Pneumonia Vaccine Effective in HIV

March 4, 2008

People with HIV who are given the pneumococcal polysaccharide vaccine (PPV) are 35 percent less likely to develop pneumonia than those who are not vaccinated, according to a new study to be published in an upcoming issue of *Clinical Infectious Diseases*.

The Centers for Disease Control and Prevention (CDC) recommends that all people living with HIV receive PPV, with revaccination every five years. Many types of vaccines, however, do not work as well in people living with HIV, and there has been some doubt among researchers and health care providers regarding the effectiveness of the PPV in people who are HIV-positive.

To explore the effectiveness of the vaccine, Maria Rodriguez-Barradas, MD, of the Veterans Affairs (VA) Medical Center and Department of Medicine at Baylor College of Medicine in Houston, and her colleagues studied 1,626 male patients from the VA health system, 692 of whom were HIV negative and 934 who were HIV positive. Sixty-nine percent of the HIV-positive patients had been vaccinated compared with 46 percent of the HIV-negative patients.

Though the majority of the HIV-positive group were 50 years of age or older, they tended to be younger than the HIV-negative patients, and there were more HIV-positive African Americans and smokers.

Overall, six percent of the patients developed pneumonia during the study period. People with HIV were almost six times as likely to develop pneumonia as their HIV-negative counterparts. Having a low CD4 count and being a smoker also increased a person's chance of developing pneumonia.

After controlling for HIV-specific factors like CD4 count, Dr. Rodriguez-Barradas' team found that people with HIV who had been vaccinated were 35 percent less likely than those who had not been vaccinated to develop pneumonia. Conversely, vaccination did not reduce the risk of developing pneumonia in the HIV-negative patients. The authors state that the small number of HIV-negative people in the study, rather than the ineffectiveness of the vaccine, may have been responsible for this result.

The authors concluded that, among HIV-positive people, PPV vaccination offers significant protection against pneumonia. Smoking cessation, they stress, should be pursued as an additional strategy for preventing pneumonia.

© 2026 Smart + Strong All Rights Reserved.