Epitomes

Important Advances in Clinical Medicine

Allergy and Immunology

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The Council on Scientific Affairs of the California Medical Association presents the following epitomes of progress in allergy and immunology. Each item, in the judgment of a panel of knowledgeable physicians, has recently become reasonably firmly established, as to both scientific fact and important clinical significance. The items are presented in simple epitome, and an authoritative reference, both to the item itself and to the subject as a whole, is generally given for those who may be unfamiliar with a particular item. The purpose is to assist busy practitioners, students, researchers, and scholars to stay abreast of these items of progress in allergy and immunology that have recently achieved a substantial degree of authoritative acceptance, whether in their own field of special interest or another.

The items of progress listed below were selected by the Advisory Panel to the Section on Allergy and Immunology of the California Medical Association, and the summaries were prepared under the direction of Drs Goldsobel and Spector and the Panel.

Recommendations for Immunizations in HIV-Infected Individuals

As the life expectancy of patients infected with human immunodeficiency virus (HIV) lengthens, health care professionals must give more consideration to prophylaxis against common diseases. Clearly, everyone should receive immunizations that are safe, effective, and clinically relevant, but not all pathogens are unusually virulent or overrepresented in HIV-infected individuals, and a vaccine's safety in this population can be difficult to determine. Live viral vaccines are usually contraindicated in immunosuppressed patients; in addition, the process of immunizing a patient theoretically could promote the activation of latent or controlled HIV infection. Since many HIV-infected patients are immunocompromised and may not mount an appropriate antibody response later in the course of HIV infection, it is important to consider administering vaccines soon after HIV infection when $CD4^+$ T lymphocyte counts are high and patients are clinically well.

An annual influenza vaccine is recommended for HIV-infected individuals, although patients with advanced disease are unlikely to mount an appropriate antibody response. There is no evidence that influenza is more common or severe in HIV-infected persons, but the vaccine is generally safe and well-tolerated. Hemophilus influenza type B is a problem in HIV-infected children, and the Hib vaccine is therefore recommended for them (and for all children). Since most flu in adults is not type B, its importance in older individuals is less clear, although HIV-infected adults lacking splenic function should receive the Hib vaccine. The vaccine against pneumococcal infection, a malady greatly increased in HIV-infected patients, is recommended, and revaccination is advised every 6 years. Adverse effects are rare.

The classic primary immunizations of childhood include those against measles, mumps, and rubella. Because these are live, attenuated viral vaccines, their use in symptomatic HIV-infected patients is a potential problem. Asymptomatic, immunologically naive, HIV-infected persons, however, would probably benefit from this vaccination during a measles outbreak. Oral polio vaccine is a live viral vaccine contraindicated in HIV infection, but the inactive form of the vaccine can be administered safely. Tetanus and diphtheria boosters, recommended every 10 years, appear to be safe in HIV infection.

Many HIV-infected persons have been exposed to hepatitis B. Unfortunately, the hepatitis B vaccine has shown a poor response rate in this group. Nonetheless, asymptomatic HIV-infected patients without evidence of antibodies to hepatitis B should receive the three-vaccination series. Interestingly, hepatitis A vaccine is more immunogenic in HIV-infected patients than most other vaccines. Travelers to areas endemic for hepatitis A who have no immunity should be vaccinated with this killed, inactivated viral vaccine.

The recommendations for vaccinations for foreign travel change frequently depending on epidemics, sanitation conditions, and other factors. The live, attenuated yellow fever vaccine is contraindicated, but many of the inactivated vaccines may be safe for use in HIV-infected individuals. In general, a careful evaluation of the potential risks and benefits of a given vaccine is always the first step in developing a individual immunization regimen.

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