented a summary of the evidence regarding autism and thimerosal, an organic preservative containing 50% ethylmercury that once was commonly used in multidose vaccine containers to prevent microbial growth.

In 1999, the American Academy of Pediatrics and the U.S. Food and Drug Administration urged manufacturers to remove thimerosal from vaccines as quickly as possible, because of the discovery that young children receiving multiple immunizations could exceed the total mercury exposure level recommended by the Environmental Protection Agency, said Dr. Lieberman, chief of pediatric infectious diseases at Miller Children's Hospital, Long Beach, Calif.

In a subsequent statement, the CDC noted that the goal of removing thimerosal from vaccines was "established as a precautionary measure to maintain the public's trust in immunization," and that "there was no evidence of any harm caused by the low levels in vaccines, but removal would make vaccines safer" (MMWR 2000;49:622).

The relevant data come primarily from cohort and ecological studies. In a population-based cohort study of all 467,450 children born in Denmark during 1990-1996, the risk of autism and autism spectrum disorders did not differ significantly between those vaccinated with thimerosal-containing vaccines and those who received the thimerosal-free versions, and there was no evidence for a dose-response association (JAMA 2003;290:1763-6).

Preliminary data from a 1999 "screening study" of more than 140,000 U.S. children in the Vaccine Safety Datalink Project did suggest an association between thimerosal exposure and "any neurodevelopmental disorder"—but not autism—at 3 months. Those initial results have been widely quoted by activists as evidence for the dangers of thimerosal. However, the study showed no clear association between infant exposure to thimerosal and specific neurodevelopmental disorders. After various methodological errors and issues were resolved, the final published version of the report was less conclusive (Pediatrics 2003;11:1039-48).

©PARKER SMITH

Dr. Jay M. Lieberman gave a summary of evidence about autism and thimerosal.

"It's important to note that this study was undertaken to identify outcomes that warranted additional study. The authors recognized that there were likely to be other important factors that couldn't be addressed in this study design," Dr. Lieberman said.

While the increase in the incidence and prevalence of autism spectrum disorders in the United States during the 1980s and 1990s paralleled exposure to thimerosal-containing vaccines, the story is different in Denmark and Sweden, where rates of autism continued to rise even after thimerosal was removed from vaccines (Am. J. Prev. Med. 2003;25:101-6 and Pediatrics 2003;112:604-6). Similarly, emerging data in the United States suggest that autism rates have not decreased with the removal of thimerosal from routine childhood vaccines, Dr. Lieberman noted.

In 2004, a data review by the Institute of Medicine determined that "the evidence favors rejection of a causal relationship" between thimerosal-containing vaccines and autism.

But judging by some of the public comments at the meeting, not everyone is convinced. Lyn Redwood, R.N., president and cofounder of a nonprofit organization called Sensible Action for Ending Mercury-Induced Neurological Disorders (SafeMinds), urged the ACIP to stop recommending any vaccines that contain thimerosal. She read a list of titles from published scientific articles, such as "Thimerosal Neurotoxicity Is Associated With Glutathione Depletion: Protection With Glutathione Precursors" (Neurotoxicology 2005;26:1-8).

"I just don't see how the committee can avoid these types of studies and cherry-pick the data," said Ms. Redwood, who has a son diagnosed with pervasive developmental disorder.

More data from the Vaccine Safety Datalink Project are due out soon. This time, the CDC will look at children born from 1994 through 1999—the period when thimerosal-containing vaccines were used frequently. Prenatal and postnatal mercury exposure up to 7 months of age will be quantified, and a variety of assessments for autism and various measures of cognition will be performed.

Dr. Lieberman has financial relationships with Merck & Co., MedImmune, GlaxoSmithKline, and Sanofi Pasteur. ■