Clinical Capsules

Flu Vaccine Production

Chiron's license to manufacture influenza vaccine, which was suspended in October as a result of contamination at the company's Liverpool, England, facility, has been reinstated, and vaccine manufacturing for the coming season will proceed.

The British Medicines and Healthcare Products Regulatory Agency (MHRA), working closely with the U.S. Food and Drug Administration, has been monitoring Chiron's progress in correcting the manufacturing problems that reduced the doses of vaccine slated for the U.S. market for the 2004-2005 flu season by nearly 50 million. The MHRA made the decision to lift the suspension, but the FDA will conduct a comprehensive inspection of the facility once manufacturing resumes and the corrective action can be evaluated to ensure production of a safe and effective vaccine, according to a statement by Jesse Goodman, M.D., director of the FDA's Center for Biologics Evaluation and Research.

The vaccine shortages that resulted from Chiron's license suspension brought the FDA under fire from government officials, who said the crisis was in part a result of the agency's lax oversight of the facility after previous findings of bacterial contamination and poor sanitary procedures.

TB Transmission Detection

The incidence of tuberculosis continues to decline, but an outbreak in a homeless shelter has underscored the importance of rapid DNA genotyping for detection of possible transmissions, particularly in such settings, according to the Centers for Disease Control and Prevention.

The outbreak in a shelter in New York initially involved a cluster of eight cases. A search of the *Mycobacterium tuberculosis*–genotyping databases for strains matching these cases revealed many other associated cases. Screening of shelter residents identified 29 cases among residents between 2000 and 2003, and 11 of 26 cases with genotype data available matched those in the outbreak (MMWR 2005;54:149-52).

Genotyping suggested that multiple chains of transmission were occurring simultaneously. To improve access to the genotyping technology, the CDC began offering universal *M. tuberculosis* rapid genotyping to health department TB control programs last year.

Hypersensitivity Pneumonitis

Hypersensitivity pneumonitis has been associated with aerosolized *Mycobacterium avium* complex in indoor hot tubs, but a recent case suggests that showering water might also pose a risk, Theodore K. Marras, M.D., of the University of Toronto and his colleagues reported.

The case involved a 50-year-old man with histologically proven hypersensitivity pneumonitis; MAC-positive sputum culture findings; and progressive dyspnea, episodic fever, and myalgias. The symptoms were similar to those of reported hot tub–associated cases (often called "hot tub lung"), but multiple samples from the respiratory tract and from the patient's shower and bathtub grew MAC with matching pulsed-field gel electrophoresis patterns, while specimens from his hot tub were negative (Chest 2005;127:664-71).

He switched from showering to tub bathing, and after about 1 year of treatment with prednisone and antimycobacterial drugs, his condition resolved. This is the first reported case of MAC-associated hypersensitivity pneumonitis believed to be associated with routine use of household water; the potential for sources other than hot tubs should be considered in patients presenting with MAC-hypersensitivity pneumonitis, the researchers said.

HIV-1 Viremia

The intermittent episodes of detectable viremia common in HIV-1 patients on highly active antiretroviral therapy generally do not represent new drug-resistant mutations of the virus, a study suggests.

These so-called blips probably represent random biologic and statistical variation around mean steady-state HIV-1 RNA levels slightly below 50 copies/mL. Blips tend to raise concerns about drug resistance, and can lead to costly medical tests and changes in drug therapy, Richard E. Nettles, M.D., of Johns Hopkins University, Baltimore, and his colleagues reported (JAMA 2005;293:817-29).

Intensive sampling over a 3- to 4-month period in 10 HIV-positive patients with long-term infection control revealed that blips usually have short duration (median of less than 3 days) and low magnitude (median of 79 copies/mL). Frequency was not associated with demographic, clinical, or treatment variables. Despite extensive analysis, no new genotypic resistance was detected in association with the blips.

Unlike blips, consistently detectable viremia and high-magnitude spikes (over 200 copies/mL) in viral load remain a cause for concern, the investigators concluded, noting that more study is needed to define when such viremia should trigger a change in therapy.

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