baseline and periodically for at least 6 months postexposure (eg, 6 weeks, 12 weeks, 6 months). If PEP is used, drug toxicity should be monitored.

These recommendations by the interagency group are provisional, because they are based on limited data regarding efficacy and toxicity of PEP and risk of HIV infection after exposure. Because the majority of occupational exposures to HIV do not result in infection transmission, potential toxicity must be considered carefully when prescribing PEP. The recommendations should be implemented in consultation with persons having expertise in antiretroviral therapy and HIV transmission.

The CDC urges enrollment of all workers in the US who receive PEP in an anonymous registry being developed by the CDC and the Glaxo Wellcome Company to assess toxicity. Unusual or severe toxicity from antiretroviral drugs should be reported to the manufacturer and the FDA. Starting in early 1997, updated information on HIV PEP will be available from the CDC internet home page (www.cdc.gov); fax information service (404-332-4565, Hospital Infections Program directory); National AIDS Clearinghouse (800-458-5231); and HIV/AIDS Treatment Information Service (800-448-0440). (See SHEA News, "Postexposure Antiretroviral Prohylaxis.")

FROM: Centers for Disease Control and Prevention. Update: provisional recommendations for chemoprophylaxis after occupational exposure to HIV. *MMWR* June 9, 1996;45:468-472.

New HCV Exposure Guidelines

The CDC has revised its guidelines for follow-up after occupational exposure to hepatitis C virus (HCV), citing risk of both occupational and nosocomial transmission of HCV.

In summarizing the results of follow-up studies of HCWs who sustained percutaneous exposures to blood from anti-HCV–positive patients, the CDC noted that the incidence of anti-HCV seroconversion (based on second-generation testing) averaged 3.5% (range, 0% to 7%); in the one study that used polymerase chain reaction to measure HCV infection by detecting HCV RNA, the incidence was 10%.

The CDC also noted that hospitalized patients may serve as a reservoir for transmission; the prevalence of anti-HCV among patients has been reported to range from 2% to 18%. A number of nosocomial outbreaks also were summarized. In one report from Australia, four patients who had outpatient surgery on the same day became infected with HCV of the same genotype as a chronically infected patient who underwent surgery just prior to the cases. In a report from Spain, five open-heart–surgery patients acquired HCV infection from a cardiovascular surgeon with chronic HCV.

In the absence of postexposure prophylaxis, there are multiple issues that need to be considered in deciding if there should be a defined protocol for the follow-up of HCWs for HCV infection after occupational exposure. These include the limited data on the risk of transmission, the limitations of available serological testing for detecting infection and determining infectivity, the poorly defined risk of transmission by sexual, household, and perinatal exposures, the limited benefit of therapy for chronic disease (eg, alpha interferon), the medical and legal implications, and the cost of follow-up. The CDC has estimated the nationwide cost of providing postexposure follow-up testing at $2 to $4 million per year; the cost per person for each person who benefits from therapy is estimated at $200,000.

In the summary of recommendations, the CDC stated that no postexposure prophylaxis is available for hepatitis C and that immune globulin is not recommended because it does not appear to be effective in preventing hepatitis C. The CDC recommended that institutions should provide HCWs with accurate and up-to-date information on the risk and prevention of all bloodborne pathogens, including hepatitis C. In addition, institutions should consider implementing policies and procedures for follow-up of HCWs after percutaneous or mucosal exposure to anti-HCV–positive blood. Such policies might include baseline testing of the source patient for anti-HCV and baseline and 6-month follow-up testing of the persons exposed for anti-HCV and alanine aminotransferase activity. All anti-HCV results should be confirmed by supplemental anti-HCV testing.

The issue of the HCV-infected HCW also is addressed, and the guidelines state that the risk of transmission from an infected worker to a patient appears to be very small and that there currently are no recommendations regarding restriction of HCWs with hepatitis C. As recommended for all HCWs, those who are anti-HCV–positive should follow strict aseptic technique and standard (universal) precautions, including appropriate use of handwashing, protective barriers, and care in the use and disposal of needles and other sharp instruments.

A copy of this document may be obtained from the CDC Hepatitis Surveillance Branch (telephone 404-639-3408).

FROM: Centers for Disease Control and Prevention. Issues and answers: what is the risk of acquiring hepatitis C for health care workers and what are the recommendations for prophylaxis and follow-up after occupational exposure to hepatitis C virus? Centers for Disease Control and Prevention: Hepatitis Surveillance Report: No. 56; April 1996.

Fatal Toxemia of Dialysis Patients

An outbreak of severe toxic reactions among 131 dialysis patients occurred at a dialysis center in Caruaru, near Recife, in northern Brazil. Between February 17 and 20, 1996, patients reported visual disturbances, abdominal pain, and vomiting associated with dialysis. On February 20, one patient died soon after completing a dialysis session. Between February 22 and March 6, 1996, 11 additional patients died; the Ministry of Health was notified, and the center was closed. Surviving patients initially were transferred to the city's other dialysis center, but now are being dialyzed outside of Caruaru. As of May 13, 46 patients were known to have died, and over 40 others have been hospitalized in Recife. Over 90% of the patients at the affected dialysis center reported having visual disturbances, gastrointestinal complaints, and muscle weakness;

liver function tests on 80% of the patients were abnormally elevated. Among surviving patients, the visual disturbances resolved within 1 to 7 days, and then days or weeks later, they developed jaundice and liver failure. Autopsies of four patients showed massive hepatocellular damage and cholestasis.

Caruaru's water source is a nearby lake, and water is supplied to the dialysis unit by truck. No other city residents (including patients at the city's other dialysis center) have had signs or symptoms consistent with the illness in the dialysis patients. Residents who live near the lake outside Caruaru report drought conditions, low water levels, and an algae bloom at the lake in January and February. Although they use the lake water for drinking and cooking, no one noticed symptoms like those experienced by the Caruaru dialysis patients. Residents who swam or bathed in the lake did notice severe skin irritation and itching during the time of the algae bloom.

Three medical epidemiologists from the CDC's Hospital Infections Program assisted the ministry of health in investigating this outbreak. They reviewed medical records and obtained tissue, serum, and water samples in Brazil from April 1-13. At present, the cause of the outbreak is unknown, but a toxin in the water used for dialysis is the most likely etiology. Possibilities include blue-green algae (microcystin) toxin or pesticide. Blue-green algae blooms can produce a number of neurotoxins and liver toxins that have relatively small molecular weights and could pass through conventional water treatment systems used in dialysis centers for preparing water for dialysis, especially if the carbon filters were overloaded.

The investigation is continuing, and the CDC is consulting with experts in toxicology at the CDC, the FDA, and in academia.

FROM: (1) Goerig L. Toxin kills 46 dialysis patients. *Chicago Tribune* May 15, 1996;11.

(2) Jochimsen E. Dialysis outbreak in Brazil. Late breaker presentation at the APIC 23rd Annual Educational Conference and International Meeting. Atlanta, GA; June 3-5, 1996.

TB Declines Again

During 1995, a total of 22,813 cases of tuberculosis (TB) were reported to the CDC from the 50 states, the District of Columbia, and New York City, a 6.4% decrease from 1994. This represents the third consecutive year the number of reported TB cases has decreased, resulting in the lowest rate since national surveillance began in 1953.

In 1995, TB among the foreign-born accounted for 35.7% of the total reported cases, compared with 31.3% in 1994. Six countries (Haiti, India, Mexico, People's Republic of China, Philippines, and Vietnam) accounted for 63.6% of these cases.

Isolates with resistance to either isoniazid (INH) or rifampin (RIF) decreased from 1994 to 1995. In 1995, a total of 37 states reported drug-susceptibility results for ⩾75% of cases; 806 (7.6%) of these 10,621 isolates were resistant at least to INH, and 145 (1.4%) were resistant at least to both INH and RIF. Compared with 1994, when only 23 states reported drug-susceptibility results for isolates from ⩾75% of cases, the proportion of cases with isolates resistant, at least to INH, decreased from 8.5%, and resistance at least to INH and RIF decreased from 1.5%.

The substantial decline in the number of TB cases in the United States reflects at least six factors: (1) improved laboratory methods to allow prompt identification of *Mycobacterium tuberculosis;* (2) broader use of drug-susceptibility testing; (3) expanded use of preventive therapy in high-risk groups; (4) decreased transmission in congregate settings (eg, hospitals and correctional facilities) by implementing infection-control guidelines; (5) improved surveillance and follow-up to remove cases found to have non-TB diagnoses; and (6) an increase in federal resources for state and local TB control efforts.

This TB decrease in the United States can be sustained through efforts by federal, state, and local agencies to ensure that all persons with TB are identified and treated promptly.

FROM: Centers for Disease Control and Prevention. Tuberculosis mortality—United States. *MMWR* 1996;45(18):365-370.

Additional news items in this issue: OSHA'S Susan Harwood Dies, page 411; Group A Strep Cross-Infection, page 418; APHA Challenges Glutaraldehyde Instructions, page 422; Varicella Vaccine Pregnancy Registry, page 433.