Don't Hesitate to Vaccinate HIV-Infected Patients

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WASHINGTON — Protect HIV-infected patients from additional illness by vaccinating them against influenza, hepatitis A and B, pneumococcal disease, and tetanus-diphtheria, Dr. David H. Spach advised at the Ryan White CARE Act meeting on HIV treatment.

As flu season begins, "vaccinate everyone for flu regardless of their CD4 count or viral load," said Dr. Spach, of the University of Washington, Seattle.

He presented a roundup of immunization recommendations for HIV patients:

► **Influenza.** Adults with AIDS are at significantly greater risk for influenza, compared with healthy adults, and even compared with healthy persons older than 65 years, according to data from a 3-year study of deaths from influenza or pneumonia (Arch. Intern. Med. 2001;161:441-6).

The flu vaccine is most effective for patients with CD4 counts of over 100 cells/mm³. There are no published data on adverse effects in patients with lower CD4 counts.

Studies have shown that the flu vaccine is most effective for patients with CD4 counts greater than 100 cells/mm³. Patients with CD4 counts below 100 cells/mm³ may not respond as well to the vaccine, but there are no published data on adverse effects of influenza vaccines in these low-CD4-count patients, Dr. Spach said.

Vaccinate HIV patients annually with the trivalent vaccine regardless of their CD4 count, but remember that the live vaccine is contraindicated for these patients, he said. Data from the Centers for Disease Control and Prevention for the period from 1976 to 2006 confirm that peak flu activity occurs in the 4-month period from December through March, which reinforces the current recommendations to give HIV patients the flu vaccine at a regular visit just prior to the start of flu season.

► **Hepatitis B.** Clinicians may encounter HIV patients who received one or two doses of the hepatitis B vaccine and then disappeared for years.

But if an HIV patient has missed a dose, "it's fine to pick up where you left off," he said.

Long intervals between the first and second doses of hepatitis B vaccine appear to have little effect on immunogenicity in HIV patients, and the third dose is more like a booster dose, Dr. Spach said. The CDC's Advisory Committee on Immunization Practices recommends a standard 20-mcg dose at baseline, followed by subsequent doses at 1 month and 6 months.

Consider a double dose of hepatitis B vaccine in HIV patients who do not respond to the initial three-dose series, Dr. Spach advised. Patients with CD4 counts greater than 500 cells/mm³ will respond better to a double dose than will those with lower counts.

But regardless of CD4 count, the odds of response to a future dose are low if an HIV patient doesn't respond to the initial three-dose series, he noted.

► **Hepatitis A.** Data from a study of 133 HIV-infected adults showed that response rates to hepatitis A vaccine are significantly greater in HIV patients with CD4 counts of at least 200 cells/mm³, compared with patients whose counts are less than 200 (J. Infect. Dis. 2003;187:1327-31).

"Those with CD4 counts under 200 really did not respond well at 7 and 9 months post vaccination," Dr. Spach said. Vaccine response rates at 7 and 9 months were 11% and 9%, respectively, compared with 53% and 69% among patients with CD4 counts

Ads Seek to Boost HIV Vaccine Trials

To boost recruitment for its HIV vaccine trials and to dispel vaccine myths, the National Institute of Allergy and Infectious Diseases will air TV commercials in the 14 U.S. cities with the largest concentrations of the most-affected demographic groups.

The youth- and community-targeted ads are part of the agency's new "Be the Generation" campaign. For more information, go to www.bethegeneration.org.

of 200-500 cells/mm^3, and 73% and 67% among patients with CD4 counts greater than 500 cells/mm^3.

Based on these and other data, hepatitis A is not an optimal vaccine for patients with low CD4 counts.

If a patient is set to start antiviral therapy, consider postponing hepatitis A vaccination to determine whether the CD4 count increases.

► **Pneumococcal disease.** The rate of invasive pneumococcal disease in HIV-infected patients has decreased as a result of the widespread use of the seven-valent conjugate pneumococcal vaccine given to young children, Dr. Spach said.

Data from 2006 show a 20% decrease in invasive pneumococcal disease among HIV-infected adults since the childhood conjugate vaccine was licensed and became widely used, with a 60% reduction in the incidence of illness from serotypes that were contained in the vaccine and a slight increase in strains that were not contained in the vaccine (Ann. Intern. Med. 2006;144:1-9). These findings parallel other studies in adults not infected with HIV who have shown a strong herd immunity.

"This childhood vaccine probably has had a greater effect on preventing pneumococcal disease in HIV patients than our giving the standard adult polysaccharide vaccine," Dr. Spach said.

No published data show that the 7-valent vaccine is better than the standard vaccine for HIV-infected adults, and current recommendations still call for a single dose of the 23-valent polysaccharide pneumococcal vaccine followed by another dose 5 years later. "But if you have a patient with children or who interacts with children, encourage those kids to get immunized with the conjugate vaccine," he said.

► **Tetanus.** The new Tdap vaccine (approved in June 2005) is not a live vaccine, so it's safe for HIV patients, Dr. Spach said. Tdap is not Food and Drug Administration–approved for HIV patients specifically, but it is not contraindicated for them, and it will protect them from pertussis as well as diphtheria and tetanus.

New recommendations for non–HIV-infected adults call for replacing the next booster dose of Td (tetanus-diphtheria toxoids) with the Tdap vaccine, which should be given routinely to patients whose last Td vaccination was more than 10 years ago. ■

For the latest immunization information for HIV-infected patients and others, visit the CDC's National Immunization Program Web site, www.cdc.gov/nip.