Yellow Fever Vaccine Contraindications Clarified

BY HEIDI SPLETE

ATLANTA — The yellow fever vaccine is contraindicated for individuals receiving immunosuppressive therapies and for those with immunosuppressant conditions, but it can be used with caution in pregnant and breastfeeding women and in HIV-infected individuals with mild immunosuppression and no symptoms.

The Centers for Disease Control and Prevention's Advisory Committee on Immunization Practices (ACIP) reached this conclusion during its fall meeting based on an evaluation of vaccine-associated serious adverse events in certain populations.

ACIP recommended that the CDC update its current advisory for the use of yellow fever vaccine for U.S. citizens traveling to high-risk areas.

"Approximately 30,000 deaths are caused by yellow fever each year," according to Dr. J. Erin Staples of the CDC. A traveler's risk for yellow fever is based on several factors, including season of travel, immunization status, activities while traveling, and duration of exposure.

Decisions regarding vaccination must balance the risk of contracting the disease against the risk of vaccine side effects, Dr. Staples said. The yellow fever vaccine is a live, attenuated vaccine, given as a single dose with a booster every 10 years.

Some countries require proof of vaccination for travelers arriving from high-risk areas, she noted.

Safety studies have shown that approximately 10%-30% of vaccinees report mild systemic adverse events. Recent data suggest that the rate of serious events among vaccinees is 0.8/100,000 doses.

Serious adverse events associated with the vaccine can include anaphylaxis, yellow fever–associated neurologic disease, and yellow fever vaccine–associated viscerotropic disease, she said.

The ACIP yellow fever working group determined that, based on the latest safety information, yellow fever vaccination is contraindicated for anyone with immunosuppression, including individuals with primary immunodeficiencies, malignant neoplasms, thymus disorder, organ transplants, and HIV infection with severe immunodeficiencies.

Decisions regarding vaccination must balance the risk of contracting the disease against the risk of vaccine side effects, which can include anaphylaxis and neurologic disease.

The vaccine also is contraindicated in persons receiving radiation therapy, chemotherapy, high-dose systemic corticosteroids, and immunomodulatory drugs. Likewise, the vaccine is contraindicated for infants younger than 6 months of age and individuals with hypersensitivity to any of the vaccine's components.

The risk of transmission via breastfeeding is unknown. The working group recommended that yellow fever vaccine should be available to breastfeeding women if their travel to a high-risk area cannot be avoided or postponed, she said.

If a pregnant woman is planning to visit a region where the vaccine's potential risks outweigh the likelihood of contracting yellow fever, she should receive a medical waiver to fulfill international travel requirements, Dr. Staples said.

A section of the recommendations spells out additional circumstances for providing medical waivers, Dr. Staples said.

"Both infants and older adults are at increased risk for vaccine-associated serious adverse events," Dr. Staples noted. The recommendations do not contraindicate the following conditions, but urge precautions when vaccinating infants aged 6-8 months, adults aged 60 years and older, pregnant and breastfeeding women, and HIV-infected persons with moderate immune suppression and no symptoms. ■