

Occupational HIV Transmission and Prevention among Health Care Workers

August 2011

Through December 2001, there were 57 documented cases of occupational HIV transmission to health care workers in the United States, and no confirmed cases have been reported since 1999. Occupational transmission of HIV is reported in the *Centers for Disease Control and Prevention (CDC) HIV Surveillance Report*¹ in the transmission category that includes hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

To prevent transmission of HIV to health care workers in the workplace, CDC offers the following recommendations.

Prevention Strategies

Health care workers should assume that the blood and other body fluids from all patients are potentially infectious. They should therefore follow infection control precautions at all times.

These precautions include

- routinely using barriers (such as gloves and/or goggles) when anticipating contact with blood or body fluids,
- immediately washing hands and other skin surfaces after contact with blood or body fluids, and
- carefully handling and disposing of sharp instruments during and after use.

Safety devices have been developed to help prevent needle-stick injuries. If used properly, these types of devices may reduce the risk of exposure to HIV. Many percutaneous injuries, such as needle-sticks and cuts, are related to sharps disposal. Strategies for safer disposal, including safer design of disposal containers and placement of containers, are being developed.

Although the most important strategy for reducing the risk of occupational HIV transmission is to prevent occupational exposures, plans for postexposure management of health care personnel should be in place. CDC has issued guidelines for the management of health care worker exposures to HIV and recommendations for postexposure prophylaxis (PEP): *Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HIV and Recommendations for Postexposure Prophylaxis*² (September 30, 2005).

These guidelines outline a number of considerations in determining whether health care workers should receive PEP and in choosing the type of PEP regimen. For most HIV exposures that warrant PEP, a basic 4-week, two-drug (there are several options) regimen is recommended. For HIV exposures that pose an increased risk of transmission (based on the infection status of the source and the type of exposure), a three-drug regimen may be recommended. Special circumstances, such as a delayed exposure report, unknown source person, pregnancy in the exposed person, resistance of the source virus to antiviral agents, and toxicity of PEP regimens, are also discussed in the guidelines. Occupational exposures should be considered urgent medical concerns.

Building Better Prevention Programs for Health Care Workers

Continued diligence in the following areas is needed to help reduce the risk of occupational HIV transmission to health care workers.

Administrative efforts. All health care organizations should train health care workers in infection control procedures and on the



¹CDC. HIV/AIDS Surveillance Report, 2009. Vol. 21. Published February 2011. Accessed August 22, 2011.

²CDC. Updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HIV and Recommendations for Postexposure Prophylaxis. *MMWR* 2005;54(RR09):1-17.

Additional Resources:**CDC HIV and AIDS**

www.cdc.gov/hiv
Visit CDC's HIV and AIDS
Web site.

CDC-INFO

**1-800-CDC-INFO or
1-800 (232-4636)**

cdcinfo@cdc.gov

Get information about
personal risk, prevention,
and testing.

**CDC National HIV
Testing Resources**

www.hivtest.org
Text your ZIP code to KNOW
IT or 566948.
Locate an HIV testing site
near you.

**CDC National Prevention
Information Network
(CDC NPIN)**

1-800-458-5231
www.cdcpin.org
Find CDC resources and
technical assistance.

AIDSinfo

1-800-448-0440
www.aidsinfo.nih.gov
Locate resources on HIV
and AIDS treatment and
clinical trials.

importance of reporting occupational exposures. They should develop a system to monitor reporting and management of occupational exposures.

Development and promotion of safety devices. Effective and competitively priced devices engineered to prevent sharps injuries should continue to be developed for health care workers who frequently come into contact with potentially HIV-infected blood and other body fluids. Proper and consistent use of such safety devices should be continuously evaluated.

Monitoring the effects of PEP. Data on the safety and acceptability of different regimens of PEP, particularly those regimens that include new antiretroviral agents, should be continuously monitored and evaluated. Furthermore, improved communication about possible side effects before starting treatment and close follow-up of health care workers receiving treatment are needed to increase compliance with the PEP.