No Routine MCV4 in 2- to 10-Year-Olds, ACIP Says

BY MIRIAM E. TUCKER
Senior Writer

ATLANTA — Routine use of the conjugate meningococcal vaccine is not recommended for children aged 2-10 years, the Advisory Committee on Immunization Practices of the Centers for Disease Control and Prevention decided at its winter meeting.

Currently recommended for routine use in adolescents aged 11-18 years, the quadrivalent meningococcal conjugate vaccine (MCV4) (Sanofi Pasteur Inc.'s Menactra) was approved by the Food and Drug Administration for use in children aged 2-10 years on Oct. 17, 2007. Prior to that, it had been licensed for use in persons aged 11-55 years. Also in October, the ACIP recommended MCV4 instead of the old meningococcal polysaccharide vaccine (Sanofi Pasteur's Menomune) for children aged 2-10 years who are at high risk for meningococcal disease. These include travelers to or residents of countries in which meningococcal disease is hyperendemic or epidemic, children who have terminal complement component deficiencies, and children who have anatomic or functional asplenia (MMWR 2007;56:1265-6).

Overall, the incidence of meningococcal disease is at a 'historic low,' having decreased or remained stable each year for the last decade.

After considering data on the burden of disease, population impact, economic analysis, and other factors, an ACIP working group determined that routine vaccination against meningococcal disease in children aged 2-10 years should not be recommended at this time, other than for the children at high risk.

However, if providers or parents choose to vaccinate children in that age group, MCV4 is preferred over the polysaccharide vaccine. After hearing an outline of the rationale for this recommendation, the full committee voted unanimously (with one abstention) to support it.

Dr. Amanda Cohn of the CDC's National Center for Immunization and Respiratory Diseases' Division of Bacterial Diseases presented the working group's conclusions. Overall, the incidence of meningococcal disease is at a "historic low," having decreased or remained stable each year for the last decade.

In the year 2006, the most recent for which data are available, the overall incidence in the population was 0.3/100,000, compared with 1.3/100,000 10 years earlier. "Being at this nadir did impact the working group's decision," she said.

In most studies, young children have a low prevalence of *Neisseria meningitidis* carriage, compared with adolescents. While the current recommendation to give the vaccine to children aged 11-18 years is expected to protect them before they enter college, a time of high risk/incidence, giving the vaccine to 2-year-olds would be "catching the downslope." Moreover, the proportion of disease caused by the serogroups contained in the vaccine—A, C, Y, and W-135—is just 59% in 2- to 10-year-olds, compared with 75% of the disease in adolescents.

An estimated 160 cases per year of meningococcal disease caused by serotypes A, C, Y, and W-135 occur

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among 2- to 10-year-olds, of which the majority (50%) are in children aged 2-4 years. Among 11- to 19-year-olds, approximately 250 cases occur annually, she said.

Cost-effectiveness analyses place the cost per quality-adjusted life-year (QALY) of giving MCV4 to all 2-year-olds at $160,000, compared with $90,000/QALY for the current adolescent immunization strategy, assuming the same duration of immunity. On top of that, there are currently no vaccines recommended to be given at the 2-year-old well-child visit, so such a recommendation would add programmatic concerns as well, Dr. Cohn pointed out.

Dr. Cohn suggested—and several panel members agreed—that it would be best to wait for the licensure of meningococcal vaccines for infants and/or toddlers, who have the highest meningococcal disease rates in the population (3.9/100,000). Several companies are working on this, and data thus far are positive (JAMA 2008;299:173-84).

Meanwhile, for those who still choose to immunize 2- to 10-year-olds, data do support the use of MCV4 rather than the polysaccharide vaccine (Pediatr. Infect. Dis. J. 2005;24:57-62). ■

Trio of New Strains Chosen For 2008-2009 Flu Vaccine

BY HEIDI SPLETE
Senior Writer

GAITHERSBURG, MD. — All three virus strains in the influenza vaccine for the 2008-2009 season will differ from this year's vaccine, based on a majority vote by an advisory committee to the Food and Drug Administration.

The Vaccines and Related Biological Products Advisory Committee members voted to accept the choices recommended by the World Health Organization for next year's trivalent vaccine: an A/Brisbane/59/2007 (H1N1)–like virus, an A/Brisbane/10/2007 (H3N2)–like virus, and a B/Florida/4/2006–like virus.

These choices represent a notable departure from the flu vaccine formulas of recent years, which have included repeat appearances by the Solomon Islands strain of influenza A.

The change was prompted in part by the rise of the A/Brisbane/10/2007–like strain, which accounted for 82% of the influenza A (H3N2) isolates characterized by the Centers for Disease Control and Prevention between October 2007 and January 2008. According to the most recent data available from the CDC, the H3N2 strain of influenza A has become the dominant strain for this year's flu season.

Although influenza A is causing most of the illness, the well-publicized mismatch between the influenza B virus chosen for this year's flu vaccine and the currently circulating B virus is drawing extra attention. But the lengthy process of developing the flu vaccine and the challenges to produce it in volume and on schedule remain the same each year.

Two types of influenza B circulate every year, and one committee member compared the choice of B virus for each year's vaccine with flipping a coin.

An influenza B virus from the Victoria group was chosen for the 2007-2008 vaccine, but the strain chosen for 2008-2009 is of the Yamagata lineage. The most recent data from the CDC for the 2007-2008 flu season (as of Feb. 9, 2008) showed that 93% of the circulating influenza B viruses in the United States were of the Yamagata lineage, while 7% of the viruses were of the Victoria lineage. "But we have both groups [of influenza B virus] circulating worldwide," noted Nancy Cox, Ph.D., director of the influenza division at the CDC.

The committee members also discussed the possibility of tailoring future flu vaccines to different populations. Unlike previously vaccinated adults who have been exposed to both types of influenza B over time, children would likely benefit from a vaccine that has strains from both B virus lineages, noted Dr. Robert Couch, professor of molecular virology and microbiology at Baylor College of Medicine, Houston. ■

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'A CT scan is often done as part of the initial evaluation of a head injury, and yields the information that is needed for acute management. However, an MRI will better identify injury to the brain.'

Dr. James Christensen, p. 44